

Harry Kim
Mayor



William A. Kucharski
Director

Roy Takemoto
Managing 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

CERTIFIED MAIL NO. 7018 3090 0000 4998 1034
RETURN RECEIPT REQUESTED

20 OCT 13 9:43 AM

October 8, 2020

Mr. Alec Wong, P.E., Chief
Clean Water Branch
State Department of Health
2827 Waimano Home Road, Room 225
Pearl City, HI 96782

**Subject: Notice of Apparent Violation (NAV)
Request for Information (RFI)
Wastewater Collection System Condition and Sewage Overflows
County of Hawai'i
Island of Hawai'i, Hawai'i
DOH Reference Number 09005EBT.20**

Dear Mr. Wong:

The County of Hawaii is responding to the Department of Health's Notice of Apparent Violation and Request for Information letter dated September 9, 2020. The letter requests additional information on the County's wastewater collection system condition and sewage overflows, as well as spill reporting procedures and the accuracy of spills which the County reports under the regulatory jurisdiction of the State Department of Health.

POTENTIAL VIOLATIONS

The Notice of Apparent Violations (NAV) refers to the following two potential violations:

1. The first potential violation is related to sewage spill that occurred on July 11, 2020, along Ali'i Drive in Kailua-Kona, Hawai'i.

- a. The DOH-CWB indicates in their letter of September 9, 2020 (reference 09005EBT.20) that the sewage spill report by the County of Hawai'i was received on July 13, 2020. It reported that the spill was caused by failure of a cast iron force main sewer line. The DOH has concerns that between the age and composition of the force main, future pipe failures are possible.
 - b. Based on the above, the DOH-CWB has included a Request for Information (RFI) in the NAV, requesting that information about the overall wastewater collection system be provided.
2. The second potential violation involves spill reporting at the Hilo wastewater treatment plant.
- a. The DOH-CWB indicates in their letter of September 9, 2020 (reference 09005EBT.20) that On August 24, 2020, the DOH-CWB received a complaint that the County of Hawai'i experienced a sewage spill at the Hilo Wastewater Treatment Plant and that while an official report was submitted on April 16, 2020, the complaint alleged that the total volume of sewage spilled was under reported.
 - b. The DOH-CWB further indicates that subsequent complaints allege that additional spills have occurred at the Hilo Wastewater Treatment Plant (HWWTP), but that the spills were either not reported or that the total volumes were under reported as well.
 - c. Based on the above, the DOH-CWB has included a Request for Information (RFI) in the NAV, requesting additional information regarding wastewater spills as well as the methodology used to determine the total volume of spills when wastewater spills occur.

REQUEST FOR INFORMATION (RFI)

The County has prepared its response (in italics) to the 12 questions as follows:

Ali'i Drive Spill

1. Has the County of Hawai'i performed a condition assessment of its wastewater collection system including all force mains, gravity sewer lines, pumps, and any other appurtenances? If so, please provide.

The following is an explanation of the County's current situation of condition assessment for the wastewater collection system.

- a. *Force mains: Because existing force mains were not constructed to accommodate visual inspection utilizing Closed Circuit Television (CCTV) equipment, condition assessments are based on the age, material type, and known defects associated with the force main. To this end, **Attachment 1** is an updated priority listing of existing force mains by facility name to be replaced and/or rehabilitated. This priority listing was originated in July 2017 (**Attachment 1a**) and has been updated as **Attachment 1**.*
 - b. *Gravity sewer lines: Condition assessment is accomplished by CCTV inspection along with consideration for the age, material type, and depth of the sewer lines. Prior to the Asset Management System (AMS) program that is currently being developed and anticipated to be functioning by the end of year 2020, the Geographical Information System (GIS) was utilized by the Wastewater Division to keep record of defects and repairs (**Attachment 2**). The GIS will continue to function in this regard to support the Computerized Maintenance Management System (CMMS) software of the AMS program.*
 - c. *Sewer Pump Stations (SPSs): SPSs are inspected daily to ensure proper operation of the facility. The inspection includes checking of pump operation, wet wells, and control systems. Under the AMS program, the pumps had undergone a condition assessment and criticality rating. This criticality listing will be available once the AMS program is functioning by the end of year 2020.*
 - d. *Alarm systems: Tested to ensure that the equipment is functional and will be able to notify Wastewater Treatment Operators in the event of equipment failure at the facility. Under the AMS program, the alarm systems had undergone a condition assessment and criticality rating. This criticality listing will be available once the AMS program is functioning by the end of year 2020.*
 - e. *Emergency generators: Test run on a weekly basis in order to ensure that the equipment can properly respond to provide electrical power to the facility in the event of an electrical outage of the utility system. Under the AMS program, the emergency generators had undergone a condition assessment. This criticality listing will be available once the AMS program is functioning by the end of year 2020.*
2. Has the County of Hawai'i performed a criticality ranking of its wastewater collection system including all force mains, main gravity lines, pumps, and any other appurtenances. If so, please provide.

*A criticality ranking of the force main was accomplished when an evaluation was performed for sewer pump station facilities shown in the priority listing (**Attachments 1 and 1a**). As mentioned in the response to question 1, an Asset Management System (AMS) program is being developed, and it is anticipated that it will be functioning by the end of 2020. This will address the criticality of pumps and appurtenances. Criticality lists will be available once the AMS program is functioning by the end of year 2020. The defects and repairs list (**Attachment 2**) for the gravity sewer lines requires additional evaluation to determine criticality ranking. The Wastewater Division had previously prioritized the replacement or rehabilitation of the cast iron force mains. The CIP program for the replacement or rehabilitation of cast iron force mains (some including pump station upgrades) are shown in **Attachment 1**. For additional explanation of the County's current situation, we again have separated the discussion into force mains, gravity sewers, and sewer pump stations.*

- a. Force Mains: **Attachment 1** is a priority listing of existing force main by facility name to be replaced and/or rehabilitated. It is noted that this priority listing is an update to the priority listing dated July 5, 2017 (**Attachment 1a**).*
 - (i) The County notes that a spill occurred on the Lanihau SPS force main on June 12, 2017, due to corrosion deterioration of the cast iron force main. As noted in the Sewer Spill Report dated June 13, 2017 (**Attachment 3**), a contractor was hired to assist with the repair of the deteriorated section. Subsequently, the replacement of the Lanihau force main was ranked as Priority No. 1.*
 - (ii) Replacement of the Lanihau force main is currently in progress and anticipated to be completed by or before October 9, 2020. The existing 6-inch force main is being replaced with an 8-inch force main utilizing material which is not susceptible to damage from corrosion. Upsizing of the force main is also being done in order to accommodate future flows.*
 - (iii) The replacement of the Keopu force main is listed as Priority No. 3, with rehabilitation of the Hale Halawai force main listed as Priority No. 2. It was anticipated that relocation of the Keopu SPS and force main would take additional time and securing of funds as compared to rehabilitation of the Hale Halawai force main.*
 - (iv) The Ali'i Drive collection system is also an unusual system, as the Lanihau SPS provides redundancy for the Keopu SPS and vice versa.*
- (1) A peak elevation exists in the gravity sewer line at Sewer Manhole SMH-13701 such that flows north of SMH-13701 normally flow towards the*

Lanikai SPS and flows south of SMH-13701 normally flow towards the Keolu SPS.

(2) In the event that there is a failure of the Keolu SPS and/or force main, the SPS can be shut down and gravity main between the Keolu SPS and SMH-13701 surcharges and flows to the Lanikai SPS. The opposite happens if the Lanikai SPS is shut down.

b. Gravity Sewer Lines: As indicated under Response Item 1.b above, condition assessment of gravity sewer lines is accomplished by CCTV inspection along with consideration for the age, material type and depth of the sewer lines. Prior to the Asset Management System (AMS) program that is currently being established, the Geographical Information system (GIS) was utilized by the Wastewater Division to keep record of defects and repairs (Attachment 2). The GIS will continue to function in this regard to support the AMS program.

(i) In general, where possible, trenchless repairs are done on gravity sewer lines utilizing existing staff. The Wastewater Division currently has the capability of performing point repairs utilizing Acrylate Grout (used for infiltration at joints), Link Seal Stainless Steel Grouting Sleeves (used for structural repairs up to 36 inch pipe), and Cured in Place (CIPP) point repairs up to 12 inch pipe size to address infiltration as well as structural repairs. The County notes that CIPP point repair equipment currently has the capability of installing sleeves of up to 8 feet in length.

c. Sewer Pump Stations (SPSs): All of the SPSs are equipped with redundant pumps in accordance with Design Standards of the City and County of Honolulu (CCH), as the County of Hawai'i does not have its own Design Standards and therefore follows the CCH Design Standards as per HAR §11-62-24(b). In the event of failure of a pump, the pump is typically overhauled by a local vendor who is also able to rewind existing electrical motors.

3. Does the County of Hawai'i have a program (i.e. Asset Management, or Capacity, Management, Operation and Maintenance) to manage the integrity of the wastewater collection system or otherwise identify sewer line segments with chronic problems?

a. The County is developing an Asset Management System (AMS) program and is setting up training for November 2020 (schedule dependent on COVID situation) on how to use the Computerized Maintenance Management System (CMMS) software.

- b. The EPA assisted the County by providing the bulk of the funds needed to create the AMS program. Under the contract administration of the EPA, \$600,000 of CWSRF monies was used to fund contract services for Asset Management Planning for the County of Hawai'i Department of Environmental Management, Wastewater Division (County). The EPA contracted with PG Environmental to provide technical assistance to the County to develop an asset management program for the County. A vendor had been selected to provide asset management software and training to the County to carry on with the program. The County will be assuming ownership of the CMMS software program before the end of year 2020.*
- c. The asset management program is led by a Program Manager in the Wastewater Division. A data analyst position to assist with analyzing data and a GIS position to assist with recording defects and repairs will be assisting the Program Manager with managing the integrity of the wastewater assets including the collection system.*
- 4. Are pipes with regular or recurring overflows being monitored for adequate capacity and structural condition?

 - a. The collection system is not currently experiencing regular or recurring overflows due to capacity issues. Population growth of the collection system area has not significantly increased, and no re-development of neighborhoods/subdivisions have occurred to affect the average daily flow.*
 - b. While the County had a sewer spill due to a deteriorated force main at the Lanihau SPS on June 12, 2017 (Attachment 3), the section was replaced and the County is now in the process of completing the replacement of the entire force main with a larger diameter force main to accommodate projected future flows as well as to install piping which is not susceptible to corrosion from seawater exposure.*
 - c. The County will also be proposing relocation of the Keopu SPS and installation of a new force main for the relocated facility to achieve the following goals:*

 - (i) Relocate the station further away from shoreline in order to minimize impact to the station from a tsunami.*
 - (ii) Relocate the station out of an area which is accessible to the general public.*
 - (iii) Install a backup emergency generator for the relocated facility.*
 - (iv) Replace the existing cast iron gravity and force main with materials which are not susceptible to corrosion.*

(v) Upsize the existing force main to accommodate future flows.

5. Does the County of Hawai'i have a program in place for renewing or replacing severely corroded sewer lines?

Besides the assessment program outlined in the responses to Items 1 and 2 above, the County appropriates \$2,000,000 in the CIP budget each fiscal year for repairing and replacing Wastewater facilities.

6. Are structurally deteriorating pipes being monitored for renewal or replacement?

Yes, as described in the County responses to Items 1 and 2 above. However, while visual monitoring is available, the County has no means to physically test for structural integrity. The County expects that with the new Asset Management System, we will be able to track defects and schedule repairs in a systematic fashion and also better determine resource/material needs to accomplish future repairs.

Spill Response and Reporting

7. Does the County of Hawai'i have a documented Spill Response Plan that includes protocols for spill volume estimation and report procedures? If so, please provide.

- a. *The County's spill response plan is outlined in the Emergency Response Plan (ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/2013). A copy of ERP-03 is provided (**Attachment 4**). Immediate notification and written report procedures for spills are included in ERP-03.*
- b. *Protocols for spill volume estimation were not included in ERP-03 due to the many variables associated with determining spill volumes. For example, a spill into an impermeable area could be mathematically computed. However, a spill into permeable soil would require that the spill volume be based on estimated spill rate multiplied by the duration of the spill. In the case of a discharge from a pump, pump flow rate and duration could be utilized.*
- c. *Spill volume reporting procedures follow procedures in Appendix B of HAR §11-62 (**Attachment 5**). For the reporting of spills over 1,000 gallons or for spills reaching receiving waters, the superintendent/DRC completes the "Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report" form (**Attachment 6**).*

- d. *As indicated in our April 24, 2020, report to the DOH regarding the April 15, 2020, spill occurrence (Hilo WWTP Sewer Spill, In-Plant Sewage Spill, Hilo, Hawai'i, April 15, 2020: 10:45 AM); Correction Actions Taken, Item 3, the spill response team will be re-trained to determine the extent of the spill's impact area and to verify the extent of the spill.*
- e. *ERP-03 was last updated on September 20, 2013 (Revision J) and is in the process of being updated. It is currently anticipated that updating and issuance of Revision K will be accomplished by end of year 2020. Training on the revised ERP-03 will also be conducted following updating and issuance of the revised protocol.*

8. Does the County of Hawai'i have standard procedures for estimating spill volumes? If so, please provide.

No standard procedures for estimating spill volumes were included in ERP-03 (Attachment 4). The approach taken has been determining the cause of the spill (i.e., clogged gravity sewer versus pump station/force main break), gathering detailed site specific information, and taking into account pertinent conditions that took place at the time of the event. The WWD is preparing such standard procedures, as well as training for its operators, with the goal of obtaining more consistent and verifiable reports.

9. Does the County of Hawai'i document and report all spills regardless of size? Please describe the procedure.

- a. *All Spills into State Waters are reported to the DOH and documented in accordance with Appendix C of ERP-03 (Attachment 4) and HAR §11-62, Appendix B.2 (Attachment 5).*

- (1) *While the County currently provides Immediate Notice to DOH for all spills to State Waters in accordance with HAR §11-62, Appendix B.2.b, it is noted that Section C.1.A of ERP-03 should be revised to delete reference of "1,000 gallons or more to State Waters."*

- b. *All Spills to Ground Only – With Public Access are reported to DOH and documented in accordance with Appendix B of ERP-03 (Attachment 4).*

- (1) *Per Section B(6) of ERP-03 and HAR §11-62, Appendix B.4.g(2), immediate notice and reporting are not required for spills less than 1,000 gallons.*

- (2) *A tabulated summary of spills less than 1,000 gallons is kept and submitted to the Wastewater Branch (WWB) on a quarterly basis in accordance with section B(6) of ERP-03 and HAR §11-62, Appendix B.4.g(2).*

c. *All Spills to Ground Only – With No Public Access are reported to DOH and documented in accordance with Appendix B of ERP-03 (Attachment 4).*

(1) *Per Section B.3.A of ERP-03 and HAR §11-62, Appendix B.5.b and B.5.b.c, immediate reporting and a written report is required for wastewater spills greater than 1,000 gallons and for spills over 50 gallons from the same cause and/or location within a 12-month period.*

(2) *Per Section B.3.B(1) of ERP-03 and HAR §11-62, Appendix B.5.d, only spills greater than 50 gallons are required to be recorded and tabulated.*

10. Does the County of Hawaii have standard procedures for reporting spills? If so, please provide.

Emergency Response Plan (ERP-03, Revision J effective 09/20/13) describes the County's spill response plan as well as reporting of spills (Attachment 4). Reporting of spills, including immediate notification and written report procedures, are based on Appendix B of HAR §11-62 (Attachment 5).

11. Does the County of Hawaii provide training for key employees on how to respond and report spills? Please describe.

Superintendents/DRCs are responsible for providing and/or coordinating training for their staff in accordance with established processes developed by senior management, and passing on those processes to those responsible for reporting spills. The WWD will provide re-training for the spill response team including estimation of spill volume, estimation of the impact area, and sewer spill protocols (calculations, sketches of spill, location map, photos, etc.) described in ERP-03 (Attachment 4) as required.

