

STORM WATER MANAGEMENT PROGRAM PLAN
FOR
KAKAAKO COMMUNITY DEVELOPMENT DISTRICT
NPDES SMALL MS4 PERMIT NO. HI 08KD270
FINAL

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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

BMPs	Best Management Practices
CCH or City	City and County of Honolulu
DBEDT	State of Hawaii, Department of Business, Economic Development & Tourism
DOH	State of Hawaii, Department of Health
DOT-HWY	State of Hawaii, Department of Transportation, Highway Division
Drainage Rules	Rules Relating to Storm Drainage Standards
ECP	Erosion Control Plan
Erosion Rules	Rules Relating to Soil Erosion Standards and Guidelines
HAR	Hawaii Administrative Rules
HCDA	Hawaii Community Development Authority
HRS	Hawaii Revised Statutes
KCDD	Kakaako Community Development District (Kakaako District)
MS4	municipal separate storm sewer system
NGPC	Notice of General Permit Coverage
NAV	Notice of Apparent Violation
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OHA	Office of Hawaiian Affairs
SIS	Site Investigation Sheets
SSBMP	Site-Specific Best Management Practices Plan
State	State of Hawaii
SWMP	Storm Water Management Program
SWMPP	Storm Water Management Program Plan
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
WQR	Water Quality Report

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1. Introduction

The Hawaii Community Development Authority (HCDA), a public corporate entity attached to the State of Hawaii (State) Department of Business, Economic Development & Tourism (DBEDT), has developed this Storm Water Management Program Plan (SWMPP) to accompany a Notice of Intent (NOI) for Hawaii Administrative Rules (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 (MS4) for the storm drainage system operated at Kakaako, Oahu. For location/facility maps and a listing of drainage structures for the Kakaako Community Development District (KCDD) Small MS4 see Attachments A and B.

The KCDD Small MS4 discharges through a double box culvert (2 - 11.5' x 9') directly to Mamala Bay at the southern end of Keawe Street. Mamala Bay is identified by HAR Chapter 11-54 as a Class A embayment. The remainder of the storm drainage system discharges to the City and County of Honolulu (City or CCH) MS4 before discharging to State waters. A copy of the letter from the CCH allowing discharge of storm water runoff from the KCDD Small MS4 and listing of these drainage structures are provided as Attachment C. Maps showing the receiving waters from the KCDD Small MS4 are included in Attachment A2-A and A2-B. A flow chart representing the path of storm water runoff from the KCDD Small MS4 is attached as Attachment D and a listing of KCDD Receiving State Waters information is attached as Attachment E.

In 2005, amendments to the HAR were adopted for the Kakaako Mauka and Makai areas in Chapter 15-22 and 15-23, respectively. HAR Chapter 15-22 was repealed in 2011 and HAR Chapter 15-217 “Mauka Area Rules” and HAR Chapter 15-218 “Kakaako Reserved Housing Rules” were adopted (Attachments F and G). The rules define permissible activities, regulate operations, and set forth procedures for obtaining leases and related fees within the KCDD. These rules, which were drafted with extensive stakeholder input, are considered necessary and desirable to facilitate the public’s use and enjoyment of the KCDD, and for HCDA to manage the KCDD Small MS4. In April 2012, the State transferred ten (10) land parcels in the Makai area to the Office of Hawaiian Affairs (OHA). However, the roadways and storm drainage system remain under HCDA ownership.

HCDA submitted a NOI application to the State, Department of Health (DOH) for the NGPC Authorizing Discharges of Storm Water and Certain Non-Storm Water Discharges from the KCDD Small MS4 on November 25, 2007. HCDA was granted a NGPC, File No. HI 08KD270, on May 12, 2009 which expired on October 21, 2012. HCDA reapplied for and received a Renewal NGPC from DOH on December 9, 2013.

HCDA was audited by the United States Environmental Protection Agency (USEPA) and DOH on March 12 to 13, 2014. The results of the audit were presented in an audit report, dated July 15, 2014. The audit report identified four (4) potential permit violations and ten (10) program deficiencies. In addition, HCDA received a Notice of Apparent Violation (NAV), reference number 07037EMK.14, from DOH dated July 29, 2014. The NAV required HCDA to provide a revised SWMPP, no later than 180 days from the date of the NAV. This revised SWMPP is submitted to DOH in response to the NAV. The SWMPP is intended to guide compliance with the Hawaii NPDES program as promulgated in the HAR, Chapter 11-55, Water Pollution Control, Appendix K, for areas administered by the HCDA in the KCDD.

This SWMPP describes efforts to be made by HCDA in the six (6) Minimum Control Measures required by the HAR, Chapter 11-55, Appendix K. The six (6) Minimum Control Measures are:

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping

Goals by which program effectiveness and compliance for each Minimum Control Measure, with the conditions of the NGPC, are assessed and provided in Section 8. An Annual Report summarizing actions taken and progress toward the yearly goals of each Minimum Control Measure shall be provided to the DOH, no later than January 28 of the following year.

Paragraphs in italics state the requirements of HAR, Chapter 11-55, Appendix K, the efforts to be made during the remainder of the NGPC term (NGPC expires on December 5, 2016), and criteria through which the efforts will be assessed in the Annual Reports.

2. 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:

- (A) Impacts of storm water discharges on water bodies,*
- (B) Hazards associated with illicit discharges, and*
- (C) 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 HCDA is committed to educating the public on storm water pollution prevention and the effects of illicit discharges on the environment. Outreach methods vary based on the targeted audience. Outreach topics focus on the impact of non-storm water discharges on water bodies and how to prevent discharges such as proper implementation and maintenance of construction, post-construction, and good housekeeping best management practices (BMPs).

