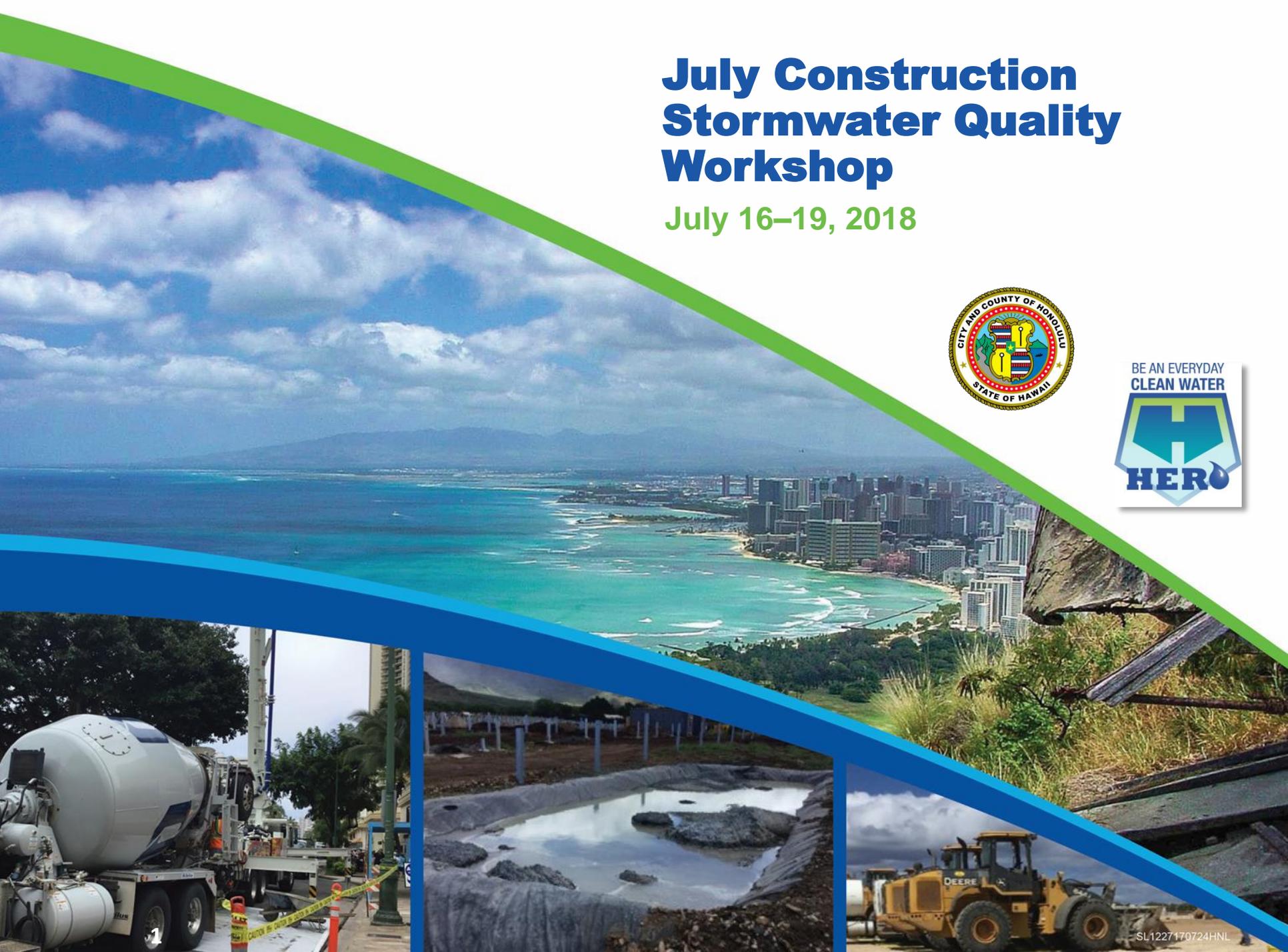
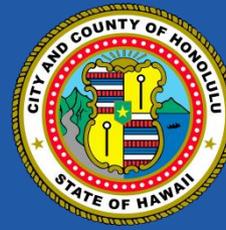


July Construction Stormwater Quality Workshop

July 16–19, 2018





How to Perform Construction BMP Inspections for Larger (NPDES) Projects

Jennifer Little **JACOBS**

Lead 3rd Party Construction Inspector

Learning Objectives

- ❑ Understand the new Rules Relating to Stormwater Quality
- ❑ Understand the roles of the ESCP Coordinator and CWPPP
- ❑ Understand the requirements for Self-inspection
- ❑ How to Document inspections to show Compliance
- ❑ How to Conduct a Construction BMP inspection