12. Please provide the total number of spills of any volume the County of Hawai'i experienced in 2020. Include the cause and responses for each spill in your response.

To date, there were a total of ten (10) documented spill occurrences in 2020.

a. *Seven (7) less than 1,000 gallons have been documented (Attachment 7). Additional information to address DOH comments reiterated at the beginning of this response letter under Potential Violations 2.b.*

(1) *July 16, 2020: 20 (twenty) gallon spill to ground (in-plant) at Hilo WWTP. Cause of spill was from the overflow pit pump losing power due to a 600 amp breaker*

trip. Spill event actually occurred on Wednesday, July 15, 2020, and was logged into the Spill Log on Thursday, July 16, 2020.

*Information was obtained by interviewing operators and mechanics witnessing the event. There is information indicating that the spill was larger than the amount initially reported. Actual spill occurred at two manholes from a gravity recycle pipe transferring Anaerobic Digester supernatant back to the primary clarifiers via the facility pit overflow box. The daily operational log book for the anaerobic digesters showed that on this July 15th day, the volume of supernatant drained from Digester #2 was 13,588 gallons. One spill location was by the dewatering building, while the second spill location was right in front the administration building. The spill's duration, as far as anyone present could estimate, was believed to coincide with the duration of the power outage. The primary control building log shows that power was lost for approximately 45 minutes. The volume spilled was estimated with the supernatant transfer of 13,588 gallons. Photographs of the spill are provided (**Attachment 8**).*

- b. *Three (3) were greater than 1,000 gallons as described below that resulted in notification or reporting the DOH:*
- (1) *April 13, 2020: 15,000 (fifteen thousand) gallon (no public access) spill to ground at the Kealakehe WWTP. Spill volume estimate was based on pump run time and pump capacity (15 minutes * 1,000 gpm pump). The DOH was notified of the event. A written report was submitted to the DOH on April 17, 2020.*

Cause of Spill:

During maintenance activities involving the last pond, secondary treated effluent was discharged to the ground because the recirculation pipeline from the pond to a manhole along the KWWTP access road disconnected itself from the manhole. Crews were flushing/cleaning the gravity sewer at this location, but the operator was not aware until later that the pipeline was disconnected during discharging into this manhole. Approximately 15 minutes of recirculation pumping occurred before the operator realized that a spill was occurring.

Corrective Actions Taken:

- a. *The access gate was blocked off with caution tape to guard against any inadvertent public access.*

- b. *The affected area was taped off with caution tape, residual wastewater was removed, and the area was disinfected with sodium hypochlorite.*
- (2) *April 15, 2020: 3,403 (three thousand four hundred three) gallon (in-plant) spill to ground at the Hilo WWTP. Spill volume estimate was based on photos showing ponded spill area. The DOH was notified of the event. A written report was submitted to the DOH on April 24, 2020, upon approval of waiver request.*

Cause of the Spill:

During maintenance activities on the secondary clarifier scum pit, the flexible hose conveying effluent from the scum pit to the septage receiving pit disconnected causing a discharge to the ground.

Corrective Actions Taken:

- a. *The pump was immediately turned off when it was realized that a spill to ground was occurring.*
- b. *The contaminated area was cleaned and disinfected with sodium hypochlorite.*

Additional Information to address DOH comments reiterated at the beginning of this response document under Potential Violations 2.a.: *Operator turned pump on at 10:20 a.m. and left area for work break. Mechanics discovered disconnected hose at 10:45 a.m. Pump capacity is in the 800 gpm – 1,000 gpm range (depends on suction lift height and TDH), video shows hose discharge flowing full at 10:45 a.m. Since no one was in the area, it is unknown when the hose disconnected. Operators were not sure if wastewater traveled outside property boundary (by chlorination building), because no one checked at the time of the spill.*

Earlier in the morning, it was reported that a spill from a bin of snails occurred at the same location. After this spill was cleaned up, pitchlor (disinfectant) was applied to the affected surface. Lead Mechanic's information given to the DRC/superintendent was the length of the spill along the fence was approximately 300 feet long, around 8 to 9 feet wide, and appeared to travel off the property, because it looked like the vegetation was stressed. The attached video is included in this response as Exhibit A which shows the disconnected hose discovered by the mechanics at 10:45 a.m.

According to the mechanics that were the first to discover the spill at 10:45 a.m, it is unknown how long the hose disconnected from the receiving pit after the pump was turned on at 10:20 a.m. Also, based on the Lead Mechanic's visual inspection on Tuesday, April 21, 2020, the spill could have migrated off the WWTP property.

- (3) *July 11, 2020: 20,000 (twenty thousand) gallon spill to ground (Public Access) from the Keopu SPS Force Main. Spill eventually reached State waters (Kailua Bay). Spill volume estimate was based on pump run time and pump capacity. Records show that pump ran for 3 hours over a 24 hour period, used 50% of pump run time or 90 minutes * 200 gpm pump). The DOH was notified of the event. A written report was submitted to the DOH on July 17, 2020.*

Cause of the Spill:

Sewer force main break resulting in discharge of untreated wastewater.

Corrective Actions Taken:

- a. The Keopu Sewage Pump Station pump was immediately turned off and sewage was rerouted to Lanihau Sewage Pump Station.*
- b. The contaminated area was blocked off to public access and signage was posted.*
- c. Standing water in the spill area was vacuumed.*
- d. The affected area was cleaned and disinfected.*
- e. DOH was immediately notified, press release was issued, and warning signs were posted along shoreline of Kailua Bay.*
- f. Samples were collected for testing from locations per DOH instructions and tested for Enterococci and Clostridium perfringens.*

Additional Information not previously reported: *Upon further review, superintendent may have used the wrong pump information in determining the spill volume. In his records for Keopu SPS, he found that the pump pit had a Chicago brand pump rated at 200 gpm. County personnel recently accessed the pump pit to verify the pumps, and instead of seeing a Chicago brand pump, it was discovered that the pumps were Krogh brand pumps. No operating data can be found on these Krogh pumps, but according to its model number (500*

NCV) the pump capacity is around 500 gpm. Correspondingly, with this 500 gpm capacity, the spill volume would be more in the range of 45,000 gallons.

Should you have any questions on the above, please contact Dora Beck, P.E., Wastewater Division Chief, at 808-961-8513 or email dora.beck@hawaiicounty.gov or me at 808-961-8083 or email william.kucharski@hawaiicounty.gov.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,


for William A. Kucharski
Director

Attachments:

1. CIP Priority Schedule
 - 1a. East and West Hawai'i Pump Station and Force Main Renovation, dated July 5, 2017
 2. Record of Defects and Repairs
 3. Lanihau Force Main Sewer Spill Report, dated June 13, 2017
 4. ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13
 5. HAR §11-62, Appendix B, July 1, 2014
 6. Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report
 7. Spill/Bypass Log (1,000 gallons or less)
 8. Photographs of the July 16, 2020, spill occurrence
- Exhibit A: Video of spill occurrence of April 15, 2020

Cast Iron Force Main	Description	Installation Year	Project Cost	Project Start Date	Project Duration (months)	Comments
Lanikai	800 LF, 8" Dia.	1962	\$1,500,000			Completed 10/2020
Hale Halawai	900 LF, 12" Dia.,	1962	\$2,000,000	March 2021	28	
Keolu FM & SPS	600 LF, 6" Dia.	1962	\$5,450,000	July 2021	43	
Wailuku	640 LF, 10" Dia.	1963	\$5,000,000	July 2021	31	
Onkahakaha FM & SPS	1,100 LF, 12" Dia.	1968	\$6,000,000	July 2022	40	
Kolea FM & SPS	1,700 LF, 8" Dia.	1968	\$4,500,000	July 2022	40	
Project 19 FM & SPS	975 LF, 6" Dia.	1980	\$4,600,000	July 2022	34	
Paukaa	8,200 LF, 8" Dia.	1983	\$6,000,000	July 2023	34	
			\$35,050,000			

ATTACHMENT 1
CIP PRIORITY SCHEDULE

Attachment 1a - East and West HI Pump Station & Force Main Renovation

EAST AND WEST HAWAII PUMP STATION AND FORCE MAIN RENOVATION											
Priority	Force Main	Size (in)	Approx. Length (ft)	Pipe Material	Installation Year	Years In service	Proposed System	Est. Cost	Total Design and Construction (mo.)	Estimated Completion	Remarks
1	Lanihau	6	700	Cast Iron	1962	55	8" PVC or HDPE	\$575,000	11	May-18	Pipe Bursting being considered but direct dig still being considered if it expedites the project.
2	Hale Malawai	12	880	Cast Iron	1962	55	8" or 10" PVC or HDPE	\$575,000	16	October-18	Existing Force Main sized to discharge on Kalawa St. at 25 ft. higher elevation (prior to sewer in Kuakini Hwy). Slip-line to be considered to reduce impact to traffic and businesses.
3	Keopu	12	180	Cast Iron	1962	55	12" PVC Gravity	\$4,000,000	23	May-19	Pump Station to be relocated out of public gathering area. Pump station to be upgraded and emergency generator will be installed
		6	410	Cast Iron	1962	55	8" PVC or HDPE				
4	Wailuku	10	640	Cast Iron	1963	54	10" PVC or HDPE Dual FM	\$385,000	23	May-19	Pump Station renovated 2010. Boring to be evaluated to cross State Highway. Force Main to be re-routed via Wailuku Drive, approximately 900 ft.
5	Paukaa	8	8,200	Cast Iron	1983	34	8" or 10" PVC or HDPE dual FM	\$4,000,000	27	September-19	Pump Station renovation required. SPS unable to keep up with flows during rain events.
6	Onekahakaha	12	1,100	Cast Iron	1968	49	12" PVC or HDPE dual FM	\$4,000,000	37	July-20	Pump Station needs to be renovated. Underground cased station. Unable to certify elevator as agencies unwilling to repair or certify.
7	Kolea	8	1,700	Cast Iron	1968	49	8" PVC or HDPE dual FM	\$2,800,000	37	July-20	Pump Station Needs to be Renovated. Underground cased station. Leaks to floor from groundwater from corrosion previously repaired.
8	Project 19	6	975	Cast Iron	1980	37	6" PVC or HDPE dual FM	\$2,300,000	43	January-21	Pump Station to be renovated. Underground cased station. Only 1 pump in service. Wet well previously lined due to high H2S corrosion.
Total FM (ft)		12,615		Avg. service years		45	\$13,485,000				

Notes:

- Pua Pump Station Renovation design underway and is to include complete renovation to address hydraulic surge issues as well as connection for second force main. Estimate probably in the order of \$8-10 M
 - Currently soliciting consultant contract for replacement of Pua FM. FM has previously had issues with liner separation and has ruptured in the past. FM also has restriction, believed to be due to separating liner resulting in maximum flows of 9 MGD which is well below original design capacity of 13 MGD and may not be able to handle flows during storm events. Wailoa SPS which feeds Pua has a Design Capacity of 20 MGD. Existing FM to be rehabilitated once second FM installed for redundancy. Estimated cost \$15 M
- Kealahoe SPS pumps need replacement but replacement pending hydraulic surge analysis as hydro-pneumatic tank system originally installed at the station never used due to problems during initial construction. Existing pumps also do not meet design capacities of 3,360 gpm, however, upsizing of the pumps without hydraulic surge analysis could result in damage to the existing FM which also had liner separation problems during initial construction which could also be indicative of vacuum areas in the main which could result in similar problems as Pua's FM.