2.1 Targeted Outreach

Outreach efforts will be targeted at prioritized audiences. For the remainder of this permit term, prioritized audiences include:

- Commercial and industrial business with highest potential to discharge pollutants to HCDA’s MS4, including:
 - Restaurants
 - Automotive repair facilities
 - Gasoline retail outlets
- Residents living in condominiums
- Sources identified during drainage system inspections (See Section 7.2 for more information)
- Development permit applicants

Commercial and Industrial Business Outreach

Outreach methods include informal commercial and industrial facility visits and distribution of educational materials. HCDA maintains an inventory of commercial and industrial facilities that discharge into HCDA’s Small MS4. The inventory will be expanded to include commercial and industrial facilities that discharge to other MS4s within the KCDD, including the CCH and the State Department of Transportation, Highway Division’s (DOT-HWY) MS4s by December 5, 2016 (please see Section 4.4 for more information). This inventory aids in identifying potential outreach opportunities and will be included in the Annual Report each year.

Resident Outreach

Outreach efforts will be specifically targeted towards residents living in condominiums. Outreach methods include informal meetings with condominium property managers and

distribution of items such as biodegradable pet waste bags and children's activity books.

Outreach to Sources Identified During Drainage System Inspections

During drainage system inspections, HCDA-owned catch basins are opened and the types of trash found inside are recorded. HCDA will attempt to identify and provide outreach to trash sources identified. HCDA will revise the inspection form to include a section on potential sources of trash by December 31, 2015. See Section 7.2 for more information on storm drain system inspections and cleaning.

Development Permit Applicants

Development permit applicants occasionally ask for a consultation with HCDA. During the consultation, HCDA will educate the applicant on construction and post-construction requirements and provide the applicants with appropriate brochures.

2.2 Printed Materials

HCDA has developed a KCDD SWMP brochure to inform businesses, residents, and users of public facilities in the KCDD area about the goals of the program, explain the different Minimum Control Measures of the program, and direct them to the HCDA website for more information. The brochure also invites readers to read the Kakaako SWMPP for more information. The brochure is available as Attachment H. HCDA also uses the educational outreach materials created by the CCH. Samples of CCH educational outreach materials are available in Attachment I. Printed materials are distributed during facility visits and SWMP activities, as appropriate.

2.3 HCDA Newsletter

An HCDA monthly newsletter is available on the HCDA website (<http://dbedt.hawaii.gov/hcda>) and emailed to the HCDA contact list. The contact list includes an array of audiences including but not limited to reporters, developers, and community residents. HCDA will annually write and publish an article in HCDA newsletter. The article will focus on a different storm water topic each year.

2.4 Storm Drain Stencils and Posting Signage

Each drain within the KCDD Small MS4 has been labeled with a stainless steel placard with the words "Dump No Waste, Protect our Waters," along with the catch basin identification number, See Figure 1.



Figure 1: KCDD Storm Drain Marker

These visible reminders help to alert the public about the impacts of illicit discharges and storm water pollution. Also, the identification numbers assist HCDA when performing inspections of the KCDD Small MS4. As part of the drainage system inspection (see Section 7.2 for more information), HCDA makes note of any broken or missing placard(s) and replace placard(s), as needed. HCDA has also posted signage and drain stencils at visible public locations including park facilities.

2.5 Annual Survey

An annual survey will be created to measure the changes in knowledge, attitudes, and behavior towards storm water and pollution prevention. The survey will be announced in the HCDA newsletter. HCDA will analyze the results of the survey and adjust the SWMP accordingly. A summary of the survey results and analysis will be provided as part of Annual Report.

2.6 Coordination with other MS4 Agencies

The municipal storm drain system within KCDD varies between a structural and non-structural system and portions of the structural system is owned and/or operated by HCDA, CCH, and DOT-HWY. Each agency is currently implementing their own NPDES storm water program in the KCDD for each portion that discharges to their individual MS4. HCDA will pursue an agreement with the CCH and DOT-HWY to coordinate efforts and establish program responsibility within the KCDD for the following program elements:

- Public Education and Outreach
- Illicit Discharge Investigation and Enforcement
- Construction Inspection and Enforcement
- Storm Drain System Mapping

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3. 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 involvement and participation is intended to raise public consciousness of water quality issues, create a sense of responsibility for water quality, and allow the public a chance to participate in the development of the SWMPP. The goal of this Minimum Control Measure is 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.

3.1 Public Notice of SWMPP

HCDA will invite public involvement and participation by posting the SWMPP to the HCDA website (<http://dbedt.hawaii.gov/hcda>) and announcing the KCDD SWMPP at public meetings such as the Kakaako Improvement Association and Kakaako Makai Community Planning Advisory Council monthly meetings. Comments received will be taken into consideration, and each will be replied to and posted on the HCDA website.

3.2 Community Cleanup Events

HCDA organizes and participates in various community cleanup events in the KCDD area. During these events, volunteers and HCDA personnel collect trash and debris in an effort to keep these items out of the KCDD Small MS4 and reduce the possibility of polluted storm water runoff. HCDA will continue participation in these events throughout the NGPC term.

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4. 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:

- (A) 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,*
- (B) “Procedures to detect and eliminate illicit discharges (as defined in 40 CFR Section 122.26(b) (2))”*
- (C) 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.”*

4.1 Legal Authority

Chapter 206E, Hawaii Revised Statutes (HRS), established the KCDD and authorized HCDA to develop and adopt community development rules on health, safety, building, planning, zoning, and land use. Chapter 206E also indicates that the rules of the DOH continue to apply to all activities and properties within KCDD, including water pollution (Chapter 11-55). HCDA requires compliance with federal, state, and county laws, ordinances and rules.

HCDA has authority to enforce their zoning ordinance, development permit, and regulate entities with a revocable permit or lease agreement. The tenant revocable permits and lease agreements include language that prohibits the discharge of pollutants. An example copy of the tenant revocable lease is included as Attachment J. HCDA will research options to expand their legal authority for areas that are not owned by HCDA in 2015 and submit a revised SWMPP as part of the 2015 Annual Report.

