

**STORM WATER MANAGEMENT PROGRAM PLAN**

**FOR**

**KEWALO BASIN HARBOR**

**NPDES SMALL MS4 PERMIT NO. HI 03KB487**

**FINAL**

**April 2009**

**Prepared for:**

**Hawaii Community Development Authority  
Department of Business, Economic Development & Tourism  
State of Hawaii**

**By:**

**AECOM  
Honolulu, HI**



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## LIST OF ACRONYMS

BMP	best management practice
CCH	City and County of Honolulu
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWB	Clean Water Branch
DBEDT	State of Hawaii, Department of Business, Economic Development & Tourism
DFM	CCH Department of Facilities Maintenance
DOH	State of Hawaii, Department of Health
DOT	State of Hawaii, Department of Transportation
DOT-HAR	State of Hawaii, Department of Transportation – Harbors Division
ENV	CCH Department of Environmental Services
EPA	United States Environmental Protection Agency
HAR	Hawaii Administrative Rules
HCDA	Hawaii Community Development Authority
HRS	Hawaii Revised Statutes
HEER	Hazard Evaluation and Emergency Response
HFD	Honolulu Fire Department
MS4	municipal separate storm sewer system
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
SWMP	Storm Water Management Program
SWMPP	Storm Water Management Program Plan
SWQ	CCH Storm Water Quality Branch
TSI	Tenant Self Inspection Form





## 1.0 INTRODUCTION

The Hawaii Community Development Authority (HCDA) a public corporate entity attached to the State of Hawaii Department of Business, Economic Development & Tourism (DBEDT), has developed this Storm Water Management Program Plan (SWMPP) to accompany a Notice of Intent (NOI) for HAR, Chapter 11-55, Appendix K – National Pollutant Discharge Elimination System (NPDES) Notice General Permit Coverage (NGPC) Authorizing Discharges of Storm Water and Certain Non-Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4) for the storm drainage system operated at Kewalo Basin Harbor, Oahu (see Attachments A and B for Kewalo Basin maps and outfall listing).

Governor Linda Lingle on November 24, 2008 approved administrative rules for the Kewalo Basin Harbor HAR Chapter 15-211 through 214 (HAR 15-212 Kewalo Basin Rules for Vessel and Harbor controls is included as Attachment C). The rules are necessary for HCDA to manage the harbor because the Department of Transportation will be transferring the management of Kewalo Basin and its associated MS4 to HCDA March 1, 2009. The rules, regulations, charges and fees for Kewalo Basin will govern the use and operation of Kewalo Basin under HCDA. These rules, which were drafted with extensive stakeholder input, are considered necessary and desirable to facilitate the public's use and enjoyment of Kewalo Basin. The rules defined permissible activities regulate operations within the harbor and set forth procedures for obtaining leases and related fees.

Prior Notice of General Permit Coverage was granted by letter dated May 19, 2003 and expired November 6, 2007. HCDA reapplied on September 26, 2007 and was granted an NGPC, File No. HI 03KB487, which expires October 21, 2012. In the September 26, 2007 NOI, the Department of Transportation, Harbors Division (DOT-HAR) was identified as the operator of the Kewalo Basin Harbor Small MS4, but as of March 1, 2009 HCDA will retain operation of the Kewalo Basin as stated above. HCDA will retain a management company operator, Almar Management, Inc. to act as the Harbor Agent and manage operations of Kewalo Basin Harbor and associated Small MS4. A revised NOI will be submitted to the Department of Health (DOH) reflecting this change in operator.

The SWMP is intended to guide compliance with the Hawaii NPDES program as promulgated in the Hawaii Administrative Rules (HAR), Title 11, Chapter 55, Water Pollution Control, Appendix K, for areas administered by the HCDA at Kewalo Basin Harbor. HCDA continues to be the underlying landowner throughout Kewalo Basin Harbor.

The SWMP describes efforts to be made by HCDA and its harbor operating company in the six minimum control measures required by the HAR 11-55, Appendix K. The six areas are:

- i. Public Education and Outreach;
- ii. Public Involvement/Participation;
- iii. Illicit Discharge Detection and Elimination;
- iv. Construction Site Runoff Control;
- v. Post Construction Storm Water Management in New Development and Redevelopment;  
and
- vi. Pollution Prevention/Good Housekeeping.

Goals by which program effectiveness and compliance with the conditions of the Notice of General Permit will be assessed are established herein for each minimum control measure. An annual report summarizing actions taken and progress toward the yearly goals of each minimum control measure shall be provided to the Department of Health (DOH), not later than January 28 of the following year.

Each minimum control measure and the goals associated with it are discussed separately below. Following the efforts made by DOT-HAR during the previous and current NGPC coverage, it is believed that Kewalo Basin Harbor has essentially achieved a good state of water quality, and actions under the ongoing program are largely unchanged. Paragraphs in italics state the requirements of HAR, Title 19, Chapter 55, Appendix K and are followed by discussion of past work, the efforts to be made during the next three years (remainder of NGPC coverage), and criteria through which the efforts will be assessed in the annual reports.

## 2.0 PUBLIC EDUCATION AND OUTREACH MINIMUM CONTROL MEASURE

*Develop and implement a public education program to distribute educational materials to users of the small municipal separate storm sewer community or conduct equivalent outreach activities emphasizing each of the following:*

- *Impacts of storm water discharges on water bodies,*
- *Hazards associated with illicit discharges, and*
- *Measures the users of the permittee's small municipal separate storm sewer system can take to reduce pollutants in storm water runoff, including, but not limited to, minimizing fertilizer application and practicing proper storage and disposal of chemicals and wastes.*

The main action of the public education and outreach minimum control measure during the previous and current NGPC term has been to annually mail the Tenant Self-Inspection (TSI) form to all harbor tenants (sample provided in the Attachment D). The TSI is accompanied by materials describing the responsibility of harbor tenants and visitors for water quality issues, and includes suggestions and actions by which these groups can affect water quality. The TSI mailing seeks to make recipients aware of storm water runoff quality issues and bring their attention to the potential for storm water pollution through self-examination of their operational practices and materials or products used, stored or handled. It also serves to inventory the materials and practices of tenants, which may indicate locations where storm water pollution events may occur. The information presented also includes internet links to useful web pages including the EPA Storm Water Pollution Fact Sheets and contact points for water pollution reporting.