Background for Changes

- ❑ 2013 EPA Audit → CCH MS4 NPDES Permit
 - MS4= municipal separate storm sewer system
 - NPDES= National Pollutant Discharge Elimination Systems (DOH for EPA)
- ❑ Violations → indicated a need for revisions in City “Rules Relating to Water Quality”, more training, and 3rd Party Stormwater Construction Inspections



*Kaukonahua Stream, North Shore Oahu
December 2013*

Water Quality Rules- Revisions August 2017

- ❑ Revisions to Definitions and Project Categories
- ❑ Updated BMP standards and minimum requirements
- ❑ ALL categories must submit Erosion and Sediment Control Plan (ESCP)
 - Category 1A, 1B, 2, 3, 4 (City permitted)
 - Category 1C, 5 (City & NPDES permitted).
- ❑ ALL applicants must designate an ESCP coordinator to implement the ESCP and perform inspections
- ❑ New requirements for Self-Inspection

ESCP and SWPPP

- ❑ **ESCP** = Erosion and Sedimentation Control Plan or the “BMP” Map
 - Mandatory for all category projects (new)
 - Mandatory for both public CIP and private projects

- ❑ **SWPPP** = Stormwater Pollution Prevention Plan
 - Mandatory for all NPDES permitted sites
 - Must be completed prior to applying for the NPDES General Permit Coverage (NGPC) to DOH

- ❑ The ESCP may seem redundant to the SWPPP, but the intention is for the ESCP to be complementary

ESCP Submittal Requirements

ESCP must be prepared by:	Project Category					
	1A	1B	2	3	4	1C+ 5
Licensed Civil Engineer				X	X	X
Owner or Agent	X	X	X			

- ESCPs must be submitted with the first set of construction plans
- All ESCPs must indicate a ESCP Coordinator:
 - Name, phone number, mailing address, and email of ESCP coordinator
 - Must be provided to DPP 2 weeks prior to commencing any work

Inspectors- Need to know:

- ✓ What Category is your Project?
- ✓ What Documentation requirements do you need to review?
- ✓ What BMP requirements to check for?
- ✓ What is my role as an Inspector or ESCP Coordinator?

Project Category Overview

Project Categories (§20-3-14 and 17) Trenching Permits

New Category

Trenching Permit

Development that requires a trenching permit but **does not** require a grading, grubbing, or stockpiling permit.

- ESCP shall be incorporated into trenching plan and notes (§20-3-17)

- Minimum BMPs required:
 - Project Scheduling
 - Storm Drain Inlet Protection for storm drains that may receive runoff from the Disturbed Area
 - Stockpile Management BMPs
 - Perimeter Controls
 - Dewatering Operations BMPs, and
 - Good Housekeeping Practices for work area and staging areas

Project Categories (§20-3-14) Building Permits

Category 1 (all): Development that requires a building permit but does not require a grading, grubbing, or stockpiling permit.

Category 1A

Must meet ALL of the following criteria:

1. Residential single-family or two-family detached residential Development;
2. The total Disturbed Area for the Project is less than 1,000 square feet; and
3. Land Disturbing activities will not occur on slopes equal to or greater than 15 percent at the Site.

Category 1B

Must meet ANY of the following criteria:

1. Commercial Development with less than one acre of Disturbed Area;
2. Residential single-family and two-family detached Development between 1,000 square feet and less than one acre of Disturbed Area; or
3. Residential single-family and two-family detached Development less than 1,000 square feet of Disturbed Area if work will be performed on slopes equal to or greater than 15 percent at the Site.

Category 1C NPDES

Development that involves a Disturbed Area of one acre or more or requires a NPDES General/Individual Permit Authorizing Discharges of Storm Water Associated with Construction Activity, issued by the DOH.