HCDA and authorized consultants will respond to illicit discharges and following the procedures of the Illicit Discharge Detection and Elimination Enforcement Plan (please see Section 4.3 for more details). HCDA will correspond with the appropriate agency for discharges that enter directly into State waters, another agency’s MS4. Depending on the type and amount of discharge, hazardous substances or at least 25 gallons of petroleum product, HCDA will be referred to the appropriate agency, as shown in Table 1, for emergency response.

Table 1: Storm Water Emergency Contact Numbers

Contact Point/Agency	Release Description	Business Hours (M-F 0700-1600)	After Hours/ Weekend, Holidays
HCDA	Spill to KCDD Small MS4	(808) 594-0300	(808) 594-0300 – leave message
HCDA Consultant	Spill to KCDD Small MS4	(808) 529-7258	(808) 529-7258 -leave message
Emergency (Medical, Fire, Police)	Release of a hazardous substance which poses an imminent or immediate threat to public health or the environment	911	911
DOH, Hawaii State Emergency Response Commission waters	Spill to State waters (ocean or streams) of 25 gallons or more of petroleum product or quantity greater than Reportable Quantity (see Materials Safety Data Sheet)	(808) 586-4249	(808) 247-2191
National Response Center	Release of 25 gallons or more of petroleum product	1-800-424-8802	1-800-424-8802
CCH Environmental Concern Line	Spill to CCH storm drain system	(808) 768-3300	(808) 768-3300

HCDA will pursue an agreement with the City and DOT-HWY to enforce against illicit discharges discovered in KCDD (please see Section 2.6 for more details).

4.2 Permitted Non-Storm Water Discharges

The authorized non-storm water discharges permitted to be discharged through the KCDD Small MS4 by the NPDES Small MS4 NGPC (No. HI 08KD270) are as follows:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration (as defined in 40 CFR §35.2005(20))
- Uncontaminated pumped ground water (not including construction related dewatering activities)
- Discharges from foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space pumps and footing drains
- Lawn water runoff

- Water from individual residential car washing
- Water from charity car washes (using potable water)
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Exterior building wash water without soaps/detergents
- Residential street wash water without soaps/detergents(using potable water), including wash water from sidewalks, plazas, and driveways, but excluding parking lots
- Discharges or flows from firefighting activities

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

In this permit term, HCDA is requesting that DOH add condominium resident wash water to the list of allowable non-storm water discharges. The City's BMPs factsheets for charity car wash discharges, residential car wash discharges, and condominium car wash discharges are included as Attachment K and will be made available to groups holding charity car washes and condominium property managers.

4.3 Illicit Discharge Detection and Elimination Enforcement Plan

HCDA will annually collect reports of reported apparent storm water quality violations from call-in complaints and inspection activities. Investigations of reported illegal discharge incidents are recorded by HCDA personnel and HCDA authorized consultants on Site Investigation Sheets (Attachment L - SIS). The completed SISs, with complaints or observances of actions which require intervention, are routed for action to the appropriate HCDA office.

By June 30, 2015, HCDA will create an Illicit Discharge Detection and Elimination Enforcement Plan. The purpose of the Illicit Discharge Detection and Elimination Enforcement Plan is to establish the procedures HCDA personnel and HCDA authorized consultants will take when an illicit discharge is detected. The Illicit Discharge Detection and Elimination Enforcement Plan will include the following:

- HCDA personnel responsible for detecting and investigating illicit discharges.
- Procedures for staff investigating illicit discharges and tracing the discharge to the source.
- Enforcement actions including referral to City, DOT, or DOH.
- Documentation of illicit discharge investigations and follow-up actions.

4.4 Facility Inventory

An inventory of commercial and industrial facilities that discharge to the KCDD's Small MS4 was created and is updated annually. HCDA will update their current Facility inventory to include information on revocable leases and tenant agreements with HCDA by June 30, 2015. By December 5, 2016 the inventory will be expanded to include all Facilities that are within the

KCDD. The inventory shall include:

- Facility name
- Street address
- Nature of the business or activity
- Storm drain inlet description (description on where the facility discharges, such as: HCDA, City, DOT-HWY, or natural drainage system)
- Agreement with HCDA (revocable lease or tenant agreement)

4.5 Facility Inspections

HCDA's legal authority to inspect commercial and industrial facilities is limited to those facilities that have a revocable lease or tenant agreement with HCDA. Facilities that have a revocable lease or tenant agreement with HCDA and have a high potential to discharge pollutants will be inspected annually. High priority facilities without a revocable lease or tenant agreement with HCDA will be inspected as part of the wet weather inspection program, see Section 4.6 below for more information. Priority facilities include:

- Restaurants
- Retail gasoline outlets
- Automotive repair shops
- Uncovered parking lots

The purpose of facility inspections is to provide public education and outreach opportunities to discuss good housekeeping BMPs that facility owners can use to reduce the potential for non-storm water discharges from their property. Inspections will include a discussion with facility owners on the potential sources of pollutants at the facility and the necessary control measures to prevent discharge of pollutants. Educational materials will continue to be distributed during facility visits. Please see Attachment M for a copy of the commercial and industrial facility checklist used to document facility inspections.

4.6 Wet Weather Inspections

HCDA will conduct wet weather inspections to actively look for, stop, and prevent future illicit discharges. Wet weather inspections are visual assessments of sheet flow discharges to storm drain inlets for evidence of pollutants. A wet weather inspection checklist will be created to document inspections. Upon development of the Illicit Discharge Detection and Elimination Enforcement Plan on June 30, 2015, HCDA will follow the procedures outlined in the plan in the event that a non-storm water discharge is observed. The following sites are subject to wet weather inspection:

- High priority industrial and commercial facilities that do not have a revocable lease or tenant agreement with HCDA.
- Facilities identified during the drainage system inspection and cleaning as potential source of pollution (See section 7.2).

