

NEIL ABERCROMBIE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

GLENN M. OKIMOTO
DIRECTOR
Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:

HWY-OW
2.13-0635

May 16, 2013

TO: THE HONORABLE LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

ATTN: ALEC WONG, P.E., CHIEF
CLEAN WATER BRANCH

FROM: GLENN M. OKIMOTO, Ph.D. *Glenn Okimoto*
DIRECTOR OF TRANSPORTATION

SUBJECT: REQUEST FOR SCHEDULES OF COMPLIANCE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4),
ISLAND OF OAHU, HAWAII
NPDES PERMIT NO. HI S000001

Based on the reduction goals and a compliance deadline of the effective date of the permit verified in a May 6, 2013 email between the State of Hawaii Department of Health, Clean Water Branch and the State of Hawaii Department of Transportation, Highways Division (DOT-HWYS), DOT-HWYS is requesting schedules of compliance for the Ala Wai Canal, Kawa Stream, Waimanalo Stream, Kapaa Stream, and Kaneohe Stream Watersheds. Please find our proposed schedules of compliance, complete with interim milestones, attached.

Should you have any further questions, please contact Mr. Kelly Lee Sato at (808) 483-2569.

Att(s).

bc: DIR (w/o attachments)
HWY-OW
DIR-CZ
HWY-O

KLS:yh

EXHIBIT I

Attachment:
**DOT-HWYS Proposed Schedule of
Compliance**

DOT-HWYS Schedules of Compliance Submittal

The State of Hawaii Department of Transportation, Highways Division (DOT-HWYS) herein provides information for use by State of Hawaii Department of Health (DOH) to establish compliance schedules for the Kawa, Kapaa, Ala Wai, Waimanalo and Kaneohe watersheds. Please note that the submitted information is based on the reduction goals and methodology for documenting reductions agreed upon by DOT-HWYS and DOH during our recent discussions. These reduction goals for total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS) are summarized below:

Kapaa Stream Watershed

The following is DOT-HWYS' required seasonal reductions to demonstrate consistency with the assumptions of the Kapaa Stream Watershed total maximum daily load (TMDL) report. These reductions are the 10% runoff reduction masses for dry and wet seasons¹, as provided in the Kapaa TMDL Tables 6-10 and 6-11:

Dry Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
0.2	0.0	0.0	0.3	0.0	0.0	0.0	5	0.0	4	0.0	6

Wet Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
17	0.2	0.1	23	0.2	0.2	6	27	0.1	28	0.1	60

Kaneohe Stream Watershed

The following is DOT-HWYS' required seasonal reductions to demonstrate consistency with the assumptions of the Kaneohe Stream Watershed TMDL report. These reductions are the 10% runoff reduction masses for dry and wet seasons, as provided in the Kaneohe TMDL Tables 5-10 and 5-11:

¹ Per Hawaii Administrative Rules (HAR) §11-54-5.2(b), wet season is defined as November 1 – April 30, dry season is defined as May 1 – October 31

Dry Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
65	1.07	0.33	65	1.11	0.36	0	0	0.04	4	0.04	10

Wet Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
273	4.21	1.25	273	4.94	1.57	0	0	0.73	15	0.32	20

Kawa Stream Watershed

The following is DOT-HWYS' required annual reductions to demonstrate consistency with the assumptions of the Kawa Stream Watershed TMDL report. These are the reduction masses as provided in the Kawa TMDL Table 10.1:

Existing Loads (kg/yr)			Reductions					
TSS	TN	TP	TSS		TN		TP	
			(kg/yr)	(%)	(kg/yr)	(%)	(kg/yr)	(%)
3,310	53	9	1,276	39	35	66	5	56

Ala Wai Canal Watershed

The Ala Wai Canal TMDL did not explicitly assign numerical WLAs to DOT-HWYS. Instead the TMDL estimated a combined load reduction to be implemented by the City and County of Honolulu and DOT-HWYS.

Table 8 in the Ala Wai TMDL (reproduced in part below) requires a 65% reduction of existing load for TN and a 50% reduction of existing load for TP in the Urban source wasteload allocation for the City and County of Honolulu and DOT-HWYS. Based on the waste load allocations of 6 kg/day of TN and 4 kg/day of TP, the annual urban land use reductions for TN and TP are 4066 kg/yr and 1460 kg/yr, respectively.

From TMDL Table 8: TMDLs, Wasteload Allocations for Urban Land Use for Ala Wai Canal Watershed

Pollutant	Est. Load (kg/day)	% total load	Allocations (kg/day)	% reduction needed
TN	6 – 26	10 - 33%	6	65
TP	6 – 10	35 - 48%	4	50

Of the 5,573 acres of Urban Lands identified in the TMDL, DOT-HWYS owns 101 acres of right-of-way (ROW) and has 18 acres of permitted connections contributing to their MS4. Therefore DOT-HWYS' annual load reduction requirements are 2.13% (119 acres DOT HWYS / 5,573 acres Urban Lands) of the annual load reduction requirement for Urban Lands within Ala Wai Canal Watershed:

TN: 87 kg/yr

TP: 31 kg/yr

Waimanalo Stream Watershed

The Waimanalo Stream TMDL did not establish WLAs; instead the TMDL suggested specific BMPs that could be implemented. DOT-HWYS included all of the suggested specific BMPs in its Implementation and Monitoring Plan (submitted November 3, 2008), and has completed implementation of these BMPs in the Implementation and Monitoring Plan. Therefore, DOT-HWYS is presently in compliance with the Waimanalo Stream TMDL, consistent with the assumption included in the TMDL.

Nonetheless, DOH has calculated numeric load reduction requirements for DOT-HWYS in this watershed based on the original sample data utilized to prepare the TMDL. DOH determined that no reduction is required for suspended solids in stormwater discharges from DOT-HWYS municipal separate storm sewer system (MS4), and the following seasonal reductions are required for TN and TP:

	TN (kg/season)	TP (kg/season)
Dry season required reductions	1.71	0.06
Wet season required reductions	1.71	0.06

Method to Demonstrate Compliance

DOT-HWYS will continue to track and record the quantity of pollutants removed by operational and permanent BMPs and other BMPs as appropriate. DOT-HWYS will use this data to calculate annual and seasonal pollutant reductions to track progress towards the required load reductions as established above.

The suggested schedules of compliance provided are based on these reduction requirements and methodology for demonstrating consistency with the assumptions of the TMDL documents. If the reduction requirements and/or methodology for demonstrating consistency must be revised, the schedules will need to be revisited to be consistent with the assumptions used in the schedule development.

Description of Key Compliance Schedule Milestones

Debris Control Assessment Study

Capturing and removing pollutants in the DOT-HWYS ROW and MS4 is the most effective method of reducing pollutant loads in discharges from the MS4. The Debris Control Assessment Study has two primary goals:

1. To improve the quality of pollutant removal data collected through debris control activities from the DOT-HWYS' ROW and MS4.
2. To assess pollutant removal rates at different cleaning frequencies to allow DOT-HWYS to predict changes in total pollutant removal that can be expected with increased or decreased cleaning frequency, and to perform cost-benefit analysis of changes in cleaning frequency.

Ideally the Debris Control Assessment Study would include data collection from four years or more as other researchers have done to reduce the uncertainty in the results caused by variations in seasonal and annual rainfall totals, intensity and seasonality. Because of the limited time available, the Debris Control Assessment Study will be limited to two years of data collection initially, and the results evaluated and a determination made if additional data collection would be beneficial.