Yearly mailings of the TSI form will be accompanied by other storm water quality awareness materials, including:

- HDOT-HAR January 15, 2003 notice to harbor tenants "Prohibiting Disposal of Regulated Hazardous Waste" and attachment, "General Description of Hazardous Waste and Recycled Used Oil" (Attachment F) or equivalent, and
- Used Oil Disposal Instructions - (Attachment G).

Public education of the responsibility for storm water discharge quality has been enhanced by posting signage at visible public locations including harbor entrances, comfort stations, meeting areas and at rubbish, trash collection stations, advising against dumping or discarding inappropriate materials where they may flow or be carried into the harbor and State receiving waters.

Runoff water quality presentations have been developed and will be posted on the HCDA web site, including points of contact at the County, State and EPA for reporting obviously impaired storm runoff.

HCDA will review TSI responses for completeness (number of responses versus forms mailed) and information provided, and seeks to contact non-responding tenants. In addition to the TSI, HCDA and its authorized consultant will conduct annual compliance inspections using a

checklist (Attachment E) of each tenant and facility within Kewalo Basin MS4 to further verify information provided by the TSI and identify areas or tenants requiring implementation of site-specific storm water best management practices, possibly warnings of non-compliance, and in some cases enforcements action(s).

Over the remainder of the term of NGPC coverage, HCDA will continue annual TSI form mailings with additional educational materials and annual facility compliance inspections, and review responses and information provided. A record of responses and compliance inspection checklist for comparison with future activities will be kept. The TSI form and inspection checklist may be revised based on responses gathered and findings, and discharge water quality issues which may be identified or arise.

### **3.0 PUBLIC INVOLVEMENT/PARTICIPATION MINIMUM CONTROL MEASURE**

*Include users of the permittee's small municipal separate storm sewer system in developing, implementing and reviewing the storm water management plan;*

Public participation is intended to raise public consciousness of water quality issues and create a sense of responsibility for water quality, to lessen the likelihood that informed members of the public will commit actions which may lead to water quality degradation. Public awareness of storm water quality issues may invite comment by informed members which leads to a better and more effective plan, and better implementation.

Harbors Division has invited public involvement/participation during the previous NGPC term by posting the Storm Water Management Plan to the Harbors Division website. Currently HCDA will do the same and post this revised SWMPP on the HCDA website. On the TSI and during annual compliance inspection, HCDA will inform the tenants and the public the location of the SWMPP on the HCDA website and ask them to provide comments to the program and plan. Comments received will be replied to and posted on the website.

Effectiveness of the TSI mailing and compliance inspections will be assessed by the responses provided by the tenant public, and comments received by HCDA.



## 4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION MINIMUM CONTROL MEASURE

*Develop, implement and enforce a program to detect and eliminate illicit discharges that at a minimum includes the following:*

- *Establishment of rules, ordinances or other regulatory mechanism, including enforcement procedures and actions, that prohibit non-storm water discharges, except those listed in section 1 that do not cause or contribute to any violations of water quality standards, into the permittee's small municipal separate storm sewer system,*

Existing rules and ordinances prohibit non-storm water discharges are in place and include the following citation from HAR Title 15, Chapter 212, Section 112 which requires “No person shall place, throw, deposit, or discharge, or cause to be placed, thrown, deposited, or discharged into the waters of Kewalo Basin any litter, or other gaseous, liquid or solid materials which render the water unsightly, noxious or otherwise unwholesome so as to be detrimental to the public health and welfare or, a navigational hazard. No person shall discharge oil sludge, oil refuse, fuel oil or molasses either directly or indirectly, or pump bilges or ballast tanks containing other than clean water into the waters of any harbor, river or into any shore waters in the State.”

The rules are made enforceable at Title 15, Chapter 212 Section 13 which grants the Hawaii Administrative Rules the full force and effect of law pursuant to Chapter 206E, Hawaii Revised Statutes. The violation of these rules shall be subject to penalties as set forth in section 206E-22, Hawaii Revised Statutes.

Further, HAR Title 15 Chapter 212 Section 15.2 requires compliance with federal, state, and county laws, ordinances and rules, and in particular rules of the state department of health pertaining to air and water pollution set forth in section 342D, Hawaii Revised Statutes.

Tenant Revocable Permits and lease agreements incorporate language which requires compliance with all storm water quality regulations. An example copy of the Tenant Revocable Lease is included as Attachment H and copies of the Kewalo Basin Commercial Mooring, Temporary Mooring, and Commercial Fishing Permits are included as Attachment I.

Enforcement of illicit discharge procedures and actions is provided by HCDA personnel, authorized consultants, and harbor operator on duty during normal business hours Monday through Friday and contracted security personnel patrol the harbor during non-business hours. State of Hawaii Sheriff may be summoned at any time. The Sheriff and contracted security personnel are authorized to warn or cite violators and other personnel (Harbor Agent and harbor operator) may be deputized to cite offenders. Any of these may detect and report discharges or spills which degrade runoff quality any time to the appropriate phone numbers published in local phone directories, or to the Marine Traffic Control Unit (808-587-2076), Harbor Agent (808-594-0849), ALMAR Manager –Jim Hayes (805-794-5184).