4.7 New Connection/Discharge Notification

HCDA requires new and existing facilities to notify the HCDA of any new temporary and/or permanent connections which will discharge to the KCDD Small MS4. The facility that is making the new connection is required to submit a Kakaako District MS4 Private Drain Connection Application. A sample of the application is included as Attachment N. Once the application is reviewed, HCDA can choose to approve or prohibit new connections or runoff from the facility.

4.8 Training

HCDA will provide initial and refresher NPDES training to key personnel from all appropriate HCDA departments to instruct personnel at all levels of responsibility concerning the components and goals of the SWMPP.

The training addresses the following areas:

- Regulatory Requirement
- Identifying, Investigating, and Enforcing Against Illicit Discharges
- 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
- Recording Incidents

A record of attendees at each NPDES training session is kept for inclusion in the Annual Report.

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5. 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:

- (A) Establishment of rules, ordinances and other regulatory mechanism, including enforcement procedures and actions, that require erosion and sediment controls,*
- (B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices,*
- (C) 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,*
- (D) Procedures for site plan review of construction plans which incorporate consideration of potential water quality impacts,*
- (E) Procedures for receipt and consideration of information submitted by the public,*
- (F) Procedures for site inspection and enforcement of control measures.”*

The City has jurisdiction, island-wide, over proposed construction projects. For this reason, HCDA defers projects construction projects within the KCDD to the City for NPDES review and approval as part of their development permit requirements. HCDA will begin reviewing projects to verify that construction projects in the KCDD have incorporated appropriate construction and post-construction BMPs into their construction plans by March 31, 2015.

The City developed and adopted Rules Relating to Erosion Standards and Guidelines (Erosion Rules) and Rules Relating to Storm Drainage Standards (Drainage Rules) that specify the requirements for construction and post-construction BMPs, respectively. The City will not issue a grading or building permit until the construction project satisfies the requirements of the Erosion Rules and Drainage Rules, as applicable. A copy of the Erosion Rules is available in Attachment O and the Drainage Rules is available in Attachment P.

Post-construction BMPs are included in this section of the SWMPP because they need to be included as part of the concept, planning, and design phase. Post-construction BMPs that are incorporated into the projects during the concept, planning, and design phase are more cost-effective, as well as effective at treating site specific pollutants than BMPs that are incorporate into the projects at the end of the design phase. Information on projects subject to Post-construction BMPs is available in Section 5.1 and information on the post-construction BMP requirements is available in Section 6.

The Construction Site Runoff Control Program consists of the following components which work together to reduce pollutants from being discharged to the KCDD Small 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, November 2011

- Construction Site Runoff Control Inspection and Enforcement Program
- Construction Site Runoff Control Training Program

5.1 Construction Projects Subject to Construction and Post-Construction BMPs

Construction improvements in the KCDD are planned and authorized by HCDA. Existing rules and ordinances prohibit construction, of any building or structures, of any nature within the KCDD without prior permission of the HCDA and any other governmental agency as required by law, see HAR Title 15.

Each construction project that applies for a development permit will be evaluated to determine if the project is required to implement construction and/or post-construction BMPs as specified in the Erosion Rules and/or Drainage Rules.

Projects Subject to Construction BMPs/Erosion Rules

The Erosion Rules establish the minimum construction BMP requirements for projects that propose an activity that will result 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. Projects that fall under one (1) of the five (5) construction project categories, as defined in Table 2, are subject to the Erosion Rules.

In addition, HRS 11-55-04 requires any individual, agency, business, or organization, including HCDA 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. DOH administers the NPDES program for the state, and requires that a NOI, which is used to obtain a NPDES General Permit Authorizing Discharges associated with the General Construction Activities Permit or an individual permit application include a Storm Water Pollution Prevention Plan (SWPPP) that complies with State and Federal standards.

Table 2: City and County of Honolulu Construction Project Categories

Category	Description
1	Projects which are not required to obtain a grading, grubbing, or stockpiling permit but which require a building permit and if soil disturbance is to occur.
2	Projects which require a grading or stockpiling permit where the area of the zoning lot or portion thereof subject to the permit is less than 15,000 square feet for single-family or two-family dwelling uses and less than 7,500 square feet for other uses.
3	Projects which require a grading or stockpiling permit where the area of the zoning lot or portion thereof subject to the permit is 15,000 square feet or more for single-family or two-family dwelling uses, or 7,500 square feet or more for other uses, but where the total area graded or stockpiled upon is less than 15,000 square feet for single-family or two-family dwellings uses and less than 7,500 square feet for other uses.

Table 2 (Cont'd): City and County of Honolulu Construction Project Categories

Category	Description
4	Projects which require a grading, grubbing, or stockpiling permit where the total area including any areas developed incrementally that is to be graded, grubbed, or stockpiled upon is 15,000 square feet or more for single-family or two-family dwelling uses, or 7,500 square feet or more for other uses, or in the event a proposed cut or fill is greater than 15 feet in height for single-family or two-family dwelling uses, or 7.5 feet in height for other uses.
5	Projects where the total area that is to be graded, grubbed, or stockpiled upon is one (1) acre or more, including any areas developed as part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more of total land, and which require a NPDES General/Individual Permit Authorizing Discharges of Storm Water Associated with Construction Activity issued by the DOH.

Projects Subject to Post-Construction BMPs/Drainage Rules

The Drainage Rules apply to the types of projects listed below and are required to implement Post Construction BMPs. A copy of the most recently revised Drainage Rules are available in Attachment P. HCDA will revise the SWMPP when the City amends the Drainage Rules, as appropriate. More information on post-construction BMPs is available in Section 6.

- Priority A1
 - Projects that disturb at least five acres
- Priority A2
 - All projects that disturb between one and five acres
- Priority B
 - Retail gasoline outlets, automotive repair shops, restaurants and parking lots with at least 10,000 square feet of total impervious surface area.