WLA Completion Report

The purpose of the WLA Completion Report (in Year 7 for Kawa Stream Watershed and in Year 5 for all other TMDLs) is to re-assess the compliance strategy and calculations included in the WLA Implementation and Monitoring Plan based on the results of the Debris Control Assessment Study Report and/or implementation of permanent BMPs. The WLA Completion Report will conclude with confidence that the existing and planned operational and structural BMPs as described in the WLA Implementation and Monitoring Plan are sufficient to demonstrate consistency with assigned WLAs.

Part F.3.c. TMDL Schedules of Compliance – The Permittee is required to comply with the following:

Part F.3.c.(1) Ala Wai Canal Watershed

Due No Later Than:	Milestone/Deliverable
0.5 Years After Effective Date of Permit (EDOP)	Debris Cleaning Assessment (DCA): Finalize DCA Plan Necessary Permanent Best Management Practices (PBMPs): Request project funding
1 Year After EDOP	Finalize Implementation & Monitoring Plan DCA: Commence DCA Data Collection
2 Years After EDOP	DCA: Interim DCA Data Collection Report PBMP: Finalize Plans, Specifications and Estimates (PS&E)
3 Years After EDOP	DCA: Complete DCA Data Collection PBMP: Advertise / bid opening / award
4 Years After EDOP	DCA: Complete Analysis of DCA Data PBMP: Commence construction
5 Years After EDOP	Finalize WLA Completion Report PBMP: Complete construction

Part F.3.c.(2) Kawa Stream Watershed

Due No Later Than:	Milestone/Deliverable
0.5 Year After EDOP	DCA: Finalize DCA Plan PBMPs: Request project funding
1 Years After EDOP	Finalize Implementation & Monitoring Plan DCA: Commence DCA Data Collection PBMPs: Finalize PS&E
2 Years After EDOP	DCA: Interim DCA Data Collection Report PBMP: Advertise / bid opening / award
3 Years After EDOP	DCA: Complete DCA Data Collection PBMP: Commence construction
4 Years After EDOP	DCA: Complete Analysis of DCA Data PBMP: Complete construction
5 Years After EDOP	PBMP: Commence performance monitoring
6 Years After EDOP	PBMP: Complete performance monitoring
7 Years After EDOP	Finalize WLA Completion Report

Part F.3.c.(3) Kapaa Stream Watershed

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	Finalize DCA Plan
1 Year After EDOP	Finalize Implementation & Monitoring Plan Commence DCA Data Collection
2 Years After EDOP	Interim DCA Data Collection Report
3 Years After EDOP	Complete DCA Data Collection
4 Years After EDOP	Complete Analysis of DCA Data
5 Years After EDOP	Finalize WLA Completion Report

Part F.3.c.(4) Kaneohe Stream Watershed

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	Finalize DCA Plan
1 Year After EDOP	Finalize Implementation & Monitoring Plan Commence DCA Data Collection
2 Years After EDOP	Interim DCA Data Collection Report
3 Years After EDOP	Complete DCA Data Collection
4 Years After EDOP	Complete Analysis of DCA Data
5 Years After EDOP	Finalize WLA Completion Report

Part F.3.c.(5) Waimanalo Stream Watershed

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	Finalize DCA Plan
1 Year After EDOP	Finalize Implementation & Monitoring Plan Commence DCA Data Collection
2 Years After EDOP	Interim DCA Data Collection Report
3 Years After EDOP	Complete DCA Data Collection
4 Years After EDOP	Complete Analysis of DCA Data
5 Years After EDOP	Finalize WLA Completion Report

deficiencies shall be corrected or addressed as soon as possible, but in no event later than five (5) calendar days after the inspection at which the deficiency is identified or before the next forecasted precipitation, whichever is sooner.

- (iii) All construction projects with a Permit to Perform Work Upon State Highways, connection permit, encroachment permit, or discharge of surface runoff permit/approval shall be inspected at least once annually or once during the life of the project, whichever comes first, by a qualified construction inspector who is independent (i.e., not involved in the day-to-day planning, design, or implementation) of the construction projects to be inspected. The Permittee may use more than one (1) qualified construction inspector for these inspections. If the project has a site-specific BMP Plan or other equivalent document(s), the inspection shall also verify that the BMPs were properly installed and at the locations specified in the Plan. The reporting procedures shall include, at a minimum, notification of any critical deficiencies to the DOH.
- (iv) Develop and implement a standard inspection form(s) and reporting and corrective procedures for inspections, including use of an inspection checklist, or equivalent, and the Permittee shall track inspection results in a database or equivalent system. The inspection checklist shall, include at a minimum, but not be limited to identifying any deficiencies and the date of the corrective actions. A site map shall accompany the inspection checklist, which notes the locations of the deficiencies. The inspection form(s), inspection checklist, reporting and corrective procedures shall be submitted to DOH for review and acceptance within 90 calendar days of the effective date of this permit.

Part D.1.d.(5) Enforcement – Within one (1) year of the effective date of this permit, the Permittee shall:

- (i) Establish policies for enforcement and rules for penalties for those in non-compliance with Part D.1.d.(1) requiring the implementation of standards, and
- (ii) Develop and implement an Enforcement Response Plan to include written procedures for appropriate corrective and enforcement actions, and follow-up inspections when an

inspected project is not in full compliance with its requirements, other DOT-HWYS permits, and any other applicable requirements under the NPDES permit program.

- Part D.1.d.(6) *Process to refer noncompliance and non-filers to DOH* - In the event the Permittee has exhausted its use of sanctions and cannot bring a construction site or construction operator into compliance with its policies, standards, or this permit, or otherwise deems the site to pose an immediate and significant threat to water quality, the Permittee shall provide e-mail notification to cleanwaterbranch@doh.hawaii.gov, Attn: Enforcement Section Supervisor within one (1) week of such determination. E-mail notification shall be followed by written notification in accordance with Part A.6. and include a copy of all inspection checklists, notes, and related correspondence in pdf format (300 minimum dpi) within two (2) weeks of the determination. In instances where an inspector identifies a site that has not applied for permit coverage under the NPDES permit program, the Permittee shall provide written notification in accordance with Part A.6. to DOH within two (2) weeks of the discovery.
- Part D.1.d.(7) *Training* - The Permittee shall provide annual training on the Construction BMPs Program Plan to all DOT-HWYS staff with construction storm water responsibilities, including construction engineers, maintenance staff, and plan reviewers. This training shall be specific to DOT-HWYS activities (including the proper installation and maintenance of approved BMPs), policies, rules and procedures.
- Part D.1.d.(8) *Education* - The Permittee shall implement an education program as part of its ongoing SWMP to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the storm water requirements they need to implement.