Serious offenses may be referred to (Table 4-1):

**Table 4-1**

Contact Point/Agency	Business Hours (M-F 0700-1600)	After Hours/Weekend, Holidays
Emergency (Medical, Fire, Police)	911	911
State Department of Health, Hawaii State Emergency Response Commission ( <b>HSERC</b> )	586-4249	247-2191
National Response Center ( <b>NRC</b> )	1-800-424-8802	1-800-424-8802
Oahu Local Emergency Planning Committee ( <b>Oahu LEPC</b> )	523-4121	911
City and County of Honolulu Storm Water Quality Branch	768-3242	247-2191

Where polluted runoff may enter the harbor drainage system or harbor from offsite sources, the City and County of Honolulu maintains a complaint hotline (808-768-3300) or notification may be made to the Department of Environmental Services, Storm Water Quality Office (808-768-3242). Additionally the City also maintains a general complaint web site where reports of storm water pollution may be made:

[www.co.honolulu.hi.us/menu/online\\_services/cityhall\\_online/problemreport.htm](http://www.co.honolulu.hi.us/menu/online_services/cityhall_online/problemreport.htm).

- *Procedures to detect and eliminate illicit discharges (as defined in 40 CFR Section 122.26(b)(2),*

HCDA actions to detect and eliminate illicit discharge during the previous NGPC term have included:

- HCDA personnel, HCDA authorized consultants, the Harbor Agent, or his assistant may complete a Site Investigation Sheet (Attachment J - SIS) at any time to record observations of illegal discharge incidents. Completed Site Investigation Sheet with complaints or observances of actions which require intervention are routed for action to the appropriate HCDA office.
- HCDA will annually provide initial and refresher NPDES training to key personnel to instruct personnel at all levels of responsibility concerning the components and goals of the facility's SWMP.

The annual training addresses the following areas:

- Regulatory Requirement;
- Materials Management Practices Including Proper Storage, Handling, and Use of Materials;
- Good Housekeeping and Criteria for Clean Working Environment;
- Recognizing Conditions that Could Lead to Degraded Runoff Water Quality;
- Identifying and Notifying Responsible Parties;
- Taking Action to Correct Conditions that Could Result in Storm Water Pollution;



- Warning and Enforcement Procedures; and
- Recording Incidents.

A record of attendees at each NPDES training session is kept for inclusion in the SWMP effectiveness report.

Annually, construction inspectors and operations maintenance personnel are queried as to the effectiveness of illegal discharge detection and prevention efforts, and observations summarized in the annual SWMP effectiveness report.

Twice-yearly, dry weather visual inspection of outfalls are made at low tide from a small boat. Wet weather observations of sheet flow over the pier edge are conducted at least annually. Visibly inappropriate runoff conditions will be reported and where a contributing party may be identified a warning or citation will be issued and a record made for inclusion to the annual SWMP effectiveness report.

Phone numbers for the Marine Traffic Control Center phone number (587-2076), Harbor Agent (594-0849), City and County of Honolulu Environmental Concern Hotline (768-3300), Department of Health, Clean Water Branch (586-4309) and Coast Guard (1-800-424-8802) are included in the TSI mailing as contact points for water quality complaints and/or communications.

Public education materials are provided with the annual TSI form mailing, addressing illicit discharge and illegal dumping hazards, detection efforts and consequences.

A mapping of storm water outfalls has been made and will be refined during dry weather inspections. The current outfall mapping and an outfall description listing are presented in the Attachment A and B.

#### **4.1 PERMITTED NON-STORM WATER DISCHARGES**

*Compilation of a list of non-storm water discharges or flows that are considered to be significant contributors of pollutants and the measures to be taken to prevent these discharges into the permittee's small municipal separate storm sewer system, or reduce the amount of pollutants in these discharges.*

According to the Kewalo Basin Harbor Small MS4 NPDES Permit No. HI 03KB487, issued November 2, 2007 the following non-storm water discharges are permitted to be discharged to the Small MS4:

- i. Water line flushing;
- ii. Landscape irrigation;
- iii. Diverted stream flows;
- iv. Rising ground waters;
- v. Uncontaminated ground water infiltration (as defined in 40 CFR §35.2005(20));
- vi. Uncontaminated pumped ground water, not including construction related dewatering activities;
- vii. Discharges from potable water sources and foundation drains;
- viii. Air conditioning condensate;
- ix. Irrigation water;

- x. Springs;
- xi. Water from crawl space pumps and footing drains;
- xii. Lawn water runoff;
- xiii. Water from individual residential car washing;
- xiv. Flows from riparian habitats and wetlands;
- xv. Dechlorinated swimming pool discharges;
- xvi. Residential street wash water; and
- xvii. Discharges or flows from fire fighting activities.

HCDA may also develop a list of other similar occasional incidental non-storm water discharges that will not be addressed as illicit discharges. These non-storm water discharges must not be reasonably expected (based on information available to HCDA) to be significant sources of pollutants to the Small MS4, because of either the nature of the discharges or conditions HCDA has established for allowing these discharges to the Small MS4.

HCDA will annually collect reports of reported apparent storm water quality violations from the Marine Traffic Control Center, call-in complaints, and inspection activities. To date all such discharges appear to be isolated events and no chronic inappropriate discharges are known to occur from the regulated system.

Over the remainder of the current term of NGPC coverage, HCDA will continue to conduct semiannual dry weather and annual wet weather outfall inspections, and collect and analyze reports of apparent inappropriate discharges. If repeat inappropriate dischargers are identified, the circumstances of the discharges will be investigated to assess appropriate measures.

Neighboring private lands may contribute surface runoff which is discharged through the regulated system into the harbor. In the cases where offsite sources generate inappropriate discharges to the MS4, HCDA will seek to establish a Memorandum of Understanding agreements or other similar agreement with adjacent property owners and municipalities to address responsibility for inappropriate discharges which may originate from lands not under HCDA control.

## **4.2 NEW CONNECTION/DISCHARGE NOTIFICATION**

HCDA will require tenant facilities to notify the HCDA of any new permanent connections or new facilities which discharge to the Kewalo Basin Small MS4. The date of issue of NPDES Permit No. HI 03KB487, November 2, 2007 will mark the date of the 'new' versus existing connections and facilities. The party that is making the new connection or facility shall submit the 'Kewalo Basin Private Drain Connection Permit' (Attachment K). Once the form is received, HCDA can choose to approve or prohibit new connections or runoff from new facilities.