5.2 NPDES Review and Approval Process

The minimum requirements for projects subject to construction and/or post-construction BMPs can be found in Table 3. HCDA will revise the language in their conditions of approval to require the applicant, prior to receiving a development permit from HCDA, to demonstrate the following:

- Proof of filing a NOI with DOH, as applicable.
- A certified SWPPP by the owner/developer in compliance with the General Construction Activities Permit, as applicable.
- An approved Erosion Control Plan (ECP) has been prepared and certified by the owner/developer.
- An approved Water Quality Report (WQR) or Water Quality Checklist (WQC) signed by the owner/developer, and signed and stamped by a Professional Engineer who is licensed and registered to practice in the State of Hawaii.

HCDA will perform a cursory review of the ECP and the WQR or WQC to verify that appropriate construction and post-construction BMPs are proposed by March 31, 2015. HCDA

will create a Cursory Review Checklist to document the review and a flow chart to demonstrate the review and approval process.

Table 3: Minimum Construction Project Requirements

	HCDA		Contractor/Developer	
	<i>Construction</i>	<i>Post-Construction</i>	<i>Construction</i>	<i>Post-Construction</i>
<i>Projects less than one acre</i>	<ul style="list-style-type: none"> Require proof that CCH approved grading and/or building permit. Review Minimum BMP checklist. 	<ul style="list-style-type: none"> Review WQC (small projects as defined in Section 5.4 only). 	<ul style="list-style-type: none"> Apply for CCH grading or building permit. Acknowledge requirement to implement and comply with CCH minimum BMPs. Prepare and submit an ECP to CCH for approval. 	<ul style="list-style-type: none"> Prepare and submit a WQC (small projects as defined in Section 5.4 only).
<i>Projects that disturb one acre or greater</i>	<ul style="list-style-type: none"> Require proof of NOI for coverage under the State NPDES General Construction Activities Permit has been submitted and accepted by DOH. Review ECP. Require proof that CCH approved grading permit. 	<ul style="list-style-type: none"> Review WQR or WQC depending on the priority level. 	<ul style="list-style-type: none"> Prepare and submit an ECP to CCH for approval. Prepare a SWPPP. Prepare and submit an NOI for coverage under the State NPDES General Construction Activities Permit to DOH. Apply for CCH grading or building permit (show proof of NOI). 	<ul style="list-style-type: none"> Prepare and submit a WQR or WQC depending on the priority level.

5.3 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 has developed an excel spreadsheet to keep an inventory of all construction sites. This spreadsheet tracks permits and inspections associated with these construction sites and will be included in the KCDD Small MS4 Annual Report.

5.4 Priority Construction Sites

HCDA will conduct construction inspections at high priority sites. For the remainder of this Permit term, high priority sites are those with the highest potential to discharge pollutants. This includes:

- Projects that result in a land disturbance of one (1) acre or more
- Small projects that have the potential to discharge pollutants to the MS4, including:
 - Retail gasoline outlets
 - Automotive repair shops
 - Restaurants
 - Parking lots greater than 20 stalls
 - Buildings greater than 100-feet tall
 - Retail malls
 - Industrial parks
 - Other projects that are determined to have high potential to discharge pollutants
- Projects that have post-construction BMPs

5.5 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, as well as to identify maintenance (i.e., sediment removal) and repair needs.

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

5.6 Oversight Inspection of Construction Projects

Priority 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.

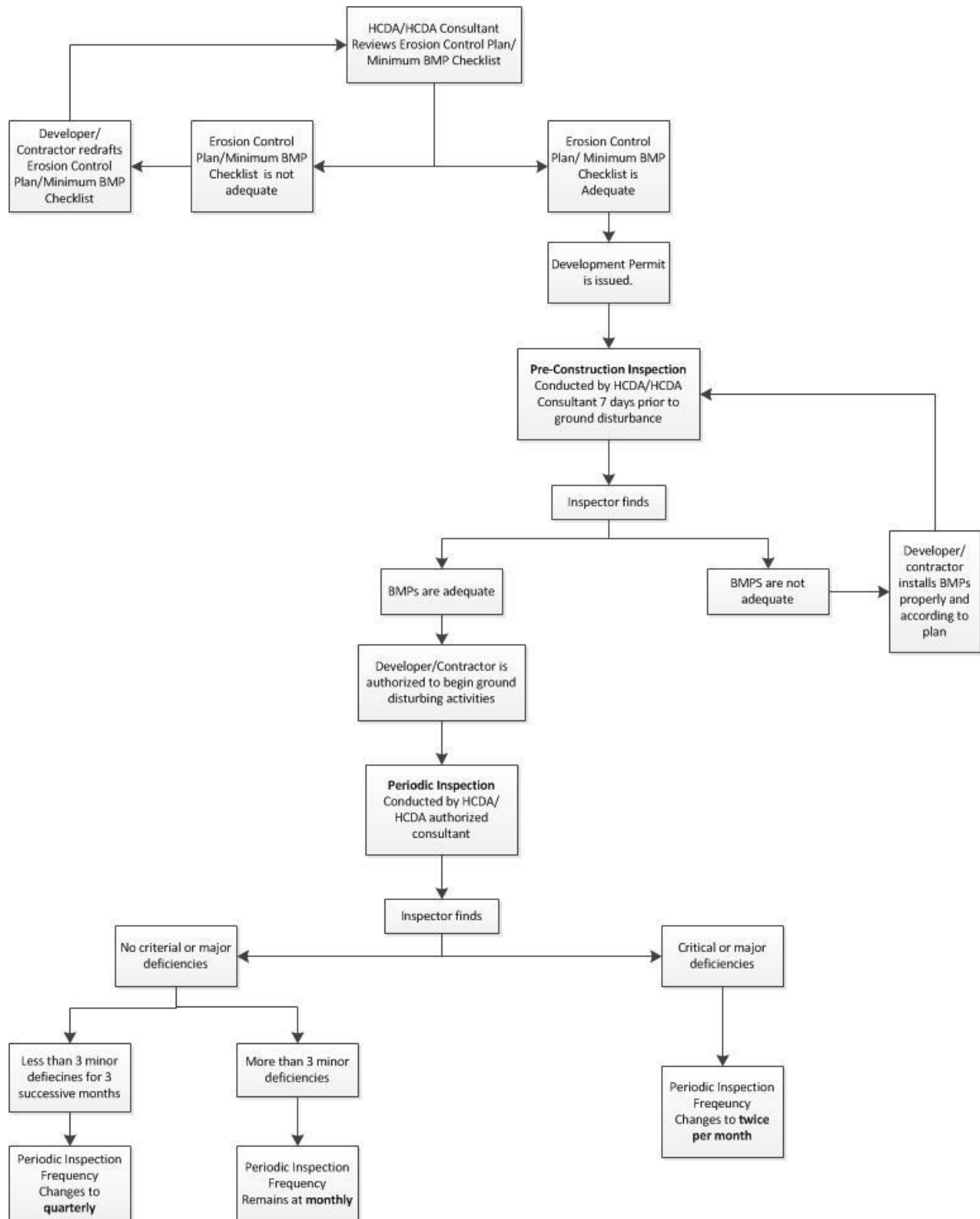
Inspections performed by HCDA inspectors (HCDA personnel, authorized consultants, and harbor operator HCDA inspectors) include two (2) different types of inspections: pre-construction and periodic. Pre-construction inspections serve to ensure that construction BMPs are installed properly and in the correct locations, per ECPs, before ground disturbing activities begins.