Part D.1.e. Post-Construction Storm Water Management in New Development and Redevelopment

The Permittee shall further develop, implement, and enforce a program to address storm water runoff from all (i.e., both private and public) new development and redevelopment projects that result in a land disturbance of one (1) acre or more and smaller projects that have the potential to discharge pollutants to the DOT-HWYS' MS4. The Permittee's program must ensure that permanent controls are in place to prevent or minimize water quality impacts to the MEP. Review and update as necessary the criteria defining when and the types of permanent post-construction BMPs, including among other things LID techniques, must be included in a project design to address storm water impacts and pollutants of concern. For State waters on the State CWA Section 303(d) list or State established and EPA approved TMDLs, the pollutants of concern to be targeted shall include the parameters causing impairment. Consideration shall also be provided for trash reduction techniques as to comply with its short and long term plans as required in Section D.1.(f)(1)(v). The program shall include, at a minimum, the following elements:

- Part D.1.e.(1) *Standards Revision* – The Permittee shall revise its standards for addressing post-construction BMPs to include Low Impact Development (LID) requirements. Within six (6) months of the effective date of this permit, the Permittee shall submit to DOH for review and acceptance, a plan for requiring LID in the standards to the MEP, including revision to the plan review and inspection checklist to include LID. LID refers to storm water management practices which seek to mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating storm water runoff close to its source. The standards shall be applicable to all construction projects disturbing at least one (1) acre and smaller projects that have the potential to discharge pollutants to the DOT-HWYS' MS4. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats storm water as a resource, rather than a waste product. LID treatment measures include harvesting and use, infiltration, evapotranspiration, or biotreatment. The plan for the implementation of LID provisions in the DOT-HWYS' standards shall include at a minimum the following:

- Criteria for requiring implementation.
- Investigation into the development of quantitative criteria for a specific design storm to be managed by LID techniques. Examples of design storm requirements include: 24-hour, 85% storm through infiltration; on-site management of the first inch of rainfall within a 24-hour period; retention of the 100-year, 2-hour storm; or on-site management of the 24-hour, 95% storm.
- Feasibility criteria for circumstances in which a waiver could be granted for the LID requirements.
- When a LID waiver is granted, alternatives such as offsite mitigation and/or non-LID treatment control BMPs could be required.

A draft of the revised Standards shall be submitted to the DOH in accordance with Part A.6. for review and acceptance within 12 months after the effective date of this permit and include at a minimum the above. Within 18 months after the effective date of this permit, subject to adoption by rulemaking or other equivalent process, the revised Standards shall be submitted to the DOH in accordance with Part A.6. To the extent that the revised Standards have not been adopted, the Permittee shall submit a compliance schedule for adoption, which shall not exceed 24 months after the effective date of this permit.

Part D.1.e.(2) *Review of Plans for Post-Construction BMPs* – For design-bid- build projects, the Permittee shall not advertise any construction project nor award any construction contract until the project design has been reviewed and approved to ensure that appropriate permanent post-construction BMPs, which include LID practices upon adoption into its Standards, have been included in the project design and are included in the bid package to ensure compliance with this part of the permit. For design-build projects, the Permittee shall review and approve the project design the same as for design-bid-build projects prior to implementation. No project shall proceed without the inclusion of appropriate permanent post-construction BMPs unless a waiver is granted by DOT-HWYS based on specific documentation demonstrating that such post-construction BMPs are not feasible. Project documents for projects that will include installation of permanent post-construction BMPs shall also include appropriate requirements for their future continued maintenance.

Part D.1.e.(3) *BMP, Operation and Maintenance, and Inspection Database* - The Permittee shall implement its Asset Management System to track the frequency of inspections and maintenance of the Permanent BMPs. In addition to the standard information collected for all projects (e.g., project name, owner, location, start/end date, etc.), the database shall also include, at a minimum:

- Type and number of LID practices
- Type and number of Source Control BMPs
- Type and number of Treatment Control BMPs
- Latitude/Longitude coordinates of controls using Global Positioning Systems (GPS) and NAD83 or other Datum as long as the datum remains consistent
- Photographs of controls
- Operation and maintenance requirements
- Frequency of inspections
- Frequency of maintenance

Part D.1.e.(4) *Education and Training*

- (i) *Project Proponents* - The Permittee shall provide education and outreach material for those parties who apply for DOT permits (i.e., developers, engineers, architects, consultants, construction contractors, excavators, and property owners) on the selection, design, installation, operation and maintenance of storm water BMPs, structural controls, post construction BMPs, and LID practices. The outreach material may include a simplified flowchart for thresholds triggering permits and requirements, a list of required permits, implementing agencies, fees, overviews, timelines and a brief discussion of potential environmental impacts associated with storm water runoff.
- (ii) *Inspectors* - All Permittee staff and those contractors under DOT-HWYS contract responsible for inspecting permanent *post-construction* BMPs and LID practices shall receive annual training.

Part D.1.f. Pollution Prevention/Good Housekeeping

The Permittee shall further develop and implement a system maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, baseyards, maintenance facilities, and the DOT-HWYS' MS4. The program shall include:

Part D.1.f.(1) Debris Control BMPs Program Plan

- (i) *Asset Management System and Mapping* - The Permittee shall implement a comprehensive Asset Management System and map of its MS4, including structural and vegetative BMPs; and inventory of related appurtenances including maintenance equipment, to ensure appropriate debris removal and system maintenance. The asset management system shall, at a minimum, assign an identification number for each drain inlet, outfall, and BMPs, and map their location on the Geographic Information System (GIS). The Permittee shall use this asset management system to establish priorities and to schedule and track efforts of appropriate system maintenance and debris removal program activities such as street sweeping, catch basin cleaning, and green waste and accumulated soil removal. The asset management system shall include justification of its priorities on the basis of potential impacts to water quality.
- (ii) *Inspection/Maintenance Schedule* - The Permittee shall include in its SWMP procedures and a schedule for inspections of:
 - a) All state highways on Oahu for the purpose of identifying if sweeping of roadways, shoulders, and/or medians is needed; and
 - b) All state highway storm drainage system catch basins, gutters and open ditches, trenches, and BMPs on Oahu for the purpose of identifying if maintenance/cleaning of such structures are needed.

In both cases, the need for sweeping and/or maintenance/cleaning shall, at a minimum, be determined based upon material accumulation rates and/or potential threat of discharge to State waters that may have an effect on water quality. The schedule shall provide that each highway mile, storm

drainage feature, and BMP is inspected at least once during the term of this permit (maintenance/cleaning may be conducted in lieu of inspections to satisfy this requirement). The adopted procedures shall provide for the identification of highway segments and their associated storm drainage features and BMPs that may require more frequent sweeping and/or structure cleaning based upon material accumulation rates and potential threat of discharge to State waters that may have an effect on water quality. The procedures shall establish debris accumulation thresholds above which sweeping and/or structure cleaning must occur. The priority-based schedule shall be annually reviewed; updated as necessary; and the changes, along with explanations of the changes submitted within the Annual Report.

- (iii) *Storm Drain Placards* - The Permittee shall evaluate the effectiveness of its placards and revise it as necessary to meet its purpose. The purpose of the placards shall be discussed within the SWMP. A minimum of 75 new placards shall be installed per year. *Priority shall be given to the Permittee's highways in industrial and commercial areas and areas with pedestrian traffic.* The Permittee shall implement its system to track placement of placards and procedures for maintenance staff to inspect and replace, as necessary, placards during routine maintenance activities.
- (iv) *Action Plan for Retrofitting Structural BMPs* - Provide the DOH with an *Action Plan* for Retrofitting Structural BMPs within one (1) year of the effective date of this permit, which shall identify retrofits to be implemented, explanation on the basis for their selection and an implementation schedule. The implementation schedule shall cover a five (5) year period and be updated yearly to include additional retrofit projects with water quality protection measures for the 5th year of the schedule. The annual updates to the implementation schedule shall be included in the Annual Report with a description of the projects status. The Action Plan may include, but not be limited to projects in compliance with any TMDL implementation and monitoring plan.
- (v) *Trash Reduction Plan* - Within 12 months of the effective date of this permit, the Permittee shall develop and submit to DOH for review and acceptance, a trash reduction plan which assesses the issue, identifies and implements control measures, and

monitor these activities to *reduce* trash loads from the MS4. The plan shall include, at a minimum and be formatted consistent with the following:

- Quantitative estimate of the debris currently being discharged (baseline load) from the MS4, including methodology used to determine the load.
- Description of control measures currently being implemented as well as those needed to reduce debris discharges from the MS4 consistent with short-term and long-term reduction targets.
- A short-term plan and proposed compliance deadline for reducing debris discharges from the MS4 by 50% from the baseline load.
- A long-term plan and proposed compliance deadline for reducing debris discharges from the MS4 to zero.
- Geographical targets for trash reduction activities with priority on waterbodies listed as impaired for trash on the State's CWA Section 303(d) list.
- Trash reduction-related education activities as a component of Part D.1.a.
- Integration of control measures, education and monitoring to measure progress toward reducing trash discharges.
- An implementation schedule.
- Monitoring plan to aid with source identification and loading patterns as well as measuring progress in reducing the debris discharges from the MS4.
- The Annual Report shall include a summary of its trash load reduction actions (control measures and best management practices) including the types of actions and levels of implementation, the total trash loads and dominant types of trash removed by its actions, and the total trash loads and dominant types of trash for each type of action.