ESCP Requirements for SMALL Projects Category 1A and 1B

- ❑ Submit Small Project ESCP Template (Appendix A or B)
 - Submit additional information if needed
- ❑ ESCP must include:
 - BMP Site Plan
 - Outline of buildings and structures
 - Clear delineation of disturbed areas
 - Proximate location of proposed BMPs and drainage structures
 - Receiving waters located within 50 feet of the project site
- ❑ Minimum BMPs, checklist format

Appendix A
Erosion and Sediment Control Plan
Category 1A Template

City and County of Honolulu

Construction Site Project Name: _____
Physical Site Address: _____
Erosion and Sediment Control Coordinator: _____ Phone Number: _____
Building Permit Number: _____

Instructions:
This completed template is to be used as the Erosion and Sediment Control Plan (ESCP) for projects which fall under the City and County of Honolulu, Department of Planning and Permitting (DPP)'s Category 1A, Single-Family or Two-Family Detached Residential Building projects that disturb less than 1,000 square feet of land and where there will not be land disturbing activities on slopes greater than 1%.

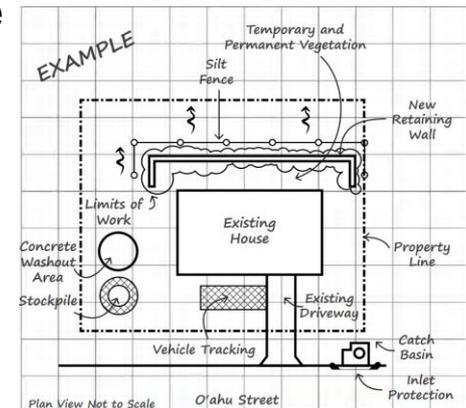
This ESCP must be submitted as part of the Building Permit application and made available on the job site at all times. This ESCP may be prepared by the owner of the project or an authorized representative designated by the owner. Both individuals must certify this ESCP below.

Read through the instructions for each of the three (3) sections on the next pages: I. Erosion Prevention, II. Sediment Control, and III. Good Housekeeping. Any best management practices (BMP) boxes that are checked are mandatory during construction. For more information on each type of BMP, this template lists applicable best practice numbers from the City's Construction BMP Manual that may help you decide on which BMP type to use and how to use them. The manual is available on the DPP website (www.honolulu.gov). For any conflicting information between the Rules Relating to Water Quality and the Construction BMP Manual, the requirements of the Rules shall be followed. If other BMPs are used to achieve the same or similar results, attach additional documentation.

I. EROSION PREVENTION: practices that prevent erosion from occurring			
BMP	Check Appropriate Box	Reference Factsheet	
1. Project Scheduling Notify the DPP two (2) weeks prior to starting work. Attach a Project Schedule to this ESCP including dates when BMPs will be installed, when land disturbing activities will begin and end, and dates when BMPs will be removed.	<input type="checkbox"/> Applicable <input type="checkbox"/> Not Applicable	EC-1	
2. Permeable Stabilization Prior to final approval and closing of the permits for work on the project site, permeable stabilization must be in place.	<input type="checkbox"/> Applicable <input type="checkbox"/> Not Applicable	N/A	

II. SEDIMENT CONTROL: practices to prevent soil and sediment from leaving the project site and entering storm drains during rain events			
BMP	Check Appropriate Box	Reference Factsheet	
1. Perimeter Controls Sediment fences or barriers shall be used at the perimeter of all disturbed areas of sites at the potential for runoff to flow off the project site, and around the base of all material stockpiles. These may include gravel bags, sand bags, steel rolls, silt fences, or compact socks that intercept runoff.	<input type="checkbox"/> Applicable <input type="checkbox"/> Not Applicable	SE-1, SE-5, SE-6, SE-8, SE-16	
2. Storm Drain Inlet Protection Inlet protection is required over storm drains within 50 feet of your project site unless those inlet drains to a sediment basin or trap.	<input type="checkbox"/> Applicable <input type="checkbox"/> Not Applicable	SE-10	

Rev: 05/19/2017 Page 1 of 3



Project Categories (§20-3-14)

Grading, Grubbing, and Stockpiling Permits

Category 2	Area of the zoning lot or portion thereof subject to the permit is less than 15,000 square feet for single-family or two-family dwelling uses and less than 7,500 square feet for other uses.
Category 3	Area of the zoning lot or portion thereof subject to the permit is 15,000 square feet or more for single-family or two-family dwelling uses, or 7,500 square feet or more for other uses, but where the total area graded or stockpiled upon is less than 15,000 square feet for single-family or two-family dwellings uses and less than 7,500 square feet for other uses.
Category 4	Total area including any areas developed incrementally that is to be graded, grubbed, or stockpiled upon is 15,000 square feet or more for single-family or two-family dwelling uses, or 7,500 square feet or more for other uses, or in the event a proposed cut or fill is greater than 15 feet in height for single-family or two-family dwelling uses, or 7.5 feet in height for other uses.
Category 5 NPDES	Development that involves a Disturbed Area of one acre or more or requires a NPDES General/Individual Permit Authorizing Discharges of Storm Water Associated with Construction Activity, issued by the DOH.