When conducting inspections, the HCDA inspector will use a Construction Checklist (Attachment R) or equivalent to evaluate and document the construction site compliance status with applicable requirements. At a minimum, HCDA inspections will be conducted at the frequencies shown in Figure 2 and the purpose of the inspection is to:

- Determine whether the construction site is in conformance with the development permit
- Review contractor/developer's weekly inspection checklist to determine whether minimum self-inspections have been performed.
- Determine whether the contractor is making appropriate adjustments when ineffective BMPs are found.
- Inspect minimum BMP requirements to determine if they are properly implemented and maintained on the construction site.
- Review the ECP/Minimum BMP checklist and determine whether the requirements of the Plans are being implemented and maintained properly on the construction site.

When a project is in violation of the permit, inspectors have the authority to enforce respective permit conditions by issuing verbal warning, written notices, stop work orders, or revoking the development permit. More information on enforcement actions is available in Section 5.7. Inspectors will immediately inform the developer/contractor if any illicit discharge, deficiency, or violations of the NGPC or other NPDES permit are found so that the problem(s) can be corrected or addressed.

Figure 2: Inspection Process and Frequency



5.7 Construction and Post-Construction Enforcement Plan

HCDA will create a Construction and Post-Construction Enforcement Plan by June 30, 2015. The purpose of the Construction and Post-Construction Enforcement Plan is to provide guidance to the HCDA inspector to follow when conducting construction and post-construction BMPs inspections and issuing/escalating enforcement actions. The Construction and Post-Construction Enforcement Plan shall include:

- Inspection Procedures
- Types of Deficiencies
- Enforcement Actions
- Response Time/Escalating Enforcement Actions
- Documentation and Reporting
- Examples

5.8 Reporting Non-Compliance and Non-Filers to DOH

In the event that HCDA has exhausted all the enforcement procedures, listed in Section 5.6, 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, HCDA will then notify DOH, as described in this section.

HCDA or their consultant will verbally notify DOH within one (1) week if the aforementioned enforcement procedures cannot bring the contractor's or developer's construction site or construction operations into compliance. Such verbal notification(s) shall be followed up by a written report submitted to DOH within two (2) 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 (2) weeks of the discovery.

5.9 Training Program

Training is one (1) of the keys to a successful storm water program. HCDA will provide regular training on the Construction BMPs Program Plan to all HCDA staff, construction contractors, and consultants with construction storm water responsibilities, including inspectors, engineers, maintenance staff, and plan reviewers. This training is specific to KCDD activities, policies, and procedures.

Training is separated and tailored to target HCDA personnel performing different functions: plan review, inspection, and construction.

General Program Management Training. This training will consist of overall program administration and implementation. The training will include:

- Goals and Objectives of the Construction Site Runoff Control Program
- Regulatory Background
- City's Rules Relating to Soil Erosion Standards and Guidelines
- Inventory of Construction Sites
- Plan Review and Approval
- Proper Installation and Maintenance of BMPs for Construction Sites
- Overview of the Inspection Program and Enforcement Requirements

Construction Site BMP Inspection Training. In addition to the general program management 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.

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6. 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:

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

Construction improvements in the KCDD are planned and authorized by HCDA. As part of the development permit, HCDA requires the applicant to obtain a grading or building permit from the City, as applicable. Prior to issuing the development permit, HCDA will perform a cursory review to verify that post-construction BMPs have been incorporated into the plans. Please see Section 5.1 for information on projects subject to post-construction requirements and Section 5.2 or more information on the review and approval process.

The overall Post-Construction Storm Water Management in New and Redevelopment Program consists of the following components to reduce pollutants being discharged to the KCDD Small MS4 and State waters:

- Post-Construction Storm Water Management Practices Review and Approval Process
- New and Redevelopment Best Management Practice (BMP) Manual – *City and County of Honolulu Best Management Practices Manual for Construction Sites in Honolulu*, July 2014
- Post-Construction BMP Inspection and Enforcement Program
- Post-Construction BMP Training Program

6.1 Post-Construction BMP Requirements

New and redevelopment projects within KCDD are required to satisfy the post-construction BMP requirements established under the City’s Rules Relating to Storm Drainage Standards (Drainage Rules), as amended. A copy of the most recently revised Drainage Rules are available in Attachment P. The Drainage Rules require regulated projects to address post-construction runoff using Low Impact Development (LID) Site Design Strategies, Source Control BMPs, LID Post-Construction Treatment Control BMPs (Retention and Biofiltration), and Other Post-Construction Treatment Control BMPs. The City’s description of these elements is presented in Table 4. HCDA will revise the SWMPP when the City amends the Drainage Rules, as appropriate.