The plan shall provide for compliance with the above short-term and long-term discharge limits in the shortest practicable timeframe.

Part D.1.f.(2) Chemical Applications BMPs Program Plan

- (i) *Training* - The Permittee shall develop an Authorized Use List of the chemicals DOT-HWYS uses and implement a specific training program for all potential applicators (bulk and hand-held) of the chemicals (e.g., fertilizers, pesticides, and herbicides) in its proper application. The Permittee shall not permit the application of fertilizers, pesticides, or herbicides unless the applicator has first received this training.

- (ii) *Implement appropriate requirements for pesticide, herbicide, and fertilizer applications* - The Permittee shall implement BMPs to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal areas and activities to its MS4. Municipal areas and activities include, at a minimum, municipal facilities, public right-of-ways, and landscaped areas.

Such BMPs shall include, at a minimum: (1) educational activities, permits, certifications and other measures for municipal applicators; (2) integrated pest management measures that rely on non-chemical solutions; (3) the use of native vegetation; (4) chemical application, as needed; and (5) the collection and proper disposal of unused pesticides, herbicides, and fertilizers.

The Permittee shall ensure that their employees or contractors or employees of contractors applying registered pesticides, herbicides, and fertilizers shall work under the direction of a certified applicator, follow the pesticide label, and comply with any other State, City, or government regulations for pesticides, herbicides, and fertilizers. All Permittee employees or contractors applying pesticides, herbicides or fertilizers shall receive training on the BMPs annually.

Part D.1.f.(3) Erosion Control BMPs Program Plan - The Permittee shall:

- (i) Implement permanent erosion control improvements, ensuring that erosional areas with the potential for significant water quality impact, but with limited public safety concerns, are also considered a high priority for remediation. Identification of erosional areas with the potential for significant water quality impact shall include areas where there is evidence of rilling, gullyng, and/or other evidence of significant sediment transport,

and areas in close proximity to receiving waters listed as impaired by either sediment, siltation and/or turbidity. The Permittee shall include procedures to identify and implement erosion control projects based on water quality concerns while continuing to address high profile public safety projects.

- (ii) Require the implementation of temporary erosion control measures (e.g., erosion control blankets and/or fabrics, gravel bag placement and silt fencing/fiber rolls) on erosional areas within DOT-HWYS right-of-ways with the potential for significant water quality impact if a permanent solution is not immediately possible. Notwithstanding any other implementation provisions, the SWMP shall require the implementation of such temporary erosion control measures on all applicable areas within 18 months of the effective date of this permit. For projects which require a CWA Section 401 Water Quality Certification (WQC), the WQC application shall be submitted to DOH within one (1) year of the effective date of this permit and be implemented with six (6) months of the WQC or other regulatory permit(s) issuance date.
- (iii) Develop a maintenance plan for vegetated portions of the drainage system used for erosion and sediment control, and LID features; including controlling any excessive clearing/removal, cutting of vegetation, and application of herbicide which affects its usefulness.
- (iv) Provide the DOH with an Action Plan to address erosion at its storm drain system outlets with significant potential for water quality impacts to be completed within one (1) year of the effective date of this permit, which shall identify outfalls to be addressed, explanation on the basis for their selection and an implementation schedule. The implementation schedule shall cover a five (5) year period. An annual status report on the implementation schedule shall be included in the Annual Report. The Permittee shall install velocity dissipators or other BMPs to reduce erosion at locations identified by the Islandwide Retrofit Study or through its periodic required inspections. The Action Plan may include, but not be limited to projects in compliance with any TMDL I&M Plan.
- (v) Submit a list of projects and an implementation schedule for permanent erosion control improvements as described in

Part D.1.f.(3)(i) of this permit shall be submitted to DOH within one (1) year from the effective date of this permit.

Part D.1.f.(4) Maintenance Activities BMPs Program Plan

- (i) *BMPs and Field Manual for municipal maintenance activities* - The Permittee shall implement the BMPs as identified in the field manual titled "Maintenance Activities Best Management Practices Field Manual" (Field Manual) for all municipal maintenance activities. Examples of such activities include, but are not limited to: paving and road repairs, street cleaning, saw cutting, concrete work, curb and gutter replacement, buried utility repairs and installation, vegetation removal, painting and paving, debris and trash removal, spill cleanup, etc. The Field Manual shall be updated as necessary or at least once per permit term and include written procedures to minimize pollutant discharge for maintenance activities which have the potential to discharge pollutants to its MS4.
- (ii) *Training* - The Permittee shall further develop and provide annual training to staff on proper municipal maintenance activities to prevent storm water pollution. The training shall cover the Field Manual, identify potential sources of pollution, general BMPs that can be used to reduce and/or eliminate such sources, and specific BMPs for their activities. The training shall incorporate components of the public education campaign and educate staff that they serve a role in protecting water quality. Staff shall be made aware of the NPDES permit, the overall SWMP, and the applicable BMPs Program(s).

Part D.1.f.(5) Storm Water Pollution Control for Flood Control Projects

Pump Station - The Permittee shall implement the flood control project activities described in its ongoing SWMP, including monthly inspection and maintenance of the Interstate H-1 Punahou Pump Station.

Part D.1.g. Industrial and Commercial Activities Discharge Management Program

The Permittee shall develop and implement an industrial and commercial discharge management program to reduce to the MEP the discharge of pollutants from all industrial and commercial facilities and activities which initially discharge into the Permittee's MS4. At a minimum, the program shall include:

Part D.1.g.(1) *Requirement to Implement BMPs* - Require a permit or written equivalent approval for drainage connections and discharge of surface runoff into the MS4 and maintain a database of the permits/approvals. The permit/approval shall obligate the facility to implement BMPs.

Part D.1.g.(2) *Inventory and Map of Industrial Facilities and Activities* - The Permittee shall update and submit, in electronic portable document format (pdf - minimum 300 dpi), the industrial facilities and activities inventory (industrial inventory), sorted by TMK, and map of such facilities and activities discharging, directly or indirectly, to its MS4 within its 4th Annual Report. The industrial inventory update may be based on the following:

- Findings from the Storm Water Questionnaire Survey of Parcels Adjacent to Highway Rights-of-Way (Questionnaire Survey);
- Available information about parcel owners from the City and the State; and/or
- Collection of new information obtained during field activities or through other readily available intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer hook-up permits).

The industrial inventory shall include the facility name, street address, TMK, nature of business or activity, Standard Industrial Classification (SIC) code(s) that best reflect the facility product or service, principal storm water contact, receiving State water, and whether an NGPC under HAR, Chapter 11-55, Appendix B, NPDES General Permit Authorizing the Discharge of Storm Water Associated with Industrial Activities (General Industrial Storm Water permit) or any other applicable NPDES permit has been obtained, including a permit or file number and issuance date.