ATTACHMENT 1a

Attachment 2 - Record of Defects and Repairs

Hawaii's County Sewer Defects													
OBJECT ID	Defect Type	FeatType	Basin ID	Location	Identify Date	RepairDate	AssetID	Status	FromMH	StartDist	EndDist	Comments	Last Video Date
3161	Infiltration and Inflow	Main	Papaikou-Paukaa	G Road	2018-10-05		2274	Unresolved	2271	0	159	Needs patch work - infiltration	2018-02-01
2761	Crack at Joint	Main	Hilo	Kalaniana'ole St	2018-02-01		6207	Unresolved	6208	37	37	Crack at Joint	2018-02-01
2762	Infiltration and Inflow	Main	Hilo	Kalaniana'ole St	2018-02-01		6215	Unresolved	6212	204	204	Leak at Lateral	2018-02-01
1561	Crack at Joint	Main	Hilo	Puueo	2018-01-31		9710	Unresolved	9709	1	1	Crack at Joint	2018-01-31
1562	Root Intrusion	Main	Hilo	Puueo	2018-01-31		9710	Unresolved	9709	2	2	Roots at Joint	2018-01-31
1563	Root Intrusion	Main	Hilo	Puueo	2018-01-31		9710	Unresolved	9709	4	4	Roots at Joint	2018-01-31
1564	Root Intrusion	Main	Hilo	Puueo	2018-01-31		9710	Unresolved	9709	10	10	Roots at Joint	2018-01-31
1565	Offset Pipe	Main	Hilo	Kaawe St	2018-01-31		9710	Unresolved	9709	36	36	Offset	2018-01-31
1566	Crack at Joint	Main	Hilo	Kaawe St	2018-01-31		9710	Unresolved	9709	51	51	Crack at Joint	2018-01-31
1568	Crack at Joint	Main	Hilo	Kaawe St	2018-01-31		9710	Unresolved	9709	57	57	Crack at Joint	2018-01-31
1569	Root Intrusion	Main	Hilo	Kaawe St	2018-01-31		9710	Unresolved	9709	189	189	Roots at Joint	2018-01-31
1570	Crack	Main	Hilo	Kaawe St	2018-01-31		9710	Unresolved	9709	192	192	Drop line pipe broken at wye	2018-01-31
2170	Infiltration and Inflow	Main	Hilo	Kalaniana'ole St	2018-01-31		6217	Unresolved	6216	186	186	Possible Infiltration	2018-01-31
1961	Offset Pipe	Main	Hilo	Puueo St	2018-01-30		31775	Unresolved	3650	2	2	Offset	2018-01-30
1962	Offset Pipe	Main	Hilo	Puueo St	2018-01-30		31775	Unresolved	3650	5	5	Offset	2018-01-30
1963	Missing Pipe	Main	Hilo	Puueo St	2018-01-30		31775	Unresolved	3650	11	11	Pipe missing @ joint 1 & 7 o'clock	2018-01-30
1964	Offset Pipe	Main	Hilo	Puueo St	2018-01-30		31775	Unresolved	3650	32	32	Offset	2018-01-30
1965	Crack at Joint	Main	Hilo	Puueo St	2018-01-30		31775	Unresolved	3650	35	35	Linear crack @ joint	2018-01-30
2368	Blockage	Main	Hilo	Puueo St	2018-01-30		20230	Unresolved	20352	71	76	Debris - 5 foot long object	2018-01-30
761	Blockage	Main	Hilo	Amaluulu Rd	2018-01-29		21	Unresolved	3660	19	19	Debris in pipe	2018-01-29
762	Blockage	Main	Hilo	Amaluulu Rd	2018-01-29		21	Unresolved	3660	25	29	Rocks and Debris in pipe	2018-01-29
1161	Missing Pipe	Main	Hilo	Ohai Street	2018-01-29		3659	Unresolved	3658	20	20	3 o'clock pipe missing	2018-01-29
1162	Offset Pipe	Main	Hilo	Ohai Street	2018-01-29		3659	Unresolved	3658	57	57	Slight offset	2018-01-29
1163	Missing Pipe	Main	Hilo	Ohai Street	2018-01-29		3659	Unresolved	3658	224	224	7 o'clock pipw missing at joint	2018-01-29
1164	Crack at Joint	Main	Hilo	Ohai Street	2018-01-29		3659	Unresolved	3658	256	256	Crack at Joint	2018-01-29
1165	Crack at Joint	Main	Hilo	Ohai Street	2018-01-29		3659	Unresolved	3658	263	263	Crack at Joint	2018-01-29
1166	Blockage	Lateral	Hilo	Ohai Street	2018-01-29		3659	Unresolved	3658	267	267	Protruding Lateral at 12 o'clock position	2018-01-29
362	Deformed	Main	Kealahou	SMH 13716 to 13814	2017-03-21			Unresolved	13716	179	187		
360	Infiltration and Inflow	Manhole	Papaikou-Paukaa	MH 25398	2016-10-05	2016-10-20		Resolved	25398	0	0	Now Repaired - See attached file. Major infiltration during wet weather - next to small creek	
357	Sag	Main	Hilo	Near 144 Kapiolani Street	2016-03-30		1183	Unresolved	10019	117	124	Replace Pipe 1/8" sag	2016-03-30
358	Sag	Main	Hilo	Near 144 Kapiolani Street	2016-03-30		1183	Unresolved	10021	11	33	Replace Pipe 1/4" sag	2016-03-30
359	Sag	Main	Hilo	Near 144 Kapiolani Street	2016-03-30		1183	Unresolved	10021	112	125	Replace Pipe 1/4" sag	2016-03-30
356	Crack	Manhole	Papaikou-Paukaa	Hole in pipe, back of property near fence	2016-01-15		4177	Unresolved					
279	Root Intrusion	Manhole	Hilo	MH 27126	2015-12-17	2015-03-30	27219	Resolved	27126	0	0	Grass growing over a portion of the concrete structure at grade	2015-12-17
274	Paint Coating	Manhole	Hilo	MH 20260	2015-12-16	2015-04-02	20261	Resolved	20260	0	0	Asphaltic paint coating starting to peel off on manhole frame interior	2015-12-16
275	Root Intrusion	Manhole	Hilo	MH 20262	2015-12-16	2015-04-02	20265	Resolved	20262	0	0	Minor root intrusion occurring between manhole cover and frame	2015-12-16
276	Root Intrusion	Manhole	Hilo	MH 25350	2015-12-16	2015-04-02	20266	Resolved	25350	0	0	Minor root intrusion occurring between manhole cover and frame	2015-12-16
277	Root Intrusion	Manhole	Hilo	MH 19096	2015-12-16	2015-04-02	19862	Resolved	19096	0	0	Minor root intrusion occurring between manhole cover and frame	2015-12-16
278	Paint Coating	Manhole	Hilo	MH 33583	2015-12-16	2015-04-02	19682	Resolved	23583	0	0	Manhole frame paint coating peeling off	2015-12-16
272	Paint Coating	Manhole	Hilo	MH 31074	2015-11-15	2015-04-21	3924	Resolved	31074	0	0	Asphaltic paint coating starting to peel off on manhole frame interior near wall joint	2015-12-15
273	Crack	Manhole	Hilo	MH 20250	2015-12-15	2015-04-09	20269	Resolved	20250	0	0	Minor longitudinal crack approximately 6 inches long in manhole wall	2015-12-15
345	Blockage	Lateral	Hilo	Louae Yung Ave 2-1-021-007	2015-11-04		19599	Unresolved				Replaced broken 4" cap. Rocks in lateral	
346	Blockage	Lateral	Hilo	Louae Yung Ave 2-1-021-0e9	2015-11-04		19594	Unresolved				Replaced broken 4" cap. Rocks in lateral	
347	Blockage	Lateral	Hilo	Nahale-A Ave 2-1-021-0b9	2015-11-04		19371	Unresolved				Installed 4" Mech. Plug. Need to repair fitting	
348	Blockage	Lateral	Hilo	Nahale-A Ave 2-1-021-098	2015-11-04	2015-11-04	19406	Resolved				Replaced broken 4" cap	
349	Blockage	Lateral	Hilo	Nahale-A Ave 2-1-020-095	2015-11-04		20544	Unresolved				Replaced broken 4" cap. Rocks in lateral	
355	Blockage	Lateral	Hilo	Pakela Ln 2-1-020-074	2015-11-04	2015-11-04	16479	Resolved				Replaced broken 4" cap	
327	Blockage	Lateral	Hilo	Louae Yung Ave 2-1-021-070	2015-11-02		19533	Unresolved				Replaced broken 4" cap. Rocks in lateral	
344	Blockage	Lateral	Hilo	Louae Yung Ave 2-1-023-134	2015-11-02		19596	Unresolved				Replaced broken 4" cap. Rocks in lateral	
284	Sag	Main	Hilo	SMH # 10243 to SMH # 10245 by Kukuuau St	2015-03-31		10246	Unresolved	10243	36	43	Sag in line	2015-08-31
285	Sag	Main	Hilo	SMH # 10243 to SMH # 10245 by Kukuuau St	2015-03-31		10246	Unresolved	10243	133	185	Sag in line	2015-08-31
286	Offset Pipe	Main	Hilo	Kapiolani St	2015-03-26		24296	Unresolved	10257	0	481	Offset	2015-08-26
287	Sag	Main	Hilo	Kuawa Street - Soccer Field	2015-07-28		7921	Unresolved	7919	2	9	Sag starts	2015-07-28
288	Crack	Main	Hilo	Kuawa Street - Soccer Field	2015-07-28		7921	Unresolved	7919	9	9	Crack at 3 o'clock	2015-07-28
289	Crack	Main	Hilo	Kuawa Street - Soccer Field	2015-07-28		7921	Unresolved	7919	14	14	Crack at 7 o'clock	2015-07-28
290	Unknown Defect	Main	Hilo	Kuawa Street - Soccer Field	2015-07-28		7921	Unresolved	7919	44	44	Defect in Link Sleeve	2015-07-28
315	Root Intrusion	Main	Hilo	Kuawa Street - Soccer Field	2015-07-21		32169	Unresolved	32168	0	1	Light Roots	2015-07-21
319	Offset Pipe	Main	Hilo	Kuawa Street - Soccer Field	2015-07-21		32169	Unresolved	32168	141	141	Slight Offset	2015-07-21
320	Sag	Main	Hilo	Kuawa Street - Soccer Field	2015-07-21		32169	Unresolved	32168	142	191	Sag	2015-07-21
280	Infiltration and Inflow	Main	Hilo	29 feet from MH 10655 on Waianuenuue av	2015-07-20		10657	Unresolved	10655	29	29	Light Infiltration	2015-07-20
271	Blockage	Main	Hilo	30 Waihanu Ln, Hilo, HI	2015-03-04	2015-03-04	7458	Unresolved	3660	0	0	2nd time back-up, on private line, not a county line	1900-01-01

ATTACHMENT 2

Attachment 3 - Lanihau Force Main Sewer Spill Report

Appendix E
Wastewater Spill Report

Location: Ali'i Drive & Palani Road, Kailua-Kona, HI Date: 6/13/17
NPDES Permit No. (for WWTP's with Permits: N/A
Reported By: COH – Fire Department Telephone: 808-969-3735
Report Received By: Dora Beck Time Received: 1222 hrs (approx.)
Responding Personnel: Kona WW Operations: John Leong, Travis Morita, Eric Krieg, Curtis Wakayama, Alika DeMello
Time Arrived on Scene: 1200 hrs (approx.) Weather Conditions: Clear
Spill/Bypass Duration: From 6/12/17 (1120 hrs approx) To 6/12/17 (1230 hrs approx)
(Date/Time) (Date/Time)

Estimated Volume (Gallons) Discharged: 1,000 to 2,000

Ground x
State Waters x
Dry Well
Other

Description/Cause:

Discharge of untreated wastewater at shoreline (Kailua Bay) due to ruptured sewer force main in the vicinity of Ali'i Drive and Palani road (near Lanihau Sewage Pump Station). Storm drain inlets observed at curbside in the vicinity of the spill.

Actions Taken:

DOH-CWB (Dale Mikami) was notified of the problem at approximately 1515 hrs on 6/12/17. Warning Signs were posted at shoreline and near the entrance to the Kailua Pier as shown on the attached map. Seven (7) shoreline samples were obtained at the locations shown on the attached map. Sodium hypochlorite 6% solution was applied to the spill area and storm drain. Shoreline samples were collected at 1530 hrs for bacterial analyses that evening. Another set of samples were collected at 0800 hrs the morning of 6/13/17. The attached Press Release was issued on 6/12/17.

Comments:


Shoreline samples will be obtained daily until cessation of sampling is authorized by the DOH-CWB. The WWD has hired a local contractor to assist with the repair of the ruptured force main. Work is currently taking place to locate and determine a repair plan for the ruptured section of pipe.

Report Completed by (Supervisor with signature/date): *Dora Beck* 6/13/17
Dora Beck, WW Division Chief

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 1 of 31

Division Approval  9/25/13 Division Chief
Signature/Date

Department Approval  Director
Signature/Date

- References:
- (a) Title 12, Hawaii Administrative Rules, §11-62, Wastewater Systems, Appendix C
 - (b) Wastewater Division Memo dated 7/22/96, Spill and Bypass Discharge Report/Log
 - (c) Wastewater Division Emergency Response Procedure ERP-01, Emergency Response Organization
 - (d) DEM Call Out List
 - (e) DOH Letter 06020EAT.99 dated 6/7/99, Kulaimano Wastewater Treatment Plant NPDES Permit
 - (f) Title 11, Hawaii Administrative Rules, §11-54, Water Quality Standards

List of Appendices:

<u>Appendix A</u>	Wastewater Spills to Surface Waters
<u>Appendix B</u>	Wastewater Spills to Ground Only (with and without Public Access)
<u>Appendix C</u>	Treatment Process Bypasses and/or Upsets for NPDES Permitted Facilities
<u>Appendix D</u>	Treatment Plant Process Bypass and/or Upsets for Facilities <u>Without</u> NPDES Permits
<u>Appendix E</u>	Wastewater Spill and Treatment Process Bypass or Upset Discharge Report
<u>Appendix F</u>	Press Release – Notification of Wastewater Spill
<u>Appendix G</u>	Press Release – Notification of Treatment Process Bypass
<u>Appendix G-1</u>	SAMPLE – Hilo WWTP Treatment Process Bypass
<u>Appendix G-2</u>	SAMPLE – Papaikou WWTP Treatment Process Bypass
<u>Appendix G-3</u>	SAMPLE – Kulaimano WWTP Treatment Process Bypass
<u>Appendix H</u>	Discharge of Enterococci at Papa'ikou and Kulaimano WWTP's > 100 CFU/100 ml

1. General

- 1.1 This procedure provides requirements for reporting, notification, and control of **Wastewater Spills and Treatment Plant Bypasses** and also provides **notification requirements for discharge of enterococci at the Papa'ikou and Kulaimano WWTP in excess of 100 CFU/100 ml.** This procedure is based on requirements established by references (a), (b), (f), and NPDES Permit Requirements.
- 1.2 **All Wastewater Spills** (excluding leaks or breaks in pipelines discovered during inflow/infiltration repair work) are required to be reported. Leaks or breaks in pipelines discovered during inflow/infiltration repair work are considered to be exfiltration.
- 1.3 **All Treatment Plant Bypasses or Upsets resulting in or contributing to a discharge to State Waters** are required to be reported.
- 1.4 Actions to be taken in the event of **Wastewater Spills into Surface Waters are contained in Appendix A** and actions to be taken in the event of **Wastewater Spills to Ground Only are contained in Appendix B.**

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 2 of 31

- 1.5 Actions to be taken in the event of a **Treatment Process Bypass and/or Upset for NPDES Permitted Facilities** are contained in **Appendix C.**
- 1.6 Actions to be taken in the event of a **Treatment Process Bypass and/or Upset for Facilities Without NPDES Permits** are contained in **Appendix D.**
2. Definitions:
 - 2.1 **“State Waters”** is defined as all waters, fresh, brackish, or salt, around and within the State, including but not limited to coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes; provided that drainage ditches, ponds, and reservoirs required as a part of the water pollution control system are excluded.
 - 2.2 **“Surface Water”** is defined as all “State Waters” excluding ground waters. Note that Storm drains or other conduits that discharge into surface waters are included as spills into Surface Waters.
 - 2.3 **“Treatment Plant Bypasses or Upsets”** shall mean bypasses or upsets of the Sewage Treatment Process, which results in effluent not meeting NPDES requirements for the facility.
 - 2.3.1 A **treatment bypass** means the diversion of any waste stream from any portion of a treatment facility. Basically, a treatment bypass occurs whenever a treatment process is bypassed (for example, primary treatment, secondary treatment, disinfection not provided due to failure of the system).
 - 2.3.2 An **upset** means an exceptional incident in which there is unintentional and temporary noncompliance with effluent permit limitations due to factors beyond the reasonable control of the Permittee. It does **not** include noncompliance due to operational error.
3. General Duties:
 - 3.1 All Wastewater Division Employees:
 - 3.1.1 **Any employee** who observes a **Wastewater Spill** shall take immediate corrective action to attempt to stop the source of the Wastewater Spill. In the event that the Wastewater Spill cannot be stopped or contained, the employee shall take action to minimize the effects of the spill and shall **immediately notify his immediate Supervisor.**
 - 3.1.2 **Any employee** who observes a **Treatment Plant Bypass or Upset** or **discharge of enterococci in levels > 100 CFU at the Papa`ikou and Kulaimano WWTP's** shall immediately notify the lead **Facility Operator.**
 - 3.1.3 Unless personally questioned by the Department of Health or other regulator agency, **employees shall refer any questions regarding the incident to the Wastewater Division Chief.**

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 3 of 31

3.1.4 In the event that a **Wastewater Spill or Treatment Plant Bypass or Upset** occurs during **other than normal workdays or work hours**, the lead Facility Operator shall **notify the Superintendent**. In the event that the Superintendent cannot be contacted, the **following progression shall be utilized**. Emergency contact numbers are as listed in **Appendix A of ERP-01 and the DEM Call Out List**. Due to the frequent revision of emergency contacts, refer to the most current listing.

- a. Deputy Division Chief
- b. Division Chief
- c. Director
- d. In the event that none of the above can be contacted, the lead Facility Operator shall notify Civil Defense via 911 and shall notify the Department of Health, if required under Appendix A, B, C, and/or D herein.

3.2 Facility Operators:

- 3.2.1 In the event of a **Treatment Plant Bypass or Upset**, The Facility Operator shall take immediate corrective action to correct the Treatment Plant Bypass or Upset and **shall immediately notify his immediate supervisor**.
- 3.2.2 In the event of discharge of enterococci at levels > 100 CFU at the Papa`ikou and Kulaimano WWTP's is observed, the Facility Operator shall take immediate corrective action utilizing the protocols established in **Appendix H** and **shall immediately notify his immediate supervisor**.
- 3.2.3 The Facility Operator shall complete a **Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report** (Appendix E) and shall **submit the report to their Supervisor**. The report shall contain a description of the noncompliance and its cause; the period of the noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and any clean-up efforts taken.
- 3.2.4 In the event of an **exceedance of a daily maximum discharge limitation** as specified in the NPDES Permit, the Facility Operator shall **report the exceedance as a Treatment Plant Bypass or Upset** as noted in paragraphs 3.2.1 and 3.2.2 above.