## 5.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL MINIMUM CONTROL MEASURE

Develop, implement and enforce a program to reduce storm runoff pollutants entering the permittee's small municipal separate storm sewer system from construction activities disturbing one acre or more, including construction activities less than one acre that are part of a larger common plan of development or sale that would disturb one acre or more, that, at a minimum, includes the following:

- *Establishment of rules, ordinances and other regulatory mechanism, including enforcement procedures and actions, that require erosion and sediment controls,*
- *Requirements for construction site operators to implement appropriate erosion and sediment control best management practices,*
- *Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts on water quality,*
- *Procedures for site plan review of construction plans which incorporate consideration of potential water quality impacts,*
- *Procedures for receipt and consideration of information submitted by the public,*
- *Procedures for site inspection and enforcement of control measures.*

The overall Construction Site Runoff Control Program consists of the following components which work together to reduce pollutants being discharged to the Kewalo Basin MS4 and State Waters:

- Construction Site Runoff Control (NPDES) Review and Approval Process;
- Construction Site Runoff Control Best Management Practice (BMP) Manual – *City and County of Honolulu Best Management Practices Manual for Construction Sites in Honolulu*, May 1999 (new version expected March 2009);
- Construction Site Runoff Control Inspection and Enforcement Program; and
- Construction Site Runoff Control Training Program.

### 5.1 CONSTRUCTION PROJECTS SUBJECT TO THE PROGRAM

A Construction Project is defined as any site where an activity results in the disturbance of soil such as soil movement, grading, excavation, clearing, road construction, structure construction, or structure demolition; as well as any stockpiling site where uncovered storage of materials and wastes such as dirt, sand or fertilizer or other pollutants occur. Small construction projects are considered those projects that involving disturbing less than one acre of land and require a BMP plan. Construction projects that disturb one acre of land area or more will be classified as large and require both a BMP plan and NDPEs permit.

All land side construction improvements at Kewalo Basin Harbor are planned, designed and implemented by HCDA. Existing rules and ordinances prohibit construction of any building or structures of any nature within Kewalo Basin without prior permission of the HCDA and any other governmental agency as required by law, see HAR Title 15, Chapter 212, Section 151.

## 5.2 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REVIEW AND APPROVAL PROCESS

The discharge of storm water runoff associated with construction activities is regulated by Section 402(p) of the Clean Water Act and its implementing regulations (40 Part 122.26) through the National Pollutant Discharge Elimination System (NPDES) permit program. The regulations require HCDA to reduce pollutants in storm water runoff to the maximum extent practicable. The Hawaii Revised Statutes (HRS) 11-55-04 further details that any individual, agency, business or organization, including HCDA are required to obtain NPDES coverage for construction activities that disturb one (1) acre or more of land area, or result in the discharge of dewatering and/or hydrotesting fluids into State waters. The Hawaii Department of Health (HDOH) administers the NPDES Program for the State, and requires that a Notice of Intent (NOI), which is used to obtain a Notice of General Permit Coverage (NGPC), or an individual permit application include a site-specific Best Management Practices (BMP) plan that complies with State and federal standards.

Construction projects that disturb less than one acre of land will comply with the minimum requirements defined in Table 5.1, including the submittal of a CCH approved Erosion Control Plan. Construction projects that disturb more than one acre of land are subject to coverage under the State's NPDES General Construction Activities Permit. In addition to the minimum requirements defined in Table 5.1, the construction sites are required to prepare a Notice of Intent (NOI) and submit it to the DOH no later than thirty (30) days before the proposed starting date of the construction activity. Prior to receiving a grading or building permit, applicants will be required to demonstrate the following:

- Proof of filing a Notice of Intent with the DOH;
- Site-specific BMP Plan has been prepared and certified by the owner/developer in compliance with the General Construction Activities Permit; and
- An approved Erosion and Sediment Control Plan has been prepared and certified by the owner/developer.

**Table 5-1**

	<b>HCDA</b>	<b>Contractor/ Developer</b>
Projects less than one acre	<ul style="list-style-type: none"> <li>• Review CCH approved grading and/or building permit</li> </ul>	<ul style="list-style-type: none"> <li>• Apply for CCH grading or building permit</li> <li>• Acknowledge requirement to implement and comply with CCH minimum BMPs</li> <li>• Prepare and submit Erosion Control Plan to CCH for approval</li> </ul>
Projects that disturb one acre or greater	<ul style="list-style-type: none"> <li>• Require proof of NOI for coverage under the State NPDES General Construction Activities Permit has been submitted and accepted by DOH</li> <li>• Review and approve Erosion Control Plan</li> <li>• Require proof of NOI for coverage prior to issuing a grading and /or building permit</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare and submit Erosion Control Plan to CCH for approval</li> <li>• Prepare a Site-Specific BMP Plan, including an Erosion Control Plan</li> <li>• Prepare and submit NOI for coverage under the State NPDES General Construction Activities Permit to DOH</li> <li>• Apply for CCH grading or building permit (show proof of NOI)</li> </ul>

Under the Construction Program's NPDES review and approval process, no applicable contract, in-house, or maintenance projects will be allowed to proceed to construction unless the project sponsor or representative provides proof that the project has received from HDOH a NGPC, and other required NPDES Permit. The procedure to verify projects will be to instruct the HCDA project managers to use a construction BMP checklist (Attachment L) during plans, specifications, and estimates (PS&E) development (or the environmental review process) to verify whether or not their projects require NPDES coverage and which BMPs will be applicable to a specific construction activity.

