Section C

Construction Site Runoff Control Program

Stormwater Management Plan
Honolulu Harbor
and Kalaeloa Barbers Point Harbor

Prepared for:
State of Hawaii
Department of Transportation
Harbors Division

This page intentionally left blank

Final

Construction Site Runoff Control Program Manual

State of Hawaii
Department of Transportation
Harbors Division
Hale Awa Ku Moku Building
79 South Nimitz Highway
Honolulu Hawaii 96813-5898

September 2021

Version 11.0

Final

Construction Site Runoff Control Program Manual

State of Hawaii
Department of Transportation
Harbors Division
Hale Awa Ku Moku Building
79 South Nimitz Highway
Honolulu, Hawaii 96813-4898

"Mālama I Ke Awa Kai"
Protect Our Harbor Waters

September 2021

Version 11.0

Record of Revision

Revision	Date	Description	Sections Affected
1.0	December 2012	Initial Release	All
2.0	January 2013	Version 2.0	Most
3.0	February 2013	Version 3.0	Most
4.0	June 2013	Version 4.0	3, 4, and 5
5.0	July 2013	Version 5.0	4, 5, 6, and 7
6.0	October 2013	Version 6.0	All
7.0	February 2014	Version 7.0	All
8.0	May 2014	Version 8.0	All
9.0	May 2014	Version 9.0	3, 4, and 5
10.0	August 2014	Version 10.0	1
11.0	September 2021	Version 11.0	All

Table of Contents

1.0 INTRODUCTION **1-1**

2.0 CONSTRUCTION PROJECT DEFINITIONS AND GENERAL REQUIREMENTS **2-1**

2.1 Applicability **2-1**

2.2 Roles and Responsibilities **2-1**

2.3 Exempted Projects Less Than One Acre **2-2**

3.0 HDOT HARBORS CONSTRUCTION PROJECTS **3-1**

3.1 Pre-Design Meeting **3-1**

3.2 Project Review During Design **3-1**

3.2.1 Projects Less Than One Acre 3-1

3.2.2 Projects Subject to NPDES (NOI-C) Program 3-1

3.3 Project Review after Contract Award **3-2**

3.4 Construction Site Best Management Practice Inspections **3-2**

3.4.1 Initial BMP Inspection 3-3

3.4.2 Recurring BMP Inspection 3-3

3.4.3 Final BMP Inspection 3-4

3.4.4 Contractor Self-Inspection Requirements 3-4

4.0 TENANT IMPROVEMENT PROJECTS **4-1**

4.1 Regulatory Programs **4-1**

4.1.1 NPDES Permit for Construction Sites 4-1

4.1.2 NPDES Permit for Dewatering 4-1

4.2 Project Review During Design **4-2**

4.2.1 Projects Less Than One Acre 4-2

4.2.2 Projects Subject to NPDES (NOI-C) Program 4-3

4.3 Project Review **4-3**

4.4 Construction Site BMP Inspections **4-4**

4.4.1 Initial BMP Inspection 4-4

4.4.2 Recurring BMP Inspection 4-4

4.4.3 Final BMP Inspection 4-4

4.4.4 Tenant Self-Inspection Required by the NPDES NOI-C Permit 4-5

5.0 TRAINING PROGRAM **5-6**

5.1 Training for Harbors Staff and Consultants **5-6**

5.2 Initial Training Content **5-6**

6.0 OUTREACH TO CONSTRUCTION CONTRACTORS **6-1**

6.1 Informational Exchange Sessions **6-1**

6.2 Harbors SWMP Website **6-1**

7.0 ENFORCEMENT 7-1
7.1 Scope of Authority 7-1
7.2 Harbors Construction Project Enforcement 7-1
7.3 Harbors Tenant Construction Project Enforcement 7-2
8.0 CONSTRUCTION BMP FIELD MANUAL 8-1
8.1 BMP Selection 8-1
9.0 REFERENCES 9-1

List of Tables

Number	Title	Page
2-1	The Harbors Functional Groups for Harbors Projects	2-2
2-2	Harbors Functional Groups for Tenant Projects	2-2

List of Figures

Number	Title	Page
2-1	Construction Site Runoff Control Program Overview	2-3

List of Attachments

Attachment 1	HDOT Harbors Division Administrative Organizational Chart
Attachment 2	Construction Process Flow Charts
Attachment 3	Permit for Connection to HDOT Harbors Division Small MS4 Permit to Discharge into HDOT Harbors Division Small MS4
Attachment 4	Construction Site Design Review Checklist
Attachment 5	Construction Site Best Management Practices Inspection Checklist
Attachment 6	Notification Forms for Project Site Disturbing Less Than One Acre
Attachment 7	List of City and County of Honolulu BMP Fact Sheets for Construction
Attachment 8	Temporary Water Pollution, Dust, and Erosion Control Specifications
Attachment 9	HDOT Harbors Division Rules and Regulations for Construction Site
Attachment 10	Suspected Illicit Discharge Reporting Form
Attachment 11	Training Materials
Attachment 12	Harbors Construction and Post-Construction Program Brochures

List of Acronyms and Abbreviations

%	Percent
ACR	Annual Compliance Report
ASCE	American Society of Civil Engineers
BMP	Best Management Practice
CCH	City and County of Honolulu
CFR	Code of Federal Regulations
CGP	Construction General Permit
CM	Construction Manager
CWA	Clean Water Act
CWB	Clean Water Branch
CZM	Coastal Zone Management
DA	Department of Army
ECO	Environmental Compliance Officer
ELD	Environmental Liquidated Damages
ERP	Enforcement Response Plan
HAR	Hawaii Administrative Rules
HDOH	State of Hawaii, Department of Health
HDOT	State of Hawaii, Department of Transportation
MS4	Municipal Separate Storm Sewer System
NAV	Notice of Apparent Violation
NFVO	Notice and Finding of Violation Order
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NTP	Notice to Proceed
NWP	Nationwide Permit 33
PjM	Project Manager
SIDR	Suspected Illicit Discharge Reporting
SWMP	Stormwater Management Program
SWMPP	Stormwater Management Program Plan
SWPPP	Stormwater Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
WEF	Water Environment Federation
WQC	Water Quality Certification

Definitions of Key Terms

Best Management Practices (BMPs) are schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Clean Water Act is an act passed by the U.S. Congress to control water pollution. It was formerly referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), 33 U.S.C. 1251 et seq., as amended by Public Law 96-483, Public Law 97-117, and Public Laws 95-217, 97-117, 97-440, and 100-04. Requirements of the NPDES program are defined under Sections 307, 402, 318, and 405 of the CWA.

Code of Federal Regulations codified all rules of the executive departments and agencies of the federal government. It is divided into fifty volumes, known as titles. Title 40 of the CFR (referenced as 40 CFR) lists all environmental regulations.

Discharge is a release or flow of stormwater or other substance from a conveyance system or storage container. Broader discharges include release to storm drains, etc.

Disturbance of Land refers to the penetration, turning, or moving of soil or resurfacing of pavement or the exposure of bare soil or ground surface, including the land surface exposed by construction roads, baseyards, headquarters, and parking areas. It does not include grass or weed cutting, bush or tree trimming that leaves the soil or ground intact. It includes grubbing in its normal meaning of the use of equipment to knock down and push vegetation out of the way, typically uprooting vegetation and disturbing the ground surface.

Erosion is the wearing-away of land surface by wind or water. Erosion occurs naturally from weather or runoff but can be intensified by land-clearing practices related to farming, new development, redevelopment, road building, or timber cutting.

Grading is any excavation or fill, or combination thereof.

Illicit Discharge is a non-storm water discharge that poses a risk to the environment.

Large Common Plan of Development or Sale is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan. "Common Plan" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.

Maximum Extent Practicable is defined by economically achievable measures to the control of the addition of pollutants from existing and new categories of point sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available point source pollution control practices, technologies, processes, siting criteria, operating methods or other alternatives.

New Development defined as new construction or installation of a building or structure or the creation of impervious surfaces that disturb greater than or equal to one acre, or less than one acre if it is part of a larger common plan of development or sale that would disturb one acre or more.

Notice of Intent is a formal notice submitted to the State of Hawaii Clean Water Branch by the owner of an industrial site or construction site that said owner/operator seeks coverage under a General Permit for discharges associated with industrial and construction activities. The NOI provides information on the owner, location, type of project, and certifies that the owner/operator will comply with the conditions of the construction General Permit.

Notice of Cessation is a formal notice submitted to the State of Hawaii Clean Water Branch by owner/developer that a construction project is complete.

Qualified Inspector is personnel who have met the training requirements in this document.

Redevelopment defined as development that would create or add impervious surface area on an already developed site. Redevelopment includes, but is not limited to, any construction project that requires demolition or complete removal of existing structures or impervious surfaces at a site and replacement with new impervious surfaces. Maintenance activities such as top-layer grinding, repaving (where all pavement is not removed), and reroofing are not considered to be redevelopment. Interior remodeling projects and improvements are also not considered to be redevelopment.

Secondary Containment is structure, usually dikes or berms, surrounding tanks or other storage containers, designed to catch spilled materials from the storage containers.

Sediments are soil, sand, and minerals washed from land into water, usually after rain, that collect in reservoirs, rivers, and harbors, destroying fish nesting areas and clouding the water, thus preventing sunlight from reaching aquatic plants. Farming, mining, and building activities without proper implementation of BMPs will expose sediment materials, allowing them to be washed off the land after rainfalls.

Stormwater Pollution Prevention Plan (SWPPP) is a site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution t the construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater

discharges from the construction site; and (3) identifies procedures the permittee will implement to comply with the terms and conditions of Notice of General Permit Coverage. It is required by Hawaii Administrative Rules (HAR) 11-55, Appendix C, Section 7, when a project is subject to NPDES NOI-C permit requirements.

State Waters means all waters, fresh, brackish, or salt, around and within the State of Hawaii, including, but not limited to, coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes – provided that drainage ditches, ponds, and reservoirs required as a part of a water pollution control system are excluded.

Stormwater Runoff is generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. The runoff can pick up pollutants like trash, chemicals, oil, dirt, and sediment that can harm rivers, streams, lakes, and coastal waters.

Tenant Improvement Projects are projects undertaken by entities including tenants and easement holders who have leases or revocable permits that authorize the use of the property, or a project by any other entity with permission to construct the project under Harbors Division jurisdiction.

1.0 INTRODUCTION

The State of Hawaii Department of Transportation [HDOT] Harbors Division (hereinafter referred to as "Harbors") **Construction Site Runoff Control Program** is an element of the Harbors Stormwater Management Program [SWMP]. This **Program** seeks to limit the impact of construction activities on the storm conveyance system and receiving state waters. The program consists of a pre-construction design and review process; a construction phase inspection process; a training program and a Construction Best Management Practices [BMP] field manual; and a compliance and enforcement process. This program manual is designed to guide Harbors personnel tasked with the responsibility of ensuring that construction projects discharging into Harbors small Municipal Separate Storm Sewer System [MS4] comply with Harbors rules to protect Hawaii's coastal water from pollution.

This program manual is intended to be used by inspectors, contractors, designers, tenants, developers, to comply with the Harbors rules and regulations, State of Hawaii Department of Health [HDOH] National Pollutant Discharge Elimination System [NPDES] permit requirements, Clean Water Act, and all other State, local, and Federal laws, rules and regulations through the use of this manual.

2.0 CONSTRUCTION PROJECT DEFINITIONS AND GENERAL REQUIREMENTS

Construction means the process of building, altering, repairing, improving, or demolishing any public structure or building, or other public improvements of any kind to any public real property. This term includes the routine operations, routine repairs, or routine maintenance of existing structures, buildings, or real property. Construction projects are activities resulted from these actions. It also includes construction related support activities such as concrete or asphalt batch plants, equipment staging areas, material storage areas, borrow areas, excavated material disposal areas, etc. Construction activities that do not disturb land, such as interior remodeling (with no outside exposure of construction materials or construction waste to stormwater), are exempt from the Harbors **Construction Site Runoff program**.

2.1 Applicability

Harbors implements this **Construction Site Runoff Control Program** at the following harbors:

- Honolulu Harbor (Oahu District)
- Kalaeloa Barbers Point Harbor (Oahu District)

These two harbors operate under small MS4 permits. The Permit File Numbers are ***HI 03KB482*** for Honolulu Harbor and ***HI 03KB488*** for Kalaeloa Barbers Point Harbor.

All construction projects on Island of Oahu are subject to the Harbors **Construction Site Runoff Control Program** unless explicitly exempted under the conditions in Section 2.2. The **Construction Site Runoff Control Program** requirements for Harbors and tenant construction projects are depicted in Figure 2-1.

2.2 Roles and Responsibilities

Harbors **Construction Site Runoff Control Program** is developed by the Harbors Engineering Branch Environmental Section, located at the Hale Awa Ku Moku Building – 79 South Nimitz Highway, Honolulu Hawaii 96813. This program manual is for use by the Harbors sections and offices designated with the responsibility of implementing this program. *HDOT Harbors Division Administrative Organizational Chart* is enclosed in Attachment 1 with the Environmental Section and its designated consultant highlighted in green.

Construction projects at Harbors are managed in two ways: 1) HDOT Harbors projects, which are managed by Division personnel, or 2) Tenant Improvement projects, which are managed by Harbors tenant or the entity authorized to undertake the project. Assigned specific responsibilities in related to the program implementation are further described in Tables 2-1 and 2-2.

Table 2-1 Harbors Functional Groups for Harbors Projects

Functional Group	Area of Responsibility
Environmental Section and Consultant	Responsible for overall implementation of the **Construction Site Runoff Control Program** including plan review, site inspection, and relevant enforcement.
Planning Section, Design Section, Maintenance Section,	Responsible for budget planning, project development, and design of BMPs through the project planning and design phases.
Construction Section	Responsible for implementation of applicable BMPs through the project construction phase (from the contract award stage to completion). Authority includes enforcement of construction contract terms.

Table 2-2 Harbors Functional Groups for Tenant Projects

Functional Group	Area of Responsibility
Environmental Section and Consultant	Responsible for overall implementation of the **Construction Site Runoff Control Program** including plan review, site inspection, and relevant enforcement.
Property Management Section	Responsible for implementation of land use agreement (e.g. lease, revocable permit, construction right-of-entry) and relevant enforcement.

2.3 Exempted Projects Less Than One Acre

The following activities, provided they do not impact Harbors small MS4 and disturb less than one acre, are exempt from documented project review and construction site stormwater compliance inspection requirements under the Harbors **Construction Site Runoff Control Program**. These sites will, however, be covered under the *Illicit Discharge Detection and Elimination Program* (e.g., through outfall reconnaissance):

- Minor land disturbance activities on a single lot (such as minor landscaping activities and interior improvements).
- Post, pole, sign, and fencing installation.
- Utility repair work.
- Parking lot, driveway, or similar paved surface repairs.
- Repair and maintenance activities.

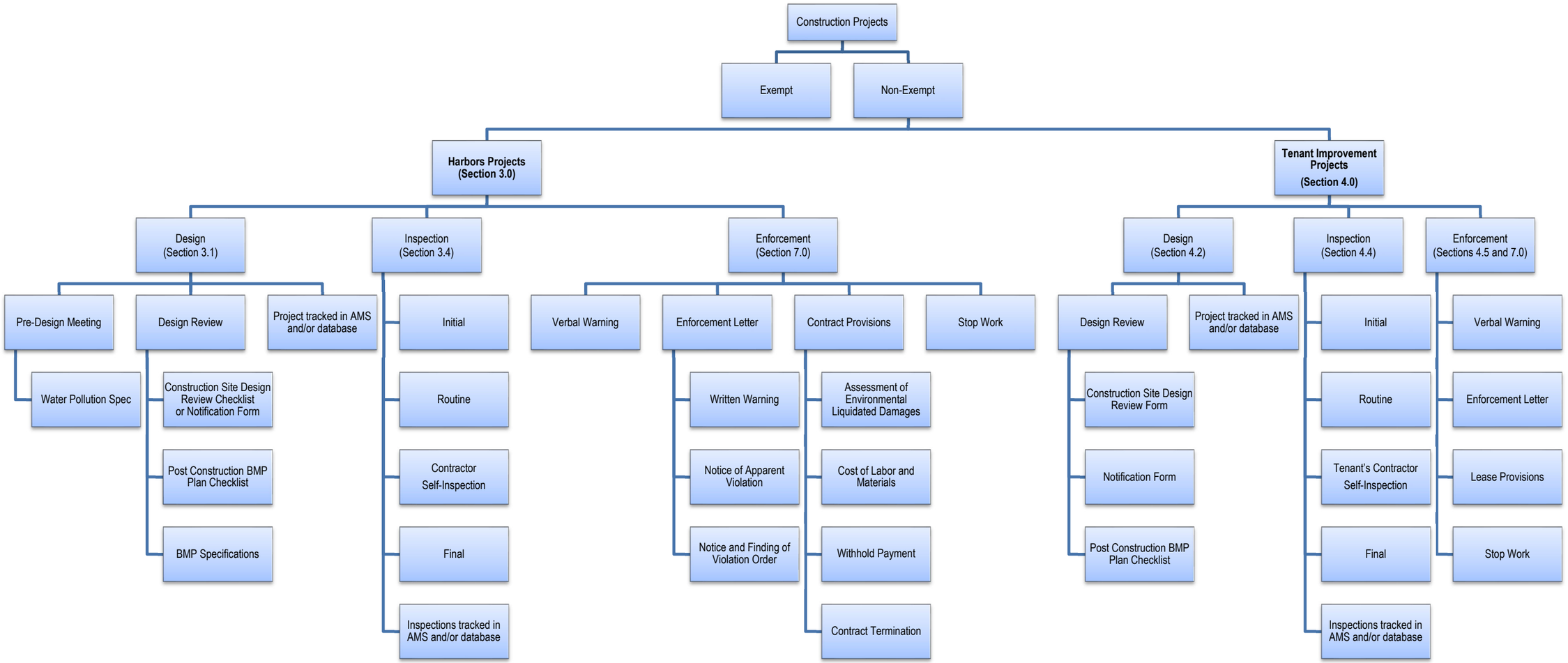


Figure 2-1: Construction Site Runoff Control Program Overview

3.0 HDOT HARBORS CONSTRUCTION PROJECTS

HDOT Harbors construction projects are these that are developed with state funding to improve facilities and managed by the Harbors. These projects are typically assigned to a Harbors Project Manager [PjM] who oversees the project during the design phase and a Construction Manager [CM] during the construction phase. Harbors PjM and CM are typically employees from the Engineering Branch. Construction projects subject to the Harbors **Construction Site Runoff Control Program** must be managed according to the program requirements.

3.1 Pre-Design Meeting

When necessary, the Harbors PjM can convene a Pre-Design meeting with Environmental Section at the start of the Design Phase to discuss the *Construction Site Design Review Checklist* (Attachment 4), as well as the *Permanent Post-Construction BMP Plan Checklist*, which is contained in Appendix B of the ***Post-Construction Stormwater Management in New Development and Redevelopment***. Related discussions may be carried into the Design Phase. These discussions and meetings will allow the Harbors PjM and Environmental Section to exchange information related to applicable site-specific and post-construction BMPs during the Design Phase.

3.2 Project Review During Design

All projects must be reviewed by the Harbors PjM, CM, and Environmental Section before construction activities commence. The process is presented in *Construction Process Flow Chart for HDOT Harbors Division Project* (Attachment 2).

3.2.1 Projects Less Than One Acre

For non-exempt projects (see section 2.2) with land disturbance less than one acre, the summary of design phase submittal requirements is listed below.

- One (1) complete *Notification Form for Project Site Disturbing Less Than One Acre* (HDOT HAR-EE Form SD<1_NF; Attachment 6). The Notification Form must be signed and dated by the PjM and Harbors Environmental Section.

These projects are also subject to initial, recurring, and final stormwater compliance BMP inspections.

3.2.2 Projects Subject to NPDES (NOI-C) Program

The Construction Site Design Review Checklist (Attachment 4) and Permanent Post-Construction BMP Plan Checklist (contained in Appendix B of the **Post-Construction Stormwater**

Management in New Development and Redevelopment) will be prepared by the Harbors Engineering Branch with each design submittal phase (i.e., preliminary, semi-final, final, or similar). Plan sheets showing Construction Site BMPs and Post-Construction BMPs will be included in the construction drawings. All projects will be required to have Post-Construction BMPs unless it is determined by the Harbors PjM and Environmental Section that these are infeasible for the project.

During the Design Phase, a project review package containing the items listed below will be provided by the designated PjM to the Harbors Environmental Section when applicable:

- Construction Site Design Review Checklist;
- Permanent Post-Construction BMP Plan Checklist;
- NPDES permit application package;
- Construction Site BMPs and Post-Construction BMPs plan sheets and BMP installation details;
- Post-Construction Stormwater Mitigation Plan [PSMP]; and
- Stormwater Pollution Prevention Plan [SWPPP].

The Harbors Environmental Section will review the project plans to ensure that the plans meet the requirements of the Harbors **Construction Site Runoff Control Program**. If it is determined that the environmental impacts of the construction activities have not been adequately addressed, the project review package must be revised and resubmitted until concurrence is received from the Environmental Section. The project will be subsequently advertised. Upon receiving competitive bids, the contract will be awarded to the selected bidder.

3.3 Project Review after Contract Award

The awarded contractor will submit or update an SWPPP to the CM for inclusion in the project review package following the review procedures outlined in the flow chart in Attachment 2. The Environmental Section will notify the CM when the project review package has conformed to environmental rules, regulations, and policies utilizing an interoffice memorandum. Following approval, Harbors will issue a **Notice to Proceed** [NTP] to the contractor, with a copy to the PjM. The NTP will indicate the following:

- Work on-site shall not commence until all required submittals (such as site-specific BMP Plan) have been approved and materials have been obtained.

3.4 Construction Site Best Management Practice Inspections

Non-exempt projects will be inspected by the designated Harbors qualified inspectors (including the Environmental Section personnel or an authorized consultant), as a part of the Harbors **Construction Site Runoff Control Program** requirements. These inspections include the ones

held prior to, during, and at the conclusion of construction. The contractor needs to conduct self-inspections triggered by the NPDES Notice of Intent [NOI] C permit requirements. The *Construction Site Best Management Practices Inspection Checklist* (Attachment 5) or its equivalent form in a Cityworks© powered Asset Management System [AMS], will be utilized during Harbors stormwater compliance inspections. Inspection records will be kept in the AMS and/or database maintained by the Environmental Section. Inspection data will be summarized in the Annual Compliance Report [ACR].