3.3 Wastewater Division Supervisors:

- 3.3.1 In the event of a **Wastewater Spill**, the Supervisor shall immediately notify the Superintendent of the spill, approximate discharge, corrective actions being taken, and whether or not the spill may enter Surface Waters.
- 3.3.2 In the event of a **Treatment Plant Bypass or Upset**, the Supervisor shall utilize the protocols established in **Appendix C and/or D, as applicable**.
- 3.3.3 In the event of discharges of **enterococci > 100 CFU/100 ml, at the Papa`ikou or Kulaimano WWTP's** the Supervisor shall utilize the protocols established in **Appendix H** herein.
- 3.3.4 Supervisors shall be responsible for coordinating on-site corrective actions and clean-up of the Wastewater Spill or Treatment Plant Bypass or Upset.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 4 of 31

- 3.3.5 Supervisors shall submit the Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report (Appendix E) to the Superintendent **as soon as possible but no later than by the next working day** following the Wastewater Spill or Treatment Plant Bypass or Upset.
- 3.3.6 Line Maintenance Sections in the East Hawaii and West Hawaii districts shall be responsible for ensuring that "Warning Signs" are available for immediate use.
- 3.4 Superintendent:
- 3.4.1 In the event of a Wastewater Spill, Treatment Plant Bypass or Upset, or discharges of enterococci > 100 CFU at the Papa'ikou or Kulaimano WWTP's; the Superintendent shall immediately report status of the spill to the Deputy Division Chief and shall keep the Deputy Division Chief apprised of corrective actions and clean up efforts.
- 3.4.2 The Superintendent shall be responsible for corrective actions and clean up efforts with the on-site Supervisors.
- 3.4.3 Wastewater that is spilling into nearshore waters shall be continuously disinfected if sufficient disinfection contact time is available. Best judgment should be used in determining the amount of chlorine added to the discharge if chlorine is used as a disinfectant.
- 3.4.4 In the event that the Wastewater Spill discharges into Surface Waters or discharges where public access is possible, the Superintendent shall ensure that Warning Signs are posted in the areas likely to be impacted by the spill and where public access is possible.
- The DOH will assure that a sufficient number of Warning Signs have been posted and that locations of the signs are adequate. Authorization to remove the signs will come from the DOH.
- 3.4.5 In the event of discharge into Surface Waters, the Superintendent shall ensure that bacterial sampling is conducted in the event that the spill is greater than 100 gallons or when public health may be threatened in the area of the receiving water affected by the discharge. Bacterial samples shall be conducted as soon as possible.
- 3.4.5.1 The Clean Water Branch (CWB) shall be informed of the sampling stations and may modify the number of stations and site selection
- 3.4.5.2 For spills entering fresh or brackish water, the bacterial monitoring shall consist of sampling for the following indicator organisms:
- A. Fecal coliform; and
 - B. Clostridium perfringens
- 3.4.5.3 For spills entering marine waters, the bacterial monitoring shall consist of sampling for the following indicator organisms:
- A. Enterococci; and
 - B. Clostridium perfringens

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 5 of 31

- 3.4.5.4 Results of the bacterial monitoring shall be submitted to the CWB immediately. **Monitoring shall continue until notification to stop is received from the CWB.**
- 3.4.5.5 The Superintendent shall maintain a **tabulated summary** of all spills less than a thousand gallons per occurrence. The summary shall **be submitted to the Wastewater Branch on a quarterly basis** including the information as specified in **Appendix B.**
- 3.4.5.6 The Superintendent shall maintain a **tabulated summary of all spills less than 50 gallons** per spill occurrence to ground only with no public access. Records shall be kept on site and be available to the DOH for inspection and copying. **Refer Appendix B.**

3.5 Deputy Division Chief:

- 3.5.1 The Deputy Division Chief shall be responsible for coordinating field response activities with the Superintendents and keeping the Division Chief apprised of all field recovery and emergency operations.
- 3.5.2 The Deputy Division Chief shall assist the Division Chief with preparing the Wastewater Spill or Treatment Plant Bypass or Upset report to the Department of Health.
- 3.5.3 The Deputy Division Chief shall be responsible for providing notification to the DOH CWB for discharges of enterococci > 100 CFU/100 ml at either the Papa'ikou or Kulaimano WWTP's in accordance with **Appendix H** herein..

3.6 Division Chief:

- 3.6.1 In the event of a **Wastewater Spill or Treatment Plant Bypass or Upset** to Surface Waters **or** in the event of a **major Wastewater Spill where public health may be threatened**, the Division Chief shall immediately notify the following:
 - 3.6.1.1 Director of Environmental Management (961-8083).
 - 3.6.1.2 County of Hawai'i Civil Defense Office (935-0031) or Police Dispatch (935-3311) in the event that the incident occurs after normal working hours.
 - 3.6.1.3 Department of Hawaiian Homes in the event that the closure of Puhi Bay will be required (974-4250).
 - 3.6.1.4 Director of Parks and Recreation (961-8311) in the event that County Parks and Recreation Facilities are affected.
 - 3.6.1.5 In the event that contact cannot be made with the agencies, the Division Chief shall request assistance from Civil Defense in contacting of the agencies.
- 3.6.2 In the absence of the Division Chief, the Line of Succession shall be as indicated in Emergency Response Procedure ERP-01. **Emergency contact numbers are provided in Appendix A of ERP-01 and the DEM Call Out List.** Due to the frequent revision of emergency contacts, refer to the most current listing.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 6 of 31

3.6.3 The Division Chief shall be responsible for immediate reporting requirements to the DOH in accordance with reference (a) and/or NPDES Permit Requirements.

- Immediate reporting requirements for Wastewater Spills to Surface Waters are contained in Appendix A herein.
- Immediate reporting requirements for Wastewater Spills Not reaching Surface Waters are contained in Appendix B herein.
- Immediate reporting requirements for Treatment Process Bypass incidents for NPDES Permitted Facilities are contained in Appendix C herein.

3.6.4 3.6.4 The Division Chief shall be responsible for preparation and issuance of a Press Release for treatment plant bypasses at NPDES Permitted facilities (Appendix G) or wastewater spills (Appendix F) over 1,000 gallons or for lesser spills if they present a substantial threat to public health. Note that the requirement for press releases only applies to discharges to Surface Waters and for discharges outside the confines of a Wastewater Facility.

- The Division Chief shall also verbally notify the County of Hawai'i Public Relations Specialist, Mayor's Office when issuing the Press Release. Contact information is as follows:
 - o Work: 961-8507
- In the event that the Public Relations specialist cannot be reached, the Division Chief shall issue the Press Release without further delay in accordance with reference (a) and/or NPDES Permit requirements.
- The Division Chief shall be the designated Contact Person in the Press Release.

3.6.5 The Division Chief shall be responsible for all communications outside of the Wastewater Division except in cases where the DOH or other regulator agency directly questions an employee.

3.6.6 The Division Chief shall be responsible for submission of the Wastewater Spill or Treatment Plant Bypass or Upset report to the Department of Health in accordance with the reference (a) and/or NPDES Permit Requirements

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.	COUNTY OF HAWAII	Wastewater Division
Subject:	WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09	Page: 7 of 31

Appendix A

Wastewater Spills to Surface Waters

1. The Division Chief shall immediately make an oral report to the Chief of the Clean Water Branch (Phone: 808-586-4309) of all Wastewater Spills into State Waters.
 - In addition, the Environmental Health Program (EHP) Chief or their representatives for the Island of Hawaii shall be notified at 933-4371 (facsimile 933-4669).
 - If the spill occurs during non-working hours notification shall be made to the State Hospital Operator (24 hrs.) at 808-247-2191. The Clean Water Branch and the respective district EHP Chief shall be notified via a follow-up call on the next working day.
2. The Wastewater Division shall immediately send out a Press Release for Wastewater Spills (Appendix F) to State Waters over a thousand (1,000) gallons and for lesser spills if they present a substantial threat to public health.

The press release shall describe:

- a. The location of the Wastewater Spill
- b. The amount of wastewater released
- c. Cause of the Spill
- d. Actions being taken to rectify the situation
- e. Contact person and telephone number (including an after hours/weekend contact)

The press release shall be made to the following organizations via FAX, telephone or Email. FAX numbers and available Email addresses are as indicated in Appendix F and G:

- a. Associated Press (for radio dissemination)
 - b. Major Statewide and island newspapers
 - c. Major television news stations
 - d. Department of Health Clean Water Branch (Honolulu)
 - e. Department of Health Hawaii District Office (Hilo)
3. Wastewater that is spilled into nearshore waters shall be disinfected prior to being discharged if sufficient disinfection contact time is available. Best judgment should be used in determining the amount of chlorine added to the discharge if chlorine is used as a disinfectant.
 4. The Wastewater Division shall immediately post "Warning Signs" in the areas likely to be impacted by the spill and where public access is possible.
 5. The DOI shall also assure that sufficient number and location of the "Warning Signs" have been posted. Authorization to remove the signs will also come from the DOH.
 6. Bacterial sampling is conducted in the event that the spill is greater than 100 gallons or when public health may be threatened in the area of the receiving water affected by the discharge. Bacterial samples shall be conducted as soon as possible.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 8 of 31

- 6.1 The Clean Water Branch (CWB) shall be informed of the sampling stations and may modify the number of stations and site selection
- 6.2 For spills entering fresh or brackish water, the bacterial monitoring shall consist of sampling for the following indicator organisms:
 - A. Fecal coliform; and
 - B. Clostridium perfringens
- 6.3 For spills entering marine waters, the bacterial monitoring shall consist of sampling for the following indicator organisms:
 - A. Enterococci; and
 - B. Clostridium perfringens
- 6.4 Results of the bacterial monitoring shall be submitted to the CWB immediately. Monitoring shall continue until notification to stop is received from the CWB.
7. The DOI shall be informed of the sampling stations and may modify the number of stations and site selection.
8. The DOH may require additional bacteria monitoring by the County to supplement their existing monitoring program, as may be necessary or appropriate. The DOH may also require the County to post additional "Warning Signs" as needed and may assist in removal of the signs.
9. The Division Chief shall submit a written report of the details of the Wastewater Spill within five (5) calendar days of the incident to the Director of Health.
 - a. The report shall include the cause of the incident, clean up efforts, remedial actions to prevent future incidents, a summary of the sampling data, a map of the sampling locations, and public notification procedures if applicable.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 9 of 31

Appendix B

Wastewater Spills to Ground Only with and without Public Access

1. **Applicability:** Any wastewater spills from a wastewater system onto the ground and that does not enter state waters.

Public: The public is defined as including hotel, apartment, and condominium residents and guests, or condominium apartment owners at their own condominium, and management personnel and building or facility staff, unless the person is specifically an operator of the wastewater system or a manager of the property.

Areas Inaccessible to the Public: Areas inaccessible to the Public is defined as follows:

- (a) Confined within a fenced or walled (six foot high with locked gate or door) area; **and**
- (b) Contact with the spill is limited to wastewater system operating personnel and management personnel for the property owner or lessee.

2. **Spills to Ground Only WITH Public Access:**

A. Spills Greater than or Equal to 1,000 Gallons:

- (1) The Division Chief shall **immediately** notify the **Department of Health Island of Hawaii Environmental Health Program (EHP) Chief** or their representatives at 933-4371 (facsimile 933-4669) for all spills \geq 1,000 gallons.
- (2) If a spill of \geq 1,000 gallons occurs during non-working hours notification shall be as follows:
 - a. Contact the State Hospital Operator (SHO) at 808-247-2191; **and**
 - b. Notify the Island of Hawaii Environmental Health Program (EHP) Chief the next working day with a follow-up call.
- (3) The Division Chief shall immediately send out a **press release for Wastewater Spills (Appendix F) of a thousand (1,000) gallons and more and for lesser Wastewater Spills if they present a substantial threat to public health.**

The press release shall describe:

- a. The location of the Wastewater Spill
- b. The Date/time of the Wastewater Spill
- c. The amount of wastewater released
- d. Cause of the Wastewater Spill
- e. Actions being taken to correct the situation
- f. Contact person and telephone number (including an after hours/weekend contact)

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 10 of 31

The press release shall be made to the following organizations via FAX, telephone or Email. FAX numbers and available Email addresses are as indicated in Appendix F:

- a. Associated Press (for radio dissemination)
 - b. Major Statewide and island newspapers
 - c. Major television news stations
 - d. Department of Health Communications Office (Honolulu)
 - e. Department of Health Hawaii District Office (Hilo)
- (4) The **wastewater that is spilled shall be disinfected** if the wastewater remains ponded on the ground for any sufficient length of time or if the discharge continues for any significant duration.
- (5) **Warning Signs** shall be immediately posted in the vicinity of the spill area.
- (6) All **spill sites shall be cleared of all debris and standing wastewater and shall be disinfected.**
- (7) In areas containing standing wastewater which cannot be removed, public access shall be limited by installing **barricades and/or Caution Warning Tape** around the standing wastewater.
- (8) The Division Chief shall submit a written **report of the details of the Wastewater Spill within five (5) calendar days** of the incident to the Chief, Wastewater Branch.
- a. The report shall include the date and time of the spill, the amount released, the cause(s) of the spill, clean up efforts, remedial actions to prevent future spills.
- (9) Reporting of leaks or breaks in pipelines discovered during inflow/infiltration repair work is not required. These situations are considered exfiltration.

B. Spills Less than 1,000 Gallons:

- (1) The **wastewater that is spilled shall be disinfected** if the wastewater remains ponded on the ground for any sufficient length of time or if the discharge continues for any significant duration.
- (2) **Warning Signs** shall be immediately posted in the vicinity of the spill area.
- (3) All **spill sites shall be cleared of all debris and standing wastewater and shall be disinfected.**
- (4) In areas containing standing wastewater which cannot be removed, public access shall be limited by installing **barricades and/or Caution Warning Tape** around the standing wastewater.
- (5) Reporting of leaks or breaks in pipelines discovered during inflow/infiltration repair work is not required. These situations are considered exfiltration.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 11 of 31

(6) A tabulated summary of all spills less than a thousand gallons each shall be submitted to the Wastewater Branch on a quarterly basis providing the following information:

- a. The report shall include the date and time of the spill, the amount released, the cause(s) of the spill, clean up efforts, remedial actions to prevent future spills.
- b. The report shall be submitted within 30 days after the end of the quarter.

3. Spills to Ground Only WITHOUT Public Access:

A. Spills Greater than or Equal to 1,000 Gallons and/or Spills occurring more than twice within a 12 month period:

- (1) The Division Chief shall immediately notify the Island of Hawaii Environmental Health Program (EHP) Chief or their representatives at 933-4371 (facsimile 933-4669).
- (2) The Division Chief shall submit a written report of the details of the Wastewater Spill within five (5) calendar days of the incident to the Chief, Wastewater Branch.

B. Spills Greater than 50 Gallons:

- (1) The Superintendent shall maintain a record of all spills greater than 50 gallons. The record shall tabulate the date and time of the spill, the amount released, the cause(s) for the spill, clean up efforts, and remedial actions taken to prevent future spills.
- (2) The tabulated record shall be kept on site and shall be made available for inspection and copying by the DOH.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.	COUNTY OF HAWAII	Wastewater Division
Subject:	WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09	Page: 12 of 31

Appendix C

Treatment Plant Process Bypass and/or Upsets for NPDES Permitted Facilities

1. Non-Compliance **Immediate Reporting Requirements:**

A. The Division Chief **shall immediately make an oral report to the Chief of the Clean Water Branch (Phone: 808-586-4309)** in the event of a bypass or upset in or contributing to a discharge of **1,000 gallons or more to State Waters**.

(1) In addition, the **Environmental Health Program (EHP) Chief** or their representatives **for the Island of Hawaii** shall be notified at **933-4371 (facsimile 933-4669)**.

(2) If the spill occurs during **non-working hours** the oral report shall be made to the **State-On-Scene Coordinator** from the Office of Hazard Evaluation and Emergency Response at **808-226-3799** or to the **State Hospital Operator at 808-247-2191**. The **Clean Water Branch and the respective district EHP Chief** shall be notified via a follow-up call on the next working day.

B. Waiver Request:

(1) In the event that the **process bypass has NOT resulted in loss of chlorination used for the disinfection process (Total Residual Chlorine > 0 mg/l)**, the Division Chief **shall request a waiver from the Public Notification Requirements of the NPDES Permit** (Part H.2.a(2) for Hilo WWTP, F.2.a(2) for Papaikou WWTP, Part E.2.a(2) for Kulaimano WWTP).

(2) In addition, the Division Chief **shall request confirmation that posting of Warning Signs and bacteriological sampling will not be required**.

2. **Press Release:**

A. For Treatment Plant Process **Bypasses or Upsets resulting in loss of chlorination** used for the disinfection process (Total Residual Chlorine of 0.00 mg/l), **or** in the event that a **Waiver** from Public Notification requirements **is not obtained**, a **Press Release shall be required**.

B. The Press Release (Appendix G) shall be immediately sent out for Treatment Process Bypasses or Upsets resulting in or contributing to a discharge of 1,000 gallons or more to State Waters.