ESCP Requirements Category 2 and 3 (§20-3-21 and 22)

ESCP must include:

- ❑ BMP Site Plan, drawn to scale, which depicts:
 - Outline of buildings and structures
 - Clear delineation of Disturbed Areas
 - Proximate location of proposed BMPs

- ❑ Construction notes with a narrative description of any BMPs that cannot be shown on a Site plan

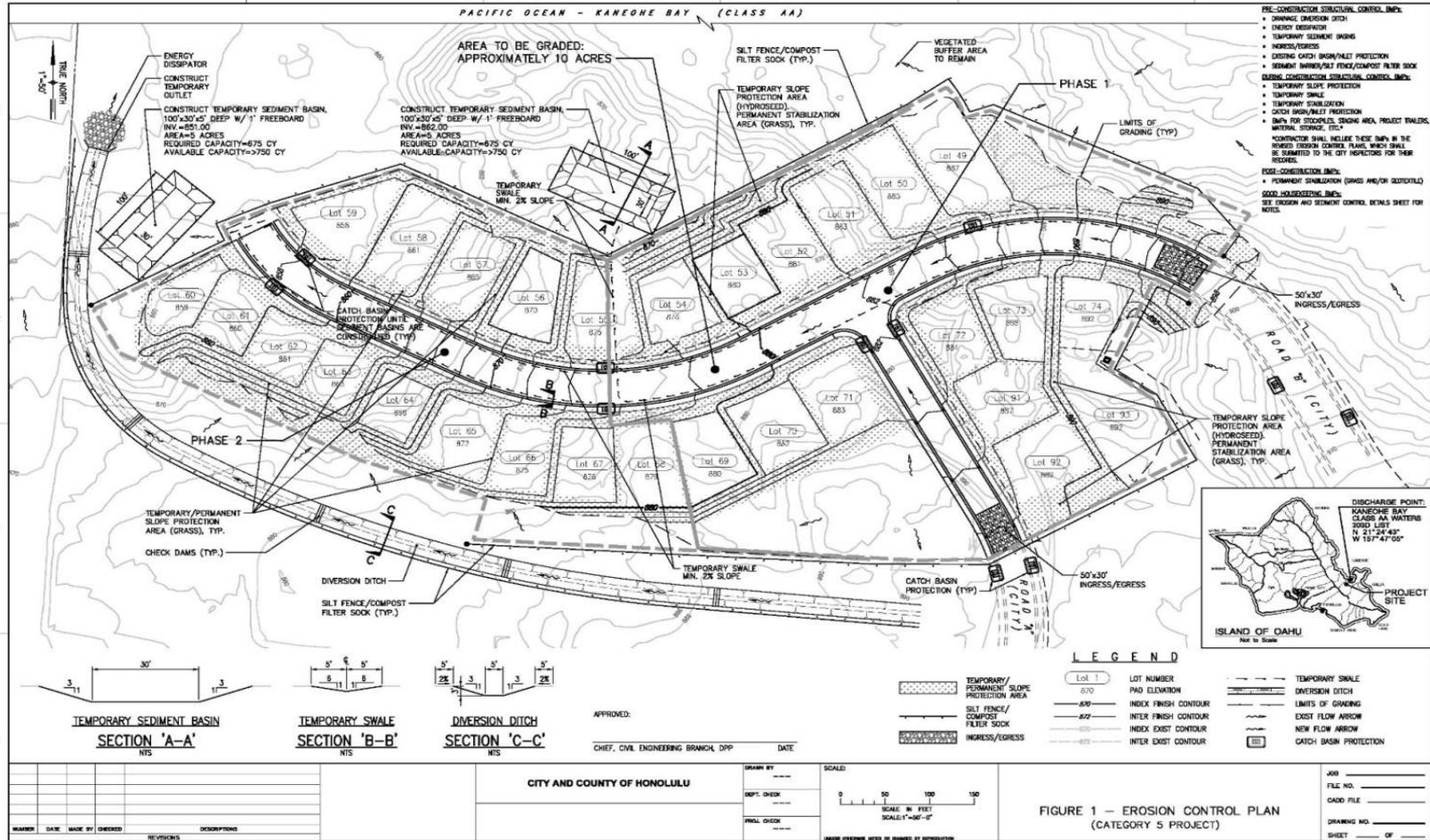
- ❑ A vicinity map showing any drainage structures and Receiving Waters located within 50 feet of the Project Site

