WASTE MANAGEMENT OF HAWAII
92-460 Farrington Highway
Kapolei, Hawaii 96707
(808) 668-2985

February 15, 2012

VIA U.S. MAIL & E-MAIL

U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105
Attn: Lawrence Torres (WTR-7)

Hawaii Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, HI 96801-3378
Attn: Mike Tsuji

RE: Issuance of Findings of Violation and Order for Compliance for Waimanalo Gulch Sanitary Landfill – CWA-309(a)-12-003 Interim/Supplemental Stormwater Monitoring Plan

Dear Sirs:

Pursuant to Paragraph 12 of the Administrative Order issued pursuant to the November 29, 2011, Finding of Violation and Order ("Order") in the above referenced matter, Waste Management of Hawaii, Inc. ("WMH") is hereby submitting its proposed Interim/Supplemental Stormwater Monitoring Plan ("SWMP") for review and approval. Thank you for accommodating WMH's request for an extension of the deadline for submitting this draft SWMP.

I certify under penalty of law that this document and all attachments (if any) were prepared under my direction and 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, I certify that 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,

Joseph R. Whelan

Joseph R. Whelan
General Manager

Attachment
cc: *via e-mail only*
David Wampler – EPA Region 9
Dana Viola – City & County of Honolulu

LL to EPA re Stormwater FVO - Draft Interim SWMP (2/14/12)

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INTERIM/SUPPLEMENTAL STORM WATER MONITORING PLAN

PROPOSED PURSUANT TO EPA ORDER CWA-309(A)-12-003

WAIMANALO GULCH SANITARY LANDFILL, KAPOLEI, OAH'U, HAWAI'I

Waste Management of Hawaii, Inc.
92-460 Farrington Highway
Kapolei, Hawai'i 96707

February 2012 - DRAFT

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1.0 INTRODUCTION

The Waimanalo Gulch Sanitary Landfill (WGSL) is owned by the City and County of Honolulu and operated by Waste Management of Hawaii, Inc. (WMH). The City and County of Honolulu (CCH) was issued a Notice of General Permit Coverage (General Permit) under the National Pollutant Discharge Elimination System (NPDES) for the WGSL on August 30, 2010, which was assigned File No. HI R50A533 and herein referred to as the General Permit. Under the General Permit, the WGSL is authorized to discharge storm water runoff associated with industrial activities from its facility to the receiving State water named Waimanalo Gulch, a Class 2, Inland Water at coordinates 21°20'51"N and 158°07'33"W.

The General Permit requires storm water monitoring to support the evaluation of best management practice (BMP) effectiveness. WMH has prepared and is implementing the Storm Water Monitoring and Reporting Program Plan (SWMRPP) dated April 2011, which specifies the procedures for collecting storm water runoff samples and associated field data at the WGSL and is a component of the Storm Water Pollution Control Plan (SWPCP) for the site.

On November 29, 2011, the U.S. Environmental Protection Agency (EPA) issued to WMH and CCH the *Finding of Violation and Order,* Docket No. CWA-309(a)-12-003 (the Order) which requires, among other elements, that WMH and CCH prepare and implement an interim stormwater monitoring plan (the Interim Plan) as a supplement to WGSL's SWMRPP. EPA, WMH, and CCH have agreed to certain modifications to the requirements of the Interim Plan as specified by the Order.

As required by the Order (as modified), this Interim Plan is designed to:

- assess conditions at WGSL and the detention basin to determine if a discharge will occur during or following a representative storm event;
- sample and analyze stormwater discharges at WGSL's approved NPDES sampling location for up to four (4) separate representative storm events during the rainy season (November-March), if discharges from such representative storm events occur during normal landfill operating hours;
- visually assess receiving water conditions following a discharge from the detention basin or WGSL; and
- ensure all samples are analyzed consistent with the provisions of the existing General Permit for WGSL and applicable regulations.

Accordingly, WMH and CCH are submitting the following Interim Plan in fulfillment of Paragraph 12 of the Order, as modified by agreement of EPA, WMH, and CCH. Upon approval of this Interim Plan (or such subsequently modified plan as required by EPA), WMH will implement this Interim Plan until terminated in accordance with the Order.

This Interim Plan is intended to supplement the current SWMRPP. Except as expressly provided in this Interim Plan, the procedures and requirements in the SWMRPP shall continue to apply.

2.0 STORMWATER DISCHARGE AND SAMPLING LOCATION.

Storm water regulations require that storm water samples be collected from discharge points that drain industrial sites. Discharge points that drain only non-industrial areas (e.g.,

personnel parking lots or administrative buildings) need not be sampled, as long as there is no potential for storm water to come in contact with industrial processes or significant materials. The General Permit states that where two or more discharge points are expected to convey substantially similar storm water effluent, the facility may choose to monitor as few as one of those discharge points, provided that the discharge(s) monitored are representative of the overall storm water discharges from the facility.