### ***5.2.1 Site-Specific BMP Plan***

The NPDES applications for large projects (included with the NPDES NOI) ensure that project designs include site-specific BMP plans, or that the contractor provides appropriate site-specific BMP plans. Common elements of a site-specific BMP plan include:

- Identifying potential pollutants that could affect the quality of storm water, dewatering effluent, or hydrotesting discharges from the construction site;
- BMPs that will need to be implemented during construction, including their precise locations, to control the quality of storm water runoff from construction activities, or discharges from hydrotesting or dewatering activities;
- Construction notes addressing erosion control and storm water pollution prevention requirements, which become part of the construction contract documents; and
- Copy of Water Pollution and Erosion Control Notes.

Any project, regardless of its size, which could discharge into Class 1 or Class AA waters, either directly or indirectly, will require the consideration of further BMP measures that would reduce or eliminate the impacts of any discharge. HCDA may also require additional BMP measures after reviewing the site-specific BMP plan. In addition, any project discharging to a watershed with an approved Total Mass Daily Load (TMDL) will need to develop a project-specific waste load allocation implementation and monitoring plan within one (1) year of the approval of the TMDL.

The review of site-specific BMP plans involves determining whether the construction BMPs identified in the plan are appropriate and reasonable for the specific request. The review will verify that the site-specific BMP plan fully meets the requirements of:

- The following publications:
  - Water Pollution and Erosion Control Notes in project Standard Specifications and Special Provisions
  - National Pollutant Discharge Elimination System (NPDES) *Requirements for Permit Projects*.
  - Construction Site Runoff Control Best Management Practice (BMP) Manual – *City and County of Honolulu Best Management Practices Manual for Construction Sites in Honolulu*, May 1999, or updates. Stipulations contained in General Construction Activities Storm Water NPDES Permit, or any other applicable requirements of the Hawaii NPDES permit program where applicable; and
- Construction BMP Review Checklist (Attachment L) used by inspectors, HCDA managers, and HCDA consultants to determine which BMPs apply to the project.

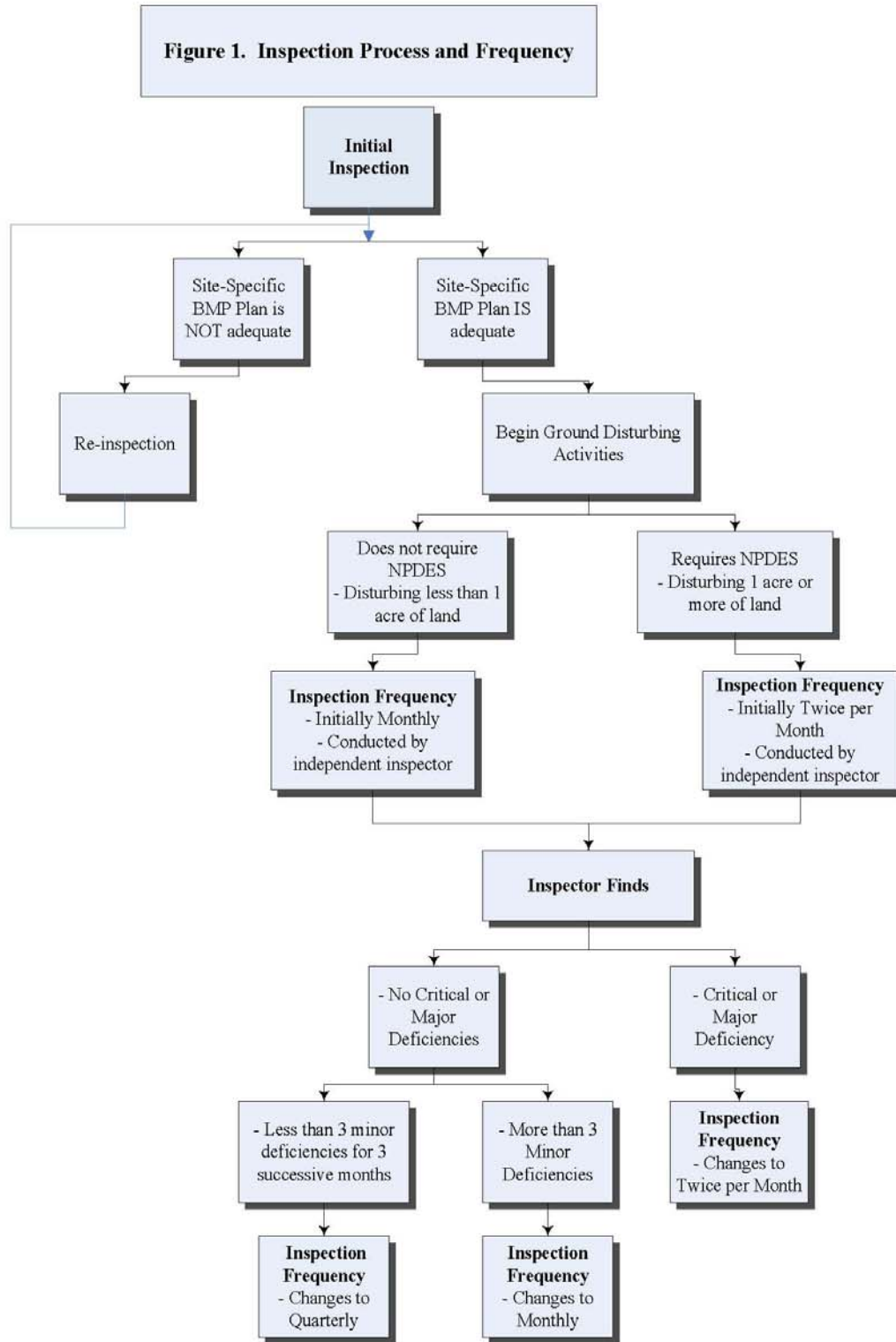
### **5.2.2 *Inventory of Construction Sites***

In order to implement an effective Construction Site Runoff Control Program, it is essential to have a complete inventory of construction sites in order to implement effective permitting, inspection, and enforcement programs. HCDA will develop a database that will keep an inventory of all construction sites. This database will track permits and inspections associated with these construction sites and will be included in the Kewalo Basin Small MS4 Annual Report.