At a minimum, the industrial inventory shall include facilities and activities such as:

- Municipal Landfills (open and closed)
- Hazardous waste recovery, treatment, storage and disposal facilities
- Facilities subject to Section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023
- Findings from follow-up investigations of the industrial facilities identified in the Questionnaire Survey
- Facilities subject to NPDES permit coverage which are adjacent to the DOT-HWYS right-of-way or discharge to the MS4
- And any other industrial facility that either the Permittee or DOH determines is contributing a substantial pollutant loading to the DOT-HWYS MS4.

Part D.1.g.(3) *Inventory and Map of Commercial Facilities and Activities* - The Permittee shall update and submit, in pdf format (minimum 300 dpi), the commercial facilities and activities inventory (commercial inventory), sorted by priority areas, and map of such facilities and activities discharging, directly or indirectly, to its MS4 within its 4th Annual Report. The commercial inventory update may be based on the following:

- Findings from the Questionnaire Survey;
- Available information about parcel owners from the City and the State; and/or
- Collection of new information obtained during field activities or through other readily available intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer hook-up permits).

The commercial inventory shall include, by priority area, the facility name, street address, TMK, nature of business or activity, SIC code(s) that best reflect the facility product(s) or service(s), principal storm water contact, and receiving State water.

At a minimum, the commercial inventory shall include facilities and activities such as:

- Findings from investigations of the commercial facilities identified in the Questionnaire Survey
- Retail Gasoline Outlets
- Retail Automotive Services, including Repair Facilities

- Restaurants
- Any other commercial facility that either the Permittee or DOH determines is contributing pollutants to the DOT-HWYS MS4 that may cause or contribute to an exceedance of State water quality standards.

Part D.1.g.(4) *Prioritized Areas for Industrial and Commercial Facility and Activity Inspections* - The Permittee shall implement the Prioritized Areas for Industrial and Commercial Facility and Activity Plan (refer to the SWMP Plan, Appendix L.2). Under that Plan, the Permittee is to designate priority areas for industrial and commercial facility and activity inspections, based on the relative risk that any discharge might be contaminated with pollutants.

Within 60 calendar days of the effective date of this permit, the Permittee shall submit a status report to DOH. The status report shall identify the numbers of industrial and commercial facilities discharging into the Oahu MS4 and the number of inspections that have been completed during the prior permit term. The status report shall be organized by priority area. On an annual basis, the Permittee shall modify the Plan based on updated information from its industrial and commercial inventory, findings from previous inspections, the number of industrial and commercial facilities in the area, the density of these facilities, previous storm water violations in the area, and water quality impairments in the area. The modified Plan shall set a schedule that ensures inspections will be completed in accordance with the schedule in Part D.1.g.(4). This Plan shall be submitted with the Permittee's annual report.

Part D.1.g.(5) *Inspection of Industrial and Commercial Facilities and Activities* - The industrial/commercial inspection program shall be implemented and updated as appropriate to reflect the outcomes of the investigations.

The Permittee shall ensure industrial and commercial facilities and activities identified in the industrial and commercial inventories required under Parts D.1.g.(1) and D.1.g.(2) are inspected and re-inspected as often as necessary based on its findings to ensure corrective action were taken and the deficiency resolved.

At a minimum, the Permittee shall inspect each industrial facility that does not have NPDES permit coverage under the NPDES permit

program at least twice every five (5) years, and each industrial facility that does have such NPDES permit coverage at least once every five (5) years. Any industrial facility discharging Industrial Storm Water (as defined by 40 C.F.R. Part 122.26(b)(14)) that does not have NPDES Permit coverage shall be reported to DOH within 30 calendar days of the inspection. Commercial dischargers are to be ranked according to relative risk of discharge of contaminated runoff to the DOT-HWYS MS4. The highly ranked commercial facilities shall be inspected at least once every five (5) years.

All inspections shall be in accordance with the applicable portions (e.g., Chapter 11 – Storm Water) of the "NPDES Compliance Inspection Manual" (EPA 305-X-04-001), dated July 2004. Inspectors shall be trained to identify deficiencies, assess potential impacts to receiving waters, evaluate the appropriateness and effectiveness of deployed BMPs, and require controls to prevent discharge of pollutants to the DOT-HWYS MS4. The inspectors shall use an inspection checklist, or equivalent, and photographs to document site conditions and BMP conditions. Records of all inspections shall be maintained for a minimum of five (5) years, or as otherwise indicated.

The Permittee shall submit semi-annual inspection report(s) to the DOH by October 31st and April 30th for inspections done within the previous period.

Part D.1.g.(6) *Storm Water Pollution Control Plan (SWPCP) Review and Approval for Industrial Facilities* - Prior to SWPCP approval, the Permittee shall:

- (i) Verify the facility owner has received NPDES permit coverage for the discharge of storm water associated with industrial activity or provided proof of filing an NOI, or NPDES application; and
- (ii) A Site-Specific Storm Water Pollution Control Plan (SWPCP) or other plans relating to pollution prevention or similar document(s) have been reviewed and approved by DOT-HWYS.

Part D.1.g.(7) *Enforcement Policy for Industrial Facilities and Activities* - Within one (1) year of the effective date of this permit, the Permittee shall establish and implement its own polices for enforcement and rules for penalties for industrial or commercial facilities which have failed to comply. The policy shall be part of an overall escalating enforcement policy and must consist of the following:

- Conducting inspections.
- Issuance of written documentation to a facility representative within 30 calendar days of storm water deficiencies identified during inspection. Documentation must include copies of all field notes, correspondence, photographs, and sampling results if applicable.
- A timeline for correction of the deficiencies.
- Provisions for re-inspection and pursuing enforcement actions, if necessary.

In the event the Permittee has exhausted all available sanctions and cannot bring a facility or activity into compliance with its rules and this permit, or otherwise deems the facility or activity an immediate and significant threat to water quality, the Permittee shall provide e-mail notification to cleanwaterbranch@doh.hawaii.gov, Attn: Enforcement Section Supervisor within one (1) week of such determination. E-mail notification shall be followed by written notification and include a copy of all inspection checklists, notes, photographs, and related correspondence in pdf format (300 minimum dpi) in accordance with Part A.6. within two (2) weeks of the determination. In instances where an inspector identifies a facility that has not applied for the General Industrial Storm Water permit coverage or any other applicable NPDES permit, the Permittee shall provide email notification to DOH within one (1) week of such determination.

Part D.1.g.(8) *Training* - The Permittee shall provide training to staff on how to conduct industrial and commercial inspections, the types of facilities covered by the *General* Industrial Storm Water permit coverage or any other applicable NPDES permit, components in a SWPCP for industrial facilities, BMPs and source control measures for industrial and commercial facilities, and inspection and enforcement techniques. This training shall be specific to DOT-HWYS activities, policies, rules, and procedures. Any updates to the training shall be submitted to DOH for review and acceptance within 90 calendar days of the change. Permittee inspectors shall receive annual training.

- Part D.2. Revise the SWMP, as necessary, if any discharge limitation or water quality standard established in HAR, Section 11-54-4, is exceeded. The revisions shall include BMPs and/or other measures to reduce the amount of pollutants found to be in exceedance from entering State Waters.
- Part D.3. Properly address all modifications, concerns, requests, and/or comments to the satisfaction of the DOH and/or EPA.
- Part D.3.a. SWMP Modifications - The storm water pollution control activities described in the SWMP may need to be modified, revised, or amended from time to time over the life of the permit to respond to changed conditions and to incorporate more effective approaches to pollutant control. Minor changes may be proposed by the Permittee or requested by DOH or the EPA. Proposed changes that imply a major reduction in the overall scope and/or level of effort of the SWMP must be made for cause and in compliance with 40 CFR §122.62 and Part 124. A written report shall be submitted to the Director of Health (Director) for acceptance at least 30 calendar days prior to the initiation date of the major modification. The Permittee shall report and justify all other modifications made to the SWMP in its Annual Report for the year in which the modification was made.
- Part D.3.b. System Modifications include any planned physical alterations or additions to the permitted MS4 and any existing outfalls newly identified over the term of the permit. All alterations and/or additions to the DOT-HWYS MS4 shall be indicated in its Annual Report. Major alterations and/or additions shall be identified by letter within 30 calendar days of the completion of the alteration and/or addition.