Table 4: City and County of Honolulu’s Post-Construction Storm Water BMPs

Element	Description
LID Site Design Strategies	Reducing the hydrologic impact of development and incorporating techniques that maintain or restore the site’s hydrologic and hydraulic functions.
Source Control BMPs	Preventing Pollutants from coming in contact with runoff and preventing polluted runoff from discharging into the MS4.
LID Retention BMPs	Retaining runoff on-site with no off-site discharge, by infiltration, evapotranspiration, and harvesting/reuse.
LID Biofiltration BMPs	Removing pollutants from runoff by filtering storm water through vegetation and soils.
Other Treatment BMPs	Removing pollutants from runoff by detention, settling, filtration and vortex separation.

6.2 Post-Construction BMP Review and Approval Process

The Construction Site Runoff Control Program and the Post-Construction Storm Water Management in New and Redevelopment Program are interconnected. The Post-Construction Storm Water Management in New and Redevelopment Program requires treatment measures that must be designed and included as part of the concept, planning, and design phase and is reviewed and approved as part of the development permit process. For more information please see Section 5.2.

6.3 Post-Construction BMP Inspections

Post-construction BMPs require continual maintenance to ensure that they are operating as designed to managing post-construction runoff as intended. Prior to issuing a certificate of occupancy or closing the Development Permit, HCDA will verify that post-construction runoff control measures were installed according to plan and require a copy of the operation and maintenance plan. Each installed treatment control BMP will receive an annual inspection by HCDA personnel or authorized consultant to verify that it is properly maintained. HCDA will create an operation and maintenance checklist to document the results of the inspections, including: the condition of the BMP, whether maintenance is required and corrective actions the owner must implement. When a deficiency is noted, the HCDA inspector will follow the protocols outlined in the Construction and Post-Construction Enforcement Plan. More information on the Construction and Post-Construction Enforcement Plan is available in Section 5.7.

6.4 Post-Construction BMP Inventory

HCDA will create an inventory of installed post-construction BMPs by June 30, 2015, including post construction BMPs previously installed. HCDA will continue to update the inventory as new post-construction BMPs are implemented. The inventory will include the following information:

- Project name
- Project location
- Owner information
- Tax Map Key
- Type and number of treatment control BMPs
- Map of locations of the treatment control BMPs
- Date that HCDA verified BMP was installed according to plan
- Photographs

6.5 Post-Construction BMP Training Program

HCDA will provide regular training on the Post-Construction BMPs Program to inspectors, engineers, maintenance staff, and plan reviewers. Training will focus on the following topics:

- Goals and objectives of the Post-Construction BMPs Program
- City's Rules Relating to Storm Drainage Standards
- Plan Review and Approval
- Proper installation and maintenance of Post-Construction BMPs
- Overview of the Inspection Program and Enforcement Requirements

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7. 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:

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

Good housekeeping practices minimize the pollutants generated by municipal operations and maintenance activities. HCDA municipal activities are limited to operation and maintenance of HCDA parks and the MS4.

Good housekeeping practices are evaluated and discussed during private facility inspections conducted by the HCDA. For information of facility inspections please see Sections 4.6 and 4.7. During the term of the NGPC, HCDA will continue to provide educational materials to industrial/ commercial facilities discharging to the KCDD Small MS4 with the goal to maintain present effective good housekeeping practices.

7.1 Storm Drainage System Map

HCDA has created maps of their structural storm drainage system, including outfalls. HCDA will revise the maps by June 30, 2015 to include the CCH and DOT-HWY MS4. By December 31, 2015, the HCDA will identify which HCDA-owned catch basins are tidally influenced or influenced by sub-drainage streams and update the MS4 map as appropriate. The maps will continually be refined during drainage system inspections. The current MS4 maps and a listing of KCDD Small MS4 drainage structures are presented in the Attachment A and B.

7.2 Drainage System Inspections and Cleaning

A variety of pollutants can discharge and accumulate in the storm drainage system and eventually flow into receiving waters. HCDA’s MS4 is tidally influenced which results in inundated catch basins and submerged outfalls. Constant flow makes it difficult to identify illicit discharges in tidally influenced catch basins, which is why the intent of the drainage system inspections is to determine which catch basins need cleaning rather than detecting illicit discharges.

HCDA routinely performs visual inspection of catch basins and outfalls. Catch basins will be prioritized based on historical data on the amount of trash found in the catch basin and those with the highest priority will be inspected at a higher frequency. At minimum, each catch basin shall be inspected at least once during the permit term. Inspections include taking photographs and documenting the type and amount of trash found in each catch basin. HCDA works with a non-profit organization to clean out appropriate catch basins and quantify the amount of trash removed. HCDA will revise the checklist used to document drainage system inspections to include the potential sources of trash and the level of trash in the catch basin.

If an inappropriate runoff condition is observed during an inspection, it will be reported. Where a contributing party may be identified, a warning will be issued and a record made for inclusion to the Annual Report. If repeat inappropriate dischargers are identified, the circumstances of the discharges will be investigated to assess appropriate measures.

7.3 Public Parks

HCDA owns and operates the following public parks:

- Kewalo Basin Park
- Kakaako Makai Gateway Park
- Kakaako Waterfront Park
- Queen Street/Kolowalu Parks
- Mother Waldron Park

HCDA hires separate contractors for their ground maintenance work, janitorial services and solid waste collection at HCDA public parks. Ground maintenance personnel are responsible for cutting grass, picking up trash, applying fertilizers/ herbicides, repairing sprinklers and cleaning drain inserts at the public parks in the KCDD. The janitorial services are responsible for cleaning the comfort stations and the solid waste hauler is responsible for regularly emptying trash bins at HCDA public parks.