## **5.3 INSPECTIONS**

Construction projects are routinely inspected to verify that the construction work is being performed in accordance with the contract specifications and plans, building and grading permits, and/or applicable municipal codes. When a project is in violation of these permits or codes, inspectors have the authority to enforce respective permit conditions by issuing verbal warning, written notices, or stop work orders. Additional administrative actions may be taken, including revoking the building or grading permit or issuing fines.

The Construction program involves two different types of inspections, initial and periodic. Initial inspections are conducted by HCDA personnel, authorized consultants, and harbor operator and serve to ensure that site-specific BMP plans are installed properly and in the correct locations before ground disturbing work begins. The HCDA inspector will give seven (7) days advance notice before conducting the initial inspection. Periodic inspections are conducted by an independent inspector who is tasked only to inspect the projects BMPs. Therefore, the periodic inspections will be directed by personnel not involved in other aspects of construction for the subject project. Initially, the inspections will be conducted by an HCDA consultant. The inspection process and frequency is detailed in Figure 1. Developers and contractors will be expected to self-inspect the project sites to ensure BMPs are effectively maintained and BMP deficiencies discovered by HCDA inspectors and/or their consultants are corrected.



### ***5.3.1 Developer/Contractor Self-Inspection Requirements***

Construction is a dynamic operation where changes are expected. Construction site BMPs are usually temporary measures that require frequent maintenance to maintain their effectiveness and may require relocation and re-installation, particularly as the construction project progresses. Therefore, the contractor/developer has the primary responsibility for inspections of BMPs. They are required to ensure that BMPs are properly implemented and functioning effectively and to identify maintenance (e.g., sediment removal) and repair needs.

The contractor/developer will document the recommended self-inspections on the CCH Construction Site BMPs Weekly Checklist (Attachment M) or an equivalent. The checklist must be kept on-site and made available to HCDA and/or their consultant inspectors for their review when requested. At a minimum, the contractor/developer self-inspections must be performed weekly for projects that do not require a NPDES permit or daily for projects that do require a NPDES permit.

### ***5.3.2 HCDA Inspection of Construction Projects***

When conducting inspections, the HCDA inspector will use the Construction Site BMP Review Checklist (Attachment N) or equivalent to evaluate the conformance of the construction site to applicable requirements. At a minimum, HCDA inspections will be conducted at the frequencies shown in Figure 1 and will address the following:

- Inspect construction site for conformance with building/grading permits and ordinances;
- Review contractor's self-inspection checklist to determine whether minimum self-inspections have been performed;
- Inspection of minimum BMP requirements to determine if they are properly implemented and maintained on the construction site;
- Review the BMP Plan, including the Erosion Control Plan (if applicable) and determine whether the requirements of the Plans are being implemented and maintained properly on the construction site; and
- Determine whether the contractor is making appropriate adjustments when ineffective BMPs are found.

Inspectors will immediately inform the HCDA project contact person if any illicit discharge, deficiency, or violations of the NGPC or other NPDES permit is found so that the problem can be corrected or addressed in accordance with the following time frames:

- Any illicit discharge or critical deficiency must be corrected or addressed before the close of business on the day of the inspection at which the deficiency was identified.
- Any major deficiency must be corrected or addressed no later than five business days after the inspection at which the deficiency was identified or before the next forecasted precipitation, whichever is sooner.
- Any minor deficiency must also be corrected or addressed before the next forecasted precipitation.



### **5.3.3 Definition of Deficiencies**

Critical deficiencies are defined as those that pose an immediate threat for the discharge of pollutants to the storm drain system, surface waters, or State waters. Critical deficiencies include, but are not limited to, the following examples:

- Any observed discharge, or evidence of discharge, of untreated storm water or non-storm water to the storm drain system, surface waters, or State waters generated by the construction activity.
- Absence of linear barriers and/or perimeter controls required by the BMP Plan.
- There are identified storm drain inlets, surface waters, or State waters within or adjacent to the project site in close proximity to disturbed soil areas without control measures in place that pose an immediate threat of untreated storm water discharges.
- Work in an active stream channel or other surface water body without proper implementation of required BMPs.
- Presence of any spilled oil or hazardous materials near to unprotected storm drain inlets, surface waters, or State waters.

Major deficiencies are defined as those that are significant problems which could result in the discharge of pollutants to the storm drain system, surface waters, or State waters. Major deficiencies include, but are not limited to, the following examples:

- No Site-Specific BMP Plan or NPDES permit (if required).
- Linear barriers and/or perimeter controls in areas tributary to a water body or drain inlet that are installed as required by the BMP plan, but are not functional, such as silt fences that are not anchored properly, have collapsed, or been driven over or overwhelmed by accumulated sediment.
- Hazardous materials or waste is stored within a project without containment or implementation of BMPs.
- Oil, fuel, or brake or transmission fluid spills, covering more than one square yard and/or are adjacent to protected storm drain inlets, surface waters, or State waters.
- Any discharge of sediment or other deleterious material resulting from dewatering operations conducted without implementation of required BMPs for dewatering.
- Sediment tracking more than 50 feet from project ingress/egress location(s).
- Expansion of the active disturbed soil area limit without written approval.
- Soil stabilization and sediment controls are not installed in accordance with applicable site-specific BMP Plan.
- Sediment controls are installed in accordance with the BMP Plan, but there is a large unstabilized disturbed soil area with insufficient controls down gradient to prevent the discharge of untreated storm water to the storm drain system, surface waters, or State waters if a rain event generates runoff.
- Dust from project site visibly blowing off the site and into storm drain conveyances or adjacent surface water bodies.