3.4.1 Initial BMP Inspection

Following the issuance of the NTP, the contractor will start to procure sufficient materials and install necessary BMPs to get ready for an initial BMP inspection, to be conducted by a qualified inspector using *Construction Site Best Management Practices Inspection Checklist* (Attachment 5 or its equivalent form in the AMS). This inspection is conducted to ensure that site-specific BMPs have been properly installed prior to soil-disturbing construction activities (except for the installation of required BMPs).

The contractor will be notified whether the site-specific BMPs are (or are not) installed in accordance with the SWPPP (or other similar documented plans, e.g., BMP Plan) and in compliance with the Harbors SWMP. No construction activities involving ground disturbance shall commence until the site-specific BMPs are determined to be in full compliance.

3.4.2 Recurring BMP Inspection

A qualified inspector will conduct recurring BMP inspections at the construction site no less than once every two weeks between the months of October through March, and once every two months, otherwise. Any observed non-compliance will be documented and addressed following the procedures in Section 7.0 Harbors will follow the procedures in the **Enforcement Response Plan** [ERP] (Harbors, 2020) to take elevated enforcement action against contractor for unresolved non-compliance when necessary. The inspector will provide the contractor and the Harbors Environmental Section with a copy of the completed inspection checklist within five (5) calendar days upon completion of the inspection.

The inspector may suspend recurring inspections until the final inspection only when the following conditions are met.

- Construction is inactive for a period of 14 days or longer and exposed soil has been stabilized; or
- Remaining construction activities will have no or minimal adverse impact to stormwater runoff.

This determination will be dependent on the construction project and site conditions. Justification for inspection suspension will be documented on the inspection form in the *"Additional Notes"*

section. The site condition will be continuous monitored to ensure that on-site construction activities have not changed to warrant the resumption of inspections.

3.4.3 Final BMP Inspection

Once the contractor has completed all construction activities, a final BMP inspection will be conducted. This inspection will be combined with a post-construction BMP final inspection (if applicable), to ensure that the soil is stabilized, site-specific BMPs have been removed, and post-construction BMPs are properly installed. The Harbors PjM, CM, and Environmental Section personnel can jointly conduct the final inspection to ensure compliance with the contract documents. Findings noted during the final BMP inspection must be corrected, and then the CM can issue the project final acceptance and make final payment.

3.4.4 Contractor Self-Inspection Requirements

The contractor has the primary responsibilities of regular inspecting and maintaining of their site-specific BMPs to ensure that the BMPs are in workable condition and functioning effectively, and to make appropriate repairs as needed (e.g., replacing deteriorated fabric filter). All major or regulated modifications to the original BMPs are required to be documented on the site-specific BMP plans or similar documents.

For projects subject to NPDES NOI-C permit requirements, the contractor shall keep their self-inspection records on-site and made available to the inspector for review when requested, and shall perform self-inspections at a frequency according to the following or HDOH issued permit:

- Weekly; and
- Within 24 hours of any rainfall of 0.25 inches or greater; daily during periods of prolonged rainfall; and within 24 hours after the end of the rainfall.

In addition, the contractor shall not cause or contribute to a violation of the basic water quality criteria, specified in HAR 11-54-4, and shall timely inspect the receiving waters, stormwater runoff, and relevant control measures (or BMPs) to detect hazard or abnormal conditions (e.g., stormwater discharges and receiving waters for turbidity, color, floating oil and grease, floating debris and scum, materials that will settle, substances that will produce taste in the water or detectable off-flavor in fish, and inspect for items that may be toxic or harmful to human or environmental health) which may cause violations of the basic water quality criteria.

4.0 TENANT IMPROVEMENT PROJECTS

Tenant improvement projects are those that are developed by tenants, easement holders or other authorized entities on Harbors property. These projects are typically managed by tenant(s) with approvals from Harbors Property Management Staff and Engineering Branch.

4.1 Regulatory Programs

Tenant improvement projects resulting in discharging into Harbors small MS4s need to apply for a *Permit for Connection to HDOT Harbors Division Small MS4* and/or *Permit to Discharge into HDOT Harbors Division Small MS4* from the Harbors Engineering Branch (Attachment 3).

In addition to Harbors **Construction Site Runoff Control Program**, tenants are required to ensure their own compliance with all other county, state, and federal rules and regulations. A specific construction project may require additional permits beyond those described herein. It will be the responsibility of the tenant to contact regulatory agencies and obtain all necessary permits.

4.1.1 NPDES Permit for Construction Sites

The Clean Water Act [CWA] is the primary federal law in the United States governing water pollution. This Act introduced the NPDES program for construction sites that disturb one acre or greater of land, which includes activities that disturb less than one acre of land if they are a part of a larger common plan of development or sale that will ultimately disturb one acre or more of total land area. Construction projects which fall under the NPDES program require the submittal of a NOI to HDOH Clean Water Branch [CWB] at least 30 calendar days prior to the start of construction activities. Permitting forms are available at the HDOH e-Permitting portal. Upon issuing of Notice of General Permit Coverage [NGPC] by the HDOH, the permit usually becomes effective within 30 days. Additionally, the tenant must notify the HDOH one week prior to the start of construction activities.

HDOH website address for the e-Permitting portal: https://eha-cloud.doh.hawaii.gov/epermit/

Tenants will be responsible for obtaining their own NPDES permits and shall provide proof to Harbors Engineering Branch prior to commencement of construction phase.

4.1.2 NPDES Permit for Dewatering

Due to their proximity to the ocean, the groundwater level at Harbors properties are relatively high and are significantly influenced by tidal activities. Dewatering operations may be required during a construction project. An NPDES permit for dewatering covers discharges from the dewatering process of construction activities of any site, including treated storm discharges, into a storm

conveyance system. These activities are regulated by the HDOH under HAR 11-55 Appendix G.

Construction projects which require dewatering fall under the NPDES program and an NOI must be filed at least 30 calendar days prior to the start of dewatering activities. After the NOI has been submitted to the HDOH, the permit becomes effective within 30 days. Additionally, the applicant must notify the HDOH one week prior to the start of construction activities.

The tenant shall be responsible for obtaining the NPDES permit for dewatering operations and shall provide proof to the Harbors Engineering Branch before commencing dewatering activities.

4.2 Project Review During Design

Non-exempt tenant projects must be reviewed by the Harbors Engineering Branch prior to commencement of construction phase. The process is demonstrated in ***Construction Process Flow Chart for Tenant Improvement Project*** in Attachment 2.

4.2.1 Projects Less Than One Acre

For non-exempt tenant projects (see section 2.2 for a list of exemptible projects) with land disturbance less than one acre, the summary of submittal requirements during design phase is listed below.

- One (1) complete *Notification Form for Project Site Disturbing Less Than One Acre* (HDOT HAR-EE Form SD<1_NFT; Attachment 6). The Notification Form must be signed and dated by the representative designated or authorized by the Project Owner/Operator.
- One copy of a sketched plan outlining the anticipated activities and the location of all proposed sediment and erosion control measures.
- The sketched plan is not required to be prepared by a licensed engineer, surveyor, or architect. If an individual with one of these licenses prepares the plan, they must sign and seal the plans.
- The sketched plan should include: (i) A site location drawing of the proposed project, indicating the location of the proposed project in relation to roadways, jurisdictional boundaries, streams and rivers; (ii) The boundary lines of the site on which the work is to be performed; (iii) The location of temporary and/or permanent vegetative and structural storm management and sediment control measures; and (iv) A topographic map of the site. If feasible, the required information may be combined into one sketch plan.
- A narrative description of the stormwater management and sediment and erosion control plan to be used during land disturbing activities. Note: This may be included on the plans instead of in a written narrative. Include a general description of topographic and soil conditions of the property. Include a general description of adjacent property and a description of existing structures, buildings, and other fixed improvements on surrounding properties when applicable.

4.2.2 Projects Subject to NPDES (NOI-C) Program

The tenant or its authorized representative shall submit the Construction Site Design Review Checklist (Attachment 4) and Permanent Post-Construction BMP Plan Checklist (contained in Appendix B of the ***Post-Construction Stormwater Management in New Development and Redevelopment*** manual) with each design submittal phase. The tenant or its authorized representative shall include plan sheets specifically titled "Site-Specific BMPs" and "Post-Construction BMPs" in their design.

At the end of the Design Phase, the tenant or its authorized representative shall submit copies of the project review package to the Harbors Engineering Branch for review. The number of copies will be determined by the Engineering Program Manager. The project review package to be submitted shall contain the following:

- Project location information;
- Project schedule;
- Completed Construction Site Design Review Checklist and Permanent Post-Construction BMP Plan Checklist;
- Completed proof of permits;
- SWPPP and Post-Construction Stormwater Mitigation Plan;
- Contact information for the reviewer if additional information is necessary.

4.3 Project Review

The Harbors Engineering Branch Environmental Section will review the plans to ensure that the environmental impact of the construction project has been limited to the maximum extent practicable. If it is determined that the environmental impacts have not been adequately addressed, the tenant or their authorized representative shall revise and resubmit the project review package until consent is granted by the Harbors.

The Harbors Engineering Branch will notify the tenant or their authorized representative to proceed with the following caveats when the project review package has been evaluated and accepted:

- The tenant's Contractor, usually as the first order of work and prior to the commencement of any ground disturbance (except for installation of relevant BMPs), shall install applicable site-specific BMPs and inform the Harbors Engineering Branch for an initial BMP inspection, to ensure conformance and compliance with accepted plans and permits.

4.4 Construction Site BMP Inspections

A critical part of the oversight process is the requirement for inspection of the BMPs by a designated Harbors Inspector, as a part of the Harbors **Construction Site Runoff Control Program** requirements, including BMP inspections held prior to, during, and at the conclusion of construction phase. *Construction Site Best Management Practices Inspection Checklist* (Attachment 5 or its equivalent form in AMS) will be utilized to document BMP inspections and will be recorded in Harbors AMS. The contractor shall conduct self-inspections required by tenant's own NPDES NOI-C or other permit(s).

4.4.1 Initial BMP Inspection

After the consent is granted for the project, Harbors will conduct an initial BMP inspection prior to commencement of construction activities to ensure that the site-specific BMPs have been properly installed. The Tenant will be notified whether the site-specific BMPs are (or are not) in full compliance with the Harbors SWMP. No construction activities shall commence until the site-specific BMPs are determined by Harbors to be in full compliance.

4.4.2 Recurring BMP Inspection

The Harbors will conduct regular site BMP inspections at specified frequencies (i.e., biweekly from October to March and bimonthly otherwise). Any instance of non-compliance observed during the inspections will be documented with photographs as well as on the *Construction Site Best Management Practices Inspection Checklist* (Attachment 5 or its equivalent form in AMS). Harbors will follow the procedures in the ERP to take elevated enforcement action again the tenant for unresolved non-compliance when necessary.

If the inspector determines that project site has reached to a point where exposed soil has been stabilized and any remaining construction activities prior to project completion would have negligible stormwater impact, the Environmental Section has the discretion to suspend further inspections until it is the time for a final inspection. However, the site condition will continuous be monitored to ensure that such activities have changed, which would warrant the resumption of regular inspections.

4.4.3 Final BMP Inspection

Once the Tenant has completed all construction activities, a final inspection by a Harbors designated Inspector must be conducted. This inspection will be conducted combined with a post-construction BMP final inspection, if applicable, to ensure that the soil is stabilized, site-specific BMPs have been removed, and post-construction BMPs are properly installed.

The Environmental Section shall be notified at the time to schedule the final BMP inspection. Any

deficiencies noted during the final inspection must be rectified. Final acceptance of the project by the Harbors will be dependent upon a satisfactory final inspection.

4.4.4 Tenant Self-Inspection Required by the NPDES NOI-C Permit

Site-specific BMPs are usually temporary measures that require frequent maintenance to keep up their effectiveness and may require relocation, re-installation, or repair, particularly as the construction project progresses. The Tenant (or the Tenant's Contractor) has the primary responsibility for inspecting and maintaining of their site-specific BMPs in order to ensure that the BMPs are properly maintained, functioning effectively, and to make appropriate repairs as needed (e.g., replace biosocks). All major changes to the original BMPs should be documented within the site plans.

The contractor shall keep their inspection records on-site and made available to the Harbors for review upon request. The Contractor shall perform self-inspections for projects that are subject to NPDES NOI-C program according to following schedule.

- Weekly; and
- Within 24 hours of any rainfall of 0.25 inches or greater; daily during periods of prolonged rainfall; and within 24 hours after the end of the rainfall.

In addition, the Contractor shall not cause or contribute to a violation of the basic water quality criteria, specified in HAR 11-54-4, and shall timely inspect the receiving waters, stormwater runoff and control measures (or BMPs) to detect hazard or abnormal conditions (e.g., stormwater discharges and receiving waters for turbidity, color, floating oil and grease, floating debris and scum, materials that will settle, substances that will produce taste in the water or detectable off-flavor in fish, and inspect for items that may be toxic or harmful to human or environmental health), which may cause violations of the basic water quality criteria.

5.0 TRAINING PROGRAM

Training is one of the essential keys to a successful stormwater management program. The Harbors policy and practice is to provide education and training to ensure that all employees have the knowledge and skills necessary to perform their functions effectively and efficiently.

Harbors engineers, inspectors, and consultants whose primary job duties are related to implementing this program receive annual training directly pertinent to their responsibilities associated with the program. Harbors engineers and inspectors who have attended the annual training are considered qualified inspectors. See Tables 2-1 and 2-2 for a description of Harbors staff responsibilities for Harbors and Tenant Projects respectively.

The Environmental Section includes designated Erosion and Sediment Control Engineer and Inspector working alongside a Consultant assigned to assist with and coordinate the overall Stormwater Management Program.

5.1 Training for Harbors Staff and Consultants

Harbors engineers, inspectors, and consultants who have primary construction stormwater responsibilities will receive initial and annual refresher training. These training sessions will provide a detailed review of stormwater pollution prevention concepts and practices; and a discussion of the procedures and protocols of the Harbors **Construction Site Runoff Control Program**, as described below.

Harbors will hold annual refresher training which will include a review of stormwater pollution prevention concepts and practices, a review of the Harbors **Construction Site Runoff Control Program**, relevant highlights over the past year, issues/problems encountered during the implementation of the program, and suggestions for improvements to the program.

5.2 Initial Training Content

In calendar years 2014 to 2019, Harbors has hired an USEPA and HDOH approved consultant to provide an initial and annual trainings to Harbors engineers, inspectors, and their consultants who have construction stormwater responsibilities. After that time period, Harbors provides the training in-the-house to new employees. The training would usually cover the following:

- **General Program Management**. This portion will consist of overall program administration and implementation and be administered to the Construction, Design, Maintenance, and Planning Sections. The content of the training will include:
  - Goals and objectives of the **Construction Site Runoff Control Program**;
  - Regulatory Background;
  - Inventory of Construction Sites;

- The ***City and County of Honolulu Best Management Practice Manual for Construction*** (CCH, 2011);
- Hawai'i's Construction General Permit Stormwater Pollution Control Plan requirements;
- Plan Review including the use of the *Construction Site Design Review Checklist* (Attachment 4) and *Permanent Post-Construction BMPs Plan Checklist* (contained in Appendix B of the **Post-Construction Stormwater Management in New Development and Redevelopment Program**); and Concurrence;
- The roles and responsibilities of Harbors staff regarding implementation of the **Construction Site Runoff Control Program** to achieve compliance;
- Proper installation and maintenance of BMPs for Construction Sites; and
- Overview of the Inspection Program and Enforcement Requirements.

- **Construction Site BMP Inspections**. In addition to the above training, the new inspectors will receive on-the-job training focusing on inspection procedures including the ones developed by HDOH and USEPA, use of the *Construction Site Best Management Practice Inspection Checklist* (Attachment 5) and enforcement procedures. The new inspectors will gain inspection experience by conducting at least three rounds of inspection with the experienced Erosion and Sediment Control Engineer or Inspector. During the inspections, the new inspectors will observe how the experienced inspectors conduct the inspections as well as conduct their own inspections with assistance from the experienced ones. New inspectors will continue to have frequent interactions with experienced inspectors to discuss inspection issues as they arise. Training inspections will be documented on the inspection report and tracked to ensure that new inspectors conduct at least three inspections with an experienced inspector.

All participants will be required to complete a quiz. Training effectiveness will be evaluated via a survey. Information regarding how many employees attend the training will be reported in ACR. Input collected from the survey will be evaluated and used for the development of future training sessions. Additionally, the evaluation results and any necessary program improvements will be included in the ACR.

6.0 OUTREACH TO CONSTRUCTION CONTRACTORS

Harbors provides outreach to construction contractors and consultants on stormwater pollution prevention and to explain their roles and responsibilities. This outreach is conducted primarily through informational exchanges among the Harbors PjM, CM, and their contractors. The informational exchanges cover the following topics:

- The provisions, conditions, and requirements of the **Program** that apply to their projects;
- The availability of guidance material prepared by Harbors and other agencies for construction contractors and consultants; including the Harbors *Construction Site Design Review Checklist*, the USEPA Construction BMP library, the USEPA Post-construction BMP library, and the ***City and County of Honolulu Best Management Practices Manual for Construction***; and
- General responsibilities of construction contractors regarding implementation of the Harbors **Construction Site Runoff Control Program**, and the preparation and requirements of their SWPPP.

6.1 Informational Exchange Sessions

Harbors utilizes three types of informational exchange sessions, as needed, to provide outreach to construction contractors on stormwater pollution prevention concepts and practices and preparation of SWPPP (or other similar documents) for construction activities. A list of construction and post-construction program brochures are included in Attachment 12.

- Pre-Bid Meeting, Stormwater Permit Compliance Requirements: Pre-bid meetings may be conducted to discuss a given upcoming construction project. The Harbors PjM provides general information to construction contractors regarding the requirements of the permit(s) and the **Harbors Construction Site Runoff Control Program**, applicable to the project. This information generally includes a discussion of the need for the development of a project-specific SWPPP (or other similar documents).
- Pre-Construction Meeting, Stormwater Permit Compliance Requirements: The Harbors Project Engineer. PjM, or CM provides project-specific guidance to construction contractors covering topics such as SWPPP (or other similar documents) preparation, selection of BMPs, BMP inspections, and relevant operation and maintenance.
- Additional Informational Exchanges: The Harbors Engineering Branch Environmental Section will hold informal training sessions with construction contractors, as needed, prior to the commencement of construction phase.

6.2 Harbors SWMP Website

Harbors prepares and posts key **Construction Site Runoff Control Program** related forms and documents at its website at: http://hidot.hawaii.gov/harbors/malamaikeawakai/.

7.0 ENFORCEMENT

Enforcement of construction projects will be undertaken by the designated Harbors personnel who have internal enforcement authority through established policies and procedures as detailed in the ERP. There are several enforcement mechanisms and penalties to ensure compliance with local ordinances, permits, and contract documents. The enforcement actions proceed along different routes depending upon whether the project is a Harbors Project or a Tenant Improvement Project.

7.1 Scope of Authority

The enforcement options available to Harbors range from administrative actions (including verbal warnings and written warnings) to damage assessment, withholding of contractor's payment, and termination of agreements (such as tenant leases, revocable permits, and construction contracts). The general areas authorizing environmental enforcement are enclosed in Attachment 9 as follows:

- HRS Title 15 Chapter 266 authorizes Harbors to issue citations and summons for violations of its rules and have its actions enforced through the district courts by verdict of a misdemeanor or fine.
- HAR Title 19 Chapters 41 to 44 establishes uniform safety measures, operational standards and requirements, and the conduct for a responsible party at State of Hawaii harbors.
- The Construction Contract that provides Harbors with the right of entry to conduct inspection and authority to issue **Stop Work Order** or fines, and to withhold a contractor's payment.
- 2016 General Provisions for Construction Projects (DOT, 2016).

7.2 Harbors Construction Project Enforcement

Enforcement at construction projects will be undertaken by the designated Harbors personnel in accordance with the terms of the construction contract. Non-compliance with the BMP Plan discovered during inspections should be immediately corrected by the contractor, if practical.

Any illicit discharge originating from the construction site will be investigated and appropriate actions will be taken following the procedures outlined in the Harbors ***ERP*** (Harbors, 2020). There are nine possible enforcement outcomes from construction site inspections – verbal warnings, written warnings, Notice of Apparent Violation [NAV], Notice and Finding of Violation Order [NFVO], stop work order [SWO], Assessment of Environmental Liquidated Damages [ELD], Cost of Labor and Materials [L&M], Withholding of Payments, Termination of Agreements. Detailed discussions related to each type of enforcement are listed in Section 3.2 of ERP.

7.3 Harbors Tenant Construction Project Enforcement

Enforcement at tenant construction projects will be undertaken by the designated Harbors personnel in accordance with the terms of the lease, revocable permit, or construction right-of-entry, as applicable. Non-compliance with the BMP Plan discovered during inspections should be immediately corrected by the contractor, if practical. If no corrective actions are taken, Harbors has the authority to issue a written warning, a NAV, a NFVO, SWO (stopping the tenant project and depriving its contractor of the basis to request payment), and/or termination of tenant lease or revocable permit (Section 5.5.2 of ERP). If necessary, further actions in accordance with the Harbors ERP may be taken.

Any illicit discharge originating from the construction site will be investigated and appropriate actions would be taken in accordance with the Harbors **ERP** (Harbors, 2020).

8.0 CONSTRUCTION BMP FIELD MANUAL

The Harbors adopts the ***City and County of Honolulu Best Management Practice Manual for Construction*** (CCH, 2011) as a Construction BMP Field Manual to guide both Harbors' construction projects and tenant improvement projects.

> **City and County of Honolulu Best Management Practice Manual for Construction** can be downloaded online at https://hidot.hawaii.gov/harbors/files/2013/01/CCH_BMP_Manual_2011-11.pdf

The purpose of the Construction BMP Field Manual is to provide guidance on the installation and maintenance of BMPs that address construction activities. Each BMP identified in the manual includes a general description, application, limitations, installation and implementation requirements, and maintenance and inspections.

8.1 BMP Selection

The Designer and the Contractor shall evaluate which BMPs will be applicable for a particular construction project. The first step in the selection phase will be to determine which construction activities may result in or generate potential pollutants. Once those activities are identified, the BMPs can be chosen according to the CCH "*Rules Relating to Water Quality* (CCH, 2017)," which can be downloaded from their website listed below.

> **Rules Relating to Water Quality** issued by City and County of Honolulu can be downloaded at http://www.honoluludpp.org/ApplicationsForms/StormWaterQuality.aspx

9.0 REFERENCES

Airports, 2012, *Storm Water Management Program Plan – Section C: Construction Site Runoff Control Program*: State of Hawaii, Department of Transportation, Airports Division, Version 4.0, February 2012.

ASCE and WEF, 1992, *Design and Construction of Urban Stormwater Management Systems - ASCE Manual and Reports on Engineering Practice and WEF Manual of Practice FD-20*: American Society of Civil Engineers and Water Environment Federation, 1992.