Part E. DOT-HWYS MUNICIPAL INDUSTRIAL FACILITIES

- Part E.1. DOT-HWYS Municipal Industrial facilities (i.e., baseyards) covered under this permit shall comply with the requirements in HAR, Chapter 11-55, Appendix B. The following baseyards are covered under this permit: Keehi, Kakoi, Pearl City, Waianae, and Windward Baseyards.
- Part E.2. An individual at each facility (e.g., yard foreman) shall be charged with ensuring implementation of the SWPCP. This individual shall be trained to implement the SWPCP, including but not limited to, collecting storm water samples and analyzing samples for temperature and pH, conducting inspections, identifying deficiencies and performing corrective actions. To ensure consistency and provide assistance and oversight, the Permittee shall identify an individual, also trained in the above independent of any specific baseyard, who shall conduct inspections of all five (5) baseyards semi-annually.
- Part E.3. The Permittee shall submit within 90 calendar days from the effective date of this permit for review and acceptance, the CWB NOI General Form, CWB NOI Form B and SWPCP for each baseyard, which has not yet been submitted and be included within its SWMP Plan. The SWPCPs must be implemented upon submittal to DOH.
- Part E.4. The Permittee may add new or currently existing Municipal Industrial facilities into this permit by requesting in writing to the DOH. Along with a written request, the Permittee shall submit the applicable NOI Forms and SWPCP, and other attachments to the DOH for review and comment, including updating its SWMP Plan. Upon acceptance of the information, the DOH will acknowledge by letter, the inclusion of the facility into this permit. The SWPCP must be implemented upon the start-up of the facility or for an existing municipal industrial facility; the SWPCP must be implemented upon submittal of the written request.
- Part E.5. For the submittal of facility information, please contact the CWB for the forms and submittal instructions.

Part F. MONITORING REQUIREMENTS

Part F.1. Annual Monitoring Plan

Part F.1.a. The Permittee shall submit the Annual Monitoring Plan to the Director by June 1st of each year for review and acceptance. The Annual Monitoring Plan shall be implemented over the coming fiscal year.

The monitoring program must be designed and implemented to meet the following objectives:

- Part F.1.a.(1) Assess compliance with this permit (including TMDL I&M Plans and demonstrating consistency with WLAs);
- Part F.1.a.(2) Measure the effectiveness of the Permittee's storm water management program;
- Part F.1.a.(3) Assess the overall health based on the chemical, physical, and biological impacts to receiving waters resulting from storm water discharges and an evaluation of the long term trends;
- Part F.1.a.(4) Characterize storm water discharges;
- Part F.1.a.(5) Identify sources of specific pollutants;
- Part F.1.a.(6) Detect and eliminate illicit discharges and illegal connections to the MS4; and
- Part F.1.a.(7) Assess the water quality issues in watershed resulting from storm water discharges to receiving waters.

Part F.1.b. The plan shall, at a minimum, include the following items:

- Part F.1.b.(1.) Written narrative of the proposed monitoring plan's objectives, including but not limited to the objectives identified in Part F.1.a., and description of activities;
- Part F.1.b.(2.) For each activity, a description of how the results will be used to determine compliance with this permit.
- Part F.1.b.(3.) Identification of management measures proven to be effective and/or ineffective at reducing pollutants and flow.

- Part F.1.b.(4.) Written documentation of the following:
- (i) Characteristics (timing, duration, intensity, total rainfall) of the storm event(s);
 - (ii) Parameters for measured pollutant loads; and
 - (iii) Range of discharge volumes to be monitored, as well as the timing, frequency, and duration at which they are identified;
- Part F.1.b.(5.) Written documentation of the analytical methods to be used;
- Part F.1.b.(6.) Written documentation of the Quality Assurance/Quality Control procedures to be used; and
- Part F.1.b.(7.) Estimated budget to be implemented over the coming fiscal year.

Part F.2. Storm Water Associated with Industrial Activities

The Permittee shall annually monitor the storm water runoff for the parameters specified below, for each DOT-HWYs Industrial Facility (i.e., baseyards), including any additional parameters which the Permittee also believes to be present in the storm water runoff.

Effluent Parameter (units)	Effluent Limitation {1}	Type of Sample {2}
Flow (gallons)	{4}	Calculated or Estimated
Biochemical Oxygen Demand (5-Day) (mg/l)	{4}	Composite {3}
Chemical Oxygen Demand (mg/l)	{4}	Composite {3}
Total Suspended Solids (mg/l)	{4}	Composite {3}
Total Phosphorus (mg/l)	{4}	Composite {3}
Total Nitrogen (mg/l) {5}	{4}	Composite {3}
Nitrate + Nitrite Nitrogen (mg/l)	{4}	Composite {3}
Oil and Grease (mg/l)	15	Grab {6}
pH Range (Standard Units)	5.5-8.0 {7}	Grab {9}

PART F
 PERMIT NO. HI S000001
 PAGE 38 of 49

Effluent Parameter (units)	Effluent Limitation {1}	Type of Sample {2}
	7.6-8.6 {8}	
Ammonia Nitrogen (mg/l)	{4}	Composite
Turbidity (0.1 NTU)	{4}	Grab
Dissolved Oxygen (0.1 mg/l)	{4}	Grab
Oxygen Saturation (1%)	{4}	Grab
Temperature (0.1 °C)	{4}	Grab
Salinity (0.1 ppt)	{4}	Grab

For Baseyards the following additional monitoring requirements are indicated below:

Effluent Parameter (units)	Effluent Limitation {1}	Type of Sample{2}
Benzene (µg/l)	1,800 {10} 1,700 {11}	Grab
Toluene (µg/l)	5,800 {10} 2,100 {11}	Grab
Ethylbenzene(µg/l)	11,000 {10} 140 {11}	Grab
Cadmium(µg/l) {12}	3+ {10} 43 {11}	Composite {3}
Chromium (IV) (µg/l) {12}	16 {10} 1,100 {11}	Composite {3}
Lead (µg/l) {12}	29+ {10} 140 {11}	Composite {3}

mg/l = milligrams per liter = 1000 micrograms per liter (µg/l)

+ = The value listed is the minimum standard. Depending upon the receiving water CaCO₃ hardness, higher standards may be calculated using the respective formula in the U.S. Environmental Protection Agency publication Quality Criteria for Water (EPA 440/5-86-001, Revised May 1, 1987).

NOTES:

{1} Pollutant concentration levels shall not exceed the storm water discharge limits or be outside the ranges indicated in the table. Actual or measured levels which exceed those storm water discharge limits or are outside those ranges shall be reported to the CWB required in HAR, Chapter 11-55, Appendix B, Section 10(c).

{2} The Permittee shall collect samples for analysis from a discharge resulting from a representative storm. A representative storm means a rainfall that accumulates more than 0.1 inch of rain and occurs at least 72 hours after the previous measurable (greater than 0.1 inch) rainfall event.

“Grab sample” means a sample collected during the first 15 minutes of the discharge.