By letter dated August 9, 2009, the Hawaii Department of Health (DOH) concurred with the location of WGSL's stormwater monitoring (designated as "Culvert Inlet") station located at the inlet to the highway culvert at the property boundary fronting on Farrington Highway. The Culvert Inlet sampling point represents the property boundary discharge point for surface water/stormwater flow generated at the WGSL (see Figure 2-4 of the SWPCP). Photo 1 identifies the location of the Culvert Inlet. The Inlet is, however, located downstream of the outlet of the Western Diversion System which has been recently completed and which will route surface water flows from uphill areas around the landfill without contacting the landfill's industrial activities.

Photo 1

In light of the completion of the Western Diversion System, WMH will be requesting approval from DOH to relocate the stormwater sampling location to the two discharge pipes that discharge stormwater from the detention basin before commingling with surface water flows from the Western Diversion System in the stilling basin immediately downstream of the detention basin. See Photos 1 and 4. (Since both pipes drain the same detention basin, WMH will seek approval to sample either outlet as the approved sampling point, depending on which outlet is actually discharging stormwater.) The two discharge pipes from the detention basin are designated as WGSL-DB01E and WGSL-DB01W where "W" denotes the western discharge point and "E" the eastern discharge point, as presented on Figure 2-5 of the SWPCP. Photo 2 identifies the location of WGSL-DB01E and WGSL-DB01W.

Photo 2

The detention basin discharge pipes are 42-inch diameter corrugated metal pipes (CMP) connected to a subsurface drainage layer underneath the detention basin. They are also connected to two vertical, 48-inch reinforced concrete pipe risers located in the detention pond at a reinforced concrete vault. The risers are reinforced concrete pipes with sloped trash racks at the pipe entrances. If storm water were to discharge from the detention basin, a storm water sample would be collected from one of the two discharge points – WGSL-DB01E or WGSL-DB01W – once DOH has approved this monitoring location.

After DOH approves WGSL-DB01E and WGSL-DB01W as monitoring locations, WMH will continue to visually observe the Culvert Inlet to determine whether any stormwater discharge occurs at the property line. During and after a representative storm event, such monitoring shall continue until discharges from WGSL-DB01E, WGSL-DB01W, and the outlet of the Western Diversion System stop flowing. If WMH observes stormwater discharging at the Culvert Inlet discharge point or from the Western Diversion System outfall, WMH will sample the discharges; however, these samples need not comply with the criteria for representative samples (i.e., grab sample within first 15 minutes) and will not be considered a representative stormwater sample for purposes of the General Permit.

3.0 ASSESSMENT OF REPRESENTATIVE STORMS AND LIKELIHOOD OF DISCHARGE.

Implementation of the sampling and analysis requirements for a discharge from a "representative storm," as defined by HAR § 11-55-1, necessarily requires that (1) a representative storm occurs, and (2) stormwater discharges from such representative storm actually occurs.[1] Both elements are required. For example, it is common that a representative storm (greater than 0.1" of rainfall accumulation after 72 hours without rain) will not result in any stormwater discharge at WGSL's stormwater monitoring locations. This can occur because of the ability of the WGSL soils to absorb significant quantities of rainfall (especially after extended dry conditions), the capacity of the upstream portion of the detention basin to retain stormwater, or the capacity of the recently-completed stilling basin to retain stormwater without discharging at the DOH-approved sampling point.

[1] Another requirement is that stormwater discharges occur during normal landfill operating hours and when it is safe to perform sampling. For example, EPA's Multi-Sector General Permit excuses stormwater sampling during adverse weather conditions, defined as conditions that "are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms ...."

Conversely, a discharge can occur yet not be considered a discharge from a representative storm because the discharge occurred less than 72 hours after the previous measureable (greater than 0.1" of accumulation) rainfall event.

This Interim Plan, therefore, specifies the following procedures for (1) assessing whether a representative storm is likely to occur, and (2) determining whether a stormwater discharge will occur.

3.1 WEATHER MONITORING

The Storm Water Sampling Coordinator assess whether a representative storm will occur in accordance with the procedures in Section 4.0 of the SWMRPP, which requires monitoring weather forecasts to determine whether more than 0.1 inches of rain is predicted and monitoring WGSL's on-site rain gauge to determine whether there has been an accumulation of more than 0.1 inches of rain in the 72 hours preceding the predicted storm.

3.2 DETENTION BASIN AND STILLING BASIN ASSESSMENT

The Storm Water Sampling Coordinator will also visually inspect the water levels in the detention basin to determine whether the basin will likely retain all stormwater without resulting in a discharge to the stilling basin. For example, the detention basin is divided by an internal berm such that the first portion of the detention basin can retain a significant amount of stormwater without flowing over the internal berm into the second portion of the detention basin. Photo 3 shows the internal berm within the detention basin.