Blanco Humberto & Lal Rattan, 2010, *Principles of Soil Conservation and Management*: Springer, p. 56-57, ISBN 978-90-481-8529-0, 2010.

CCH, 2011, *Storm Water Best Management Practice Manual for Construction*: State of Hawaii, City and County of Honolulu, Department of Environmental Services, November 2011.

CCH, 2017, *Rules Relating to Water Quality*: State of Hawaii, City and County of Honolulu, Department of Planning and Permitting, August 16, 2017.

DOT, 2016, *General Provisions for Construction Projects*: State of Hawaii, Department of Transportation, Air and Water Transportation Facilities Division, 2016.

Giambelluca TW, Chen Q, Frazier AG, Price JP, Chen Y-L, Chu P-S, Eischeid J., and Delparte, D. , 2011, *The Rainfall Atlas of Hawai'i*: http://rainfall.geography.hawaii.edu, 2011.

Gray Donald H. & Sotir Robbin B., 1996, *Biotechnical and Soil Bioengineering Slope Stabilization – A Practical Guide for Erosion Control*: John Wiley & Sons, Inc., p. 20, ISBN 978-0-471-04978-4, 1996.

Harbors 2020, Enforcement Response Plan: State of Hawaii Department of Transportation, Harbors Division, April 2020.

Norris E. Joanne, Stokes Alexia, Mickovski B. Slobodan, Cammeraat Erik, van Beek Rens, Nicoll C. Bruce, and Achim Alexis, 2008, *Slope Stability and Erosion Control: Ecotechnological Solutions*: Springer, Chapter 3 – Hillslope Processes: Mass Wasting, Slope Stability and Erosion, ISBN 978-0-470-71076-0, 2008.

The Weather Channel, 2013, *Average Weather for Honolulu, HI – Temperature and Precipitation*: http://www.weather.com/weather/wxclimatology/monthly/graph/USHI0026, 2013.

US Climate Data, 2013, *United States Climate Data, Honolulu Climate Graph – Hawaii Climate Chart*: http://www.usclimatedata.com/climate.php?location=USHI0026, 2013.

USACE, 2012, *Final Notice of Issuance and Modification on Nationwide Permits*: Federal Register, Department of the Army, Corps of Engineers, March 19, 2012.

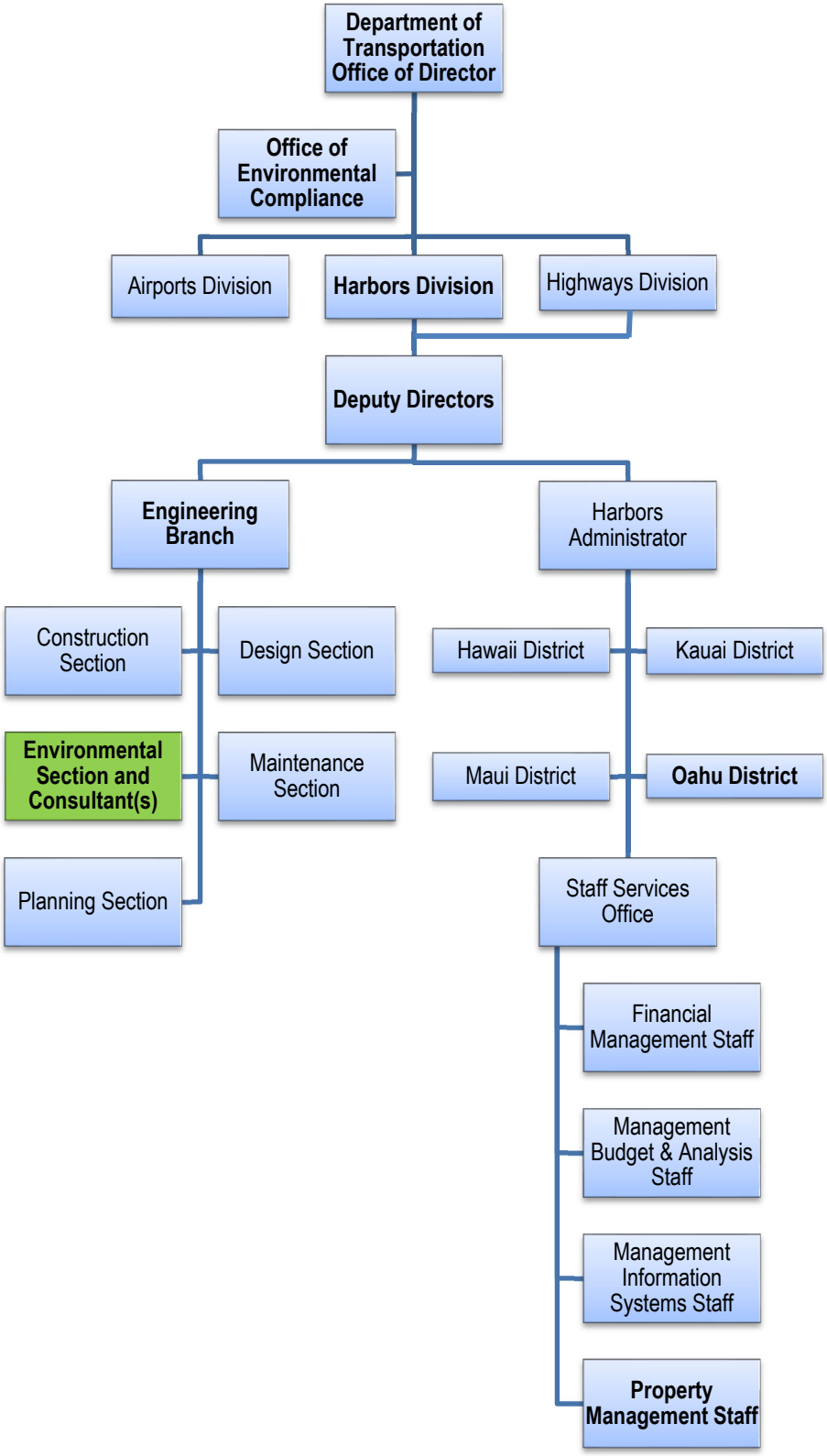
USEPA, 2007, *Developing Your Stormwater Pollution Prevention Plan - A Guide for Construction Sites*: United States Environmental Protection Agency, EPA-833-R-06-004, May 2007.

USEPA, 2012, *Overview of EPA Authorities for Natural Resource Managers Developing Aquatic Invasive Species Rapid Response and Management Plans: CWA Section 404-Permits to Discharge Dredged or Fill Material*: http://water.epa.gov/type/oceb/habitat/cwa404.cfm, March 6, 2012.

Attachment 1

HDOT Harbors Division Administrative Organizational Chart

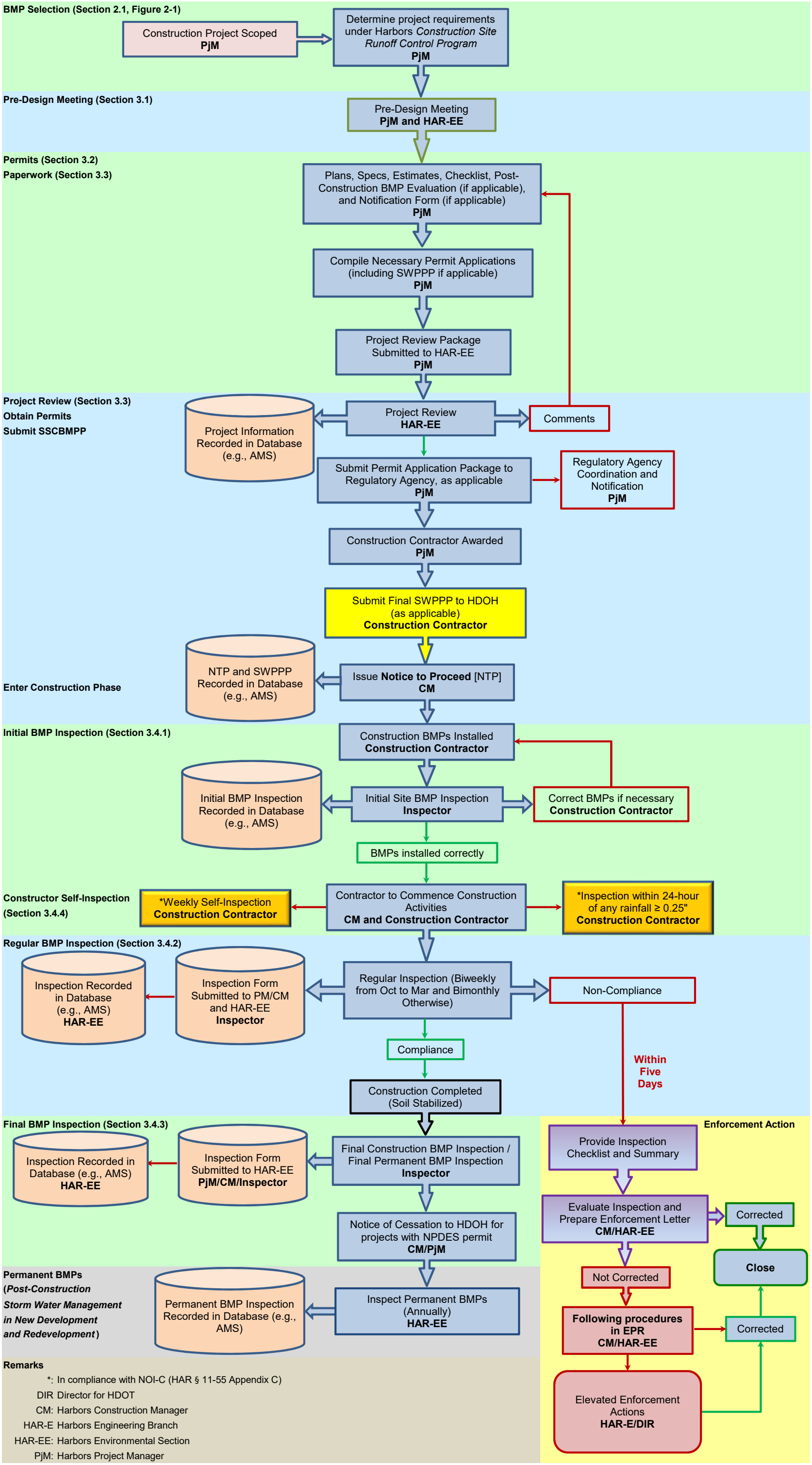
State of Hawaii Department of Transportation Harbors Division
Administrative Organizational Chart



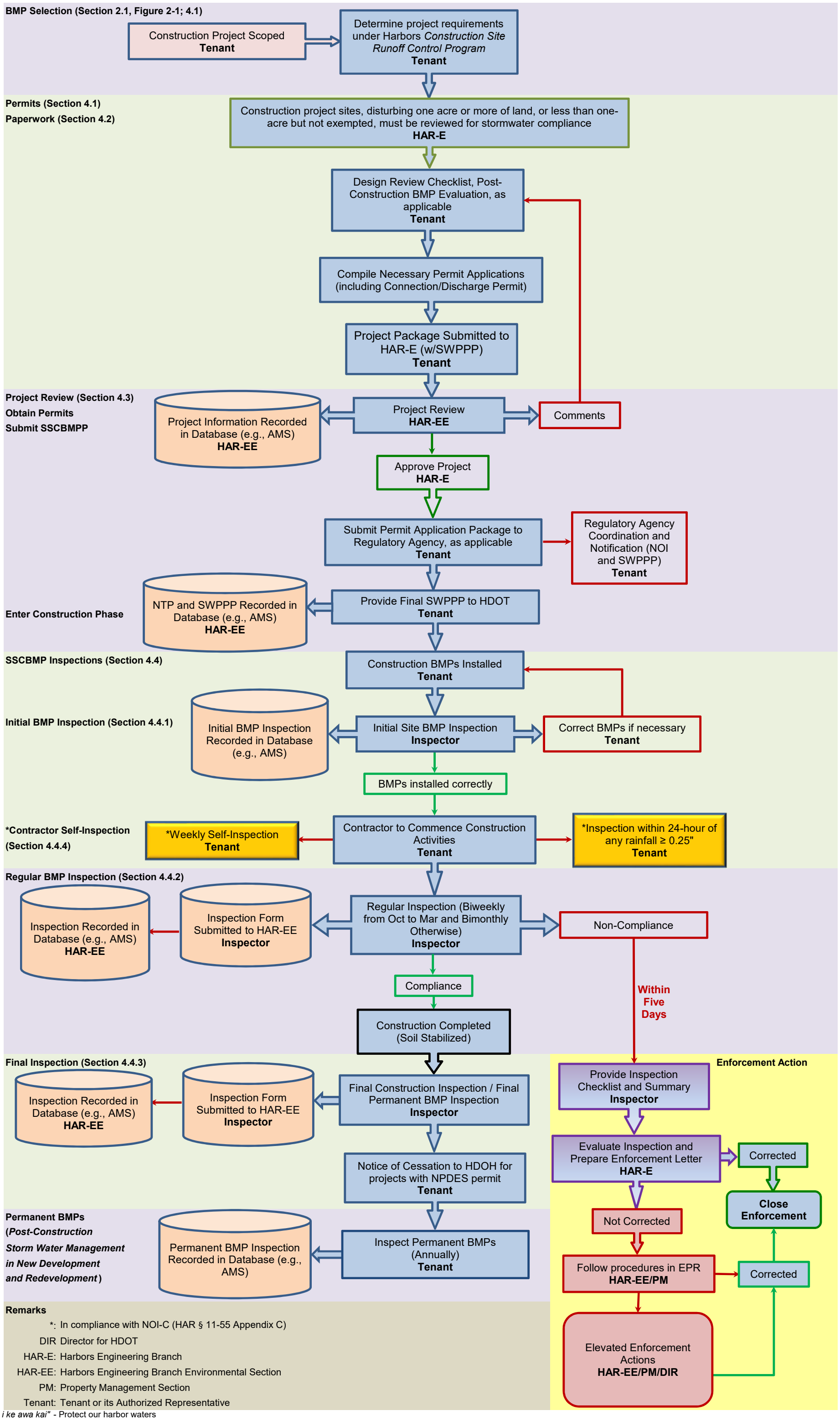
Attachment 2

Construction Process Flow Charts

Construction Process Flow Chart for HDOT Harbors Project



Construction Process Flow Chart for HDOT Tenant Improvement Project



Attachment 3

Permit for Connection to HDOT Harbors Division Small MS4

Permit to Discharge into HDOT Harbors Division Small MS4

FOR OFFICE USE ONLY		
Harbors. I.D. No.: _____	Harbor: _____	HDOH NPDES File No. (if applicable) _____

Permit for Connection to HDOT Harbors Division Small MS4

Application Date:_____

Note: This form is to be used for connection to Harbors Division Small MS4. Permanent structure(s) will be constructed at the location(s) below if approved. Otherwise, please use ***Permit to Discharge into HDOT Harbors Division Small MS4*** form.

Pursuant to Hawaii Administrative Rules, Chapter 11-55, application is hereby made to connect to the State Department of Transportation (HDOT) Harbors Division Small Municipal Separate Storm Sewer System (MS4) at the location(s) specified below and at no other place.

1.	Name of Harbor:	
2.	Tax Map Key No:	
3.	Location:	
4.	Description of Connection(s):	
5.	Complete the Drain Connection Worksheet on Page 3 and attach related Plan(s).	

Licensee*, the undersigned, hereby agrees to the following:

1. That the Licensee shall bear the entire cost of engineering, construction, and maintenance of the private storm drainage system.
2. That the Licensee shall indemnify and hold the State free and harmless from all suits and actions caused by the Licensee's acts or failure to act in connection with engineering construction and maintenance of the Licensee's private storm drainage system and its connection to the HDOT Harbors Division Small MS4.
3. That the construction of the storm drainage system shall be made in accordance with plans and specifications approved by the Harbors Division, and subject to compliance with all applicable statutes, ordinances, and rules and regulations of Federal, State or City agencies having the effect of the law. If a National Pollutant Discharge Elimination System (NPDES) Permit is warranted in accordance with Hawaii Administrative Rules (HAR) 11-55, the Licensee shall obtain the permit as required by the State Department of Health (HDOH) and submit a copy to the HDOT Harbors Division with this form.
4. That prior to any construction work, the Licensee shall obtain permission to perform work from the HDOT Harbors Division Engineering Program Manager, and comply with Harbors *Construction Site Runoff Control Program* and *Post-Construction Storm Water Management in New Development and Redevelopment*.
5. That in the event any portion of the HDOT Harbors Division Small MS4 is damaged or destroyed during the construction of the private storm drain connection, the Licensee shall bear the entire cost of engineering and construction, or replacement of the damaged system.
6. That no additions or alterations to the private storm drainage system will be made without the prior written consent of the HDOT Harbors Division.
7. That the private storm drainage system shall remain at the Licensee's property and that the Licensee will be solely responsible for its maintenance and upkeep.
8. That in the event, the private storm drainage system within the State right-of-way shall at any time interfere with any public use, the Licensee will relocate the private water drainage system at the Licensee's sole expense.

9. That any time the private storm drainage system discharges pollutants or other objectionable material into the HDOT Harbors Division Small MS4 which exceeds applicable water quality standards of the HDOH as identified in Section 11-54-4, Hawaii Administrative Rules, or otherwise misuses the system, or causes a violation of any provisions of the State's NPDES permit, the HDOT Harbors Division, by written notice, may terminate this licensee and have the system removed at the Licensee's expense. In addition, the Licensee shall be liable for any and all penalties as a result of discharges from the Licensee's system.
10. That discharge into the HDOT Harbors Division Small MS4 shall be composed entirely of storm water, or other discharges allowed by HDOH. In the event the discharge into the HDOT Harbors Division Small MS4 comes from a point or non-point source regulated by HDOH, the Licensee shall obtain the proper NPDES permit(s) from HDOH in accordance with HAR 11-55, and shall provide effluent monitoring reports required by their NPDES permit to HDOT Harbors Division when requested.
11. That the HDOT Harbors Division, or its authorized representative, may during reasonable hours and upon notification to the Licensee, enter building or premises to inspect or investigate, measure or test any effluent discharged directly or indirectly to the HDOT Harbors Division Small MS4.
12. That the Licensee will notify the Harbors Environmental Section at (808) 587-1962 at least 72 hours before commencing construction work, to arrange for necessary inspectional services.
13. That the Licensee shall require this permit to be part of the contract with its construction contractor.
14. That this agreement shall be made a condition of any subsequent transfer of property ownership.

Print Name of Licensee	Company Name
Licensee's Title	Company Address
	City, State, Zip Code
Signature of Licensee Date	E-mail Address
Telephone No.	Fax No.

Reviewed By:

Environmental Section	Date

Approved By:

Engineering Program Manager	Date

CONSTRUCTION DATA

Work Started: _____

Work Completed: _____

Inspector:

*Licensee shall be the authorized representative of the party seeking to connect and discharge to the HDOT Harbors Small MS4 under this permit.

Drain Connection Worksheet

If "**No**" is checked, please provide justification beneath each item.		
Item	**Yes**	**No**
1. Site Map showing subject discharge point(s) to Harbors drainage system in NAD 83 Geographic coordinates (latitude, longitude) is attached.	☐	☐
2. Storm Water Flow Map is attached.	☐	☐
3. Quantity of storm water and site process water entering Harbors drainage system is attached.	☐	☐
4. Description of Best Management Practices and location(s) are attached.	☐	☐
5. Drain Construction/Structure Plan is attached.	☐	☐
6. Type of Discharge and copy of NPDES permit issued by HDOH (if applicable).	☐	☐

Please refer to *City and County of Honolulu Storm Water Best Management Practice Manual – Construction, November 2011,* for more information.

FOR OFFICE USE ONLY		
Harbors. I.D. No.: _____	Harbor: _____	HDOH NPDES File No._____

Permit to Discharge into HDOT Harbors Division Small MS4

Application Date:_____

Note: This form is to be used for discharge to Harbors Division Small MS4 system ONLY. No permanent structure will be constructed at the location(s) specified below. Otherwise, please use ***Permit for Connection to HDOT Harbors Division Small MS4*** form.

Pursuant to Hawaii Administrative Rules, Chapter 11-55, application is hereby made to discharge into the State of Hawaii Department of Transportation (HDOT) Harbors Division Small Municipal Separate Storm Sewer System (MS4) at the location(s) specified below and at no other place.

1. Name of Harbor: _____
2. Tax Map Key No: _____
3. Location: _____

4. Type of Discharge
   - ☐ Storm water associated with industrial activities
   - ☐ Hydrotesting water
   - ☐ Storm water associated with construction activities
   - ☐ Dewatering
   - ☐ Others (Specify):

5. Complete the *Drain Discharge Worksheet* on Page 3 and attach related Plan(s).

Licensee*, the undersigned, hereby agrees to the following:

1. That the Licensee shall indemnify and hold the State free and harmless from all suits and actions resulting from the licensee's discharge operations.
2. That the Licensee shall provide appropriate control measures and/or treatment devices for the removal of soil particles, and/or other pollutant(s) in the discharge, and such discharge shall meet the basic water quality criteria applicable to all state waters, as identified in Section 11-54-4, and any other applicable sections in Chapter 11-54, Hawaii Administrative Rules, at the point of discharge into state waters.
3. That the Licensee shall obtain National Pollutant Discharge Elimination System (NPDES) permit as required by the State of Hawaii Department of Health (HDOH) and submit a copy to the HDOT Harbors Division with this form, if necessary.
4. That a copy of any effluent monitoring required by the NPDES permit shall be furnished to the HDOT Harbors Division, when requested.
5. That the Licensee shall make all restoration to any State property damaged during the Licensee's discharge operations in accordance with the HDOT Harbors Division requirements.
6. That the Licensee shall discontinue the discharge, should the HDOH determine that the receiving waters are being polluted, the discharge does not meet the effluent requirements of the NPDES permit, and the Licensee's operations are not in the best interest of the general public. In addition, the Licensee shall be liable for any and all penalties as a result of discharges from the Licensee's system.

7. That if the HDOT Harbors Division determines that any material or substance from the Licensee's discharge operations have settled into Harbors Small MS4, the Licensee shall immediately remove and clear any material and substance to the satisfaction of the HDOT Harbors Division.
8. That the Licensee shall comply with Harbors *Construction Site Runoff Control Program* and *Post-Construction Storm Water Management in New Development and Redevelopment*, and inspect and clean the Harbors Small MS4 prior to discharging, when applicable.
9. That the Licensee shall notify the Harbors Environmental Section at (808) 587-1962 at least 72 hours before commencing discharge and at the conclusion of the discharge operation to arrange for necessary inspectional services.
10. That the Licensee shall require this permit to be part of the contract with its construction contractor when applicable.