ESCP Requirements for: Category 1C, 4, and 5 (§20-3-20, 23, and 24)

ESCP must include:

- ❑ A location map showing the name, coordinates, and RW classification.
 - ❑ A vicinity map showing the location of, within 100 ft of the project:
 - Streams, channels, and drainage structures.
 - ❑ The location of the 100-year flood plain.
 - ❑ Topo maps of the existing/finished contours.
 - ❑ Existing/final drainage patterns and discharge points.
 - ❑ Proposed structures, impervious areas, existing vegetation, final landscaping conditions, and appurtenant improvements.
 - ❑ Erosion Control construction notes include BMPs that cannot be shown on a Site Plan.
- ❑ A BMP Site Plan, drawn to scale, showing:
 - Outline of buildings and structures,
 - Delineation of Disturbed Areas, and
 - Proximate location of proposed BMPs.
 - ❑ BMP design details and notes identifying:
 - Temporary and Permanent BMPs,
 - Schedule for BMP implementation, and
 - BMP maintenance activities.
 - ❑ A list or table of:
 - Preconstruction, during construction, and post-construction BMPs;
 - ❑ A statement in construction notes that the contractor/developer/ owner shall obtain written approval from DPP at each stage of Development before proceeding to the next step in Development described in the ESCP.

Example of ESCP- Larger Sites



Additional Requirements

- ❑ Projects may also require **NPDES** permits from DOH
 - (Category 1C and 5)
 - Form C: Construction > 1 acre
 - Form F: Hydrotesting
 - Form G: Dewatering
- ❑ NPDES permit required for all point source discharges to State waters and three (3) situations involving stormwater
 - Stormwater associated with construction activities that disturb 1 acre or more.
 - Storm water associated with industrial activities.
 - Storm water from Municipal Separate Storm Sewer Systems (MS4)
- ❑ All **NPDES** permitted projects require a **SWPPP** (Stormwater Pollution Prevention Plan)
- ❑ 2018 updates to DOH CWB www.health.hawaii.gov/cwb/

Hawaii Administrative Rules (HAR)

Effective December 2013

- ❑ Chapter 11-54 - Water Quality Standards
- ❑ Chapter 11-55 Appendix C - NPDES General Permit
 - Authorizes Discharge of Stormwater associated with construction activity
 - DOES NOT include or authorize Non-stormwater discharges which require approval and additional permits from the City and County of Honolulu
- ❑ Department of Health (DOH) oversees the NPDES permits for EPA

Who Needs Inspections?