HCDA staff and/or authorized consultants inspect the public parks to assess good housekeeping effectiveness of HCDA maintenance personnel annually.

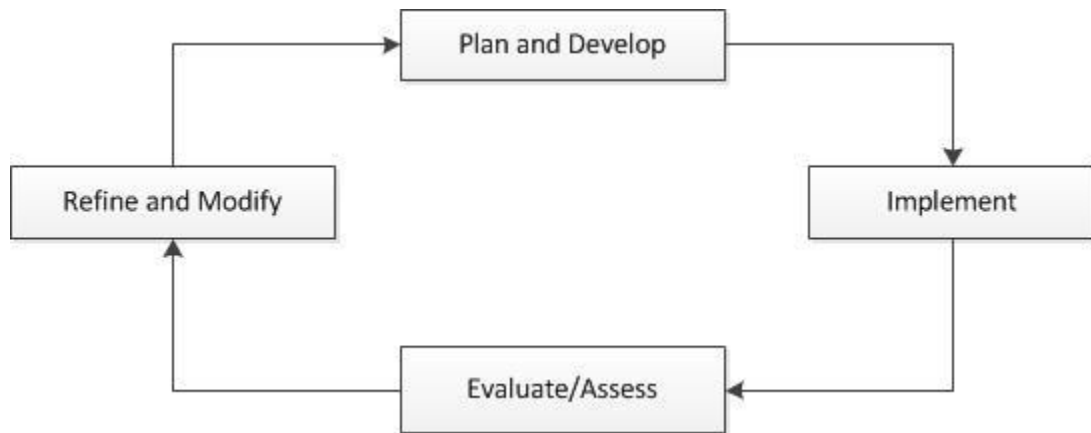
7.4 Training

All maintenance personnel will receive regular training on good housekeeping practices related to the maintenance activities they perform. In addition, personnel that apply fertilizer or herbicides are required to undergo training prior to apply the fertilizer or herbicide in accordance with the manufacturer's instructions.

8. Program Effectiveness Assessment

Effectiveness assessment is an iterative process that is used to guide decisions related to ongoing storm water program improvement and to help refine the program to make it both efficient and cost-effective. The iterative process that the HCDA will use to better understand and improve its storm water program is illustrated in Figure 3.

Figure 3: Program Effectiveness Iterative Process



Key element(s) from each Minimum Control Measure will be evaluated to determine the overall effectiveness. HCDA will use the following steps to assess the effectiveness of its storm water program:

- Step 1: Establish goal of Minimum Control Measure.
- Step 2: Select the assessment method.
- Step 3: Establish baseline/reference conditions.
- Step 4: Implement program and track data.
- Step 5: Interpret and report the information.
- Step 6: Recommend program changes, if warranted.

HCDA will evaluate the data collected each year but may not refine or modify the program each year. HCDA may need to allow some elements to occur over multiple years to be able to evaluate if the element is effective before refining and modifying the program element. HCDA will provide an analysis and recommended changes, if any, to the program in each Annual Report. The measurable goal and assessment measures that will be used to determine the program effectiveness for each Minimum Control Measures is provided in Table 5.

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Table 5: Program Effectiveness Measurable Goals and Assessment Measures

Minimum Control Measure	Measurable Goal	Assessment measure
Public Education and Outreach	Increase awareness and change behaviors.	<ol style="list-style-type: none"> 1. Annually submit an article for the HCDA Newsletter. 2. Analyze the results of the annual survey.
Public Involvement and Participation	Decrease the amount of trash that enters the MS4.	<ol style="list-style-type: none"> 1. Conduct at least one community cleanup event per year. 2. Track the amount of trash and debris that is removed.
Illicit Discharge Detection and Elimination	Decrease the amount of pollutants that enter the MS4 from industrial and commercial facilities.	<ol style="list-style-type: none"> 1. Update the Facility Inventory annually. 2. Track the number of facility/wet weather inspections performed. 3. Track the number of inspections where a critical/ major discharge was found. 4. Compare results with past years to determine if the number of facilities with critical/ major discharges is decreasing.
Construction Site Storm Water Runoff Control	Decrease the amount of pollutants that enter the MS4 from construction sites.	<ol style="list-style-type: none"> 1. Track number of construction BMP plans reviewed. 2. Track results from construction inspections. 3. Compare results with past years to determine if there is an increase in the percent of sites that properly install and maintain construction BMPs. 4. Provide training, as needed.
Post-Construction Storm Water Management in New and Redevelopment	<ol style="list-style-type: none"> 1. Increase the number of projects that implement pollutant specific post-construction BMPs. 2. Increase the percent of post-construction BMPs that are properly maintained. 	<ol style="list-style-type: none"> 1. Track number of plans that incorporate post-construction BMPs that target specific pollutants for the project. 2. Compare the percent of projects that propose pollutant specific post-construction BMPs to determine if there is an increase in the percent of projects with pollutant specific post-construction BMPs each year. 3. Track number of post-construction BMP inspections. 4. Compare the results from inspections to determine if there is an increase in the percent of post-construction BMPs that are properly maintained. 5. Provide training, as needed.
Pollution Prevention/Good Housekeeping	Decrease the amount of trash that enters the MS4.	<ol style="list-style-type: none"> 1. Track the level of trash in HCDA-owned catch basin 2. Compare the results to determine if there is a decrease in the number of catch basins that are full. 3. Annually inspect HCDA-owned/operated Public Parks. 4. Provide training, as needed.

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9. 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.

State of Hawai‘i Department of Transportation, Highways Division “Storm Water Management Program Plan, O‘ahu District, Pre-Final Compilation” December 2007.

City and County of Honolulu, Department of Environmental Services, “Storm Water Management Program Plan” June 2014.

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