Print Name of Licensee	Company Name
Licensee's Title	Company Address
	City, State, Zip Code
Signature of Licensee Date	E-mail Address
Telephone No.	Fax No.

Reviewed By:

Environmental Section	Date

Approved By:

Engineering Program Manager	Date

CONSTRUCTION DATA

Work Started: _____

Work Completed: _____

Inspector:

*Licensee shall be the authorized representative of the party seeking to discharge into the HDOT Harbors Division Small MS4 under this permit.

Drain Discharge Worksheet

If "**No**" is checked, please provide justification beneath each item.		
Item	**Yes**	**No**
1. Site Map showing subject discharge point(s) to Harbors drainage system in NAD 83 Geographic coordinates (latitude, longitude) is attached.	☐	☐
2. Storm Water Flow Map is attached.	☐	☐
3. Quantity of storm water and site process water entering Harbors drainage system is attached.	☐	☐
For Construction Project (Please refer to *City and County of Honolulu Storm Water Best Management Practice Manual – Construction, November 2011,* for more information)		
4. Description of erosion controls and location(s) are attached.	☐	☐
5. Project schedule is attached.	☐	☐

Attachment 4

Construction Site Design Review Checklist

Hawaii Department of Transportation – Harbors Division

"Mālama i ke awa kai" - Protect our harbor waters

Construction Site Design Review Checklist

Project Description	
Project Title:	
Project Job No:	Acreage of Site:
Name of Design Firm:	
Projected Construction Timeframe:	
Description of Project:	

Site Information			
Construction Site Location:			
Latitude:		Longitude:	
Tax Map Key No(s).:			
Disturbed Area (to nearest tenth of an acre):		Total Project Area (to nearest tenth of an acre):	
Existing Percentage of Impervious Area:		Percentage of Impervious Area After Completion:	

Nearest Water Body Information	
Name of Nearest Receiving Water Body(s) and Distance:	
Any New or Modified Storm Drain Connections:	
Description of Existing Storm Drains On or Adjacent to Project Area:	

Design Submittal (Check one):		
☐ Preliminary Design	☐ Semi-Final Design	☐ Final Design

Signature and Certifications	
Designer: I certify that the design is complete, accurate, and addresses the items on this checklist to the best of my knowledge.	
Print Name:	Job Title:
Signature:	Date:
Review: HDOT Harbors Project Manager and Environmental Section.	
Harbors Project Manager Signature:	Print Name: Date:
Harbors Environmental Section Signature:	Print Name: Date:

Existing and Proposed Site Features	Yes	No	N/A
1. The following site features should be included on the plans, if deemed necessary based on project type, size, and scope.			
• Existing and proposed topography, features, and storm water flow paths	☐	☐	☐
• Preliminary location, size in square feet, and limits of disturbance	☐	☐	☐
• Locations of existing and proposed roads, curbs, gutters, storm drains, inlets, buildings, signs, sidewalks, traffic signals, light standards, guardrails, and other structures	☐	☐	☐
• Location of internal swales and ditches, and other drainage facilities	☐	☐	☐
• Maps of predominant soils from USDA soil surveys	☐	☐	☐
• Boundaries of existing predominant vegetation and proposed limits of clearing and grubbing	☐	☐	☐
• Existing and proposed utilities and easements	☐	☐	☐
• Preliminary location and dimensions of proposed channel modifications, such as bridge or culvert crossings	☐	☐	☐
2. If the project or site includes, is adjacent to, or otherwise may impact any of the following, they should be included on the plans.			
• Perennial and intermittent streams or other surface water	☐	☐	☐
• Location and boundaries of resource protection areas such as wetlands, lakes, ponds, and other setbacks (e.g., stream buffers, drinking water well setbacks, septic setbacks)	☐	☐	☐
• Location of floodplain/floodway limits and relationship of site to upstream and downstream properties and drainages	☐	☐	☐
• The limits of the existing and proposed maps and plans shall extend past the project limits if any existing condition has an impact to the project. Include future projects that have the potential to start prior to the subject project.	☐	☐	☐
• Stream flow velocity for stream work	☐	☐	☐
3. Identify potential pollutants related to non-storm water on site.	☐	☐	☐

Scheduling	Yes	No	N/A
1. Include sequencing of construction activities with the implementation of construction site BMPs is provided?	☐	☐	☐
2. Show how the rainy season relates to soil-disturbing and re-stabilization activities?	☐	☐	☐
3. Include detail on the implementation and deployment of soil stabilization, sediment control, non-storm water management, construction material management, waste management, pollution control, spill control practices, and inspection and maintenance BMPs?	☐	☐	☐
4. If the project is performed in multiple phases, are the phase-specific BMPs that take into account relevant potential pollutants?	☐	☐	☐

Construction Site BMPs (Please refer to *City and County of Honolulu Storm Water BMP Manual – Construction, November 2011,* for more information)	Yes	No	N/A
1. Soil Stabilization Practices (Plans address or include the following practices and situations?)			
• Preservation of existing vegetation	☐	☐	☐
• Stabilization of construction entrance	☐	☐	☐
• Protection of stockpiles	☐	☐	☐
• Bank stabilization	☐	☐	☐
• Topsoil management	☐	☐	☐
• Mulching, seeding, and/or planting with installation/application procedures and requirements	☐	☐	☐
• Velocity reduction devices in storm water flow paths	☐	☐	☐
• Geotextiles, plastic covers, turf reinforce mats, and/or erosion control blankets/mats, with installation/application procedures and requirements	☐	☐	☐
• Temporary drains, swales, earth dikes, and/or lined ditches	☐	☐	☐

• Slope drains, subsurface drains	☐	☐	☐
• Top and toe of slope diversion ditches/berms	☐	☐	☐
2. Sediment Control Practices (Plans address or include the following practices and situations?)			
• Location of potential sediment sources	☐	☐	☐
• Does on-site drainage enter into off-site drainage	☐	☐	☐
• Dust/Silt fence, wattles, perimeter socks, and matting rolls	☐	☐	☐
• Watering	☐	☐	☐
• Soil binders, including acrylic polymers	☐	☐	☐
• Storm drain inlet protection	☐	☐	☐
• Temporary sediment basin	☐	☐	☐
• Sediment trap	☐	☐	☐
• Flared culvert end sections	☐	☐	☐
• Outlet protection	☐	☐	☐
• Temporary stream crossing	☐	☐	☐
• Ingress/Egress sediment control	☐	☐	☐
• Slope roughening/terracing/rounding	☐	☐	☐
• Sand bag barrier	☐	☐	☐
• Brush or rock filter	☐	☐	☐
• Shoveling, sweeping, and disposing	☐	☐	☐
3. Non-Storm Water Management Practices (Plans address or include the following practices and situations?)			
• Employee training	☐	☐	☐
• Vehicle and equipment cleaning, refueling, and maintenance	☐	☐	☐
• Dewatering operations	☐	☐	☐
• Paving operations	☐	☐	☐
• Concrete washout procedure	☐	☐	☐
• Structure construction and painting	☐	☐	☐
• Water conservation	☐	☐	☐
• Good housekeeping practices	☐	☐	☐
4. Construction Material Management, Waste Management and Spill Control Practices (Plans address or include the following practices and situations?)			
• Material delivery, use, and storage	☐	☐	☐
• Spill prevention control, spill kit	☐	☐	☐
• Hazardous waste properly stored in designated areas	☐	☐	☐
• Sanitary/Septic waste management	☐	☐	☐
• Liquid waste managed with storage containment devices	☐	☐	☐
• Contaminated soil management	☐	☐	☐
• Concrete waste management	☐	☐	☐
• Fertilizer, pesticide, herbicide, fungicide, and biocide management	☐	☐	☐

Inspection and Maintenance Responsibility	Yes	No	N/A
(Plans address or include the following practices and situations?)			
1. Long-term inspection entity, operation, and maintenance identified	☐	☐	☐
2. Minimum maintenance frequency identified	☐	☐	☐
3. Recordkeeping	☐	☐	☐
4. Schedule and/or triggers for inspection of BMP measures	☐	☐	☐
5. Rain gauge monitoring	☐	☐	☐
6. Incident report	☐	☐	☐

Permits, Reports, and Plans	Yes	No	N/A
Assess if the project requires any of the following that may include or impact BMPs. If not required, check N/A.			
1. NPDES Form C for Construction Activities is provided, if required.	☐	☐	☐
2. NPDES Form F for Hydrotest waters discharge is provided, if required.	☐	☐	☐
3. NPDES Form G for Dewatering discharge is provided, if required.	☐	☐	☐

4. 401 Water Quality Certification is provided, if required.	☐	☐	☐
5. 404 Department of Army Permit is provided, if required.	☐	☐	☐
6. Coastal Zone Management Permit is provided, if required.	☐	☐	☐
7. Special Management Area Permit is provided, if required.	☐	☐	☐
8. Post-construction Stormwater Mitigation Plan is provided, if required.	☐	☐	☐
9. Grading Permit with temporary erosion control plan is provided. (if project requires City and County approval and meets requirements)	☐	☐	☐
10. Permit for Connection to the State Harbors Drainage System (if applicable)	☐	☐	☐
11. Permit to Discharge into the State Harbors Drainage System (if applicable)	☐	☐	☐
12. If multiple permits or approvals are required for the project, BMPs are consistent in all permits and plans.	☐	☐	☐

"Mālama i ke awa kai" - Protect our harbor waters

Attachment 5

Construction Site Best Management Practices Inspection Checklist

Construction Site Best Management Practices Inspection Checklist

Date of Inspection:		**Project Title:**							
Contractor:		**Project Job No.:**					**NPDES No.:**		
Inspector:		**SWPPP Updated and Onsite:** ☐ Yes ☐ No					**Photographs Attached:** ☐ Yes ☐ No		
Inspection Type: ☐ Initial ☐ Recurring ☐ Final ☐ Other									
Weather:									
AC: Adequate **C**ontainment **ACoC: A**dequate **C**over **o**r **C**ontainment			**Control Device(s) Properly Installed**		**Require Maintenance**				
		N/A	**Yes**	**No**	**Yes**	**No**	**Description of Any Findings**	**Notes**	
1.	Stabilized Construction Ingress/Egress?	☐	☐	☐	☐	☐			
	Vehicular Tracking	☐	☐	☐	☐	☐			
2.	Erosion Control Device(s) - Slopes/Exposed Area	☐	☐	☐	☐	☐			
	Sediment Control (Silt fence, Perimeter sock)	☐	☐	☐	☐	☐			
	Storm Drain Inlet Protection (Fabric filter, Witch's hat)	☐	☐	☐	☐	☐			
3.	Dust Control/Suppressant - Sawcutting/Demolition	☐	☐	☐	☐	☐			
	Concrete Washout Area (AC)	☐	☐	☐	☐	☐			
4.	Vehicle/Equipment Maintenance Area (ACoC)	☐	☐	☐	☐	☐			
	Vehicle/Equipment Cleaning Area (AC)	☐	☐	☐	☐	☐			
	Vehicle/Equipment Fueling Area (AC)	☐	☐	☐	☐	☐			
	Vehicle/Equipment Storage Area (AC)	☐	☐	☐	☐	☐			
5.	Construction Material Storage Area (ACoC)	☐	☐	☐	☐	☐			
	Stockpiles of Aggregate (ACoC)	☐	☐	☐	☐	☐			
6.	Flammable/Fuel Storage Area (ACoC)	☐	☐	☐	☐	☐			
	Hazardous Material Storage (ACoC)	☐	☐	☐	☐	☐			
	Waste Storage Area (ACoC)	☐	☐	☐	☐	☐			
7.	Good Housekeeping Practices (Is project generally free of litter, sediment, etc.?)	☐	☐	☐	☐	☐			
8.	Spill Prevention/Control - Spill Kit	☐	☐	☐	☐	☐			

Major Site Activities (please check any if applicable):

☐ Demolition ☐ Paving ☐ Excavation ☐ Hauling Materials ☐ Concrete Pouring ☐ Other, please specify:

If any of the item listed below checked "Yes", please provide detailed information under Additional Notes.

A. Is contaminated soil present? ☐ Yes ☐ No

B. Is sediment basin(s) present? ☐ Yes ☐ No

C. Is any illicit discharge present? ☐ Yes ☐ No

D. Dewatering and/or Hydrotesting - Is this project in compliance with these NPDES storm water permitting requirements? ☐ Yes ☐ No ☐ N/A

Verified By (HDOT Project Inspector/Engineer's Signature) **Date**

Construction Site Best Management Practices Inspection Checklist

Permanent Post-Construction BMP Inspection			
Please indicate inspection status here:	☐ Initial Inspection	☐ Inspection During Construction Phase	☐ Final Inspection after Installation
Post-construction BMPs are being installed in accordance with construction plans.	☐ Yes	☐ No	☐ N/A
Notes:			

Additional Notes:

A. Management of Contaminated Soil:

B. Control and Maintenance Related to Sediment Basin(s):

C. Evidence of Discharge of Pollutant(s) to State Receiving Waters:

D. Summary of Dewatering and/or Hydrotesting Activity (please list permit numbers and verify compliance):

E.

F.

G.

Remarks: This checklist is to be completed before commencement of grading or site-work and then every two weeks from October through March, otherwise, bimonthly. State of Hawaii Department of Transportation Harbors Division will not allow construction activities to commence until the project engineer or qualified project inspector have inspected the construction site and determined that the site-specific BMPs and pollution prevention control measures are implemented properly.

State of Hawaii
Department of Transportation
Harbors Division

Attachment 6

Notification Forms for Project Site Disturbing Less Than One Acre

Hawaii Department of Transportation – Harbors Division

"Mālama i ke awa kai" - Protect our harbor waters

Notification Form for Project Site Disturbing Less Than One Acre

(To be used for Harbors Project)

Project Description			
Project Title:			
Project Job No:		Acreage of Site:	
Name of Design Firm:			
Projected Construction Timeframe:			
Description of Project:			

Site Information			
Construction Site Location:			
Tax Map Key No(s).:			
Disturbed Area (to nearest tenth of an acre):		Total Project Area (to nearest tenth of an acre):	
Existing Percentage of Impervious Area:		Percentage of Impervious Area After Completion:	

Nearest Water Body Information	
Name of Nearest Receiving Water Body(s) and Distance:	
Any New or Modified Storm Drain Connections:	
Description of Storm Drains On or Adjacent to Project Area (e.g., location or ID#):	

Review: HDOT Harbors Project Manager and Environmental Section.	
Harbors Project Manager Signature:	Print Name: Date:
Harbors Environmental Section Signature:	Print Name: Date:

Notes:

1. This form is for the use on non-exempt project site that will disturb less than one (1) acre of land and are not a part of Larger Common Plan (LCP) for development. **If this project is part of a LCP for sale or development, this form may not be used.**

2. Please type or print legibly. Please include the originally signed notification form and one (1) copy of a sketched plan outlining the anticipated activities and the location of all proposed sediment and erosion control measures.

3. The following activities, if they do not affect the Harbors storm drainage system, are exempt from any formal project review and construction site best management practice (BMP) inspection requirements under the ***Harbors Construction Site Runoff Control Program***.

- Minor land disturbance activities on a single lot (such as minor landscaping activities). Activities must disturb no more than 10 cubic yards or ¼ acre.
- Post and pole installation (less than 2 cubic yards excavation at any one contiguous project location).
- Utility repair work (less than 2 cubic yards excavation at any one contiguous project location).
- Parking lot, driveway, and other paved surfaces repair (less than ¼ acre disturbed and no sediment leaves the property.
- All repair and maintenance activities.

Hawaii Department of Transportation – Harbors Division

"Mālama i ke awa kai" - Protect our harbor waters

Notification Form for Project Site Disturbing Less Than One Acre

(To be used for Non-Harbors Project)

Project Description			
Project Title:			
Project Job No:		Acreage of Site:	
Name of Design Firm:			
Projected Construction Timeframe:			
Description of Project:			

Site Information			
Construction Site Location:			
Tax Map Key No(s).:			
Disturbed Area (to nearest tenth of an acre):		Total Project Area (to nearest tenth of an acre):	
Existing Percentage of Impervious Area:		Percentage of Impervious Area After Completion:	

Project Information			
Project Owner/Operator			
Business Name			
Project Point of Contact:			
(Note: Must be an authorized representative with signatory authority)			
Mailing Address:			
Phone:		Email Address:	
Engineering/Design Company			
Company Name			
Project Point of Contact:			
Mailing Address:			
Phone:		Email Address:	
Construction Contractor			
Company Name			
Project Point of Contact:			
Mailing Address:			
Phone:		Email Address:	

Nearest Water Body Information	
Name of Nearest Receiving Water Body(s) and Distance:	
Any New or Modified Storm Drain Connections:	
Description of Storm Drains On or Adjacent to Project Area (e.g., location or ID#):	

Signature and Certifications	
Project Owner/Operator: Per my signature below, I hereby certify that this project is not part of a Larger Common Plan (LCP) for Development. I understand that additional construction activities at this site may require permit coverage and I am responsible for obtaining any federal, state, or local permits that may be required for this project. I certify that all land-disturbing construction and associated activity pertaining to this site shall be accomplished pursuant to and in keeping with the terms and conditions of all relevant regulations including, but not limited to, the Federal Clean Water Act (33 USC 1251), Hawaii Revised Statutes 342D, Hawaii Administrative Rules §11-54 and §11-55, Honolulu Harbor and Kalaeloa Barbers Point Harbor's small Municipal Storm Water Sewer System (MS4) National Pollutant Discharge Elimination System Permits (NPDES Permit Nos. HI 03KB482 and HI 03KB488), other applicable MS4 NPDES Permit(s), and Harbors Storm Water Management Plan. Failure to do so may result in penalties. I hereby acknowledge that personnel from the Hawaii Department of Transportation Harbors Division or Hawaii Department of Health has the right of access to the site at all times for the purpose of on-site inspections during the course of construction and to perform inspections following the project completion. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
Print Name:	Job Title:
Signature:	Date:
Review: HDOT Harbors Engineering Branch Environmental Section.	
Harbors Environmental Section Signature:	Print Name: Date:

Notes:

1. This form is for the use on non-exempt project site that will disturb less than one (1) acre of land and are not a part of Larger Common Plan (LCP) for development. **If this project is part of a LCP for sale or development, this form may not be used.**

2. Please type or print legibly. Please include the originally signed notification form and one (1) copy of a sketched plan outlining the anticipated activities and the location of all proposed sediment and erosion control measures.

3. The following activities, if they do not affect the Harbors storm drainage system, are exempt from any formal project review and construction site best management practices (BMP) inspection requirements under the ***Harbors Construction Site Runoff Control Program***.

- Minor land disturbance activities performed on a single lot (such as minor landscaping activities). Activities must disturb no more than 10 cubic yards or ¼ acre.
- Post and pole installation (less than 2 cubic yards excavation at any one contiguous project location).
- Utility repair work (less than 2 cubic yards excavation at any one contiguous project location).
- Parking lot, driveway, and other paved surfaces repair (less than ¼ acre disturbed and no sediment leaves the property.
- All repair and maintenance activities.

Attachment 7

List of City and County of Honolulu BMP Fact Sheets for Construction

Serial #	Erosion Control (EC) Fact Sheets
EC-0	Employee/Subcontractor Training
EC-1	Scheduling
EC-2	Preservation of Existing Vegetation
EC-3	Hydraulic Mulch
EC-4	Hydroseeding
EC-5	Soil Binders
EC-7	Geotextiles and Mats
EC-8	Wood Mulching
EC-9	Earth Dikes and Drainage Swales
EC-10	Velocity Dissipation Devices
EC-11	Slope Drains
EC-12	Streambank Stabilization
EC-14	Seeding, Planting and Sodding
EC-15	Slope Roughening/Terracing
EC-16	Topsoil Management
Serial #	**Sediment Control (SE) Fact Sheets**
SE-1	Silt Fence
SE-2	Sediment Basin
SE-3	Sediment Trap
SE-4	Check Dams
SE-5	Fiber Rolls
SE-6	Gravel Bag Berm
SE-7	Street Sweeping and Vacuuming
SE-8	Sandbag Barrier
SE-10	Storm Drain Inlet Protection
SE-11	Chemical Treatment
SE-12	Location of Potential Sources of Sediment
SE-13	Level Spreader
SE-14	Rip-Rap & Gabion Inflow Protection
SE-15	Vegetated Buffer Strips and Channels
SE-16	Compost Socks and Berms
Serial #	**Wind Erosion Control (WE) Fact Sheets**
WE-1	Wind Erosion Control
Serial #	**Tracking Control (TR) Fact Sheets**
TR-1	Stabilized Construction Entrance/Exit
TR-2	Stabilized Construction Roadway
TR-3	Entrance/Outlet Tire Wash

Serial #	Non-Storm Water management (NS) Fact Sheets
NS-1	Water Conservation Practices
NS-2	Dewatering Operations
NS-3	Paving and Grinding Operations
NS-4	Temporary Stream Crossing
NS-5	Clear Water Diversion
NS-6	Illicit Connection/Discharge
NS-7	Potable Water/Irrigation
NS-8	Vehicle and Equipment Cleaning
NS-9	Vehicle and Equipment Fueling
NS-10	Vehicle and Equipment Maintenance
NS-11	Pile Driving Operations
NS-12	Concrete Curing
NS-13	Concrete Finishing
NS-14	Material over Water
NS-15	Demolition Adjacent to Water
NS-16	Temporary Batch Plants

Serial #	Waste Management (WM) and Materials Pollution Control Fact Sheets
WM-1	Material Delivery and Storage
WM-2	Material Use
WM-3	Stockpile Management
WM-4	Spill Prevention and Control
WM-5	Solid Waste Management
WM-6	Hazardous Waste Management
WM-7	Contaminated Soil Management
WM-8	Concrete Waste Management
WM-9	Sanitary/Septic Waste Management
WM-10	Liquid Waste Management

Attachment 8

Temporary Water Pollution, Dust, and Erosion Control Specifications

ARTICLE XXX – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL
For Project NOT Subject to NPDES NOI-C Permit

XXX.XX Description. This section is required for all work, including the Contractor's storage sites. It describes the following:

(A) A detailed site-specific Best Management Practice (BMP) Plan including diagrams and narratives; constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site including local material sources, work areas and access roads; removing and disposing of wastes and hazardous wastes; and control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion). Additionally, all projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors are subject to State of Hawaii, Department of Transportation (HDOT) Harbors Division, Stormwater Management Plan (SWMP) requirements, unless exempted, and are subject to Harbors Stormwater BMP inspections. If any requirement conflicts with those administered by State of Hawaii, Department of Health (HDOH), the Contractor shall follow the more stringent requirement.

(B) Compliance with applicable federal and other state permit conditions.