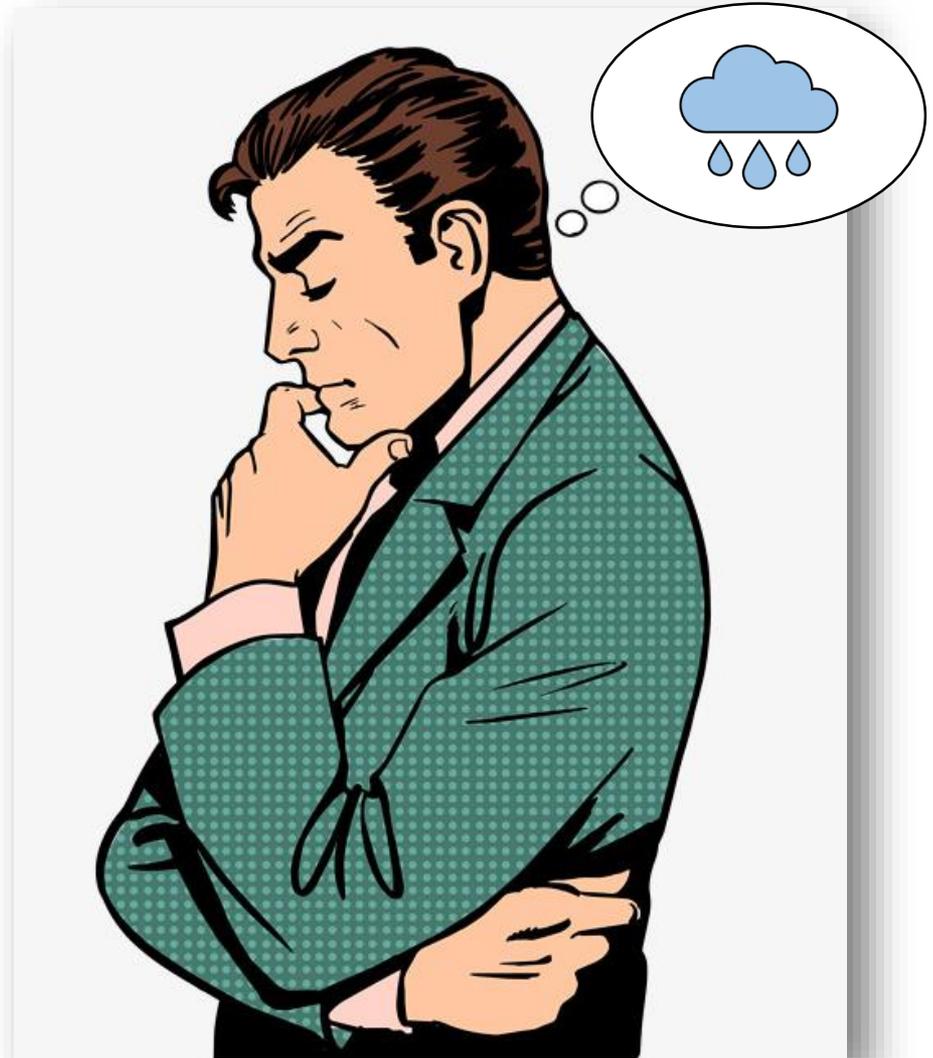
- ❑ Inspections are required for ALL construction projects:
 - City CIP (DDC, DFM, ENV, DTS)
 - Building-permitted private projects (DPP)

- ❑ All categories permitted by the City and County of Honolulu are subject to stormwater inspections by both:
 - City Inspectors (CCH)
 - 3rd Party Construction Inspectors (JACOBS)
 - Agencies (EPA, DOH)

Why conduct construction inspections?

- ✓ Pollution prevention to the City's MS4
 - Improve quality of runoff into the City's storm drain system and reduce pollutants into our streams and ocean
- ✓ Ensure that **Best Management Pactices** (BMPs) are:
 - in place, installed properly and working as intended.
- ✓ Comply with the City's water quality rules (WQR) requirements
- ✓ Avoid notices of violations and fines

Think:
Rain and Stormwater



Where is Stormwater going?

The first step in inspecting BMPs for a new development is to understand the site topography and impacts during construction. In particular, when it rains, the volume of stormwater and its velocity. This can differ based on storm events and phasing of your project.

- Perform a pre-construction site visit to determine runoff locations **during rain**
- Assess Volume
 - How much runoff are we trying to manage?
- Assess Velocity
 - Where is it going and how fast is it moving?
- Remember: the **ESCP** and **SWPPP** are living documents

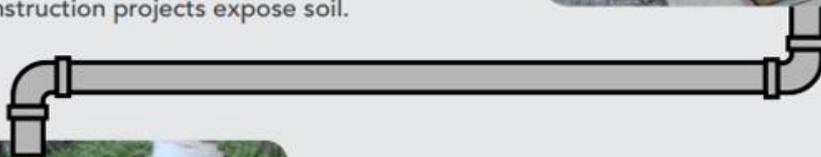




When it rains, or water is used on site, dirt can run off the site with the water into storm drains.



Construction projects expose soil.

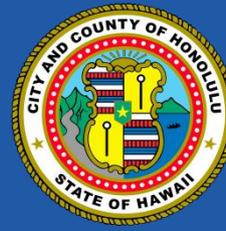


Dirt and other wastes travel down stream.



Dirt and waste flow into the ocean.

Use BMPs to protect our streams and ocean



Role of the Erosion and Sediment Control Plan Coordinator

ESCP Coordinator

“ESCP Coordinator” means the designee **responsible for the implementation of an ESCP** who has a current **ESCP Coordinator Certificate** from DPP.

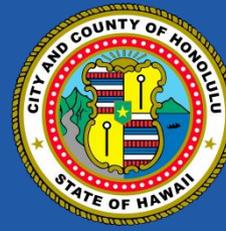
- Requires a training, test, and certification from DPP.
- It can be the homeowner if the homeowner has taken the online training and obtained the certification.
- No professional credentials required.
- Responsible for implementation of BMPs and required inspections.
- Submits the inspection reports to the City’s DPP at the end of the project.