“Composite sample” means a combination of at least two (2) sample aliquots, collected at periodic intervals. The composite shall be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to the total flow of storm water discharge flow since the collection of the previous aliquot. The Permittee may collect aliquots manually or automatically.

Samples for analysis shall be collected during the first 15 minutes of the discharge and at 15-minute intervals thereafter for the duration of the discharge, as applicable. If the discharge lasts for over an hour, sample collection may cease.

{3} If the duration of the discharge event is less than 30 minutes, the sample collected during the first 15 minutes of the discharge shall be analyzed as a grab sample and reported toward the fulfillment of this composite sample specification. If the duration of the discharge event is greater than 30 minutes, the Permittee shall analyze two (2) or more sample aliquots as a composite sample.

{4} Monitor and Report. The value shall not exceed the applicable limit as specified in Chapter 11-54 for the applicable classification of the receiving state waters. If no limitation is specified in Chapter 11-54, then the Permittee shall monitor and report the analytical result. The Department may include discharge limitations specified in Section 11-55-19 and discharge limitations based on Federal Register, Vol. 73, No. 189, Pages 56572–56578, dated September 29, 2008.

{5} The Total Nitrogen parameter is a measure of all nitrogen compounds in the sample (nitrate, nitrite, ammonia, dissolved organic nitrogen, and organic matter present as particulates).

- {6} The Permittee shall measure Oil and Grease using EPA Method 1664, Revision A.
- {7} This limitation applies to discharge into state waters classified as inland streams.
- {8} This limitation applies to discharge into state waters classified as marine open coastal waters.
- {9} The Permittee shall measure pH within 15 minutes of obtaining the grab sample.
- {10} This limitation applies to discharge into freshwater.
- {11} This limitation applies to discharge into saltwater.
- {12} The Permittee shall test for the total recoverable portion of all metals.

Part F.3. TMDL Implementation and Monitoring for Ala Wai Canal, Kawa Stream, Waimanalo Stream, Kapaa Stream, and Kaneohe Stream.

Part F.3.a. The Permittee shall submit to DOH a TMDL I&M Plan for Kaneohe Stream, Ala Wai Canal, Kawa Stream, Waimanalo Stream, and Kapaa Stream. The draft and final I&M Plans shall be made available on the Permittee's website for public review and comment. The plans shall be submitted within one (1) year of the effective date of this permit. Refer to Part F.3.c. - Schedules of Compliance. The plans shall include at a minimum the following:

Part F.3.a.(1) Detailed information on the activities proposed to be implemented.

Part F.3.a.(2) Actual or literature documentation of the estimated effectiveness of the activities targeted to reduce the pollutants of concern such as total nitrogen, total phosphorus, total suspended solids, and turbidity in the watershed, as applicable, to demonstrate consistency with the annual WLA reductions consistent with the assumption of the associated TMDL document.

- Part F.3.a.(3) A detailed and quantitative analysis which demonstrates that the proposed activities would ensure consistency with the annual WLA reductions consistent with the assumption of the associated TMDL document.
- Part F.3.a.(4) Information from pre and post monitoring activities to quantitatively demonstrate consistency with the annual WLA reductions consistent with the assumption of the associated TMDL document.
- Part F.3.a.(5) A monitoring plan which shall identify activities to demonstrate consistency with the WLA reductions consistent with the assumption of the associated TMDL document.
- Part F.3.b. The Permittee shall demonstrate consistency with the following WLA reductions consistent with the assumptions of the associated TMDL document effective in accordance with the Schedules of Compliance in Part F.3.c.
- Part F.3.b.(1) Ala Wai Canal WLAs

Total Nitrogen (TN) Reduction = 87 kg/yr
 Total Phosphorus (TP) Reduction = 31 kg/yr

From TMDL Table 8: TMDLs, Wasteload Allocation for Urban Land Use for Ala Wai Canal Watershed

Pollutant	Est. Load (kg/day)	% total load	Allocations (kg/day)	% Reduction
Total Nitrogen (TN)	6-26	10-33%	6	65%
Total Phosphorus (TP)	6-10	35-48%	4	50%

DOT-HWYS owns 101 acres of right-of-way (ROW) and has 18 acres of permitted connections contributing to their MS4. Therefore DOT-HWYS' annual load reduction requirements are 2.13% (119 acres DOT-HWYS/5,573 total Urban land area) of the annual load reduction requirements for Urban lands within Ala Wai Canal.

Part F.3.b.(2) Kawa Stream WLAs

Existing Loads (kg/yr)			Reductions					
TSS	TN	TP	TSS		TN		TP	
			(kg/yr)	(%)	(kg/yr)	(%)	(kg/yr)	(%)
3,310	53	9	1,276	39	35	66	5	56

Part F.3.b.(3) Kapaa Stream WLAs

Dry Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
0.2	0.0	0.0	0.3	0.0	0.0	0.0	5	0.0	4	0.0	6

Dry Season = 184 days (May 1 – October 31)

Wet Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
17	0.2	0.1	23	0.2	0.2	6	27	0.1	28	0.1	60

Wet Season = 181 days (November 1 – April 30)

Part F.3.b.(4) Kaneohe Stream WLAs

Dry Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
65	1.07	0.33	65	1.11	0.36	0	0	0.04	4	0.04	10

Wet Season 10% Runoff

WLAs			Existing			Reductions					
TSS	TN	TP	TSS	TN	TP	TSS		TN		TP	
(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(kg per season)	(%)	(kg per season)	(%)	(kg per season)	(%)
273	4.21	1.25	273	4.94	1.57	0	0	0.73	15	0.32	20

Part F.3.b.(5) Waimanalo Stream WLAs

Season	TN (kg per season)	TP (kg per season)
Dry Season Reduction	1.71	0.06
Wet Season Reduction	1.71	0.06

TSS Reduction = None Required

Part F.3.c. TMDL Schedules of Compliance - The Permittee is required to provide proof of completion of each milestone and submittal of the deliverable by the date as indicated in the following tables. After the last milestone, the Permittee shall demonstrate consistency with the WLA reductions consistent with the assumptions of the applicable TMDL document.

Part F.3.c.(1) Ala Wai Canal

Due No Later Than:	Milestone/Deliverable
0.5 Years After Effective Date of Permit (EDOP)	Debris Cleaning Assessment (DCA): Finalize DCA Plan Necessary Permanent Best Management Practices (PBMPs): Request project funding
1 Years After EDOP	Finalize Implementation & Monitoring Plan DCA: Commence DCA Data Collection
2 Years After EDOP	DCA: Interim DCA Data Collection Report PBMP: Finalize Plans, Specifications and Estimates (PS&E)
3 Years After EDOP	DCA: Complete DCA Data Collection PBMP: Advertise / bid opening / award
4 Years After EDOP	DCA: Complete Analysis of DCA Data PBMP: Commence construction
5 Years After EDOP	Finalize WLA Completion Report PBMP: Complete construction

Part F.3.c.(2) Kawa Stream

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	DCA: Finalize DCA Plan PBMPs: Request project funding
1 Years After EDOP	Finalize Implementation & Monitoring Plan DCA: Commence DCA Data collection PBMPs: Finalize PS&E
2 Years After EDOP	DCA: Interim DCA Data Collection Report PBMP: Advertise / bid opening / award
3 Years After EDOP	DCA: Complete DCA Data Collection PBMP: Commence construction
4 Years After EDOP	DCA: Complete Analysis of DCA Data PBMP: Complete construction
5 Years After EDOP	PBMP: Commence performance monitoring
6 Years After EDOP	PBMP: Complete performance monitoring
7 Years After EDOP	Finalize WLA Completion Report