Photo 3

Once stormwater overflows the detention basin's internal berm, stormwater can and will likely discharge from the detention basin through the two discharge points (WGSL-DB01E and WGSL-DB01W) to the stilling basin. Likewise, the stilling basin is constructed with a bottom of large irregular rocks and an internal culverted berm that may provide sufficient holding capacity to retain all stormwater from the detention basin and any other surface water flows (e.g., from the Western Diversion System) without discharging stormwater at the WGSL property boundary (Culvert Inlet). Photo 4 shows the stilling basin.

Photo 4

During a storm event, the Storm Water Sampling Coordinator will continue to periodically monitor the detention basin, the stilling basin, and flows through the WGSL stormwater system and through the Western Diversion System to determine if and when stormwater discharges will likely occur. In particular, the Storm Water Sampling Coordinator will monitor the stormwater level within the upper portion of the detention basin to determine when the water level will overtop the internal berm.

3.3 STORMWATER SAMPLING MOBILIZATION

The Storm Water Sampling Coordinator will coordinate the mobilization of stormwater sampling in accordance with Section 4.2 of the SWMRPP.

4.0 STORMWATER DISCHARGE SAMPLING AND ANALYSIS.

4.1 SAMPLING LOCATIONS

For purposes of compliance with WGSL's General Permit, WMH shall monitor and sample stormwater at the Culvert Inlet monitoring location approved by DOH, and at such other monitoring locations subsequently approved by DOH. As discussed above, WMH will be requesting approval to re-locate the General Permit sampling location from the Culvert Inlet to the detention basin sampling location WGSL-DB01E or WGSL-DB01W.

If DOH approves the re-location of the sampling location, WMH will continue to monitor and sample discharges (if any) from the Culvert Inlet if there are discharges at WGSL-DB01E or WGSL-DB01W.

4.2 SAMPLING FREQUENCY

WGSL's General Permit requires WMH to sample stormwater at least once per year. Pursuant to the Order, WMH will sample and analyze stormwater discharges at WGSL's DOH-approved NPDES sampling location for up to four (4) separate representative storm events during the rainy season (November-March), if discharges from such representative storm events occur during normal landfill operating hours. (Monday through Friday; 7:00 am – 4:30 pm).

5.0 MONITORING AND SAMPLING METHODOLOGY

Sampling and monitoring shall be conducted consistent with Section 5.0 of the SWMRPP.

6.0 ANALYTICAL METHODS

Except as stated herein, stormwater samples shall be analyzed pursuant to the analytical procedures specified in Section 6.0 of the SWMRPP. Stormwater samples shall be analyzed for the following parameters using the specified analytical methods:

Parameter	EPA Method Number
BOD	EPA 5210B
TSS	SM 2540D
COD	MCAWW 410.4 rev2
Total Phosphorus	MCAWW 365.1
Total Nitrogen	
Total Kjeldahl Nitrogen	MVAWW 351.2
NO_3+NO_2–N	MCAWW 353.2 rev2
Ammonia	MCAWW 350.1 rev2
Oil and Grease	EPA 1664A
pH	Field measurement
SVOCs	
Alpha Terpineol	40 CFR 136A 625
Benzoic Acid	
p-Cresol	
Phenol	
Pentachlorophenol	
Total Recoverable Metals	
Total Recoverable Zinc	EPA 200.7 Rev 4.4
Total Recoverable Iron	
Total Recoverable Arsenic	
Total Recoverable Cadmium	
Total Recoverable Chromium VI (see note)	EPA 7196A or EPA 218.6
Total Recoverable Lead	EPA 200.7 Rev 4.4
Total Recoverable Mercury	EPA 252.1
Total Recoverable Selenium	EPA 200.7 Rev 4.4
Total Recoverable Silver	

MCAWW Methods for Chemical Analysis of Water and Waste
SM Standard Method
Note: WMH is not aware of any laboratory on Oahu that uses Method 218.6. Method 218.6 cannot be used at a mainland laboratory because of the required maximum 24-hour holding time.

7.0 QUALITY ASSURANCE

Stormwater sampling and analysis shall be performed consistent with the Quality Assurance requirements in Section 7.0 of the SWMRPP.

8.0 REPORTING REQUIREMENTS

During the rainy season (November-March), WMH shall submit monthly reports of all sampling and analysis required pursuant to this Interim Plan on or before the 30th day of the month following the reporting month. Such reports shall identify all days that discharges from the detention basin occurred during the preceding calendar month, whether representative sampling and analysis of the discharges occurred, and the results of the analysis. If no discharges occurred during the month being reported, the report shall so certify.

All monthly reports required by this Interim Plan shall be signed by a duly authorized representative of WMH or CCH and shall include the following statement:

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to 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, I certify that 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.

All submittals shall be mailed to the following addresses:

U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105
Attn: Lawrence Torres (WTR-7)

Hawaii Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, HI 96801-3378
Attn: Mike Tsuji

9.0 CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to 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, I certify that 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.

By: _____
Name: Joseph Whelan
Title: General Manager

Date: _____