(C) Work associated with dewatering and hydrotesting activities and compliance with conditions of the NPDES general permit coverage authorizing discharges associated with construction activity dewatering and hydrotesting.

XXX.XX General Requirements. In order to provide for the control of water pollution, dust, and erosion arising from the construction activities of the Contractor and his subcontractors in the performance of this contract, the work performed shall comply with all applicable federal, state, and local laws and regulations concerning water pollution control including, but not limited to, the following regulations:

(A) State of Hawaii, HDOH, Hawaii Administrative Rules (HAR) Chapter 11-54 – Water Quality Standards and Chapter 11-55 – Water Pollution Control.

(B) For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, HDOT Harbors Division, Stormwater Management Plan.

(C) For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, City and County of Honolulu (CCH), Rules Relating to Water Quality.

(D) For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, CCH, Storm Water BMP Manual for Construction.

(E) 40 CFR Part 110, Environmental Protection Agency (EPA), Discharge of Oil.

(F) 40 CFR Part 117, EPA, Determination of Reportable Quantities for Hazardous Substances.

(G) 40 CFR Part 261, EPA, Identification and Listing of Hazardous Waste.

(H) 40 CFR Part 302, EPA, Designation, Reportable Quantities, and Notification.

(I) 49 CFR Part 171, U.S. Department of Transportation, Hazardous Materials Regulations.

XXX.XX Materials. Materials shall conform to the following when applicable:

(A) Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, Portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Construction Engineer.

(B) Grass. Grass shall be quick growing species such as rye grass, Italian grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Construction Engineer.

(C) Fertilizer and Soil Conditions. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Construction Engineer.

(D) Silt Fences. Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in compliance with American Society for Testing and Materials (ASTM) D6462-03, Standard Practice for Silt Fence Installation.

(E) Berms. Berms shall be gravel or sand wrapped with geotextile material. Alternate materials are allowable if acceptable to the Construction Engineer.

(F) Alternate materials or methods to control, prevent, remove, and dispose of pollution are allowable if acceptable to the Construction Engineer.

XXX.XX Construction.

(A) Preconstruction Requirements.

(1) Temporary Water Pollution, Dust, and Erosion Control Meeting. The contractor shall be required to submit a site-specific BMP Plan to the Construction Engineer and address all comments by the Construction Engineer. After the Plan is accepted in writing by the Construction Engineer, the Contractor shall schedule a meeting with the Construction Engineer before the start of construction work to discuss the sequence of

work, and plans and proposals for water pollution, dust, and erosion control.

(2) Temporary Water Pollution, Dust, and Erosion Control Submittals. The Contractor shall submit the site-specific BMP Plan to the Construction Engineer prior to the start of work for review of compliance with this Article.

(a) Written site-specific BMP Plan shall include the following as applicable:

1. Identification of potential pollutants and their sources and other factors that may cause water pollution, dust, and erosion.

2. A list of all material and heavy equipment to be used during construction. Vehicles and equipment shall be well maintained and free from any type of fluid leaks.

3. Construction schedule.

4. Name(s) of specific individual(s) designated responsible for water pollution, dust and erosion controls on the project site. Include home, business, and cellular telephone numbers, fax numbers, and e-mail addresses.

5. Descriptions of the methods and devices used to eliminate certain pollutants (e.g., wastewater, fuels, solvents, detergents, toxic or hazardous substances) from discharging into state waters and drainage systems, and provide details of BMP(s) to be installed or utilized. Indicate approximate dates when BMP(s) will be installed and removed.

6. Description of maintenance and subsequent removal of BMP(s).

7. Method(s) of removal and disposal of solid and regulated hazardous wastes encountered or generated during construction. The Contractor is advised to procure regulated hazardous materials on an as-needed basis, as feasible. All excess regulated hazardous materials at the conclusion of this project shall remain the property of the Contractor and shall be removed from HDOT Harbors Division property upon the completion of the project.

8. Method(s) of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydrodemolition water.

9. Method(s) of containing, removing and disposing of demolition dust and debris to minimize the discharge of these pollutants into state waters and drainage systems.

10. Spill kit contents and location.

11. Fugitive dust control, including dust from grinding, sweeping, or brooming off operations or combination thereof.

12. Method(s) of storing and handling of regulated hazardous materials (e.g. oils, paints) and other products used for the project. Safety Data Sheets (SDS) for all regulated hazardous materials used during construction activities shall be kept on-site throughout the duration of the project and readily available upon inspection. All containers of regulated hazardous materials should be provided with secondary containment during storage. Regulated hazardous materials not specifically needed in the execution of this project shall not be brought or stored on site. As feasible, the Contractor is encouraged to use products that do not contain any regulated constituents. The use of green products is encouraged.

13. Method(s) of concrete washout/waste control.

14. Method(s) of managing material stockpiles to minimize erosion and dust.

15. Good housekeeping practices.

a. Minimize tracking of sediment offsite from project entrances and exits.

b. Litter management. The Contractor shall have a comprehensive housekeeping policy and shall actively enforce housekeeping requirements. Housekeeping items include, but are not limited to, cups, cans, bottles and other forms of lightweight litter, unattended containers of hazardous materials, concrete debris (e.g. dust, chips, and other sweepings), and discarded articles of disposable

Personal Protective Equipment (e.g., earplugs, dust masks, and gloves). Employees who are specifically tasked with housekeeping duties shall be identified by name.

c. The Contractor should provide and maintain covered waste receptacles. No construction debris or other refuse that is generated as a result of project activities is to be disposed in HDOT Harbors Division-owned waste receptacles.

16. Provide plan(s)/drawing(s) showing location of followings when applicable:

a. Boundaries of the property and the locations where construction activities will occur, including:

i. Locations where earth-disturbing activities will occur (noting any sequencing of construction activities);

ii. Approximate slopes and drainage patterns with flow arrows before and after the construction;

iii. Locations where sediment, soil, or other construction materials will be stockpiled;

iv. Locations of any contaminated soil or contaminated soil stockpiles;

v. Locations of any crossings of state waters;

vi. Designated points on the site where vehicle will exit onto paved roads;

vii. Locations of structures and other impervious surfaces upon completion of construction; and

viii. Locations of construction support activity areas.

b. Locations of all state waters, including wetlands and indicate which water bodies are listed as impaired.

c. The boundary lines of any natural buffers.

d. Topography of the site, existing vegetative cover, and features (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of stormwater onto, over, and from the site property before and after major grading activities.

e. Stormwater discharge locations, including locations of any storm drain inlets on-site and in the immediate vicinity of the site to receive stormwater runoff from the project; and locations where stormwater will be discharging to state waters (including wetlands).

f. Locations of all potential pollutant-generating activities.

g. Locations of stormwater control measures; and

h. Locations where chemicals will be used and stored.

17. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Parts 110, 117, or 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available.

18. The Contractor shall date and sign the site-specific BMP Plan.

(b) The Contractor shall keep the accepted Plan on-site or at an easily accessible location throughout the duration of the project. Revisions to the Plan shall be included with the original plan. The Contractor shall obtain written acceptance from the Construction Engineer before revising BMP. An updated Plan shall be kept on-site throughout the remainder duration of the project.

The Contractor shall follow guidelines in the "*The City and County of Honolulu Storm Water Best Management Practice Manual – Construction*," (dated November 2011) in developing, installing, and maintaining BMP for the project. Additionally, the Contractor shall follow applicable CCH *Rules Relating to Water Quality* **for**

all projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors, and use respective Soil Erosion Guidelines for other Maui, Kauai and Hawaii County projects. Information can be found at the respective County websites.

(B) Construction Requirements are as follows.

(1) No work shall be allowed to begin until submittals detailed in Subsection XXX.XX A.2 – Temporary Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Construction Engineer. The Contractor shall prevent pollutants from entering state waters. These efforts shall address areas such as those that drain to water, are over water, or drain to storm drains adjacent and in the area of the project site. The Contractor shall design, operate, implement, and maintain the Plan to ensure that stormwater discharges associated with construction activities will not cause or contribute to a violation of applicable state water quality standards.

(2) All projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors are subject to HDOT Harbors Division SWMP requirements for construction at those harbors unless the project meets a specified exemption class. The requirements include, but are not limited to, construction site BMP initial, recurring (i.e. every two weeks from October through March and every two months otherwise), and final inspections at the frequencies outlined in the SWMP. No grading or land disturbance activities are allowed until the initial BMP inspection is completed and required BMPs are found to be properly installed.

(3) Address all comments received from the Construction Engineer.

(4) Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

(5) Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

(6) BMP shall be in place and operational until the construction is completed and accepted by Harbors.

(7) Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other material tracked onto the road immediately. Modify stabilized construction entrances to prevent mud from being tracked onto roadways.

(8) Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Construction Engineer.

(9) Cover exposed surface of materials completely with tarpaulin or similar device when transporting aggregate, soil, excavated material or material that may be a source of fugitive dust.

(10) Cleanup and remove any pollutant that can be attributed to the Contractor.

(11) Install or modify BMP due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted site-specific BMP Plan or a BMP that replaces an accepted site-specific BMP that is not satisfactorily performing.

(12) Properly maintain BMP.

(13) Remove, replace or relocate any BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to the project or public.

(14) The Contractor's designated representative specified in Subsection XXX.XX A.2.a.4 shall address any BMP concerns brought up by the Construction Engineer within 24 hours of notification, including weekends and holidays. Should the Contractor fail to satisfactorily address these concerns, the Construction Engineer reserves the right to employ outside assistance or use the Construction Engineer's own labor forces to provide necessary corrective measures. The Construction Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Construction Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply BMP shall result in either or both the establishment and increase in the amount of retainage due to unsatisfactory progress or withholding of monthly progress payment. Continued failure to apply BMP may result in one or more of the following: The Contractor being fully responsible for all additional costs incurred by HDOT Harbors Division including any fines levied by HDOH, suspension of the Contract, or cancellation of the Contract.

(C) **Hydrotesting Activities**. If work includes removing, relocation or installing waterlines, and the Contractor elects to flush waterline or discharge hydrotesting effluent into state waters or drainage systems, obtain a Notice of General Permit Coverage (NGPC) authorizing discharges associated with hydrotesting waters from the HDOH Clean Water Branch (CWB). If a permit is required, prepare and submit permit application (CWB-Notice of Intent (NOI) Form F) to the HDOH CWB.

Do not begin hydrotesting activities until the HDOH CWB has issued a NGPC. Hydrotesting operations shall be in accordance with conditions in the NGPC. Submit a copy of the NPDES Hydrotesting Waters Application and Permit to the Construction Engineer.

(D) **Dewatering Activities**. If excavation of backfilling operations requires dewatering, and the Contractor elects to discharge dewatering effluent into state waters or existing drainage systems, obtain an NGPC authorizing discharges associated with construction activity dewatering from the HDOH CWB. If a permit is required, prepare and submit permit application (CWB-NOI Form G) to the HDOH CWB.

Do not begin dewatering activities until the HDOH-CWB has issued an NGPC. Conduct dewatering operations in accordance with the conditions in the NGPC. Submit a copy of the NPDES Dewatering Application and Permit to the Construction Engineer.

XXX.XX **Payment**. Payment for Temporary Water Pollution, Dust, and Erosion Control shall not be measured and paid for separately but shall be considered incidental to the applicable items described in Article XX of these Specifications.

No progress payment will be authorized until the Construction Engineer accepts in writing the site-specific BMP Plan or when the Contractor fails to maintain the project site in accordance with the accepted BMP Plan.

The Contractor shall reimburse the State of Hawaii within 30-day for the full amount of all outstanding costs incurred by the State of Hawaii for all citations or fines received as a result of the Contractor's non-compliance with regulations.

ARTICLE XXX – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL
For Project Subject to NPDES NOI-C Permit

XXX.XX Description. This section is required for all work, including the Contractor's storage sites. It describes the following:

(A) A detailed Storm Water Pollution Prevention Plan (SWPPP) required by a National Pollutant Discharge Elimination System (NPDES) Appendix C General Permit from the State of Hawaii Department of Health (HDOH) and prepared according to Section 7 of Hawaii Administrative Rules (HAR) Chapter 11-55, Appendix C, will satisfy this requirement. Additionally, all projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors are subject to State of Hawaii, Department of Transportation (HDOT) Harbors Division, Storm Water Management Plan (SWMP) requirements, and are subject to Harbors Best Management Practice (BMP) inspections. If any requirement conflicts with those administered by HDOH, the Contractor shall follow the more stringent requirement.

(B) Compliance with applicable federal and other state permit conditions.

(C) Work associated with dewatering and hydrotesting activities and compliance with conditions of the NPDES general permit coverage authorizing discharges associated with construction activity dewatering and hydrotesting.

XXX.XX General Requirements. In order to provide for the control of temporary water pollution, dust, and erosion arising from the construction activities of the Contractor and his subcontractors in the performance of this contract, the work performed shall comply with all applicable federal, state, and local laws and regulations concerning water pollution control including, but not limited to, the following regulations:

(A) State of Hawaii, HDOH, HAR Chapter 11-54 – Water Quality Standards and Chapter 11-55 – Water Pollution Control.

(B) For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, HDOT Harbors Division, Storm Water Management Plan.

(C) For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, City and County of Honolulu (CCH), Rules Relating to Water Quality.

(D) For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, CCH, Storm Water BMP Manual for Construction.

(E) 40 CFR Part 110, Environmental Protection Agency (EPA), Discharge of Oil.

(F) 40 CFR Part 117, EPA, Determination of Reportable Quantities for Hazardous Substances.

(G) 40 CFR Part 261, EPA, Identification and Listing of Hazardous Waste.

(H) 40 CFR Part 302, EPA, Designation, Reportable Quantities, and Notification.

(I) 49 CFR Part 171, U.S. Department of Transportation, Hazardous Materials Regulations.

XXX.XX Materials. Materials shall conform to the following when applicable:

(A) Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, Portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Construction Engineer.

(B) Grass. Grass shall be quick growing species such as rye grass, Italian grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Construction Engineer.

(C) Fertilizer and Soil Conditions. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Construction Engineer.

(D) Silt Fences. Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in compliance with American Society for Testing and Materials (ASTM) D6462-03, Standard Practice for Silt Fence Installation.

(E) Berms. Berms shall be gravel or sand wrapped with geotextile material. Alternate materials are allowable if acceptable to the Construction Engineer.

(F) Alternate materials or methods to control, prevent, remove, and dispose of pollution are allowable if acceptable to the Construction Engineer.

XXX.XX Construction.

(A) Preconstruction Requirements.

(1) Temporary Water Pollution, Dust, and Erosion Control Meeting. The contractor shall be required to submit a SWPPP to the Construction

Engineer and address all comments by the Construction Engineer. After the SWPPP is accepted in writing by the Construction Engineer, the Contractor shall schedule a meeting with the Construction Engineer before the start of construction work to discuss the sequence of work, and plans and proposals for water pollution, dust, and erosion control.

(2) Temporary Water Pollution, Dust, and Erosion Control Submittals. The Contractor shall submit the SWPPP to the Construction Engineer prior to the start of work for review of compliance with this Article.

(a) The following information shall be described in the SWPPP as specified in Section 7 of HAR 11-55, Appendix C, at a minimum:

1. **Storm water team** (by name or position), which is responsible for the development of the SWPPP, any later modifications to it, and for compliance with the requirements in the NPDES permit. The SWPPP must identify the personnel that are part of the storm water team as well as their individual responsibilities.

2. **Nature of construction activities** including the size of the project site (in acres) and the total area expected to be disturbed by the construction activities (in acres), construction support activity areas covered by permit, and the maximum area expected to be disturbed at any one time.

3. **Emergency-related projects** in response to a public emergency (e.g., natural disaster, extreme flooding conditions). If this applies to the project, documentation of the cause of the public emergency, information substantiating its occurrence, and a description of the construction necessary to re-establish affected public services shall be included in the SWPPP. The proclamation of a civil defense emergency or similar proclamation is required to be from the President of the United States or State Governor.

4. **Identification of other site contractors** (e.g., sub-contractors) who will be engaged in construction activities at the site, and the areas of the site over which each contractor has control. If this piece of information is not available at the time the SWPPP is submitted, the plan must

be amended to include the information prior to the start of construction activities.

5. **Sequence and estimated dates of construction activities** including a schedule of the estimated start dates and the duration of the following activities, according to Section 7.2.5 of HAR 11-55, Appendix C:

   a. Installation of storm water control measures.

   b. Commencement and duration of earth-disturbing activities.

   c. Cessation, temporarily or permanently, of construction activities on-site, or in designated portions of the project site.

   d. Final or temporary stabilization of areas of exposed soil.

   e. Removal of temporary storm water conveyances/ channels and other storm water control measures, removal of construction equipment and vehicles, and cessation of any pollution-generating activities.

6. **Site map or series of maps**, showing the following features of the project, according to Section 7.2.6 of HAR 11-55, Appendix C:

   a. Boundaries of the property and the locations where construction activities will occur, including:

      i. Locations where earth-disturbing activities will occur (noting any sequencing of construction activities);

      ii. Approximate slopes and drainage patterns with flow arrows before and after construction;

      iii. Locations where sediment, soil, or other construction materials will be stockpiled;

iv. Locations of any contaminated soil or contaminated soil stockpiles;

v. Locations of any crossings of state waters;

vi. Designated points on the site where vehicle will exit onto paved roads;

vii. Locations of structures and other impervious surfaces upon completion of construction; and

viii. Locations of construction support activity areas covered by the permit.

b. Locations of all state waters, including wetlands and indicate which water bodies are listed as impaired.

c. The boundary lines of any natural buffers.

d. Topography of the site, existing vegetative cover, and features (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of storm water onto, over, and from the site property before and after construction.

e. Storm water discharge locations, including locations of any storm drain inlets on-site and in the immediate vicinity of the site to receive storm water runoff from the project; and locations where storm water will be discharging to state waters (including wetlands).

f. Locations of all potential pollutant-generating activities.

g. Locations of storm water control measures; and

h. Locations where chemicals will be used and stored.

7. Construction site pollutants generated by on-site activities. For each pollutant-generating activity, an inventory of pollutants or pollutant constituents (e.g.,

sediment, fertilizers and/or pesticides, paints, solvents, fuels) associated with that activity, which could be exposed to rainfall and could be discharged from the construction site (include potential spills and leaks).

A list of all materials and heavy equipment to be used during construction. Vehicles and equipment shall be well maintained and free from any type of fluid leaks.

8. **Sources of non-storm water**, including, but not limited to, the design, installation, and maintenance of the control measures to prevent its discharge.

9. **Buffer documentation**. When a State water is located within 50 feet of the project's earth disturbances, the Contractor shall describe which compliance alternative has been selected for the site, and comply with Section 5.1.2.1 of HAR 11-55, Appendix C.

10. **Description of storm water control measures** to be used during construction activity including information on:

a. Storm water control measures to be used during construction activity meet the requirements of Section 5 of HAR 11-55, Appendix C.

i. Information on the type of storm water control measure to be installed and maintained, including design information;

ii. What specific sediment controls will be installed and made operational prior to conducting earth-disturbing activities in any given portion of the site to meet the requirement of Section 5.1.2.2.1 of HAR 11-55, Appendix C.

iii. If contaminated soil exists on-site, the control measures to either prevent the contact of storm water with the contaminated soil, including any contaminated soil stockpiles, or prevent the discharge of any storm water runoff which has

contacted contaminated soil or any contaminated soil stockpiles;

iv. For exit points on the site, document stabilization techniques to be used and any additional controls that are planned to remove sediment prior to vehicle exit.

v. For linear projects, document the location where the use of perimeter controls in portions of the site is impracticable and the reason why (refer to Section 5.1.2.2.1 of HAR 11-55, Appendix C).

b. Stabilization practices including specific vegetative and/or non-vegetative practices. Document the circumstances preventing from meeting the deadlines specified in Section 5.2.1.1 and/or 5.2.1.2 of HAR 11-55, Appendix C.

c. Post-construction measures that will minimize the discharge of pollutants via storm water discharges after construction operations have been finished.

11. Pollution prevention procedures.

a. Spill prevention and response procedures, including:

i. Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks;

ii. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Parts 110, 117, or 302, occurs during a 24-hour period.

Spill Contact information must be in location that is readily accessible and available.

b. Waste management procedures on handling and disposing of all wastes generated at the site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

The Contractor is advised to procure regulated hazardous materials on an as-needed basis, as feasible. All excess regulated hazardous materials at the conclusion of this project shall remain the property of the Contractor and shall be removed from HDOT Harbors Division property upon the completion of the project.

12. Procedures for inspection, maintenance, and corrective action to be followed for conducting site inspections, maintaining the storm water control measures, and, where necessary, taking corrective actions. Additionally, include following information in the SWPPP:

a. Personnel responsible for conducting inspections;

b. Inspection schedule. Contractor's Self-Inspections shall be conducted at applicable schedules listed below. Note that inspections are only required during the project's normal working hours.

i. **Inspection Frequency for sites discharging to impaired waters[1]**. For any portion of the site that discharges to an impaired water, the inspection shall be conducted at the following intervals:

[1] "Impaired waters" are waters identified as impaired on the State Clean Water Act Section 303(d) list, and waters with a State-established and EPA-approved Total Maximum Daily Load (TMDL). The construction site will be considered to discharge to an impaired water if the first State water to which the discharge enters is to a water on the section 303(d) list or one with a State established and EPA-approved TMDL. For a discharge that enters a storm water drainage system prior to discharge, the first State water to which discharge occurs is the water body that receives the storm water discharge from the storm water drainage system.

(a) Once every seven (7) calendar days; and

(b) Within 24 hours of the occurrence of the storm event of 0.25 inches or greater.

(c) Daily during periods of a prolonged storm event of 0.25 inches or greater.

ii. **Inspection Frequency for sites NOT discharging to impaired waters**. At a minimum, the inspection shall be conducted in accordance with one of the two schedules listed below:

(a) At least weekly; or

(b) Biweekly (once every 14 calendar days), and within 24 hours of the occurrence of a storm event of 0.25 inches or greater, daily during periods of a prolonged storm of 0.25 inches or greater, and within 24 hours after the end of the storm.

iii. **Reductions in inspection frequency**. For stabilized areas, the Contractor may reduce the frequency of inspections to monthly (once per month) in any area of the site where the stabilization steps have been completed as follows:

(a) For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized; and/or

(b) For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

c. Any inspection or maintenance checklists or other forms that will be used.

Contractor shall either keep a properly maintained rain gauge in a secure location to monitor rainfall at the project site, or obtain the storm event information from a weather station that is representative of the location. If a rain gauge is to be utilized to determine if a storm event of 0.25 inches or greater has occurred on the site, it must have a tolerance of at least 0.05 inches of rainfall, and an opening of at least 1-inch diameter. Install the rain gauge on the project site in an area that will not deter rainfall from entering the gauge opening. Maintain the rain gauge and replace the gauge if stolen, it does not function properly or accurately, is worn out, or needs to be relocated. Do not begin fieldwork until the rain gauge is installed and the SWPPP is in place. For any day of rainfall during normal business hours that measures 0.25 inches or greater, the Contractor shall record the total rainfall measured for that day.