(1) The press release shall describe:

- a. The location of the Treatment Plant and the affected area
- b. The amount of the Bypass or Upset
- c. Cause of the Bypass or Upset
- d. Actions being taken to rectify the situation
- e. Contact person and telephone number (including an after hours/weekend contact)

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 13 of 31

(2) The press release shall be made to the following organizations via FAX, telephone or Email. FAX numbers and available Email addresses are as indicated in Appendix G:

- a. Associated Press (for radio dissemination)
- b. Major Statewide and island newspapers
- c. Major television news stations
- d. Department of Health Clean Water Branch (Honolulu)
- e. Department of Health Hawaii District Office (Hilo)

3. **Recovery Actions:**

A. Personnel shall immediately determine the cause of the Bypass or Upset and shall take appropriate measures to correct the condition.

B. **Effluent Sampling Requirements:**

(1) Grab samples shall be obtained at the discharge location at the affected facility and shall be analyzed for the following:

- a. BOD₅
- b. TSS
- c. Total Chlorine Residual
- d. Enterococci

(2) In addition, Effluent **Composite Samples** shall be obtained for the duration of the Bypass and/or Upset and shall be analyzed for Effluent Characteristics required under the NPDES Permit for the facility.

C. **Posting of Warning Signs:**

(1) For Treatment Plant Process **Bypasses or Upsets resulting in loss of chlorination** used for the disinfection process (Total Residual Chlorine of 0.00 mg/l), **or** in the event that a **Waiver** from Public Notification requirements **is not obtained**, Contaminated Water **Warning Signs** shall be posted in the areas likely to be impacted by the spill and where public access is possible.

a. The DOH shall also assure that sufficient number and location of the "Warning Signs" have been posted.

(2) The extent of Warning Sign posting requirements shall as provided below::

- a. **Hilo Wastewater Treatment Plant** Bypass or Upset : **Figure C-1** herein.
- b. **Papaikou Wastewater Treatment Plant** Bypass or Upset: **Figure C-2** herein.
- c. **Kulaimano Wastewater Treatment Plant** Bypass or Upset: **Figure C-3** herein.

(3) The DOH may require the County to post additional "Warning Signs" as needed.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 14 of 31

- (4) As a minimum, Warning Signs shall be **checked on a Daily Basis** to ensure that the signs have not been removed and/or defaced. All missing and/or defaced signs shall be replaced on a daily basis.
- (5) Warning Signs shall **remain in place until** such time that removal of the Warning Signs has been **authorized by the Department of Health**.

D. Shoreline Monitoring Requirements:

- (1) Bacteriological sampling shall be conducted in the area affected by the Bypass and/or Upset.
- (2) Sampling points for the bacteriological sampling shall be as provided below:
 - a. Hilo Wastewater Treatment Plant Bypass or Upset : Figure C-1 herein.
 - b. Papaikou Wastewater Treatment Plant Bypass or Upset: Figure C-2 herein.
 - c. Kulaimano Wastewater Treatment Plant Bypass or Upset: Figure C-3 herein.
- (3) The Clean Water Branch (CWB) shall be informed of the sampling stations and may modify the number of stations and site selection as may be necessary or appropriate.
- (4) The bacteriological monitoring shall consist of sampling for the following indicator organisms:
 - a. Enterococci; and
 - b. Clostridium perfringens
- (5) Results of the bacterial monitoring shall be submitted to the CWB immediately. **Monitoring shall continue until notification to stop is received from the CWB.**

4. Written Report:

- A. The Division Chief shall submit a written noncompliance report on the Treatment Plant Process Bypass and/or Upset **within five (5) working days** after personnel became aware of the noncompliance event.
- B. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; public notice efforts, if any; clean-up efforts, if any; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (1) In addition to the above, the report shall contain all effluent sampling data obtained during the bypass and/or upset, shoreline monitoring results, off-shore sampling data if available, and a map showing sampling point locations if different from sampling locations provided herein, and a map showing Warning Sign locations if different from the Warning Sign locations provided herein.
- C. The Director may waive the written report of the five-day deadline on a case-by-case basis for bypasses, upsets, and violations of maximum discharge limitations if the oral report has been received within 24 hours of the noncompliance or when the Permittee's authorized personnel becomes aware of the noncompliance.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 15 of 31

**Contaminated Water Warning Sign
And
Bacteriological Sampling Points**

- Figure C-1 Hilo WWTP Treatment Process Bypass and/or Upset Warning Signs & Sampling Points
- Figure C-2 Papaikou WWTP Treatment Process Bypass and/or Upset Warning Signs & Sampling Points
- Figure C-3 Kulaimano WWTP Treatment Process Bypass and/or Upset Warning Signs & Sampling Points

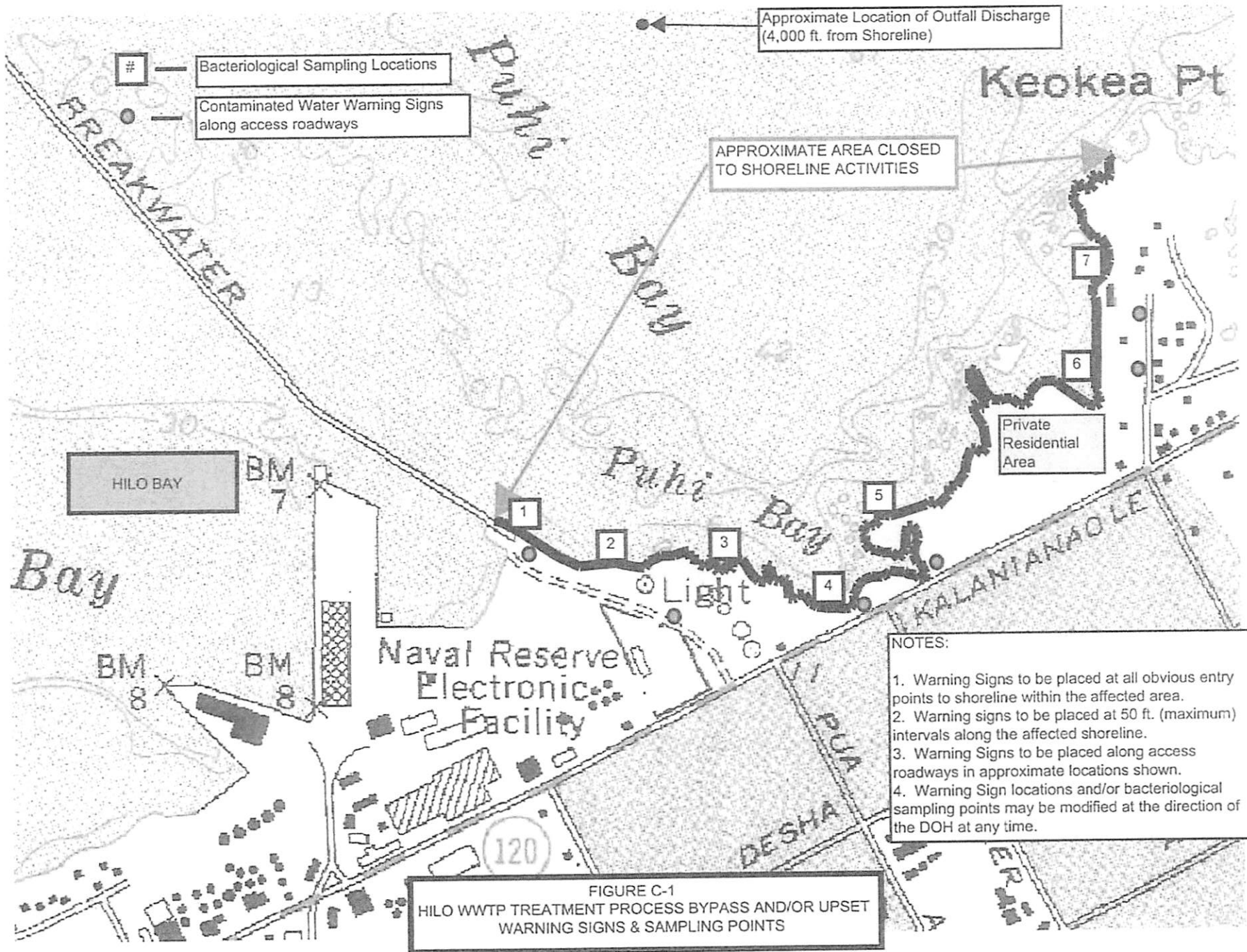


FIGURE C-1
HILO WWTP TREATMENT PROCESS BYPASS AND/OR UPSET
WARNING SIGNS & SAMPLING POINTS

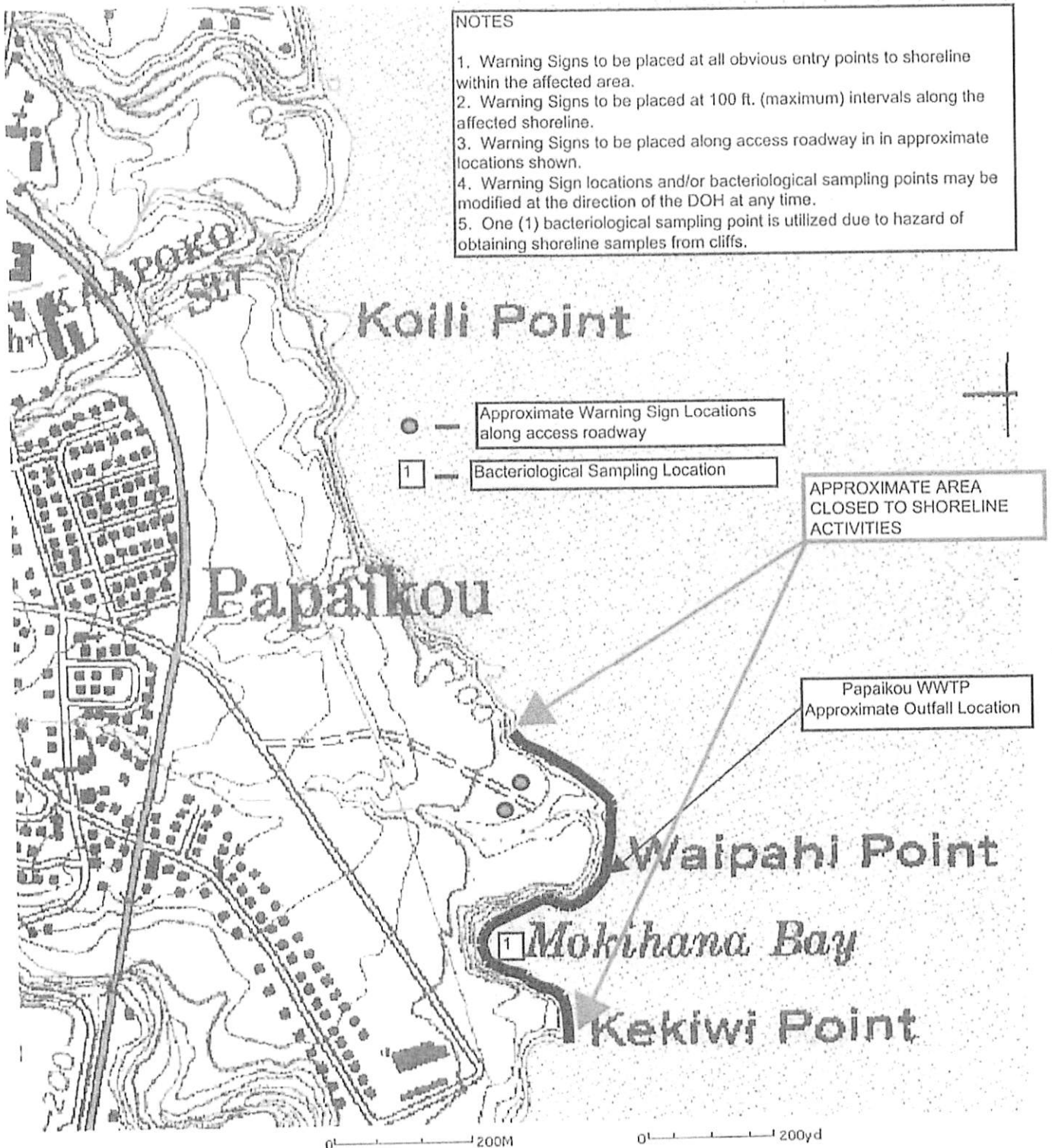


FIGURE C-2
PAPAIKOU WWTP TREATMENT PROCESS BYPASS AND/OR UPSET
WARNING SIGNS & SAMPLING POINTS

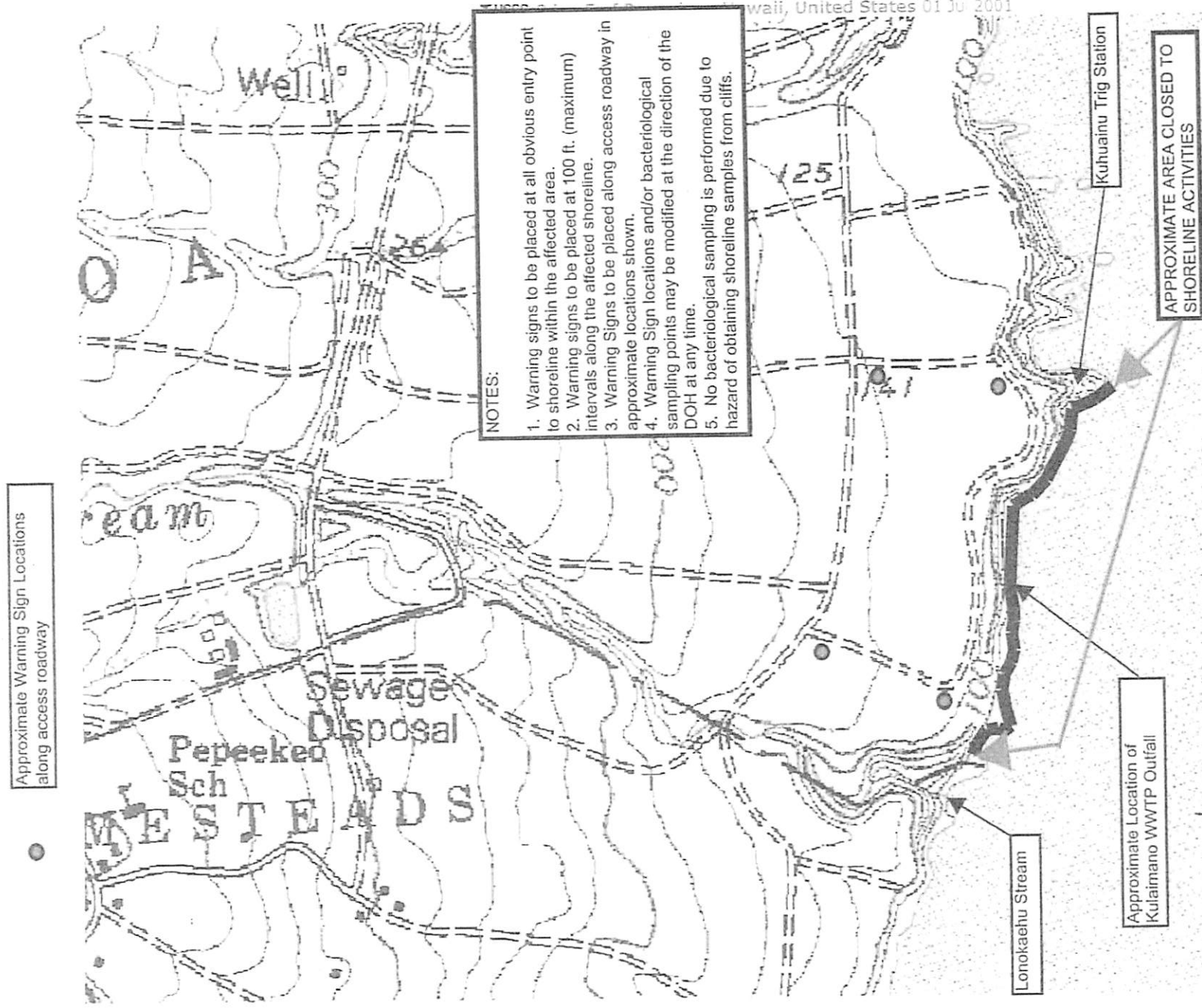


FIGURE C-3
KULAIMANO WWTP TREATMENT PROCESS BYPASS AND/OR UPSET
WARNING SIGN & SAMPLING POINTS

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 19 of 31

Appendix D

Treatment Plant Process Bypass and/or Upsets for Facilities Without NPDES Permits

1. General:

- A. Operation of Wastewater Treatment Facilities which do not require an NPDES Permit are covered under Hawaii Administrative Rules, Title 11, Chapter 62, Wastewater Systems.
- B. There are no specific reporting requirements for Treatment Process Bypasses and/or Upsets contained in the requirements for operation of Wastewater Treatment Facilities without NPDES Permits.
- C. The Wastewater currently operates two (2) Wastewater Treatment Facilities which do not require NPDES Permits.
 - (1) The Kapehu Wastewater Treatment Plant which utilizes a Soil Absorption System for effluent disposal.
 - (2) The Kealakehe Wastewater Treatment Plant which utilizes an R-2 Recycled Water System and/or disposal of R-3 Recycled water via a Seepage Pit.