Minor deficiencies are defined as those that do not pose a threat of discharge of untreated storm water or pollutants to the storm drain system, surface waters, or State waters, but are not in strict conformance with the Site-Specific BMP Plan. Minor deficiencies include, but are not limited to, the following examples:

- Site-Specific BMP Plan does not reflect current operations and an amendment is recommended.
- BMPs are not deficient, but are not consistent with BMP Plan.
- Linear barriers and/or perimeter controls are installed as required by the BMP plan, but require minor maintenance, such as a silt fence which is not anchored properly throughout the entire length or an inlet protection device with some accumulated silt.
- Expansion of the active disturbed soil area limit without written authorization or sediment controls are installed as required by the BMP plan, but not properly maintained.
- Site inspections by project staff are not being conducted at the required frequencies.
- Non-storm water or waste management BMPs that are improperly maintained.
- Oil, fuel, or brake or transmission fluid spills covering less than one square yard and not adjacent to storm drain inlets, surface waters, or State waters
- Evidence of active wind erosion on unstabilized slopes/stock piles
- Minor tracking less than 50 feet from project ingress/egress locations
- Major deficiencies which are corrected prior to the inspector leaving the site.

**Table 5-2: Enforcement Actions for Construction Projects**

Steps	Enforcement Action
1	Verbal Warning
2	Written Warning: <ul style="list-style-type: none"> <li>• Notice of Non-Compliance</li> <li>• Administrative Compliance Order</li> <li>• Administrative Citations or Fines</li> <li>• Cease and Desist Order</li> </ul>
3	Stop Work Order
4	HCDA to have CCH Revoke Permit(s) and/or Denial of Future Permits
5	HCDA to Refer Non-Compliance to DOH for Further Action

#### Verbal Warnings:

The initial method of requesting corrective action and enforcing compliance will be a verbal warning from the HCDA inspector to the contractor/developer. Verbal warnings are often sufficient to achieve correction of the violation, often while the inspector is present at the construction site. The inspector will notify the developer/contractor's project supervisor of the violation, and document the violation and the notification of the Construction Site BMP Checklist. A specific time frame for correcting the problem and follow-up inspection date will be documented by the inspector.

#### Written Warnings:

If a deficiency that was noted in a prior verbal warning is not corrected by the next inspection, or the severity of the violation is such that a verbal warning is not strong enough, a written warning will be issued. The written warning will describe the deficiency that is to be corrected, suggested

corrective action(s), and the specific time frame for correction and a date for follow-up inspection.

A copy of the written warning will be provided to the contractor's project supervisor and another copy will be provided to the owner/developer. A copy will be placed in the active inspection file and documented on the BMP Checklist. Once the violation has been corrected to the satisfaction of the inspector, the inspector will document compliance in the inspection file.

#### Stop Work Orders:

If a written warning has not been addressed by the next inspection, or if the developer/contractor has not complied with their permit requirements, or if a significant threat to water quality is observed (such as a failure of BMPs resulting in a significant release of sediment or other pollutants off site), a stop work order will be issued by the appropriate official. Stop work orders prohibit further construction activity until the problem is resolved and provide a time frame for correcting the problem.

The stop work order will describe the infraction and specify what corrective action must be taken. A copy of the stop work order will be given to the contractor's project supervisor and owner/developer, and placed in the active inspection file. To restart work once a stop work order has been issued, the contractor's project supervisor must request the inspector to re-inspect the project and verify that the deficiencies have been satisfactorily corrected. If the inspector is satisfied with the corrections, the inspector may sign off on the phase of the project, and work may proceed.

#### Revocation of Permit(s) and/or Denial of Future Permits:

In severe cases of non-compliance or significant discharges, it may be necessary to have the CCH revoke the grading and/or building permit that developer/contractor is working under, withhold final approval, or ask the CCH to deny future permits on the project. The developer/contractor would then have to re-apply for permits and meet any requirements that HCDA and CCH may place on the project. Criteria and procedures will be developed in the permit-issuing program to implement this enforcement tool. Legal counsel should be sought before proceeding with revocation or denial of permits.

### ***5.3.4 Reporting Non-Compliance and Non-Filers to DOH***

In the event that HCDA has exhausted all the above enforcement procedure and cannot bring the contractor's or developer's construction site or construction operations into compliance or otherwise deems the construction site to pose an immediate and significant threat to water quality, human or environmental health, then the DOH will be notified by HCDA as described in this section.

HCDA or their consultant will provide verbal notification to the DOH within one week if the aforementioned enforcement procedures cannot bring the contractor's or developer's construction site or construction operations into compliance. Such verbal notification shall be followed up by a written report and submitted to the DOH within two weeks of the above determination. Written notification(s) will identify the type(s) of non-compliance, describe the actions necessary to achieve compliance, and include all inspection checklists (including notes and related correspondence).

If HCDA identifies a construction site that is subject to coverage under the State's NPDES

General Construction Activities Permit and has not filed an NOI to DOH to apply for coverage or any other applicable requirements of the NPDES permit program, HCDA shall provide written notification to DOH within two weeks of the discovery.

#### **5.4 TRAINING PROGRAM**

Training is one of the keys to a successful storm water program. HCDA will provide annual training on the Construction BMPs Program Plan to all HCDA staff, Harbor Agents, construction contractors, and consultants with construction storm water responsibilities, including inspectors, engineers, maintenance staff, and plan reviewers. This training will be specific to Kewalo Basin activities, policies, and procedures.

Training will be separated and tailored to target HCDA personnel performing two different functions, that of inspections and that of performing construction duties.

- General Program Management Training. This training will consist of overall program administration and implementation. The content of the training will include:
  - Goals and objectives of the Construction Site Runoff Control Program;
  - Regulatory Background;
  - Inventory of Construction Sites;
  - Plan Review and Approval;
  - Proper installation and maintenance of BMPs for Construction Sites; and
  - Overview of the Inspection Program and Enforcement Requirements.
- Construction Site BMP Inspection Training. In addition to the above training, building/grading permit inspectors and/or other staff involved in inspections of construction sites will receive training that consists of procedures for inspecting construction sites and formalized on-the-job instruction.