13. **Staff training documentation** that the required personnel were trained in accordance with Section 7.2.13 of HAR 11-55, Appendix C, to ensure that all activities on the site comply with the requirements of the issued permit. The list of major required personnel is as listed below:

a. Personnel responsible for the design, installation, maintenance, and/or repair of storm water controls (including pollution prevention measures);

b. Personnel responsible for the application and storage of chemicals (if applicable);

c. Personnel responsible for conducting BMP inspections;

d. Personnel responsible for taking corrective actions

At a minimum, personnel must be trained to understand the following, if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

a. The location of all storm water controls on the site required by the issued permit, and how they are to be maintained;

b. The proper procedures to follow with respect to the permit's pollution prevention requirements; and

c. When and how to conduct inspections, record applicable findings, and take corrective actions.

The Contractor is not required to provide or document formal training for subcontractor or other outside service providers, but must ensure that such personnel understand any requirements of the permit that may be affected by the work they are subcontracted to perform. Detailed discussion is provided in Section 7.2.13.2 of HAR 11-55 Appendix C.

14. Documentation of compliance with Safe Drinking Water Act Underground Injection Control (UIC) requirements for certain subsurface storm water controls, if using any of the following storm water controls at the project site**:**

a. Infiltration trench (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);

b. Commercially manufactured precast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate storm water flow; and

c. Drywells, seepage pits, or improved sinkholes (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

15. Other information listed below.

a. Contractor information (general and subcontractors) including legal name, street address, contact person's name and position title, telephone number, and email address.

b. Other state, federal, or county permits including:

i. Copy of the drainage system owner's approval allowing the discharge to enter their drainage system (if applicable);

ii. Copy of the Department of the Army permit and Section 401 water quality certification (if applicable); and

iii. A list of other permits (if applicable).

16. Any other information as requested by the Director of HDOH and/or HDOT.

17. **SWPPP certification.** The owner or its duly authorized representative must certify, sign, and date the Plan in accordance with Section 15 of HAR 11-55, Appendix A.

(b) The Contractor shall keep the current accepted SWPPP on-site or at an easily accessible location throughout the duration of the project. Revisions to the Plan shall be included with the original plan. The Contractor shall obtain written acceptance from the Construction Engineer before revising SWPPP. Additionally, the planned modifications to the BMP meeting the conditions listed in Section 7.4.1 of HAR 11-55, Appendix C, shall be documented and updated in the SWPPP according to Section 7.4 of HAR-55 Appendix C. An updated Plan shall be kept on-site throughout the remainder duration of the project.

The Contractor shall follow guidelines in the "*The City and County of Honolulu Storm Water Best Management Practice Manual – Construction*," (dated November 2011) in developing, installing, and maintaining BMP for the project. Follow applicable CCH *Rules Relating to Water Quality on Erosion Sediment Control Plan and Post Construction Best Management Practices* **for all projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors**, and use respective Soil Erosion Guidelines for other Maui, Kauai

and Hawaii County projects. Information can be found at the respective County websites.

(B) Construction Requirements are as follows.

(1) No work shall be allowed to begin until submittals detailed in Subsection XXX.XX A.2 – Temporary Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Construction Engineer. The Contractor shall prevent pollutants from entering state waters. These efforts shall address areas such as those that drain to water, are over water, or drain to storm drains in the area of the project site. The Contractor shall design, operate, implement, and maintain the Plan to ensure that storm water discharges associated with construction activities will not cause or contribute to a violation of applicable state water quality standards.

(2) All projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors are subject to HDOT Harbors Division SWMP requirements for construction at those harbors. The requirements include, but are not limited to, construction site BMP initial, recurring (i.e. every two weeks from October through March and every two months otherwise), and final inspections at the frequencies outlined in the SWMP. No grading or land disturbance activities are allowed until the initial BMP inspection is completed and required BMPs are found to be properly installed.

(3) Address all comments received from the Construction Engineer.

(4) Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

(5) Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

(6) BMP shall be in place and operational until the construction is completed and accepted by Harbors.

(7) Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other material tracked onto the road immediately. Modify stabilized construction entrances to prevent mud from being tracked onto roadways.

(8) Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Construction Engineer.

(9) Cover exposed surface of materials completely with tarpaulin or similar device when transporting aggregate, soil, excavated material or material that may be a source of fugitive dust.

(10) Cleanup and remove any pollutant that can be attributed to the Contractor.

(11) Install or modify BMP due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted SWPPP or a BMP that replaces an accepted one that is not satisfactorily performing.

(12) Properly maintain BMP. For projects that require an NPDES Appendix C General Permit from the HDOH, inspect, prepare a **monthly compliance report,** and make repairs to BMP on a timely basis. Maintain records of BMP inspections for the duration of the project. Submit copies of the inspection reports to the Construction Engineer upon request.

(13) Remove, replace or relocate any BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to the project or public.

(14) The Contractor's designated representative specified in Subsection XXX.XX A. 2.a.1 shall address any BMP concerns brought up by the Construction Engineer within 24 hours of notification, including weekends and holidays. Should the Contractor fail to satisfactorily address these concerns, the Construction Engineer reserves the right to employ outside assistance or use the Construction Engineer's own labor forces to provide necessary corrective measures. The Construction Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Construction Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply BMP shall result in either or both the establishment and increase in the amount of retainage due to unsatisfactory progress or withholding of monthly progress payment. Continued failure to apply BMP may result in one or more of the following: The Contractor being fully responsible for all additional costs incurred by HDOT Harbors Division including any fines levied by HDOH, suspension of the Contract, or cancellation of the Contract.

(15) The owner or its duly authorized representative shall be responsible for fulfilling the reporting requirements (e.g., state of construction activities, incident notification) according to Section 12 of HAR 11-55, Appendix C and submittal requirements (e.g., monthly compliance report, Notice of Cessation form) according to Section 13 of HAR 11-55, Appendix C.

(C) **Hydrotesting Activities**. If work includes removing, relocation or installing waterlines, and the Contractor elects to flush waterline or discharge hydrotesting effluent into state waters or drainage systems, obtain a Notice of General Permit Coverage (NGPC) authorizing discharges associated with hydrotesting waters from the HDOH Clean Water Branch (CWB). If a permit is required, prepare and submit permit application (CWB-Notice of Intent (NOI) Form F) to the HDOH CWB.

Do not begin hydrotesting activities until the HDOH CWB has issued a NGPC. Hydrotesting operations shall be in accordance with conditions in the NGPC. Submit a copy of the NPDES Hydrotesting Waters Application and Permit to the Construction Engineer.

(D) **Dewatering Activities**. If excavation of backfilling operations requires dewatering, and the Contractor elects to discharge dewatering effluent into state waters or existing drainage systems, obtain an NGPC authorizing discharges associated with construction activity dewatering from the HDOH CWB. If a permit is required, prepare and submit permit application (CWB-NOI Form G) to the HDOH CWB.

Do not begin dewatering activities until the HDOH-CWB has issued an NGPC. Conduct dewatering operations in accordance with the conditions in the NGPC. Submit a copy of the NPDES Dewatering Application and Permit to the Construction Engineer.

XXX.XX **Payment**. Payment for Temporary Water Pollution, Dust, and Erosion Control shall not be measured and paid for separately but shall be considered incidental to the applicable items described in Article XX of these Specifications.

No progress payment will be authorized until the Construction Engineer accepts in writing the SWPPP or when the Contractor fails to maintain the project site in accordance with the accepted SWPPP.

The Contractor shall reimburse the State of Hawaii within 30-day for the full amount of all outstanding costs incurred by the State of Hawaii for all citations or fines received as a result of the Contractor's non-compliance with regulations.

Attachment 9

HDOT Harbors Rules and Regulations for Construction Site

HARBORS RULES AND REGULATIONS FOR ENVIRONMENTAL COMPLIANCE

The Harbors environmental inspectors have been given authority to initiate enforcement actions including verbal warnings, written citations, and potential tenant eviction.

Hawaii Revised Statutes Title 15 Chapter 266

HRS 266-2 describes the powers and duties of the State of Hawaii Department of Transportation Harbors Division. **HRS 266-3** establishes the Director of Transportation authority to establish and enforce rules to control and manage all commercial harbors and roadsteads, all commercial harbor improvements, and all vessels and shipping within the commercial harbors and roadsteads. The Harbors then relies on **HRS 266-24**, which permits the Director of Transportation the authority to designate persons to enforce Chapter 266 and all rules and orders issued pursuant thereto and of all other laws of the state.

Such officers, employee's agents, and representatives of Harbors have police powers to serve and execute warrants and arrest offenders, and the power to serve notices and orders. When arresting or issuing a citation to a purported violator of any provision of Chapter 266, the Director of Transportation's designee, hereinafter referred to as "enforcement officer" can issue a summons or citation (similar to a traffic ticket) warning or directing the violator to appear and answer the charge before a district judge or take the purported violator without delay before a district judge.

Penalties for violating the provision of Chapter 266 or rules or orders issued pursuant to Chapter 266 are issued by the district court and includes a finding or guilty or not guilty verdict of a misdemeanor and a fine. Fines arising from environmental protection violations include reimbursing the HDOT for the entire amount of the HDOH or USEPA fine under HRS **§266-28** and can include an additional amount of not more than $10,000 for each day of violation under HRS **§266-25**.

Hawaii Administrative Rules Title 19 Chapters 41 to 44

HDOT adopted these chapters to regulate operations at the state harbors. **Chapter 42-126 and 42-127** specifically apply to environmental regulation. These rules require that no litter be left within a state harbor, except in properly marked bins. In addition, oil, oily refuse, sludge, chemicals, or other hydrocarbons should only be deposited in designated collection points. Specifically, Chapter 42-127 can be applied to activities such as maintenance or washing that has the potential to generate pollutants to be discharged into state waters. Below is an excerpt from Chapter 42-127:

> *"No person shall place, throw, deposit, or discharge, or cause to be placed, thrown, deposited, or discharged into the waters of any harbor, river or shore waters of the State 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."

In addition, Chapter 42 contains language on storage, usage, and/or handling requirements for hazardous materials or other regulated potential pollutants or hazardous substances. These chapters detail specific environmental practices where enforcement is implemented through arrest or citation and presented before the district judge. The major components of Chapter 42, related to enforcement, inspection, safety, cleanliness, use of facilities, and construction, are summarized below.

Chapter 42-15 – Compliance with Federal, State, and County Laws, Ordinances and Rules

- Use of state harbors and harbors facilities is subject to compliance with all applicable federal, state, and county laws, ordinances, rules and regulations. Particular attention is directed to:
    - Rules of the United States Public Health Service and of the state department of health, relating to the use of rat guards and other measures to prevent rodents from leaving the vessel.
    - Rules of the state department of health pertaining to air and water pollution.
    - Rules of the fire department of each county.

Chapter 42-16 – Citation for Violation

- Citations issued, pursuant to HRS 266-24.1, to a commercial firm for violation of this part may be issued to any agent, officer, or manager of the firm.

Chapter 42-50 – <u>Inspection</u>

All small craft and smaller commercial vessels moored or berthed at a state-owned or controlled pier, wharf, quay, bulkhead, landing dolphin, anchorage, mooring, or other facilities located in the shore waters, navigable streams, harbors, ports, and roadsteads of the State shall be subject to inspection by the department or any peace officer of the State or its political subdivisions at any time where necessary and proper for the purpose of enforcing these rules.

Chapter 42-52 - Small Craft and Smaller Commercial Vessel Repairs, Reconstruction or Major Modification

- Minor repairs to small craft and smaller commercial vessels may be made at the assigned berth and shall be completed within thirty days.
- If repairs are estimated to, or actually do, require that the vessel be out of service for more than thirty days, prior approval shall be sought from the department to initiate or complete the repairs in the harbor.
- Prior approval shall be sought from the department for any repairs requiring the use of cranes, lifts, and any similar devices within the harbor.
- Repair, reconstruction or major modification that would interfere with the free flow of other vessels, pedestrian, or vehicle traffic shall only be accomplished in an area designated by

the department. Failure to seek approval as required by this section shall be grounds for the revocation of the use permit.

Chapter 42-103 Vessel Loaded with Explosives

- No vessel containing more than five hundred founds of Class A, one tone of Class B, and/or ten tons of Class C explosives (net explosive content) shall enter or be loaded in any harbor in the State except on prior written permission of the harbor master of the district concerned, or the director.
- No Class A explosives, as defined by the United States Coast Guard in its regulations in existence as of June 1, 1993, will be admitted in any harbor in quantities in excess of the limitations established by the USCG for the various harbors unless otherwise authorized by the director in writing. Other cargos may not be moved concurrently with Class A explosive cargo.

Chapter 42-104 Handing of Explosives

- All handling and loading or unloading of explosives shall be done in a safe and careful manner and shall be accordance with the federal regulations pertinent thereto in force at the time. Explosives shall be off-loaded prior to the off-loading of any other cargo.

Chapter 42-105 Hauling of Explosives

- All hauling of explosives away from or to the pier shall be done in a safe and careful manner and shall be in accordance with rules of the state department of labor and industrial relations.

Chapter 42-106 – Containers for Flammable Liquids

- No empty containers which have been used to hold flammable liquids shall be delivered onto any wharf or structure under control of the department unless the same are securely closed with metal screw plugs.
- Any such containers shall be delivered onto a wharf or structure only at such times as a carrier is prepared to take immediately delivery.

Chapter 42-107 – Nitrate of Soda, Nitrate of Ammonia, Sulfur, and Other Similar Materials

- No nitrate of soda, nitrate of ammonia, sulfur, or other similar material shall be stored or left upon any wharf for more than four hours unless packed in sound and non-leaking containers. Such material shall be under the continuous care of a competent guard satisfactory to the harbor master until removed.
- Masters, owners, or agents of vessels or consignees of cargoes of nitrate of soda, sulfur, or other similar materials during the process of loading, unloading, and removing such cargoes, must at all times keep the wharf swept clean and free of such materials.
- If loose nitrate of soda, sulfur, or other similar material is to be discharged onto or loaded from any wharf or structure at any harbor, it shall be placed directly into the carrier and immediately removed. A protective device approved by the harbor master shall be used

during the period of loading or unloading to prevent the material being handled from falling upon the wharf structure.

- During the process of handling nitrate of soda, sulfur, or other similar material on any wharf at any harbor under control of the department, it shall be obligatory on the part of the master, owners, or agents of a vessel to provide containers of not less than 50 gallons capacity filled with a solution of nitrate of soda and water at distances of not more than 50 feet apart, with suitable buckets placed alongside each container, for the purpose of fighting any fire which may occur in such cargo.

Chapter 42-108 – Dangerous Acids; Electric Storage Batteries

- Acids of a dangerous character such as sulfuric, muriatic, and nitric acids shall be removed from the wharf immediately upon discharge from any vessel and no such acid shall be put upon a wharf under control of the department for shipment until the carrier is ready to receive it. Prior permission of the harbor master shall be secured in the event it becomes necessary to handle such cargo at other times.
- Electric storage batteries containing electrolyte or corrosive battery fluid of non-spillable type, protected against short circuits and completely and securely boxed, shall be exempt from this provision.

Chapter 42-109 – Flammable Substances; Leaky Containers

- No gasoline, distillate, kerosene, benzene, naphtha, turpentine, paints, oils, or other flammable substances in leaky containers shall be delivered onto any wharf under control of the department for shipment.
- All such substances unloaded from any vessel in leaky containers shall be removed immediately.

Chapter 42-110 – Heating Combustibles on Vessels

- No combustible material such as pitch, tar resin, or oil shall be flame heated on board any vessel within the harbors or streams of the State without the permission of a harbor master.

Chapter 42-111 – Fumigation of Vessel

- No vessel shall be fumigated or smoked at any wharf under control of the department without the prior permission in writing from the director, the chief, or the harbor master.
- If fumigation is to be with cyanogen products or hydrocyanic acid gas in any form, however generated, the applicant or applicant's agent shall be in possession of a permit as required by HDOH rules and shall have a guard on duty so long as any danger exists, in order that no one, unless properly entitled to do so, be allowed to board such vessel.

Chapter 42-112 – Use of Fuel Burning Steam Generating Appliances

- All fuel burning steam generating appliances when used on any wharf under control of the department or on any scow, pile driver, or other vessel working alongside or near any

wharf under control of the department shall be equipped with spark arresters satisfactory to the harbor master.

- At the close of each day's work, all ashes, cinders, waste, or other deposits caused by such appliances upon any wharf shall be promptly removed and shall not be disposed of in or upon any waters of the harbor.

Chapter 42-113 – Repair, Manufacturing, Construction, or Maintenance Work on Wharf

- No person shall make any repair or do any kind of manufacturing, construction, or maintenance work on any wharf without the permission of the harbor master.

Chapter 42-114 – Smoking Prohibited

- Smoking is positively prohibited at all times within any cargo shed, or upon any wharf apron, and during the time cargo is being loaded, unloaded, or stored on any unshedded pier under control of the department, and no person shall enter into, stand in, or under, or pass through any such wharf or structure with a lighted pipe, cigar, cigarette, match, fire, or any flame of whatever nature, excepting only within those areas designated by the harbor master and plainly marked "Smoking Area."
- No smoking or lighting of a match or any other fire-creating device shall be permitted within 50 feet of any fueling operation.

Chapter 42-115 – Use of Explosives

- The use of explosives on land, on any wharf, or in a shed or other structure under control of the department, or in the water in the immediate vicinity of the same, without the written approval of the harbor master is strictly prohibited.

Chapter 42-116 – Keeping Wharf in Sanitary Condition and Clear of Fire Hazard

- Vessel owners, charterers, agents, or private terminal operators utilizing wharves and sheds under the control of the department for the handling of merchandise shall keep such wharves and sheds in a clean and sanitary condition, clear of materials which create a fire hazard and shall ensure that passageways and established fire lanes are not obstructed.

Chapter 42-117 – Standards of Cleanliness

- All vessels moored at a state-owned mooring or berthing facility shall be kept, at all times, in a condition of reasonable cleanliness and sanitation so as not to constitute a common nuisance or potential source of danger to public health.

Chapter 42-118 – Charges for Cleaning Wharves

- In cases where the department takes over the cleaning of wharves the charge therefore shall be assessed against the vessel which is responsible for the necessary of cleaning.

Chapter 42-119 – Identification of Mobile Equipment

- All mobile equipment used on any property under the control of the department in connection with the handling of cargo or shipping containers, such as folk lifts, cranes, tractors, and straddle trucks, shall be clearly identified as to the owner thereof.

Chapter 42-121 – Fowl, Animal, or Livestock

- No fowl, animal, or livestock of any kind shall be allowed to remain on any wharf under control of the department for a period longer than six hours without being properly fed and watered. After any fowl, animal, or livestock unloaded on a state wharf, it shall be removed from the same wharf within twenty-four hours.
- No shipment of such fowl, animal, or livestock subject to quarantine shall be unloaded on a state wharf by any shipping company or its agents unless first passed by the state department of agriculture or unless arrangement have been made of acceptance of quarantine. All such fowl, animal, or livestock requiring quarantine shall be removed from the wharf within eighteen hours.
- All expenses incurred in the care and maintenance of such fowl, animal, or livestock while on a state wharf shall be paid by the consignee thereof and shall constitute a lien upon the same until such charges are paid.

Chapter 42-122 – Private Use of State Harbor Property or Facilities; Business Activities; Signs

- No regular or extensive use of any state harbor property or facility for private gain or purpose shall be permitted without corresponding and reasonable benefits and returns to the public.
- No person shall engage in any business or commercial activity at any state harbor without the prior written approval of the department. Without limiting its generality, the term “engage in any business or commercial activity” as used in this section includes (1) solicitation, and (2) distribution of advertisement or circulars, intended for private gain or purpose.
- No person shall post or display any signs at any state harbor without the prior written approval of the department, except that approval will not be required for the posting or displaying of any sign on a vessel which relates solely to the sale of such vessel if the maximum dimension of such sign does not exceed three feet.

Chapter 42-123 – Placement of Goods and Equipment

- Any person handling goods or using equipment on a wharf or within a shed under control of the department or bringing goods whereon or therein for shipment, shall place, store, or stack such goods or equipment in such a way as not to be an impediment to the approaches to same nor an obstacle to the removal of other goods, not to cause damage to the shed or wharf.
- No goods shall be so placed as to restrict or prevent the use of mooring bitts, cleats, or any other device used for mooring purposes.
- No goods shall be so placed as to restrict or prevent the use of tracks, water connections, fire hydrants, gutters, liquid connections or drains, telephone or electric connections.

Chapter 42-124 – Closing of Wharves for Safety Reasons

- The harbor master may close the wharves or any portion thereof and regulate and control the use of the same whenever in the harbor master's opinion it is advisable to do so for reasons of safety, fire prevention, or probable interference with cargo handling or vessel operations.
- No person shall enter upon any wharf so closed without the permission of the harbor master.

Chapter 42-125 – Liability for Damage to or Loss of Merchandise and Cargo

- The department shall not be liable for any damage to or loss of merchandise or other property on any wharf under its control.
- It shall be the responsibility of shipping concerns or their agents to exert every effort to protect cargo from the effect of weather conditions while same is stored on state wharves. This responsibility shall include the proper closing of all openings such as outside doors and windows, and the placing of cargo on pallets or dunnage so that it will not be damaged by moisture from the shed floors. Unless the above precautions are taken and unless carelessness on the part of department employees can be shown, no claim for damaged cargo due to inclement weather shall be considered.

Chapter 42-126 – Littering or Polluting Land Areas Prohibited

- No person shall throw, place, leave, deposit, abandon, or cause or permit to be thrown, placed, left, deposited or abandoned any litter within a state harbor, except in receptacles designated by the department for the disposal of such materials. "Litter" as used in this section includes any and all types of debris and substances, whether liquid or solid, and materials such as garbage, refuse, rubbish, glass, cans, bottles, paper, wrappings, fish or animal carcasses or any other substances which render harbor lands or facilities unsightly, noxious or otherwise unwholesome to the detriment of the public health and welfare and effective and safe operation of the harbor.
- No person shall deposit oil, oily refuse, sludge, chemicals, or other hydrocarbons on state property except in specially designated collection points. These items may not be left in or near standard refuse containers or anywhere else on harbors property. Penalties, including but not limited to the revocation of mooring permits and the right to use the facilities, may be invoked.