2. Recovery Actions:

- A. Personnel shall immediately determine the cause of the Bypass or Upset and shall take appropriate measures to correct the condition.
- B. The **R-2 Water system to the Swing Zone shall be immediately shut down at the Kealakehe WWTP** until verification that the R-2 Water meets the requirements of HAR §11-62 for R-2 Water.
 - (1) In the event that the Recycled Water being provided to the Swing Zone does **not** meet the R-2 Water requirements of HAR §11-62, the operators of the **Swing Zone shall be immediately notified.**

3. Effluent Sampling Requirements:

- A. Grab samples shall be obtained at the discharge location at the affected facility and shall be analyzed for the following:
 - (1) BOD₅
 - (2) TSS
 - (3) Total Chlorine Residual, as applicable
 - (4) Fecal coliform
- B. In addition, Effluent **Composite Samples** shall be obtained for the duration of the Bypass and/or Upset for the Kealakehe WWTP.
- C. The sample results shall be retained and made available for inspection in accordance with HAR §11-62 requirements.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.	COUNTY OF HAWAII	Wastewater Division
Subject:	WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09	Page: 20 of 31

Appendix E
Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report

Location: _____ Date: _____
NPDES Permit No. (for WWTP's with Permits: _____
Reported By: _____ Telephone: _____
Report Received By: _____ Time Received: _____
Responding Personnel: _____
Time Arrived on Scene: _____ Weather Conditions: _____
Spill/Bypass Duration: From _____ To _____
(Date/Time) (Date/Time)

Estimated Volume (Gallons) Discharged: _____

- Ground _____
- State Waters _____
- Dry Well _____
- Other _____

Description/Cause: _____

Actions Taken: _____

Comments: _____

Report Completed by (Supervisor with signature/date): _____

Sketch of Scene Below (use back of sheet if required)

PRESS RELEASE
NOTIFICATION OF WASTEWATER SPILL

Reporting Agency:

County of Hawaii
Wastewater Division
108 Railroad Ave
Hilo, Hawaii 96720

Phone No.: 961-8338
Fax No.: 961-8644

Location of Event: _____

Date of Event: _____

Time of Event: _____

Quantity of the spill: _____

Description/Cause: _____

Remedial Actions Taken: _____

Contact Person: _____

Working hours phone number: _____

After hours phone number: _____

Above Press Release sent via FAX or EMAIL to the following:

STATE AND COUNTY AGENCIES

AGENCY	FAX	EMAIL
DOH Communications Office	808-586-4444*	
DOH District Health Office	808-974-6000	
DOH Wastewater and Clean Water Branch	808-586-4352	
DEM Office	961-8086	
Mayor's Office	961-6553	
Kona MD Office	326-5663	
Civil Defense	935-6460	
Parks Dept (if parks affected)	961-8411	
Kevin Dayton, Mayor's Office		kdayton@co.hawaii.hi.us

MEDIA

NEWS AGENCY	FAX	EMAIL
Associated Press	808-531-1213* (for radio dissemination)	aphonolulu@ap.org
Hawaii Tribune Herald	961-3680	http://hawaii-tribune-herald.com/content/submit-news-story.html
West Hawaii Today	329-4860	wht@aloha.net
Star Advertiser	808-550-2441*	citydesk@staradvertiser.com
KGMB	808-944-5252*	News@HawaiiNewsNow.com
KHON	808-593-2418*	news@khon2.com
KITV	808-536-8993*	news@kitv.com
KHLO/KKBG	935-0396	
Big Island Video News		davidcorrigan@bigislandvideonews.com
KIPA/KKON	969-7949	
KPUA	935-7761	news@kpuu.net

PRESS RELEASE
NOTIFICATION OF TREATMENT PLANT PROCESS BYPASS

Reporting Agency: County of Hawaii **Phone No.:** 961-8338
 Wastewater Division **Fax No.:** 961-8644
 108 Railroad Ave
 Hilo, Hawaii 96720

Location of Event: _____
Date of Event: _____
Time of Event: _____
Quantity of Bypass: _____
Description/Cause: _____

Remedial Actions Taken: _____

Contact Person: _____
Working hours phone number: _____
After hours phone number: _____

Above Press Release sent via FAX to the following:

STATE AND COUNTY AGENCIES

AGENCY	FAX	EMAIL
DOH Communications Office	808-586-4444*	
DOH District Health Office	808-974-6000	
DOH Wastewater and Clean Water Branch	808-586-4352	
DEM Office	961-8086	
Mayor's Office	961-6553	
Kona MD Office	326-5663	
Civil Defense	935-6460	
Parks Dept (if parks affected)	961-8411	
Kevin Dayton, Mayor's Office		kdayton@co.hawaii.hi.us

MEDIA

NEWS AGENCY	FAX	EMAIL
Associated Press	808-531-1213* (for radio dissemination)	aphonolulu@ap.org
Hawaii Tribune Herald	961-3680	http://hawaii.tribune-herald.com/content/submit-news-story.html
West Hawaii Today	329-4860	wht@aloha.net
Star Advertiser	808-550-2441*	citydesk@staradvertiser.com
KGMB	808-944-5252*	News@HawaiiNewsNow.com
KHON	808-593-2418*	news@khon2.com
KITV	808-536-8993*	news@kitv.com
KHLO/KKBG	935-0396	
Big Island Video News		davidcorrigan@bigislandvidconews.com
KIPA/KKON	969-7949	
KPUA	935-7761	news@kpuu.net

SAMPLE PRESS RELEASE
NOTIFICATION OF TREATMENT PLANT PROCESS BYPASS

Appendix G-1 SAMPLE – Hilo WWTP Treatment Process Bypass
Appendix G-2 SAMPLE – Papaikou WWTP Treatment Process Bypass
Appendix G-3 SAMPLE – Kulaimano WWTP Treatment Process Bypass

Appendix G-1
PRESS RELEASE

NOTIFICATION OF TREATMENT PLANT PROCESS BYPASS

Reporting Agency: County of Hawaii - Wastewater Division Phone No.: 961-8338
108 Railroad Ave Fax No.: 961-8644
Hilo, Hawaii 96720

Location of Event: Hilo Wastewater Treatment Plant, Hilo, Hawai'i

Date of Event: (fill in date)

Time of Event: (fill in time)

Quantity of Bypass: (fill in quantity)

Description/Cause: (fill in description and cause)

Remedial Actions Taken: (fill in immediate remedial actions taken)

The PROCESS BYPASS has resulted in the discharge of PARTIALLY TREATED WASTEWATER via the facility's existing ocean outfall. The outfall for the Hilo Wastewater Treatment Plant is located approximately ¼ MILES OFF SHORE from Pua Avenue and discharges OUTSIDE OF THE HILO BREAKWATER.

After consultation with State Department of Health representatives the shoreline area from the HILO BREAKWATER TO AND INCLUDING PUHI BAY has been closed to shoreline activities as a precautionary measure. Contaminated Water Warning Signs have been posted in the affected shoreline area to warn the public. The signs advise the public that the shoreline within the posted areas is closed to swimming, fishing, and boating activities due to the possibility of contaminated water in the area. A map showing the approximate area closed to shoreline activities is provided for clarity.

The County Wastewater Division will be sampling shoreline waters on a daily basis in order to determine bacterial contamination levels. The Contaminated Water Warning Signs will remain in place until confirmation is obtained that bacterial levels are within acceptable levels and approval for removal of the warning signs has been received from the State Department of Health.

Again, the shoreline area from the Hilo Breakwater to and including Puhi Bay is currently closed to swimming, fishing, and boating activities as a precautionary measure until such time that confirmation is obtained that bacterial levels in the area are acceptable.

The public will be advised when bacterial sampling has confirmed that levels are within acceptable levels for shoreline activities.

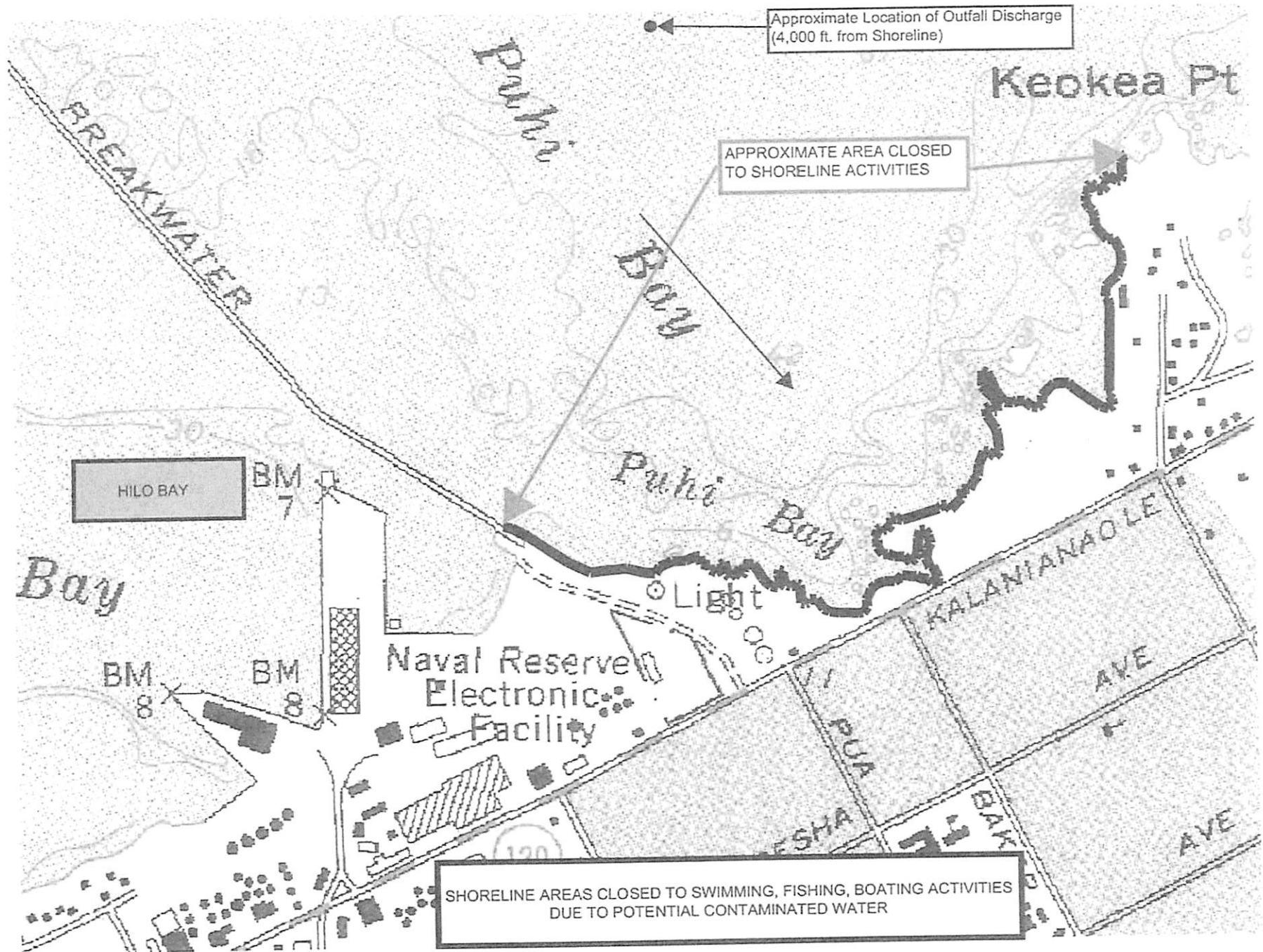
Contact Person: (fill in)

Working hours phone number: (fill in)

After hours phone number: (fill in)

Above Press Release sent via FAX to the following:

(See Appendix G)



Appendix G-2

PRESS RELEASE

NOTIFICATION OF TREATMENT PLANT PROCESS BYPASS

Reporting Agency: County of Hawaii - Wastewater Division Phone No.: 961-8338
108 Railroad Ave Fax No.: 961-8644
Hilo, Hawaii 96720

Location of Event: Papaikou Wastewater Treatment Plant, Papaikou, Hawai'i

Date of Event: (fill in date)

Time of Event: (fill in time)

Quantity of Bypass: (fill in quantity)

Description/Cause: (fill in description and cause)

Remedial Actions Taken: (fill in immediate remedial actions taken)

The PROCESS BYPASS has resulted in the discharge of PARTIALLY TREATED WASTEWATER via the facility's existing outfall which is located at shoreline.

After consultation with State Department of Health representatives the shoreline area in the vicinity of the outfall from Kekiwi Point to Waipahi Point has been closed to shoreline activities as a precautionary measure. Contaminated Water Warning Signs have been posted in the affected shoreline area to warn the public. The signs advise the public that the shoreline within the posted areas is closed to swimming, fishing, and boating activities due to the possibility of contaminated water in the area. A map showing the approximate area closed to shoreline activities is provided for clarity.

The County Wastewater Division will be sampling shoreline waters on a daily basis in order to determine bacterial contamination levels. The Contaminated Water Warning Signs will remain in place until confirmation is obtained that bacterial levels are within acceptable levels and approval for removal of the warning signs has been received from the State Department of Health.

Again, the shoreline area in Papaikou from Kekiwi Point to Waipahi Point is currently closed to swimming, fishing, and boating activities as a precautionary measure until such time that confirmation is obtained that bacterial levels in the area are acceptable.

The public will be advised when bacterial sampling has confirmed that levels are within acceptable levels for shoreline activities.