Role of the ESCP Coordinator - Before, During, & After Construction

Before Construction	<ul style="list-style-type: none"> • Read and understand ESCP and discuss with Contractor • Install BMPs as specified in ESCP • Conduct a Pre-Construction Inspection prior to start of work
During Active Construction	<ul style="list-style-type: none"> • Conduct regular inspections • Monitor and Maintain BMPs • Modify BMPs as needed, note changes in ESCP
After Construction	<ul style="list-style-type: none"> • Conduct a Final Inspection and confirm that all Disturbed Areas have been stabilized and all temporary BMPs have been removed • Submit the <u>Final Project Log</u>* and <u>ESCP Letter of Compliance</u> to DPP for project closeout

* The **Final Project Log** is the file of all completed ESCP inspection reports and photographs. Keep it on Site or electronically accessible from the Site at all times and in a complete condition.

All communication is submitted through DPP and ultimately run through the assigned Inspector in order to close out the permit.



Role of the Certified Water Pollution Plan Preparer

CWPPP

“Certified Water Pollution Plan Preparer” means the designee **Architect, Engineer, Land Surveyor, or Landscape Architect licensed in the State of Hawaii** who has a current **Water Pollution Plan Preparer Certificate** from DPP.

- Requires a training, test, and certification from DPP
- Required to prepare Stormwater Quality Report/Checklist
- Required to certify that post-construction BMPs are installed properly

- Having a designated ESCP Coordinator or CWPPP does not relieve the property owner or other responsible parties from compliance with these Rules or liability for violations the same

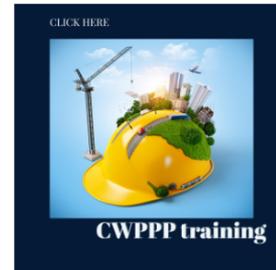


Online Training

☐ <http://www.honolulu.gov/dfmswq/rules-relating-to-water-quality.html>

Web-Based training certification

- **Erosion and Sediment Control Plan" or "ESCP" Coordinator:** Designee responsible for the implementation, inspection and oversight of an approved Erosion and Sediment Control Plan (ESCP) during construction who has a current ESCP coordinator certificate from the City's Department of Planning and Permitting. This person can be a homeowner, contractor or authorized representative approved by the property owner
- **Certified Water Pollution Plan Preparer" or "CWPPP":** Architect, Engineer, Land Surveyor, or Landscape Architect licensed in the State of Hawaii who has a current Water Pollution Plan Preparer Certificate from the City's Department of Planning and Permitting. This licensed professional is responsible for developing any post-construction Best Management Practices (BMP) plans that are approved by the department that addresses any source, treatment and Low Impact Development (LID) design requirements in accordance to the Rules Relating to Water Quality. CWPPPs are also responsible for conducting site observation(s) to attest that post construction BMPs and source control BMPs appear to have been installed in general conformance according to the approved construction plans and certifying as part of the Certificate of Completion prior to closing of any applicable building or grading permits.



[ESCP and CWPPP Annual Web-Training INSTRUCTIONS](#)

WARNING: Do not use the "Certificate" function at the end of the CWPPP training course. Please follow the instructions to print your certificate

Some functions do not work with Internet Explorer, recommend using a different browser

If you experience difficulties with the online training, call 440-0207

For questions about ePlans visit Department of Planning and Permitting's [website](#)

Mobilization

- ❑ Review your site ESCP and/or SWPPP (if NPDES permitted)
- ❑ **Tip-** Make a copy and carry with you during inspections
- ❑ Check the site for BMP installation
 - Are all BMPs installed?
 - Are all BMPs installed per the ESCP or SWPPP?
 - Are all BMPs installed correctly?
 - If unsure of installation requirements, review the CCH BMP Manual for guidelines
- ❑ Discuss any BMP installation concerns with Contractor
- ❑ Check scheduling- BMPs may change over time depending on site conditions and construction constraints
- ❑ Be prepared for changes or large rain events- Extra BMPs handy

Required Construction Inspections

- ❑ Inspections must be performed by the ESCP Coordinator
- ❑ Pre-construction inspection required for all projects
- ❑ Regular Inspections:

Project Category	Frequency of Inspection	Checklist
Category 1A, 1B, & 2	Once every 30 days*	Appendix C
Category 3, 4, & Trenching	Once every 7 days	Appendix C
Category 1C & 5	Once Every 7 days	Appendix D