Chapter 42-127 – Littering or Polluting of Water Prohibited

- No person shall place, throw, deposit, or discharge, or cause to be place, thrown, deposited, or discharges into the waters of any harbor, river or shore waters of the State 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.

Chapter 42-128 – Disposal of Salvage of Derelict Craft

- When any owner, agent, or individual contemplates or plans the disposal or salvage of a derelict craft, vessel or other object of any size, type or description, by transporting across, within or on navigable waters, whether a part or whole craft or whether a floating or suspended object of any sort which might, if sunk, lost or abandoned in the harbors, channels or shore waters, become a hazard to navigation, to dredging or to other operation of state or federal government, or the public in those waters, that person shall obtain the written permission of the harbor master before taking such action.

Chapter 42-129 – Duty of Persons Who Lose, Drop, or Abandon Any Floating or Sinking Object

- Should any owner, operator, charter, agent, or individual, without permission of the harbor master, lose, sink, drop, or abandon any floating or sinking object in or on the navigable waters and shore waters of the State, that person shall immediately notify the harbor master and shall immediately take such action as is necessary for removal of the object.
- Upon failure on the part of the owner, operator, charterer, agent or individual to remove such object the department will take such actions through federal or commercial channels as are necessary for such removal and will charge all costs incurred by the department in effecting the necessary removal to the owner. The harbor master may require the posting of a bond to assure payment.

Chapter 42-130 – Approved Backflow Prevention Device Required for Water Supply System

- No person shall connect a vessel's water supply system, siphon or other water water-operated device, equipment or mechanism connected to the water supply system or operate any water-operated device, equipment or mechanism connected to the water supply system, unless an approved backflow prevention device has been installed at the faucet or other point of connection. An "approved backflow prevention device" means a backflow prevention device that meets the requirements contained in Standard 1001, American Society of Sanitary Engineers as it existed on June 1, 1993, or the Uniform Plumbing Code adopted by the International Association of Plumbing and Mechanical Officials.

Chapter 42-131 – Dumping of Materials at Sea

- When any owner, agent or individual contemplates the dumping of sinkable materials at sea by hauling across, within or on the navigable and/or shore waters of the State that person shall notify and obtain the permission of the department as specified in §19-42-161 and §19-42-162 prior to movement and shall not fail to perform any duty imposed thereby. All dumping at sea of sinkable objects or materials shall be done in the areas designated by the Secretary of the Army for such disposal and in accordance with the Corps of Engineers requirements and applicable state agency requirements.
- The dumping of floating objects is strictly prohibited.

Chapter 42-132 – Waste Outlets; Permit Required

- Notwithstanding the issuance of a permit pursuant to §19-42-161, no person shall do any of the following within a state commercial harbor without first having obtained a permit from the HDOH (not applicable to vessels):
    - Discharge any wastes from shore into the waters of a state commercial harbor so as to reduce the quality of the water below the standards of water quality adopted for such waters by the HDOH.
    - Construct, install, modify, alter, or operate any treatment works or part thereof or any extension of addition thereto which discharges from shore into the waters of a state commercial harbor.
    - Construct or use new outlet for the discharge of any wastes from shore into the waters of a state commercial harbor.

Chapter 42-133 – Loading or Unloading Flammable Liquids

- Loading or unloading of flammable liquids shall be in strict accordance with applicable federal laws and regulations.

Chapter 42-134 – Appliances and Electrical Wiring

- All cooking or heating appliances or any other machinery, equipment, utensils, or apparatus which are used by small craft or smaller commercial vessels at a state commercial harbor and could be the cause of fire shall be so constructed, installed, wired, situated, maintained, and used so as not to constitute a potential fire hazard. The failure to conform to any statute, rule, regulation, standard, or ordinance affecting fire safety may be considered by the department in determining any violation of this section.
- Particular attention is directed to the applicable provisions of the state boating rules of the Department of Land and Natural Resources. In addition, the approval of any machinery, equipment, utensils, or apparatus by Underwriter' Laboratories, Factory Mutual System, Marine Testing Institute, Inc., or any other nationally recognized electrical testing agency, may be considered by the department in determining compliance with this section.
- All electrical equipment must be properly grounded.

Chapter 42-135 – Fire Extinguishing Equipment for Small Craft

- Any small craft utilizing the waters of the state commercial harbor shall be provided with approved fire extinguishers as prescribed in the applicable provisions of the state boating rules of the DLNR. The fire extinguishers shall at all times be maintained in good and serviceable condition for immediate and effective use an shall be mounted on wall brackets so located as to be readily accessible. In addition, if any person is living aboard any small craft or contrivance, which is not a visiting small craft temporarily using the harbor, the small craft or contrivance shall be equipped with at least one approved hand portable fire extinguisher containing ten pounds of dry chemicals placed on each separate level or floor of habitable living space. Each extinguisher shall be mounted on a wall bracket so placed as to be readily accessible.

Chapter 42-136 – <u>Fueling</u>

- All fueling operations shall be done in compliance with the stricter of any applicable federal, state, or county rules. The fueling of vessels at a state commercial harbor where a marine fueling station has been established, or where authorized tank trucks or tank trailers are available shall be accomplished only at a station, or by tank trucks or tank trailers with a state permit. A permit shall be issued only if:
    - Proper application has been submitted;
    - Established fees have been paid to the department by the applicant;
    - There exists a comprehensive general liability insurance policy or policies, or a certificate of insurance in lieu thereof evidencing that a policy has been issued and is in force with a combined single limit of not less than $500,000. The specification of limits contained in this section shall not be construed in any way to be a limitation on the liability of the permittee for any injury or damage proximately caused by it. The insurance shall (A) be issued by an insurance company or surety company authorized to do business in the State; (B) name the State as an additional insured; (C) provide that the department shall be notified at least thirty (30) days prior to any termination, cancellation, or material change in its insurance coverage; (D) cover all injuries, losses, or damages arising from, growing out of, or caused by any acts or omissions of the permittee, its officers, agents, employees, invitees, or licensees, in connection with the permittee's use or occupancy of the premises; and (E) be maintained and kept in effect at the permittee's own expense throughout the life of the permit. The permittee shall submit evidence to the department of renewals of other actions to indicate that the insurance policy remains in effect as prescribed in this section.
- Prior to fueling a vessel at a state commercial harbor, the operator shall:
    - Securely moor the vessel;
    - Stop all engines, motors, fans, and devices which could provide sparks;
    - Extinguish all fires;
    - Close all ports, windows, doors, and hatches; and
    - Clear the area of people not directly involved with the operation of the vessel or servicing of the vessel.
- Persons fueling a vessel at a state commercial harbor shall:
    - Refrain from smoking, striking matches, or throwing switches; and
    - Keep the nozzle of the fuel hose, or fuel can in continuous contact with fuel tank opening to guard against static sparks.
- After fueling is completed, the following action shall be taken:
    - Close fill openings;
    - Wipe up all spilled fuel;
    - Open all ports, windows, doors, and hatches;
    - Permit vessel to ventilate for at least five minutes; and
    - Check that there are no fuel fumes in the vessel's bilges or below deck spaces before starting machinery or lighting fires.
- Fueling a vessel from a fuel barge or tanker barge shall be allowed only when it is down in accordance with operational procedures approved by the USCG.

Chapter 42-137 – Fishing Prohibited

- Fishing, as defined in HRS 187A-1 is prohibited from all piers, wharves, and bulkhead walls in Kewalo Basin and Honolulu Harbor except Piers 5, 6, and 7; and all piers and wharves in Barbers Point Harbor. Casting of fishing lines beyond the shallow marginal reef and into the boat channel is prohibited from the Waikiki side of the Kewalo Basin entrance channel. Fishing with nets is prohibited in the basin and channel areas of Kewalo Basin, Barbers Point Harbor, and Honolulu Harbor except for the use of hand-held scoop nets for landing hooked fish at Piers 5, 6, and 7 in Honolulu Harbor and the shallow marginal reef at the Waikiki side of the Kewalo Basin entrance channel and as provided in these rules and HAR 188-34.

Chapter 42-138 – Lifesaving Equipment Required

- Any small craft and smaller commercial vessel utilizing the waters of a state commercial harbor shall be equipped with lifesaving equipment as required by and approved by the USCG. Wearable PFDs must be readily accessible and throwable devices must be immediately available for use
    - Boats 16 feet or over in length shall carry one Type I, II, or III (wearable) PFD for each person on board and one Type IV (throwable) PFD in each boat.
    - Boats less than 16 feet in length and all canoes and kayaks shall carry one Type I, II, III, or IV PFD for each person on board.

Chapter 42-139 – Fire Signal for Small Craft or Smaller Commercial Vessel in Harbor

- Five prolonged blasts on a vessel's whistle, horn or other sound producing device indicates (1) a fire on board small craft or smaller commercial vessel not under way or (2) a fire at any facility to which the small craft or smaller commercial vessel may be moored. The words "prolonged blasts" used in this section shall mean a blast from four to six seconds duration. The fire signal shall not be used for other purposes in any state harbor.

Chapter 42-140 – Liquor Prohibited on State Piers and Waterfront Properties without Permit

- No person shall consume any liquor as defined in HRS 281-1, on any state pier or waterfront property not under lease except by prior permission from the department for each occasion.

Chapter 42-141 – Responsibility for Vessel Gangplanks

- It shall be the responsibility of the vessel to provide a reliable and safe means of access and egress to and from the vessel and the pier for crew members, passengers, and visitors to the vessel.

Chapter 42-161 – Dredging, Filling, and Construction

- Any person, firm, or corporation desiring to perform any dredging, filling, or erecting of any construction within commercial harbors and entrance channels belonging to or controlled by the State, shall first obtain a permit therefore from the department.

- The application for any dredging, filling, or construction shall be in the form prescribed by the department, accompanied by maps and drawings which shall clearly show the location, scope, character, and details of the proposed work, and shall be further accompanies by a fee of $50 to cover costs of the necessary investigation. This fee is not refundable whether or not a permit is granted.

Chapter 42-162 – Jurisdiction of Other Agencies

- The United States Army Corps of Engineers, the State Department of Health, and the Department of Land and Natural Resources may have certain jurisdiction over navigable waters.
- The approval of these agencies shall also be secured before performing work within their jurisdictions. When directed, the applicant shall notify the USCG of such work for publication of a “Notice to Mariners.”

Chapter 42-163 – Installation of Buoys

- Any person desiring to install mooring or anchorage buoys in any harbor under the jurisdiction of the department, shall apply to the department in writing for permission to install such buoys.
- Applications must be accompanied by comprehensive plans showing the exact proposed location of buoys and anchors, as well as plans and specifications of the type and size of buoy and anchoring equipment. The director may grant permission for the installation of moorings or buoys in any area under the department jurisdiction if, in the director’s judgment, it is advisable and will not be a menace to or interfere with navigation. The right is reserved by the director to revoke any license or permission for installation at any time, if the director’s opinion revocation is necessary or advisable. Upon revocation, the owner shall remove the moorings or buoys without delay.

Chapter 42-164 – Construction of Structures

- No buildings or structures of any nature shall be erected or constructed on state property, nor shall existing structures be modified, without obtaining the prior permission of the division and any other governmental agency as required by law. The division may require plans, specifications, and other pertinent data to accompany any request for construction or modification of state facilities. In General, approval shall be dependent on an agreement to return the property to its original state when vacating the property, if requested by the division.

Note: The majority of Chapter 42 deals with loading and unloading of hazardous materials and does not apply to storage of materials and waste that are used/stored at harbor tenant facilities or construction sites. In the case of improper use, manage, or storage of hazardous substances or wastes, Harbors will follow the terms and conditions contained in the tenant lease agreement or revocable permit, or construction contracts as stated below.

Enforcement Officers may issue penalties under HAR Title 19 for the following circumstances:

- A responsible party in violation of an environmental regulation, but where a Written Warning is not an effective tool.
- A responsible party in violation of a Harbors requirement, but not in violation of HDOH stormwater regulations.
- A transient vessel owner in violation of a Harbors requirement, BMP, or HDOH stormwater regulation, although not subject to a tenant lease agreement, revocable permit, construction contract.

Attachment 10

Suspected Illicit Discharge Reporting Form

Hawaii Department of Transportation – Harbors Division
"Malama I ke awa kai" – Protect our harbor waters

Suspected Illicit Discharge Reporting Form

General Information: Use this form to report a suspected illicit discharge. If you are unsure, please contact your supervisor or HAR-EE. Examples of illicit discharges: uncontained vehicle/equipment/building/sidewalk washing, sink discharging directly to ground or storm drain inlet, petroleum spills/sheens, unpermitted vessel discharges, uncontained vessel painting/chipping/sandblasting/cleaning, etc.

Observer Information			
Name:			
Office Code:		Telephone Number:	
Report Date:			

Description of Suspected Illicit Discharge			
Address or Location:		Date and Time:	
Description: (Include Substance and Amount, if known)			

Media into which the discharge occurred:
☐ Air ☐ Natural Soil ☐ Concrete/Asphalt Pavement ☐ Stream ☐ Harbor ☐ Other:_____

Responsible Party: (if known)	
Cause of Discharge: (if known)	
Clean-up Actions: (if applicable)	
Notifications Made:	

Please forward completed form and/or picture(s) to HAR-EE office. Fax Number: (808) 587-1864

Point of Contact for Reporting	
Agency	**Telephone Number**
Harbor Traffic Control (Aloha Tower) [HAR-OCT]	(808) 587-2076, (808) 587-2077
Harbors Engineering Environmental Section [HAR-EE]	(808) 587-1962

Additional Follow-up By HAR-EE (to be filled by HAR-EE):

Attachment 11

Training Materials

STORMWATER RUNOFF AND ITS IMPACTS

Stormwater runoff is rain or snowmelt that flows over land and does not percolate into the soil (USEPA, 2007). Stormwater runoff occurs naturally, in small amounts, from almost any type of land surface, especially during larger storm events. Impervious surfaces, such as buildings, homes, roads, sidewalks, and parking lots can significantly alter the natural hydrology of the land by increasing the volume, velocity, and temperature of runoff and by decreasing its infiltration capacity. Increasing the volume and velocity of stormwater runoff can cause severe stream bank erosion, flooding, and degrade the biological habitat of these streams. Reducing infiltration can lower groundwater levels and affect drinking water supplies.

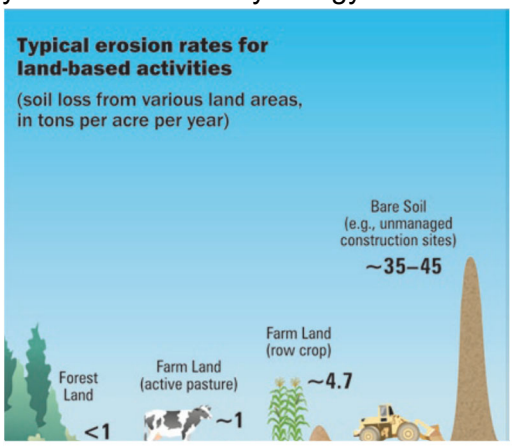


Figure 2-1. Typical erosion rates from land-based activities.

In addition, as stormwater runoff moves across surfaces, it picks up trash, debris, and pollutants such as sediment, oil and grease, pesticides, and other toxics. Changes in ambient water temperature, sediment, and pollutants from stormwater runoff can be detrimental to aquatic life, wildlife, habitat, and human health. Soil exposed by construction activities is especially vulnerable to erosion. Runoff from an un-stabilized construction site can result in the loss of approximately 35 to 45 tons of sediment per acre each year, compared to less than one ton in forested land (American Society of Civil Engineers [ASCE] and Water Environment Federation [WEF], 1992; Figure 2-1). Even during a short period of time, construction sites can contribute more sediment to streams that would be deposited naturally over several decades. Excess sediment can cloud the water reducing the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation in waterways.

Importance of Construction Site Runoff Control Program

This **Construction Site Runoff Control Program** has been developed to address the potential pollutants that are generated as a result of construction activities conducted at Harbors. These potential pollutants pose a risk to Harbors Small MS4 and the receiving water bodies through stormwater runoff. Uncontrolled stormwater runoff from construction sites can significantly impact our ocean water.

Construction Impacts

Construction activities can impact the environment through several different processes. The primary stormwater pollutant at a construction site is sediment, a common result of erosion.

Erosion and Sedimentation

Excessive erosion and sedimentation are the most visible water quality impacts. Erosion is the process by which the soil and rock are removed from the earth's surface by the action of water,

wind, and gravity, and then transported and deposited in other locations. Sedimentation is the movement and settling out of suspended soil particles. It is usually easier and less expensive to prevent erosion than it is to control sediment from leaving a construction site. To control erosion at a construction site, it is important to understand the different types of erosion that can occur.

Water Erosion

In Hawaii, water erosion is typically occurring in six different forms (i.e., raindrop erosion, sheet erosion, rill erosion, gully erosion, stream-bank erosion, and coastal erosion). Raindrop erosion involves the dislodging of soil particles by raindrops. Once the rate of rainfall is faster than the rate of infiltration into the soil, surface runoff occurs and carries the loosened soil particles down slopes. Sheet erosion is the transport of loosened soil particles by surface runoff that is flowing downhill in thin sheets. Rill erosion removes soil through the formation of concentrated runoff that creates many small channels. Gully erosion is the result of highly concentrated runoff that cuts down into the soil along the line of flow. Stream-bank erosion occurs when flowing water erodes unstable stream-banks. Coastal (or shoreline) erosion primarily occurs on both exposed and sheltered coasts through the action of currents, waves, and tidal change.

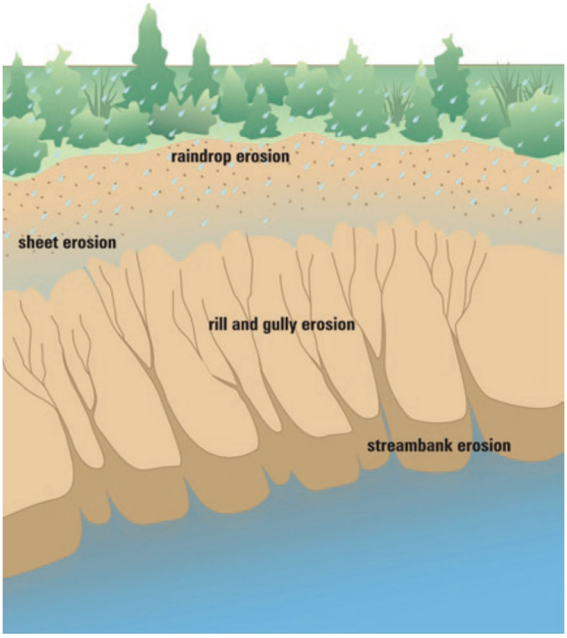


Figure 2-2. Types of Erosion.

Generally, water erosion begins when raindrops break down the soil structure and dislodge soil particles. Runoff carrying the soil particles becomes sheet erosion, which eventually forms smaller rills and larger gullies (Figure 2-2). The best way to stop water erosion is to keep the soil in place through vegetation, erosion control blankets, or other methods that prevent the soil from becoming dislodged during rain events.

Wind Erosion

Wind erosion is of two primary varieties (i.e., deflation and abrasion; Blanco & Lal, 2010). Deflation occurs when the wind picks up and carries loose soil particles, and abrasion occurs when the surfaces are worn down as they are struck by airborne particles carried by wind. Deflation is divided into three categories, including surface creep, saltation, and suspension (Figure 2-3). Surface creep occurs when larger heavier particles slide or roll along the ground. Saltation occurs when particles are lifted a short height into the air and bounce and saltate across the surface of the soil. Suspension is a phenomenon when very small and light particles are lifted

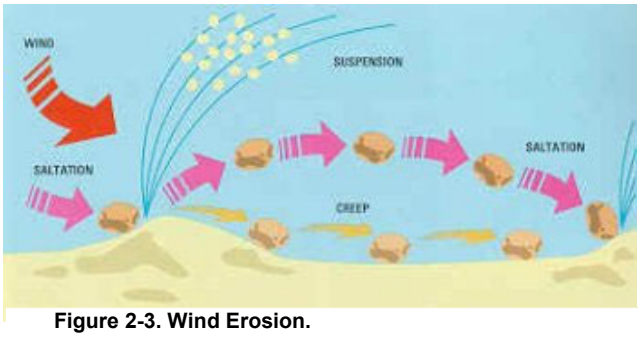


Figure 2-3. Wind Erosion.

into the air by the wind and are carried for long distances. Saltation is responsible for the majority (50 to 70 percent [%]) of wind erosion, followed by suspension (30 to 40 %), and then surface creep (5 to 25 %; Blanco & Lal, 2010). Wind erosion is much more severe in arid areas, and during times of drought.

Wind erosion is another potential hazard at construction sites and is commonly referred to as dust. Dust is defined as solid particles or particulate matter predominantly large enough to eventually settle out from the air but small enough to remain temporarily suspended in the air for an extended period. Common sources of dust at construction sites include vehicle and equipment use, exposed areas of soil, and contractor activities such as land clearing, drilling, and demolition.

Gravitational Erosion

Gravitational erosion, or mass movement, is the downward and outward movement of rock and sediments on a sloped surface, mainly due to the force of gravity (Gray & Sotir, 1996; Norris *et al.*, 2008). Gravitational erosion is often the first stage in the breakdown and transport of weathered material in sloped areas. It moves material from a higher elevation to a lower elevation. This type of erosion occurs continuously on all slopes (some act very slowly, while others occur very suddenly with disastrous results).

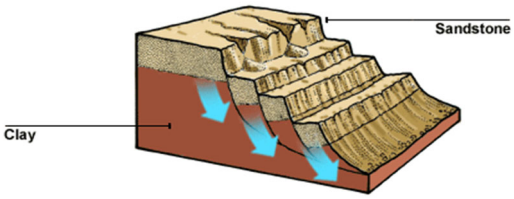


Figure 2-4: Landslide.

Any perceptible downward movement of rock or sediment is often referred to in general terms as a "landslide." However, landslides can be classified in a much more detailed way that reflects the mechanisms responsible for the movement and the velocity at which the movement occurs (Figure 2-4). One of the visible topographical manifestations of a very slow form of such erosion is a scree slope (Figure 2-5).

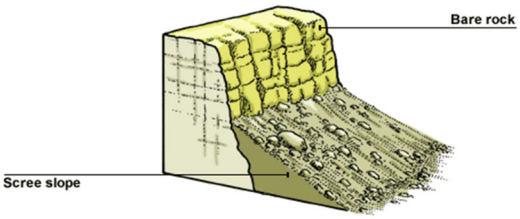


Figure 2-5: Scree Slope.