Part F.3.c.(3) Kapaa Stream

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	Finalize DCA Plan
1 Years After EDOP	Finalize Implementation & Monitoring Plan Commence DCA Data Collection
2 Years After EDOP	Interim DCA Data Collection Report
3 Years After EDOP	Complete DCA Data Collection
4 Years After EDOP	Complete Analysis of DCA Data
5 Years After EDOP	Finalize WLA Completion Report

Part F.3.c.(4) Kaneohe Stream

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	Finalize DCA Plan
1 Years After EDOP	Finalize Implementation & Monitoring Plan Commence DCA Data Collection
2 Years After EDOP	Interim DCA Data Collection Report
3 Years After EDOP	Complete DCA Data Collection
4 Years After EDOP	Complete Analysis of DCA Data
5 Years After EDOP	Finalize WLA Completion Report

Part F.3.c.(5) Waimanalo Stream

Due No Later Than:	Milestone/Deliverable
0.5 Years After EDOP	Finalize DCA Plan
1 Years After EDOP	Finalize Implementation & Monitoring Plan Commence DCA Data Collection
2 Years After EDOP	Interim DCA Data Collection Report
3 Years After EDOP	Complete DCA Data Collection
4 Years After EDOP	Complete Analysis of DCA Data
5 Years After EDOP	Finalize WLA Completion Report

Part F.4. Other TMDLs

Part F.4.a. As additional TMDLs are adopted by DOH and approved by the EPA that identify the Permittee as a source, the Permittee shall develop I&M Plans for a minimum of one (1) additional TMDL per year within one (1) year of the approval date. The Permittee shall include within each I&M Plan a compliance schedule with a final deadline to demonstrate consistency with the WLAs consistent with the assumption of the associated TMDL document. The schedule shall provide for the implementation of the BMPs, monitoring to evaluate its performance, and time to make adjustments necessary to demonstrate consistency with the WLAs consistent with the assumption of the associated TMDL document at the earliest possible time. If the schedule extends beyond a year, interim dates and milestones shall be included in the schedule with the time between interim dates not to exceed one (1) year.

Part F.4.b. Re-opener

In accordance with 40 CFR Parts 122 and 124, this permit may be modified to include compliance schedules or permit conditions to address additional TMDLs as adopted and approved by the EPA.

Part G. REPORTING REQUIREMENTS

All submittals to DOH shall be in a format consistent with first satisfying the requirements of this permit.

Part G.1. Annual Report

PartG.1.a. The Permittee shall submit the Annual Report by October 31st of each year in pdf format (minimum 300 dpi) in accordance with Part A.6. The Annual Report shall cover the past fiscal year. The Annual Report for the fiscal year prior to the expiration date of the permit shall serve as the permit's renewal application. Submittal of the renewal application shall include a \$1,000 filing fee.

PartG.1.b. The Permittee shall revise its SWMP to include a description of reporting procedures and activities, including schedules and proposed content of the Annual Reports such that, at a minimum, the following is reported for each storm water program component in each Annual Report:

Part G.1.b.(1) *Requirements* - Describe what the Permittee was required to do (describe status of compliance with conditions of this permit and other commitments set forth in the SWMP).

Part G.1.b.(2) *Past Year Activities* - Describe activities over the reporting period in comparison to the requirements, including, where applicable, progress accomplished toward meeting specific measurable goals, standards and milestones or other specific performance requirements. When requirements were not fully met, include a detailed explanation as to why the Permittee did not meet its commitments for the reporting period. Also describe an assessment of the SWMP, including progress towards implementing each of the SWMP program components.

Part G.1.b.(3) *Future Activities* - Describe planned activities, including, where applicable, specific activities to be undertaken during the next reporting period toward accomplishing specific measurable goals, standards and milestones or other specific performance requirements.

Part G.1.b.(4) *Resources* - Report on the status of the Permittee's resource base for implementing this NPDES permit during the applicable *reporting* period and an estimate of the resources over and above those required in the current reporting period that will be required in the next reporting period.

- PartG.1.c. *Modifications* - In each Annual Report, the Permittee shall describe any modifications made to the SWMP and implementation schedule during the past year, including justifications. The Permittee shall also describe major modifications made to the Permittee's MS4, including, but not limited to, addition and removal of outfalls, drainage lines, and DOT-HWYS facilities.
- PartG.1.d. *Program Effectiveness Reporting* - Within one (1) year of the effective date of the permit, the Permittee shall submit to DOH a written strategy for determining effectiveness of its SWMP. The strategy shall include water quality monitoring efforts as well as program implementation information and other indicators. The Permittee shall include an assessment of program effectiveness and identification of water quality improvements or degradation beginning with the 2nd Annual Report.
- Part G.2. Annual Monitoring Report
- Part G.2.a. The Permittee shall submit the Annual Monitoring Report by October 31st of each year in pdf format (minimum 300 dpi) in accordance with Part A.6. The Annual Monitoring Report shall cover the past fiscal year.
- Part G.2.b. The monitoring report shall at a minimum, include the following items:
- Part G.2.b.(1) Discussion on the activities/work implemented to meet each objective, as outlined in Part F.1.a., including any additional objectives identified by the Permittee, and the results [e.g., assessment of the water quality issues in each watershed resulting from storm water discharges, refer to Part F.1.a.(7)] and conclusions.
- Part G.2.b.(2) Written narrative of the past fiscal year's activities, including those coordinated with other agencies, objectives of activities, results and conclusions.
- Part G.2.b.(3) Data gathered on levels of pollutants in non-storm water discharges to the DOT-HWYS MS4; and
- Part G.2.b.(4) Using rainfall data collected by the Permittee and other agencies, the Permittee shall relate rainfall events, measured pollutant loads, and discharge volumes from the watershed and other watersheds that may be identified from time to time by the Director or Permittee.

- Part G.2.b.(5) The date when monitoring occurred for each municipal industrial facility covered under this permit. The monitoring event shall be of a representative storm event, where results were available for all required parameters following the QA/QC measures as described in your Annual Monitoring Plan.
- Part G.2.b.(6) Discharge Monitoring Reports (DMRs) for Municipal Industrial Facilities shall be included in the Annual Monitoring Report and be submitted via NetDMR once established by the DOH. NetDMR is a Web-based tool that allows NPDES permittees to electronically sign and submit their DMRs to EPA's Integrated Compliance Information System (ICIS-NPDES) via the Environmental Information Exchange Network. A DMR must be submitted for the facility which is scheduled to be monitored even if sampling was not conducted. An explanation as to why sampling was not conducted shall be explained with the submittal.
- Part G.3. Memorandum of Understanding (MOU)
- Part G.3.a. Roles and Responsibilities of DOT-HWYS - The Permittee shall maintain and comply with the "Memorandum of Understanding Between the Department of Transportation Highways Division, State of Hawaii, and the Department of Environmental Services and the Department of Facility Maintenance, City and County of Honolulu," signed by the Department of Environmental Services on December 19, 2001; by the Department of Facility Maintenance on December 27, 2001; and the State Department of Transportation, Highways Division on February 1, 2002. Amendments to the MOU, if any, shall be summarized in the Annual Report.
- Part G.3.b. Legal Authority of DOT-HWYS - DOT-HWYS shall maintain and comply with the "Memorandum of Understanding (MOU) Between Department of Transportation, State of Hawaii, and Department of Health, State of Hawaii" which was executed on July 8, 1999, because 40 CFR 122.26(d)(2)(i) requires that DOT-HWYS obtain the legal authority to control the discharge of pollutants to its storm sewer system. Amendments to the MOU, if any, shall be summarized in the Annual Report.

05090PRM.13b