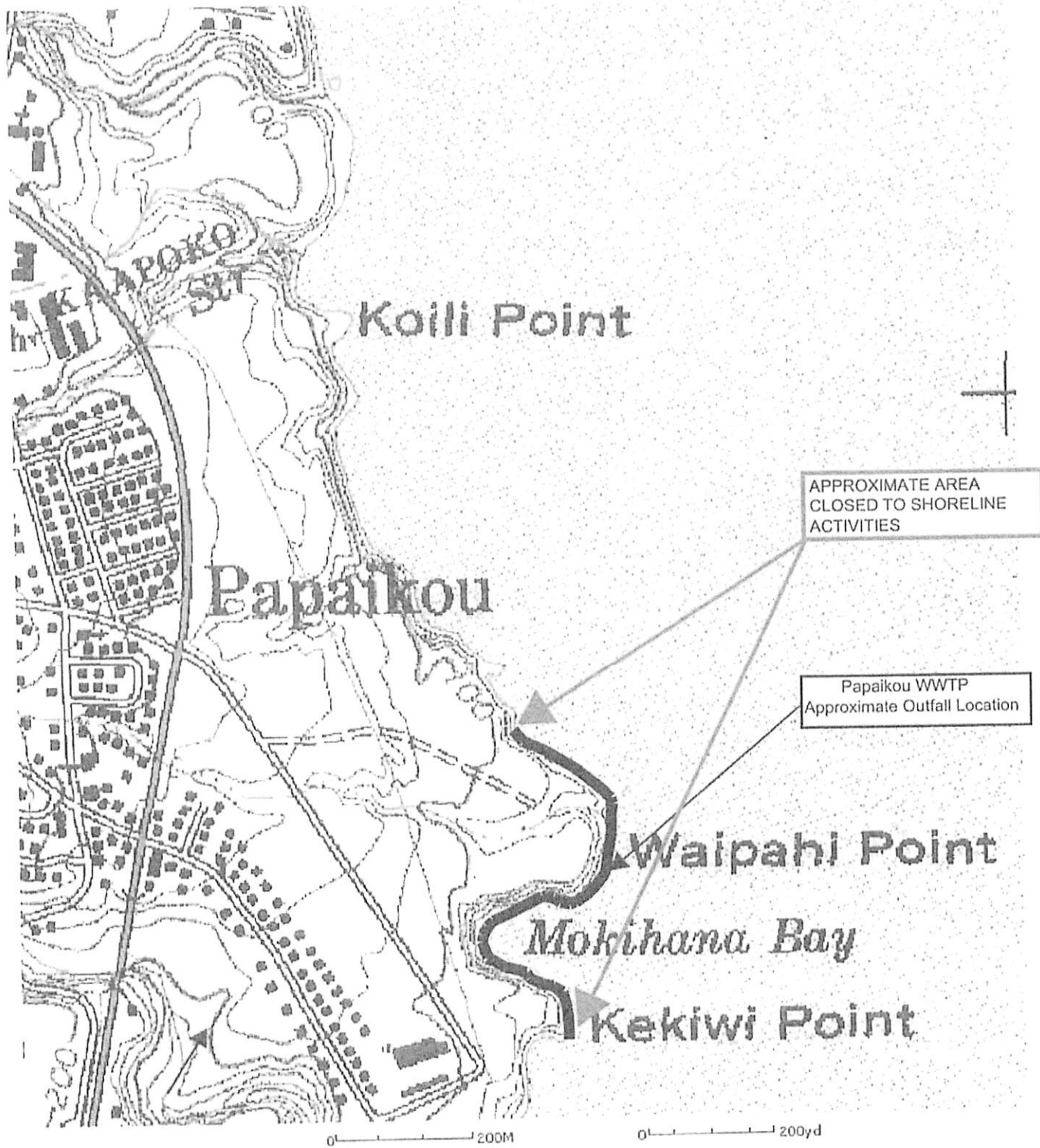
Contact Person: (fill in)

Working hours phone number: (fill in)

After hours phone number: (fill in)

Above Press Release sent via FAX to the following:

(See Appendix G)



SHORELINE AREAS CLOSED TO SWIMMING, FISHING, BOATING ACTIVITIES
DUE TO POTENTIAL CONTAMINATED WATER

Appendix G-3

PRESS RELEASE

NOTIFICATION OF TREATMENT PLANT PROCESS BYPASS

Reporting Agency: County of Hawaii - Wastewater Division Phone No.: 961-8338
108 Railroad Ave Fax No.: 961-8644
Hilo, Hawaii 96720

Location of Event: Kulaimano Wastewater Treatment Plant, Pepeekeo, Hawai'i

Date of Event: (fill in date)

Time of Event: (fill in time)

Quantity of Bypass: (fill in quantity)

Description/Cause: (fill in description and cause)

Remedial Actions Taken: (fill in immediate remedial actions taken)

The PROCESS BYPASS has resulted in the discharge of PARTIALLY TREATED WASTEWATER via the facility's existing outfall which is located at shoreline.

After consultation with State Department of Health representatives the Pepeekeo shoreline area in the vicinity of the Kulaimano Wastewater Treatment Plant outfall from Lonokaehu Stream to the Kuhuainu Trig Station Point has been closed to shoreline activities as a precautionary measure. Contaminated Water Warning Signs have been posted in the affected shoreline area to warn the public. The signs advise the public that the shoreline within the posted areas is closed to swimming, fishing, and boating activities due to the possibility of contaminated water in the area. A map showing the approximate area closed to shoreline activities is provided for clarity.

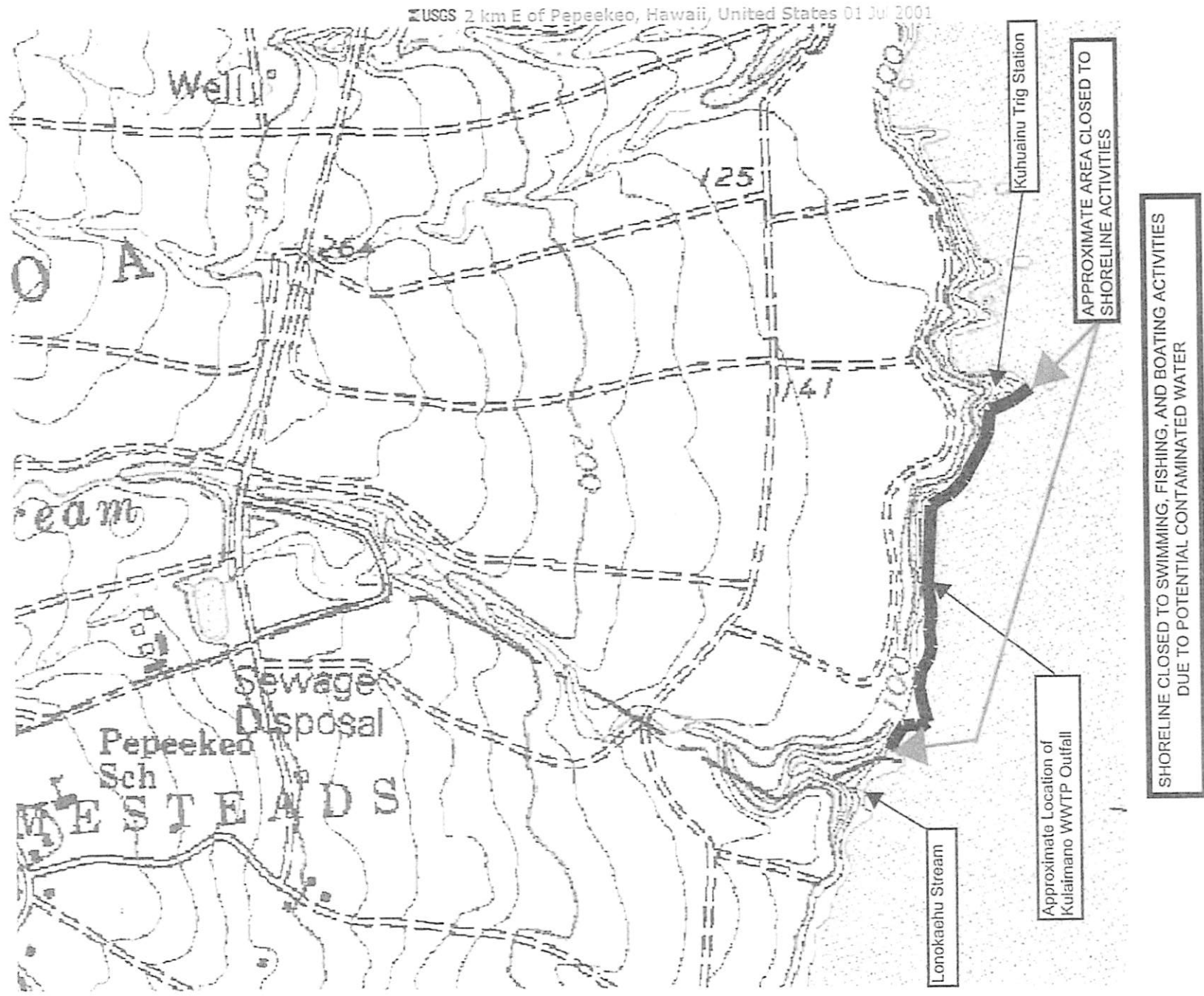
Again, the shoreline area in Pepeekeo from Lonokaehu Stream to Kuhuainu Trig Station is currently closed to swimming, fishing, and boating activities as a precautionary measure due to the potential for Contaminated Water in the area.

The public will be advised when the area is reopened for shoreline activities.

Contact Person: (fill in)
Working hours phone number: (fill in)
After hours phone number: (fill in)

Above Press Release sent via FAX to the following:

(See Appendix G)



Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject: WASTEWATER SPILL AND/OR TREATMENT BYPASSES		Procedure No.: ERP-03 Rev. J	
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09		Page: 30 of 31

Appendix H

Discharge of Enterococci > 100 CFU/100 ml at Papaikou and Kulaimano WWTP's

1. General:

- A. The NPDES Permit for the Papa'ikou and Kulaimano WWTP's provide specific Discharge Limitations for Enterococci of 7 CFU/100 ml.
- (1) While not clearly specified, the DOH-CWB has provided a verbal clarification to the WWD indicating that the intent of the 7 CFU/100 ml Discharge Limitation was to comply with Recreational Water Quality Standards under HAR §11-54-8.
- (2) On that basis, the DOH-CWB has indicated that the 7 CFU/100 ml Discharge Limitation is in reference to geometric mean values and is not in reference to single sample readings.
- B. HAR §11-54 (reference (f)) provides Water Quality Standards as established by the State of Hawai'i Department of Health.
- (1) HAR §11-54-8 provides specific water quality criteria for recreational areas and specifies that single sample readings **shall not exceed 100 CFU/100 ml.**
- (2) Since both the Papa'ikou and Kulaimano WWTP's discharge to recreational waters, the DOH-CWB has requested to be informed of discharges > 100 CFU/100 ml.
- a. The notification requirement is considered as a "courtesy" notification and is not subject to the immediate notification requirements under the NPDES Permits and/or Wastewater Spill protocol. However, notification should be made as soon as practicable.
- b. The DOH-CWB has also provided clarification that public notification requirements and/or posting of warning signs are not required for enterococci discharges > 100 ml.

NOTE: In the event that discharge of enterococci > 100 CFU/100 ml is due to a Wastewater Spill, **Appendix A** applies. In the event that the >100 CFU/100 ml is due to a Treatment Plant Upset and/or Bypass, **Appendix C** applies.

2. Recovery Actions:

- A. **Chemists:** In the event of discharges of enterococci > 100 CFU/100 ml the Chemist shall **immediately** notify the Wastewater Treatment Plant Supervisor and Superintendent.
- B. **Facility Operators:** Facility Operators shall evaluate existing operating conditions of the facility and shall consult with the WTP Supervisor to determine if chlorination/dechlorination rates should be adjusted in order to increase disinfection.
- (1) In the event that existing operating conditions appear normal, additional enterococci samples shall be obtained for additional laboratory analysis.
- (2) In the event that it is decided to increase chlorination/dechlorination rates, additional enterococci samples shall be obtained after sufficient time has been allowed for the chlorination system to stabilize.

Attachment 4 - ERP-03, Wastewater Spill and/or Treatment Bypasses, Revision J effective 09/20/13

Dept. of Environmental Mgmt.		COUNTY OF HAWAII	Wastewater Division
Subject:		Procedure No.:	
WASTEWATER SPILL AND/OR TREATMENT BYPASSES		ERP-03 Rev. J	
Effective Date:	Supersedes Procedure No./Date:		Page: 31 of 31
9/20/13	ERP-03 dated 01/15/09		

- (3) The chlorination/dchlorination rates should be adjusted dependent on levels of enterococci being discharged. Additional enterococci samples shall be obtained after each adjustment after sufficient time has been allowed for the chlorination system to stabilize.
- C. **WTP Supervisor:** The WTP Supervisor shall assess cause of the high bacterial levels in the discharge with the Facility Operators and shall oversee corrective actions taken.
- D. **Superintendent:** The Superintendent shall keep the Deputy Division Chief apprised of all recovery efforts and corrective actions taken.
- E. **Deputy Division Chief:** The Deputy Division Chief shall keep the Division Chief and DOH-CWB apprised of recovery efforts and corrective actions taken.

CHAPTER 11-62 APPENDIX B

**RESPONSES FOR WASTEWATER
SPILLS, OVERFLOWS, AND DISCHARGES
("SPILLS")**

July 1, 2014

Table of contents

1. Points of contact
2. Spills into state waters, excluding R-1 water from recycled water systems
3. Spills into state waters of R-1 water from recycled water system
4. Spills to ground only - with public access
5. Spills to ground only - with no public access
6. Spills to ground only - R-1 and RO water only
7. Press release
8. Monitoring of state water
9. Reporting
10. Modifications by the director

ATTACHMENT 5

62-B-1

CHAPTER 11-62 APPENDIX B

1. Points of contact

Agency	Phone	Fax
Clean Water Branch (CWB)	586-4309	586-4352
Wastewater Branch (WWB)	586-4294	586-4352
<u>Environmental Health Programs (EHP)</u>		
Hawaii District Health Office	933-4371	933-4669
Kauai District Health Office	241-3323	241-3480
Maui District Health Office	984-8234	984-8237
State Hospital Operator (SHO)	247-2191	
Communications Office		586-4444

2. Spills from any facility into state waters, excluding R-1 water from recycled water systems

- a. Applicability. Any wastewater spill which enters into state waters from a public or private wastewater system.
- (1) "State waters" has the meaning defined in HRS section 341-D, and includes drainage ditches, whether or not water is always flowing in them.
 - (2) Exclusion. Spill of R-1 water covered by Appendix J to HAR chapter 11-5, "NPDES General Permit Authorizing Discharges of R-1 Water from Recycled Water Systems". That general permit does not cover spills from treatment works.
- b. Immediate notice to DOH. If a spill occurs during working hours:
- (1) The wastewater system owner or its agent (owner/agent) shall immediately notify the CWB of any spill into state waters; and
 - (2) If a spill occurs on the neighbor islands, the owner/agent shall also immediately notify their respective

CHAPTER 11-62 APPENDIX B

district environmental health program chief.

If a spill occurs during non-working hours:

- (1) Contact the state hospital operator;
and
- (2) The next working day notify the CWB and the respective district EHP chief with a follow-up call.

- c. Press Release. The owner/agent shall immediately send out a press release for spills of a thousand gallons or more and for lesser spills if they present a substantial threat to public health. A press release shall comply with section 7. A press release is not required if the owner/agent demonstrates that the spill was of R-1 water and that BMPs as approved by the director were implemented.
- d. Disinfection. The owner/agent shall disinfect wastewater which is continuously being spilled into nearshore waters if sufficient disinfection contact time is available. Best judgment should be used in determining the amount of chlorine added to the discharge if chlorine is used as a disinfectant. Disinfection is not required if the owner/agent demonstrates that the spill was either R-1 or R-2 water and that BMPs as approved by the director were implemented.
- e. Warning signs. The owner/agent shall immediately post warning signs in the area(s) likely to be affected by the spill and where public access is possible. Posting of warning signs is not required if the owner/agent demonstrates that the spill was of R-1 water and that BMPs as approved by the director were implemented.

CHAPTER 11-62 APPENDIX B

The director shall also assure that a sufficient number of warning signs have been posted and the locations are adequate. Authorization to remove the signs shall also come from the director.

- f. Monitoring. The owner/agent shall conduct bacterial monitoring for any spill greater than 100 gallons or when public health may be threatened in accordance with section 8. Monitoring is not required if the owner/agent demonstrates that the spill was R-1 water and that BMPs as approved by the director were implemented.
- g. Reporting. The owner/agent shall report to the CWB under section 9.a.

3. Spills into state waters of R-1 water from recycled water systems

- a. Applicability. Any spills of R-1 water covered by Appendix J to HAR chapter 11-55, "NPDES General Permit Authorizing Discharges of R-1 Water from Recycled Water Systems."
 - (1) "State waters" has the same meaning defined in HRS section 342D-1, and includes drainage ditches, whether or not water is always flowing in them.
 - (2) Exclusion. The general permit does not cover spills from treatment works.
- b. Requirements. Among other things, the general permit requires filing a Notice of Intent before any discharge, compliance with standard conditions in appendix A of chapter 11-55, implementation of best management practices (BMPs), monitoring of discharges, avoiding violations of water quality criteria, and specified reporting. The full

CHAPTER 11-62 APPENDIX B

statement of requirements appears in the general permit.

4. Spills to ground only - with public access

a. Applicability. Any wastewater spill from a wastewater system onto the ground and that does not enter state waters but is in an area which is or may be accessible to the public.