## **6.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT MINIMUM CONTROL MEASURE**

*Develop, implement and enforce a program to reduce pollutants in storm runoff entering the permittee's small municipal separate storm water sewer system from new development and redevelopment projects which disturb greater than or equal to one acre, including construction sites less than one acre that are part of a large common plan or development or site that would disturb one acre or more, that, at a minimum, includes the following:*

- *Establishment of rules, ordinances, and other regulatory mechanism, including enforcement procedures and actions, that address post-construction runoff from new development and redevelopment projects,*
- *Structural or non-structural best management practices to minimize water quality impacts and attempt to maintain pre-development runoff conditions, and*
- *Procedures for long-term operation and maintenance of best management practices.*

Kewalo Basin tenants (charter, commercial and tour boat operators) are prohibited from storing materials on the piers and land side areas.

In-place structural BMPs which improve the quality of storm runoff at Kewalo Basin Harbor include:

- Operational areas are paved with reinforced concrete or asphalt concrete, to prevent erosion. These surfaces also allow spills of materials to be cleaned up.
- Maintaining minimal to low slopes throughout improved areas (access roadways, piers and aprons) where surfaced with asphalt or reinforced concrete which reduces runoff peak flow quantities and velocity.
- Provision of several drainage detention areas in landscaping, through which runoff may percolate directly into the ground.

Post-construction storm water management is also addressed in part by the preceding minimum control measures: public education and outreach, public involvement and participation, and illicit discharge detection and elimination.

Tenants are notified annually through the tenant self-inspection form mailing that their Revocable Permits and tenant leases require maintenance of post-construction runoff control measures in their premises.

Annual storm water awareness training is provided to HCDA personnel and its harbor operator at Kewalo Basin, to establish awareness of storm water control issues. If a condition or tenant action is observed that negatively impacts storm runoff water quality, HCDA personnel may take a variety of actions ranging from verbal comment, contact with the Environmental Section to modify conditions in common areas, to instituting proceedings against a tenant.

During preparation of the annual report, HCDA personnel including the Harbor Agent and assistants, and maintenance personnel are queried as to the effectiveness of structural and non-structural Best Management Practices.

Tenant educational materials addressing structural and non-structural best management practices from City and County and EPA are distributed to tenants through the annual Tenant Self-Inspection mailing.

During remaining three years in the current term of the Notice of General Permit Coverage, HCDA will continue to implement the above described post-construction storm water control practices.

## **7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING MINIMUM CONTROL MEASURE**

*Develop, implement and enforce an operation and maintenance program to prevent and reduce storm water pollution from activities, including but not limited to, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance that, at a minimum, includes the following:*

- *Good housekeeping and other control measures, and*
- *Employee and contractor training on good housekeeping practices, to ensure that good housekeeping measures and best management practices are properly implemented.*

The following pollution prevention/good housekeeping practices are implemented by HCDA:

- Empty dumpsters and remove and dispose of discarded objects, machinery or equipment.
- General maintenance and repair of public facilities is conducted in-house by a HCDA hired harbor operator, while contractors are usually selected for large projects through the bid process.
- Grounds maintenance personnel use fertilizer or herbicides in accordance with the manufacturer's instructions.
- Pier and apron cleanliness is assessed for debris and staining, and responsible parties notified to conduct cleaning as needed. Operators with leaking vehicles are required to park vehicles and equipment indoors/under cover, provide drip pans and repair leaks.
- The advisory prohibiting disposal of regulated hazardous waste (see Attachments) is sent to all tenants in the annual TSI form mailing.
- Housekeeping activities (refuse collection and disposal, comfort station maintenance, spill records, mailings sent to facility tenants and results of site inspections) are summarized in the annual SWMP effectiveness report.

Revocable permits and tenant leases specifically require tenants to maintain an up-to-date inventory of materials that could contribute to storm water pollution. General instructions for identification, storage, use, collection and treatment of drainage from usage areas prior to discharge to storm or sanitary sewers and disposal of potential storm runoff pollutants are provided.

Good housekeeping education materials based on those developed by the EPA, City and County of Honolulu and others are mailed to tenants annually with the tenant self-inspection form.

Review the annual SWMP effectiveness records, tenant and public comment with respect to tenant and maintenance good housekeeping practices.

During the term of the Notice of General Permit Coverage, HCDA will provide educational advisory materials to tenants in the annual TSI form mailing, and maintain present effective good housekeeping practices.





## 8.0 REFERENCES

Hawaii Administrative Rules (HAR) Title 11, Chapter 55, Water Pollution Control.

Hawaii Revised Statutes (HRS) Chapter 342D, “Water Pollution”.

Hawaii Revised Statutes (HRS) Chapter 342E, “Non Point Source Pollution Management and Control”.

U.S. Environmental Protection Agency, “NPDES Compliance Inspection Manual”, EPA 305-X04-001, July 2004.

U.S. Environmental Protection Agency, 40 CFR 110, Discharge of Oil, 40 CFR 116, Designation of Hazardous Substances, 40 CFR 122 EPA Administered Permit Programs: The National Pollutant Discharge Elimination System.

U.S. Environmental Protection Agency, “Storm Water Management for Industrial Activities – Developing Pollution Prevention Plans and Best Management Practices,” (EPA 832-R-92-006), September 1992.

California Stormwater Quality Association (CASQA), “Stormwater Best Management Practice Handbook – Municipal,” January 2003.

California Stormwater Quality Association (CASQA), “Stormwater Best Management Practice Handbook – Municipal,” January 2003.

State of Hawai‘i Department of Transportation, Highways Division “Storm Water Management Program Plan, O‘ahu District, Pre-Final Compilation” December 2003.

City and County of Honolulu, Department of Environmental Services, “Storm Water Management Plan” April 2007.