Slumping happens on steep hillsides (Figure 2-6). It occurs along distinct fracture zones, often within soil materials like clay that may move quite rapidly downhill upon being released. In some cases, slumping is caused by water beneath the slope weakening it. In many cases, it is simply the result of poor engineering control or measurement. Surface creep is the slow movement of soil and rock by gravity, which is usually not perceptible except through extended observation. It can also describe the rolling of dislodged soil particles 0.5 to 1.0 millimeters in

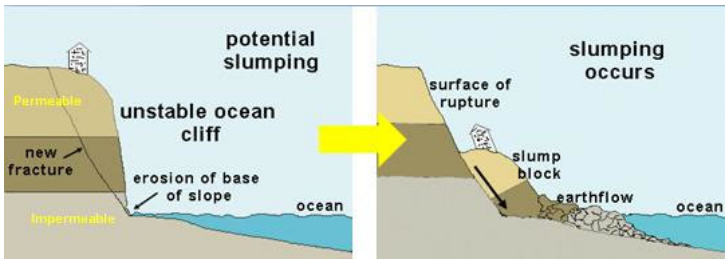


Figure 2-6: Slumping.

diameter by wind along the soil surface.

Factors Affecting Erosion

The erosion process is typically influenced by climate, topography, soils, and vegetative cover. Understanding how these factors influence erosion, will help with selection, design, and implementation of appropriate controls to minimize erosion from the construction site (USEPA, 2007).

Climate: The frequency, intensity, and duration of rainfall are the principal factors influencing erosion from a construction site. Know the weather patterns in the area and, if possible, plan soil disturbance activities for periods of dry weather. The mean annual rainfall in the areas of Honolulu and Kalaeloa Barbers Point Harbors is 23.6 inches (Giambelluca *et al.,* 2011). Generally, weather in Hawaii is very consistent, with only minor changes in temperature throughout the year. For the majority of Hawaii, there are only two seasons – summer/dry (from April to September) and winter/wet (from October to March), based on the rainfall data presented at The Weather Channel website (The Weather Channel, 2013) and U.S. Climate Data website (The US Climate Data, 2013).

Topography: The longer and steeper a slope, the greater the potential there is for erosion from the slope. Use practices such as diversions or fiber rolls to break up long slopes. Consider minimizing soil disturbance activities on steeper slopes.

Soils: Soil type can also impact erosion. Soil texture, structure, organic matter content, compaction, and permeability can all influence erosion rates.

Vegetative Cover: Vegetative cover provides a number of critical benefits in preventing erosion. It absorbs the energy of raindrops, slows velocity of runoff, increases infiltration, and helps bind the soil. Soil erosion can be greatly reduced by maximizing vegetative cover at construction site.

Other Common Pollutants

In addition to sedimentation, other common pollutants, which have the potential to impact water quality, including nutrients, trace metals, pesticides, oil and grease, fuels, and other toxic chemicals. Nutrients, including nitrogen and phosphorus, are often used in fertilizers and, can cause excessive algae growth. Bacteria and viruses can contaminate stormwater from animal excrement or sanitary sewer overflows. Oil and grease includes a wide array of petroleum hydrocarbons from various sources, such as leaks from vehicles and equipment and used oil disposal. Metals can enter the stormwater after impact with corroded equipment. It is important to note that over half of the trace metal load carried in stormwater is associated with sediments. Organics can contaminate the stormwater as a result of spilled or improperly disposed cleaners and solvents.

Each construction site should be assessed to determine which pollutants may present a potential hazard, and select and implement BMPs to reduce the potential contaminants.

Site Specific Construction Best Management Practices Plan

An SSCBMPP is a site-specific written document that identifies potential sources of stormwater pollution at the construction site. It describes practices to reduce pollutants in stormwater discharges from the construction site. Reduction of pollutants is often achieved by controlling the volume of stormwater runoff (e.g., taking steps to allow stormwater to infiltrate into the soil). In addition, it identifies procedures that the operator will implement to comply with the terms and conditions of a construction general permit.

An effective SSCBMPP is the primary key to prevent or reduce stormwater pollution resulted from a construction site. If sediment and erosion controls and good housekeeping practices are followed, construction activity can result in the discharge of significantly less sediment and other common pollutants.

Attachment 12

HDOT Harbors Division Construction and Post-Construction Program Brochures

CONSTRUCTION PROJECTS DEFINED

Any activity that results in the disturbance of land, including clearing, grading, excavating and activities that support the project such as stockpiles, washouts, fueling and storage areas.

STORMWATER IMPACTS

Construction activities may cause pollution and impact stormwater runoff which eventually discharges to the harbor and other surface waters without prior treatment.

HDOT-HARBORS CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

All construction projects under Harbors jurisdiction are subject to the requirements of this program as well as local, state, and federal environmental laws.

EXEMPT PROJECTS

Activities that result in no or minimal land disturbance such as:

- Post, pole, sign, and fencing installation
- Parking lot and driveway repair
- Interior improvement
- Maintenance
- Utility repair

REPORT SUSPECTED ILLICIT DISCHARGES

Harbors Environmental Hotline:	**808-587-1962**
Harbor Traffic Control:	**808-587-2076**
U.S. Coast Guard:	**808-842-2600**
Hawaii Department of Health, Clean Water Branch:	**808-586-4309**

MAILING ADDRESS

Hawaii Department of Transportation, Harbors Division
Hale Awa Ku Moku Building
79 South Nimitz Highway
Honolulu, Hawaii 96813-4898

PROTECT OUR HARBOR WATERS
MĀLAMA I KE AWA KAI
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

Department of Transportation
Harbors Division

CONSTRUCTION PROJECT CLASSIFICATION AND MANAGEMENT:

1. HDOT-Harbors Projects are managed by division personnel.
2. Tenant Improvement Projects are managed by the entity authorized to undertake the project. Tenants must obtain consent from HDOT-Harbors Division.

PLAN SUBMITTAL AND REVIEW

The following must be submitted to HDOT-Harbors Engineering Branch Environmental Section (HAR-EE) for review. For more information, refer to the **Construction Site Runoff Control Program Manual** and **Post-Construction Stormwater Management Manual** at:
http://hidot.hawaii.gov/harbors/malamaikeawakai/

PROJECTS LESS THAN ONE ACRE:

- Notification Form
- Site Plan
- Narrative of proposed work and applicable BMPs

PROJECTS ONE ACRE OR GREATER:

- Construction Design Review Checklist
- Permanent Post-Construction BMP Plan Checklist
- Construction Drawings and Plans
- Stormwater Pollution Prevention Plan (SWPPP)
- Post-Construction Stormwater Mitigation Plan (if applicable)
- Copies of NPDES Permit Applications
- Other Applicable Permit Applications

OTHER REFERENCES:

1. CCH Rules Relating to Water Quality & Related Resources at:
   https://www.honolulu.gov/dfmswq/rules-relating-to-water-quality.html.
2. CCH Stormwater Best Management Practice Manual for Construction (dated November 2011)

ENVIRONMENTAL COMPLIANCE

All construction projects are required to comply with local, state, and federal environmental laws. Enforcement for non-compliance may include:

- Oral or Verbal Warning
- Written Warning
- Notice of Violation
- Stop Work Order
- Withhold Payment
- ELD and L&M Assessment
- Contract Termination

TRAINING REQUIREMENTS

Harbors engineers, inspectors, and consultants who have primary construction stormwater responsibilities will receive initial and annual refresher training.

PERMIT REQUIREMENTS

DISCHARGE/CONNECTION PERMIT (TENANT IMPROVEMENT AND NON-HARBOR PROJECTS ONLY):

Complete the Discharge/Connection Permit application and submit to HDOT-Harbors Engineering Branch, Environmental Section for review.

NPDES PERMIT:

Submit all applicable permit applications to the State of Hawaii Department of Health, Clean Water Branch per Hawaii Administrative Rules, Chapter 11-55 and provide proof of application and issue permit(s) to HDOT-Harbors Engineering Branch, Environmental Section.

HDOH NPDES Permit Applications:
https://eha-cloud.doh.hawaii.gov/epermit

HDOT-HARBORS INSPECTIONS

Conducted by HAR-EE or a designated and qualified inspector and documented on the *Construction Site Best Management Practices Inspection Checklist.*

INITIAL INSPECTIONS: To be conducted prior to the start of construction activities to ensure site-specific BMPs have been properly installed in accordance with the SWPPP or similar. No construction activities will commence until this inspection is conducted and any deficiencies are satisfactorily addressed.

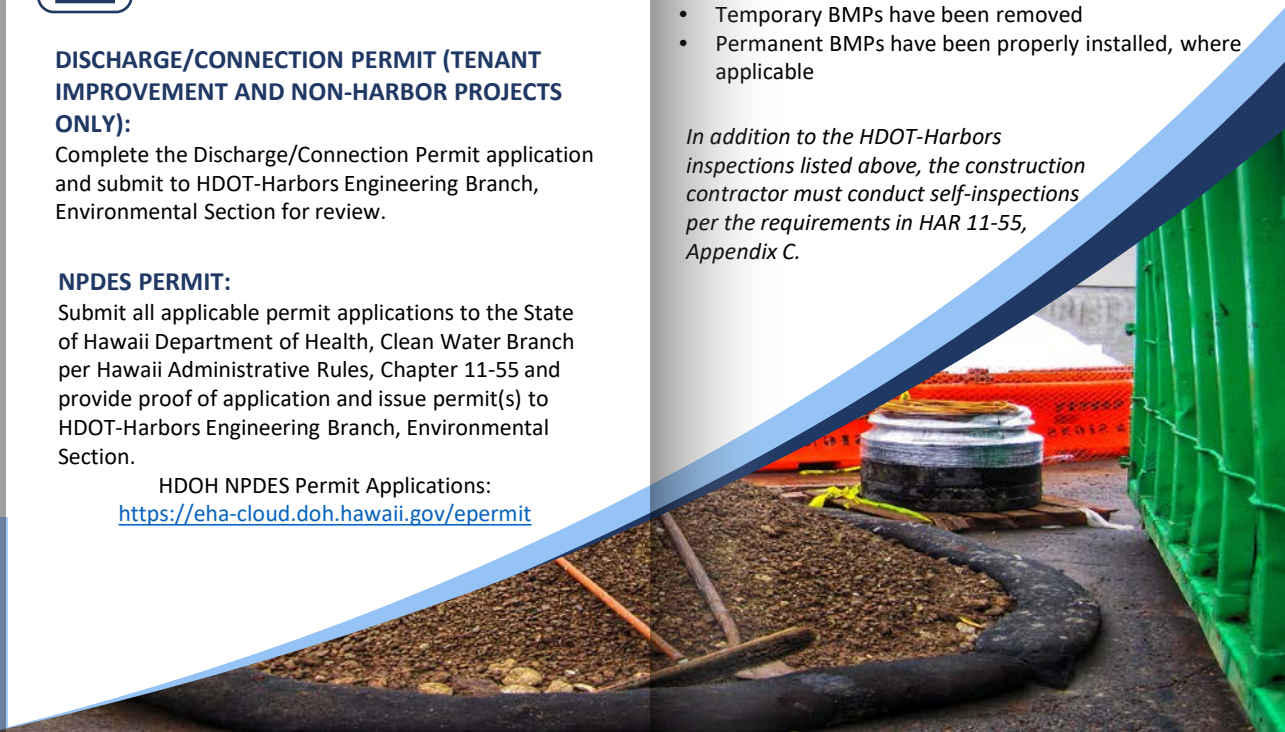
RECURRING INSPECTIONS: To be conducted throughout the duration of the construction phase at the following frequencies to ensure that BMPs are properly maintained:

- October – March: Once every two weeks
- April – September: Once every two months

FINAL INSPECTIONS: To be conducted after construction activities have been completed to ensure the following:

- Disturbed soil is stabilized
- Temporary BMPs have been removed
- Permanent BMPs have been properly installed, where applicable

In addition to the HDOT-Harbors inspections listed above, the construction contractor must conduct self-inspections per the requirements in HAR 11-55, Appendix C.



POST-CONSTRUCTION BMPS

Designed to minimize water quality impacts following the completion of construction projects while complying with HDOT-Harbors Small Municipal Separate Storm Sewer System (MS4) Permits. Refer to the **Post-Construction Stormwater Management Program Manual** at:

http://hidot.hawaii.gov/harbors/malamaikeawakai/

LOW IMPACT DEVELOPMENT (LID)

Systems and practices that mimic a site's natural hydrology to mitigate stormwater runoff and pollution.

SOURCE CONTROL

Measures to prevent pollutants from coming into contact with stormwater runoff or discharging into HDOT-Harbors small MS4.

TREATMENT CONTROL

Measures that treat stormwater runoff that has come into contact with pollutants. Examples include:

- Retention
- Bioinfiltration
- Mechanical methods

REPORT SUSPECTED ILLICIT DISCHARGES

Harbors Environmental Hotline:	**808-587-1962**
Harbors Construction Section:	**808-587-1866**
Harbor Traffic Control (24/7):	**808-587-2076**
Hawaii Department of Health, Clean Water Branch:	**808-586-4309**

MAILING ADDRESS

Hawaii Department of Transportation, Harbors Division
Hale Awa Ku Moku Building
79 South Nimitz Highway
Honolulu, Hawaii 96813-4898

PROTECT OUR HARBOR WATERS
MĀLAMA I KE AWA KAI
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

Department of Transportation
Harbors Division

POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

Required for all projects that result in land disturbance of one acre or more under HDOT-Harbors jurisdiction unless exempt.

1. **NEW DEVELOPMENT:** New construction or installation of a building or structure, or the creation of impervious surface that disturbs one acre or more; or less than one acre if it is a part of a larger common plan of development or sale that disturbs one acre or more.

2. **REDEVELOPMENT:** Development that would create or add an impervious surface area on an already developed site including, but not limited to, any construction project that requires demolition or complete removal of existing structures or impervious surfaces at a site and replacement with new impervious surfaces.

PROGRAM EXEMPTIONS

HDOT-Harbors Division may exempt certain types of projects from this program that pose a minimum risk of stormwater pollution including, but not limited to:

- Maintenance activities (e.g., top layer grinding, repaving, and reconfiguring surface parking lots)
- Reroofing
- Interior remodeling and improvement
- Routine maintenance to original line and grade, hydraulic capacity, or original purpose of facility
- Trenching and resurfacing associated with utility work
- Replacement of damaged pavement
- Emergency construction activities

GENERAL POST-CONSTRUCTION PROJECT REQUIREMENTS

DESIGN PHASE:

- Incorporate Post-Construction BMPs into design
- Submit the *Permanent Post-Construction BMP Plan Checklist*
- Apply for Appropriate Permits
- Submit Post-Construction Stormwater Mitigation Plan and other applicable plans
- Wait for concurrence and Notice to Proceed

CONSTRUCTION PHASE:

- Install Post-Construction BMPs according to approved PSMP
- Monitor and inspect installation and inventory
- Enforcement, if necessary
- Submit O&M Plan for review and acceptance

POST-CONSTRUCTION PHASE:

- Conduct long-term O&M of Post-Construction BMPs, if applicable
- Inspect Post-Construction BMPs regularly
- **For tenant projects,** tenant must submit annual O&M and inspection records to HDOT-Harbors, when applicable
- Enforcement, if necessary

OTHER REFERENCES:

1. CCH Stormwater BMP Guide for New and Redevelopment (dated July 2017)

For more information, review the Post-Construction Stormwater Manual located on the HDOT-Harbors website at:
http://hidot.hawaii.gov/harbors/malamaikeawakai/

ENVIRONMENTAL COMPLIANCE

All construction projects are required to comply with local, state, and federal environmental laws. Enforcement for non-compliance may include:

- Oral or Verbal Warning
- Written Warning
- Notice of Violation
- Stop Work Order
- Withhold Payment
- ELD and L&M Assessment
- Contract Termination

TRAINING REQUIREMENTS

Appropriate training is provided to Designers, Plan Reviewers, Engineers, Inspectors, Construction Managers, Contractors, and Operators who have primary responsibilities in the implementation of the Harbors Post-Construction Stormwater Management Program. The training video is available on the HDOT-Harbors Stormwater Management website:
http://hidot.hawaii.gov/harbors/malamaikeawakai/

STORMWATER IMPACT

Urban runoff from a developed site may contain pollutants that can enter the MS4 without prior treatment before discharging to the harbor.

BEST MANAGEMENT PRACTICES

Review HDOT-Harbors Division **Construction Site Runoff Control Program Manual** and the **Post-Construction Stormwater Management Manual** for more information on BMPs and required procedures and process at:
http://www.hidot.hawaii.gov/harbors/malamaikeawakai

CONSTRUCTION BMPs ARE:

- Schedules of activities
- Prohibition of practices
- Maintenance procedures
- Other management procedures

POST-CONSTRUCTION BMPs ARE:

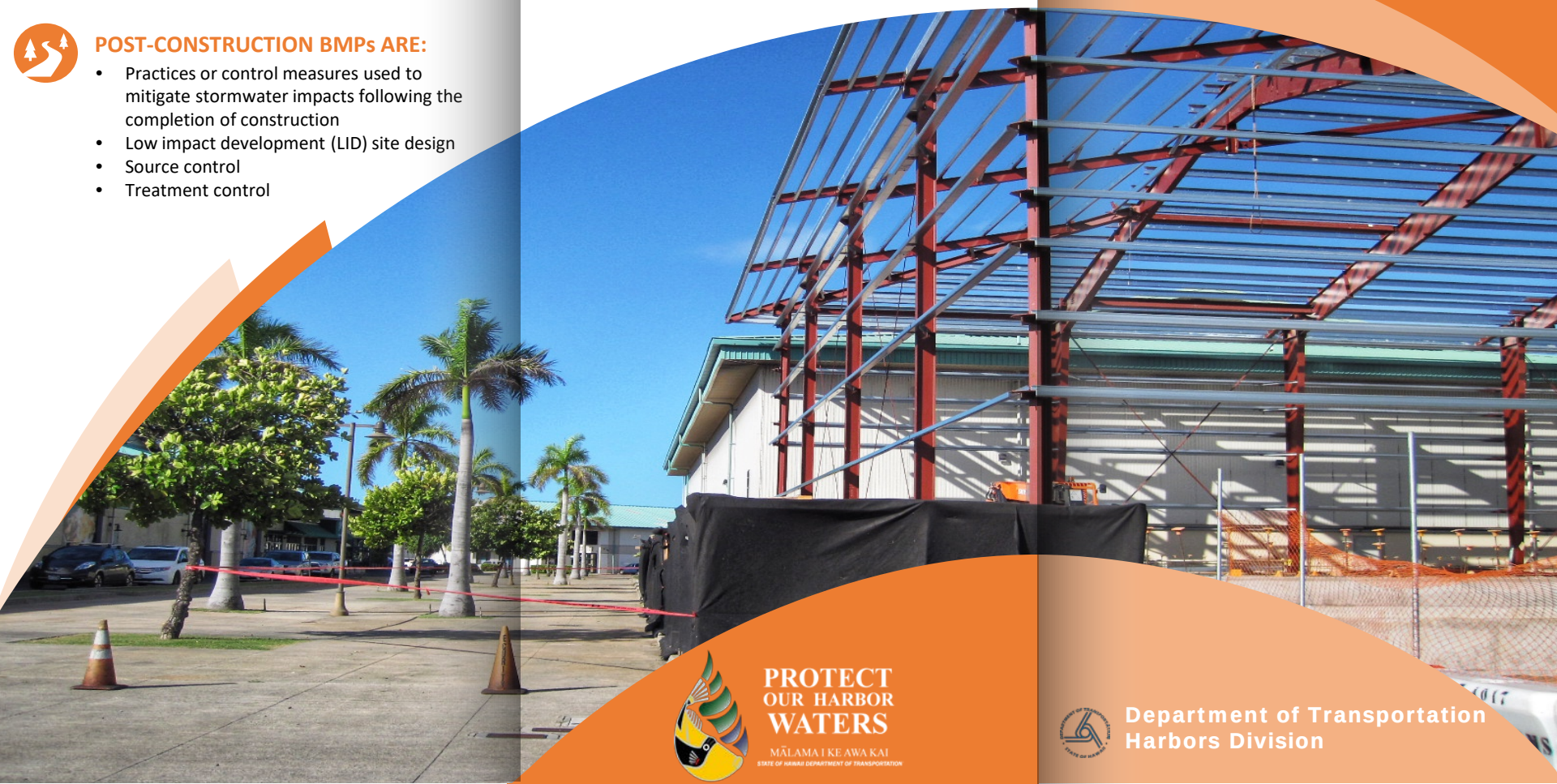
- Practices or control measures used to mitigate stormwater impacts following the completion of construction
- Low impact development (LID) site design
- Source control
- Treatment control

REPORT SUSPECTED ILLICIT DISCHARGES

Harbors Environmental Hotline:	**808-587-1962**
Harbors Construction Section:	**808-587-1866**
Harbor Traffic Control (24/7):	**808-587-2076**
Hawaii Department of Health, Clean Water Branch:	**808-586-4309**

MAILING ADDRESS

Hawaii Department of Transportation, Harbors Division
Hale Awa Ku Moku Building
79 South Nimitz Highway
Honolulu, Hawaii 96813-4898



PROTECT OUR HARBOR WATERS
MĀLAMA I KE AWA KAI
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

BEST MANAGEMENT PRACTICES (BMPs) FOR CONSTRUCTION AND POST-CONSTRUCTION

Department of Transportation
Harbors Division

CONSTRUCTION BMPs

A qualified inspector will conduct BMP inspections at the regulated project site to ensure BMPs are properly implemented. There are many different types of BMPs including, but not limited to the following:

EROSION CONTROL:
- Preserve existing vegetation
- Geotextiles and mats
- Slope drains

SEDIMENT CONTROL:
- Silt fence
- Storm drain inlet protection
- Sediment trap
- Sediment basin

WIND EROSION CONTROL:
- Dust control

TRACKING:
- Stabilize and maintain ingress and egress

GOOD HOUSEKEEPING:
- Material management
- Waste management
- Stockpile management
- Vehicle and equipment management
- Paving and grinding operations
- Concrete washout waste management

Properly covered and contained stockpile.

Concrete washout containment.

Direct pavement runoff towards vegetated or landscaped areas (e.g., swales), if possible.

POST-CONSTRUCTION BMPs

All new development and redevelopment projects should consider applying post-construction BMPs during the planning and design phase of the project. Post-construction BMPs include:

1 LOW IMPACT DEVELOPMENT:
- Conserve natural areas, soils, and vegetation
- Minimize disturbances to natural drainages
- Minimize soil compaction
- Minimize impervious surfaces
- Direct runoff to landscaped areas

2 SOURCE CONTROL:
- Conduct operations indoors or under cover if possible to prevent contact with stormwater runoff
- Landscaped areas
- Storm drain inlet signs

3 TREATMENT CONTROL:
- Infiltration basin or infiltration trench
- Manufactured treatment device
- Dry well
- Bioretention Basin
- Permeable pavement
- Green roof
- Swale