(1) In this appendix, the public includes hotel, apartment, and condominium residents and guests, or condominium apartment owners at their own condominium, and management personnel and building or facility staff, unless the person is specifically an operator of the wastewater system or a manager of the property.

(2) In this appendix, areas inaccessible to the public include areas:

(a) Confined within a fenced or walled (six foot high with locked gate or door) area; and

(b) Contact with the spill is limited to wastewater system operating personnel and management personnel for the property owner or lessee.

(3) Exclusion. Spills of R-1 water provided the owner/agent demonstrates that the spill was of R-1 water and that BMPs as approved by the director were implemented.

b. Immediate notice to DOH. If a spill of a thousand gallons or more occurs during working hours:

CHAPTER 11-62 APPENDIX B

- (1) On Oahu, the wastewater system owner/agent shall immediately notify the WWB; or
- (2) On the neighbor islands, the owner/agent shall immediately notify their respective district EHP chief.

If a spill of a thousand gallons or more occurs during non-working hours:

- (1) Contact the state hospital operator; and
 - (2) The next working day notify the WWB or on the neighbor islands, the respective district EHP chief with a follow-up call.
- c. Press release. The owner/agent shall immediately send out a press release for spills of a thousand gallons or more, and for lesser spills if they present a substantial threat to public health. A press release shall comply with section 7.
- d. Disinfection. The owner/agent shall disinfect the wastewater that is spilled onto the ground if the wastewater remains ponded on the ground for any sufficient length of time or if the discharge continues for any significant duration. Disinfection is not required if the owner/agent demonstrates that the spill was R-2 water and that BMPs as approved by the director were implemented.
- e. Warning signs. The owner/agent shall immediately post warning signs in the vicinity of the spill area.
- f. Clean up. All spill sites shall be cleared of all debris and standing wastewater, and disinfected pursuant to section 4.d.

CHAPTER 11-62 APPENDIX B

In areas containing standing wastewater which cannot be removed, the owner/agent shall limit public access by having barricades or other means.

- g. Reporting. The owner/agent of a public or private wastewater system shall report to the WWB as follows:
- (1) For spills of a thousand gallons or more, the owner/agent shall report to the WWB under section 9.a.
 - (2) For spills less than a thousand gallons, immediate notice and reporting are not required. A tabulated summary of all spills less than a thousand gallons each shall be submitted to the WWB on a quarterly basis in accordance with section 9.b.
 - (3) Exfiltration. Reporting of leaks or breaks in pipelines discovered during inflow/infiltration repair work is not required. These situations are considered exfiltration.

5. Spills to ground only - with no public access

- a. Applicability. All wastewater spills from any public or private wastewater system that does not enter state waters and are in areas inaccessible to the public.
- (1) The public and inaccessibility are described in section 4.a.
 - (2) Exclusion. Spills of R-1 water provided the owner/agent demonstrates the spill was of R-1 water and that BMPs as approved by the director were implemented.
- b. Immediate notice to DOH. If a spill of a thousand gallons or more, and for spills over 50 gallons occurring more than twice

CHAPTER 11-62 APPENDIX B

within a 12 month, from the same cause and/or location, period within the confines or fence line of a wastewater system, the owner/agent shall notify the WWB within 24 hours.

- c. Reporting. For spills of a thousand gallons or more, and for spills over 50 gallons occurring more than twice within a 12 month period, from the same cause and/or location, within the confines or fence line of a wastewater system, the owner/agent shall report to the WWB under section 9.a.
- d. Recording. The owner/agent shall record and tabulate the date and time of the spill, the amount released, the cause(s) for the spill, clean up efforts, and remedial actions taken to prevent future spills for all spills greater than 50 gallons as they happen. The owner/agent shall keep the records and tabulations on site and make the records and tabulation available to the director for inspection and copying.

CHAPTER 11-62 APPENDIX B

6. Spills to ground only - R-1 and RO water only
- a. Applicability. Spills of R-1 or RO water provided the owner/agent demonstrates the spill was of R-1 or RO water and that BMPs as approved by the director were implemented.
 - b. Notice to DOH.
 - (1) For spills of a thousand gallons or more occurs, the wastewater system owner/agent shall notify the WWB at least by phone by the end of the next working day. The notice shall provide the information required by section 6.d(1), below.
 - (2) For spills of less than a thousand gallons, but more than fifty gallons, next day notice is not required, but the wastewater system owner/agent shall record the information and report as required by section 6.d.
 - c. Warning signs. For spills greater than fifty gallons, the owner/agent shall immediately post warning signs in the vicinity of the spill area.
 - d. Reporting. The owner/agent of a wastewater system shall report in writing to the WWB as follows:
 - (1) Information of each spill shall include at least the spill's date, time, location, quantity, the reason for the spill, and any corrective action.
 - (2) For spills more than fifty gallons, a tabulated summary shall be submitted to the WWB each year with the summary report required by section 11-62-28.

CHAPTER 11-62 APPENDIX B

7. Press release

The press release shall describe the location of the spill, the amount of wastewater released, what caused the spill, and what is being done to correct the situation. Also, include a contact person and telephone number (including an after hours/weekend contact). At a minimum, the press release shall be faxed, emailed or telephoned to the following:

- a. Associated Press (for radio dissemination);
- b. Major statewide and island newspapers;
- c. Major television news stations;
- d. Department of Health, Communications Office, Oahu
- e. CWB if into state waters, otherwise WWB; and
- f. For neighbor island spills, also include faxing the press release to the respective island DHOs.

8. Monitoring of state waters

Monitoring shall begin as soon as possible and be conducted in the receiving water area affected by the spill. Bacterial monitoring is not required if the owner/agent demonstrates that the spill was of R-1 water and that BMPs as approved by the director were implemented.

For spills entering fresh or brackish waters, the bacterial monitoring shall consist of sampling for the following indicator organisms:

- a. Enterococci; and
- b. *Clostridium perfringens*.

For spills entering marine waters, the bacterial monitoring shall consist of sampling for the following indicator organisms:

CHAPTER 11-62 APPENDIX B

- a. Enterococci; and
- b. Clostridium perfringens.

Results of the bacterial monitoring shall be submitted to the director in care of the CWB immediately. Monitoring shall continue until notification to stop is received from the director. With the approval of the director, on a case by case situation, some protocol requirements such as sampling or sign posting may be waived.

The director shall also be informed of the sampling stations and may modify the number of stations and site selection.

The director may require additional bacterial monitoring by the owner/agent to supplement their existing monitoring program, as may be necessary or appropriate.

9. Reporting

- a. When required above, the owner/agent shall submit a written report of the details of the spill within five (5) working days of the incident to the director in care of the CWB or WWB as applicable. The director may waive the five day written reporting requirement on a case by case basis provided that the director receives a request for waiver prior to the due date of the report.

The report shall include the date and time of the spill, the amount released, the cause(s) of the spill, location where the spill entered state waters (storm drains, ditches, streams, etc.), clean up efforts, remedial actions to prevent future spills, a summary of the monitoring data, a map of the

CHAPTER 11-62 APPENDIX B

sampling locations and public notification procedures if applicable.

- b. For spills not reported under section 9.a. and when required above, the owner/agent shall tabulate the following information: the date and time of the spill, the amount released, the cause(s) for the spill, clean up efforts, and remedial actions taken to prevent future spills. The owner/agent shall submit each quarter's tabulation to the WWB within 30 days after the quarter.

10. Modifications by the director

With the approval or under the direction of the director, response requirements may be increased, changed, reduced, or eliminated. For example, the director may require the owner/agent to post additional Warning Signs as needed or may assist in the removal of warning signs.

Attachment 6 - Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report

Dept. of Environmental Mgmt.	COUNTY OF HAWAII	Wastewater Division
Subject:	WASTEWATER SPILL AND/OR TREATMENT BYPASSES	Procedure No.: ERP-03 Rev. J
Effective Date: 9/20/13	Supersedes Procedure No./Date: ERP-03 dated 01/15/09	Page: 20 of 31

Appendix E
Wastewater Spill and Treatment Plant Bypass or Upset Discharge Report

Location: _____ Date: _____
NPDES Permit No. (for WWTP's with Permits: _____
Reported By: _____ Telephone: _____
Report Received By: _____ Time Received: _____
Responding Personnel: _____
Time Arrived on Scene: _____ Weather Conditions: _____
Spill/Bypass Duration: From _____ To _____
(Date/Time) (Date/Time)

Estimated Volume (Gallons) Discharged: _____

- Ground _____
- State Waters _____
- Dry Well _____
- Other _____

Description/Cause: _____

Actions Taken: _____

Comments: _____

Report Completed by (Supervisor with signature/date): _____

Sketch of Scene Below (use back of sheet if required)

Spill/Bypass Log (1000 gals or less)										
From		To		Location	Type		Weather	Discharge		Cause
Date	Time	Date	Time		Spill	Bypass		Amount (gals)	Where to	
1/22/20	NA	1/23/20	10:00 pm	Naalehu	Sewer back up			70	Private driveway	Broken section of 4" iron pipe
3/6/20	NA	3/9/20	5:00 pm	Kapehu	Broken pipe			20	Private property	Broken section of 6" pipe
3/17/20	8:30 am	3/17/20	9:00am	Kealakehe WWTP-vent cover next to hauler pit	Sewer back up		Overcast	30	Contained on plant site	Clogged effluent line pipe
4/24/20	NA	4/24/20	1:00 pm	Kaloko WWTP-hose for decant pump found on ground	Loose hose		Sunny	15	Ground	Hose for decant pump found on ground
5/4/20	1:30 pm	5/4/20	1:34 pm	Hilo WWTP-while pumping secondary clarifier scum pit septage hose popped out of pit	Secondary clarifier skimmings		Sunny	99.5	Contained on plant site	Disconnected hose
5/14/20	3:45 pm	5/14/20	8:30 pm	Naalehu	Sewer back up		Light Rain	100	Private property	Plugged/Clogged 4" sewer
7/16/20	12:50 pm	7/16/20	12:53 pm	Hilo WWTP	Facility pit overflow		Fair	20	To ground	600 Amp breaker trip

Note: This table is the Spill Log that is kept by DEM-WWD to record all spills less than 1,000 gallons that did not reach State waters and with no public accessibility.

ATTACHMENT 7
Spill/Bypass Log (1000 gals or less)

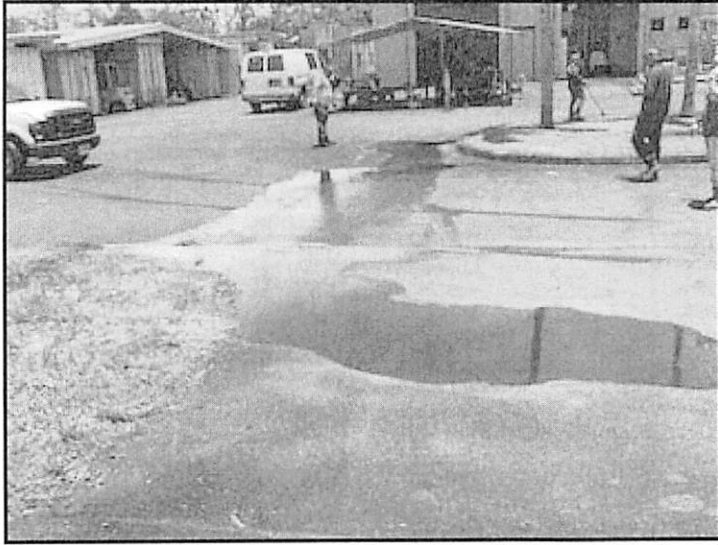


Photo 1: showing area of spill by Administration Building

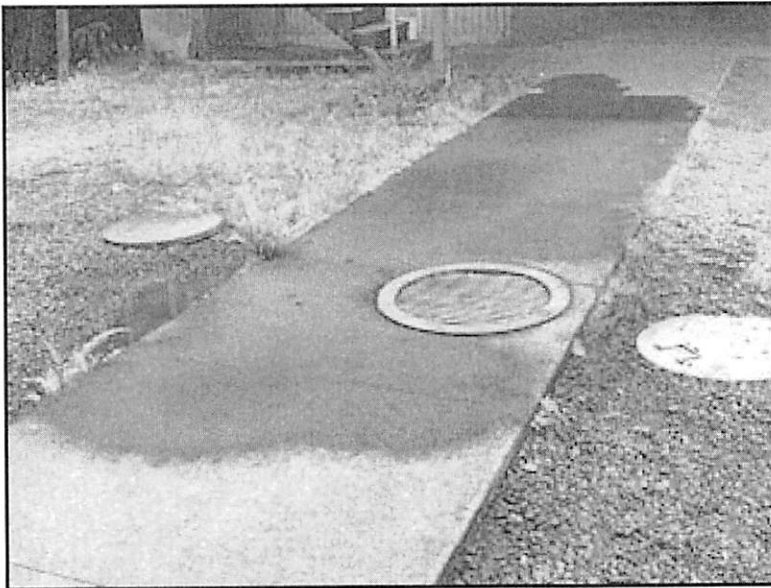


Photo 2: showing area of spill by Dewatering Building-2nd location

ATTACHMENT 8
Photographs of the July 16, 2020, Spill Occurrence

Attachment 8 - Photographs of the July 16, 2020 Spill Occurrence

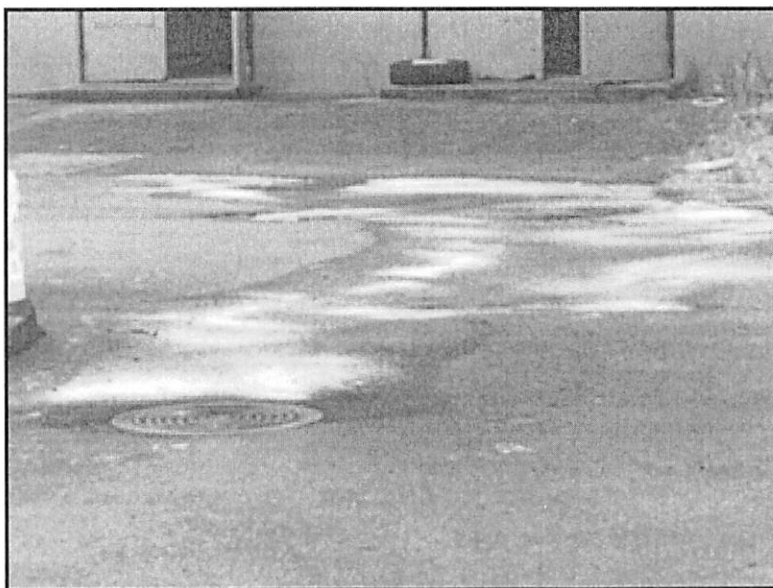


Photo 3: showing area of spill by Administration Building-Pitchlor Application

County Of Hawai'i
PAYROLL EXPENDITURE ADJUSTMENTS

	Account Number	Account Title	Amount	Explanation with Dates
Decrease:	010.911.5913.49.341	Coronavirus Relief-Care	(\$5,111.66)	To reverse regular S&W costs for holiday & leave for SWD employees taken from June to Septembr 2020
Increase:	085.601.5604.01.011	Solid Waste Regular S&W	\$5,111.66	
Decrease:	010.911.5913.49.341	Coronavirus Relief-Cares	(\$1,226.80)	To revese retirement costs for holiday & leave for SWD employees taken from June to September 2020
Increase:	085.901.5902.17.341	Solid Waste Retirement	\$1,226.80	
Decrease:	010.911.5913.49.341	Coronavirus Relief-Cares	(\$391.03)	To reverse Soc Sec/Med costs for holiday & leave for SWD employees takenfrom June to September 2020
Increase:	085.901.5902.20.341	Solid Waste Soc Sec & Med	\$391.03	
Decrease:				
Increase:				
Decrease:				
Increase:				
Decrease:				
Increase:				

Approved By: _____ Date: _____ Approved By: _____ Date: _____
Dept. affected by Decrease Dept. affected by Increase

(If above transaction is within a single department, only one approval signature is needed)
SUBMIT ORIGINAL TO ACCOUNTS DIVISION.