* if the Project will be completed in less than 30 days, inspection shall occur midway through the Project

- ❑ **Final Inspection** at the conclusion of the project
 - Note that CWPPP to certify post-construction BMPs

NPDES Required Inspections

- ❑ Daily visual BMP inspection
- ❑ Once Every 7 calendar days- CCH DPP Appendix D
- ❑ Within 24 hours of qualifying rain event (0.25" or more)
- ❑ NPDES required documentation
- ❑ Inspections required by “qualified person”
 - knowledgeable in erosion and sediment control and pollution prevention
 - who can assess conditions at the construction site that can impact water quality, and
 - skills to assess the effectiveness of stormwater controls to meet requirement of general permit.
- ❑ Must keep rain gauge on site or obtain storm event information from weather station that is representative of location.
- ❑ Inspections required during project’s normal working hours. Taking the day off because it is raining **DOES NOT EXEMPT** you from permit responsibilities!!

Conducting Inspections

Prior to Your Inspection

- ❑ Review Site Specifications or “BMP Plans”
 - Erosion and Sedimentation Control Plans (ESCP) and/or
 - Storm Water Pollution Prevention Plan (SWPPP)

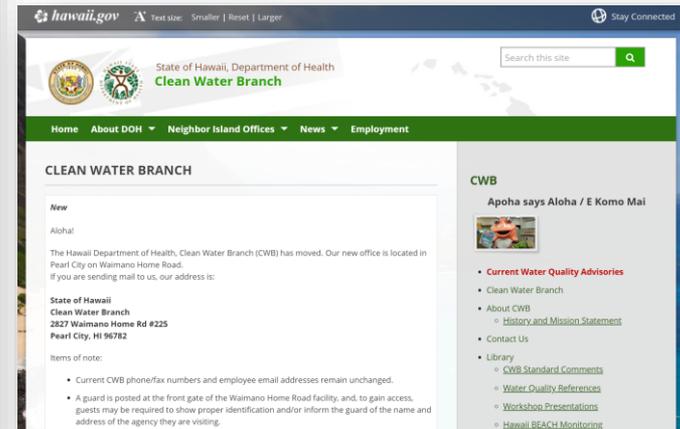
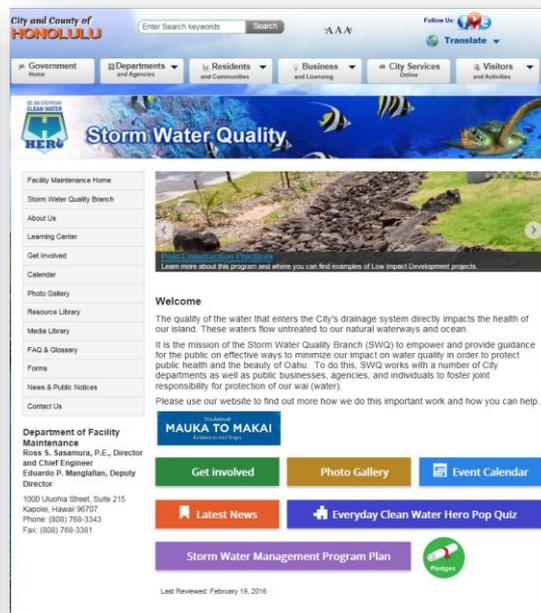
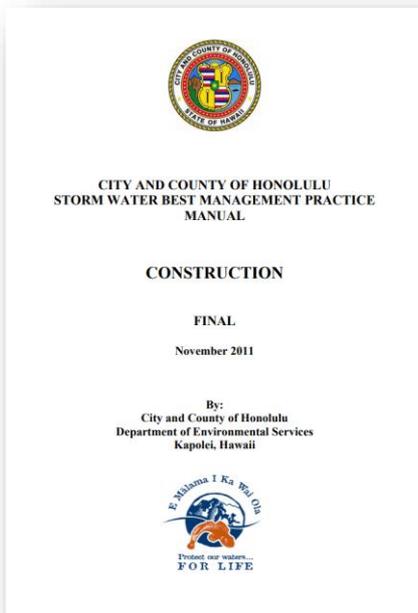
- ❑ Perform a preconstruction inspection to determine site conditions

- ❑ Questions to ask yourself:
 - Where is the stormwater is going?
 - What type of BMPs are designated in the plans?
 - Are BMPs appropriate for the site?

- ❑ Resources: Who are your City Inspectors, PM, ESCP Coordinator, and Contractor site contacts?

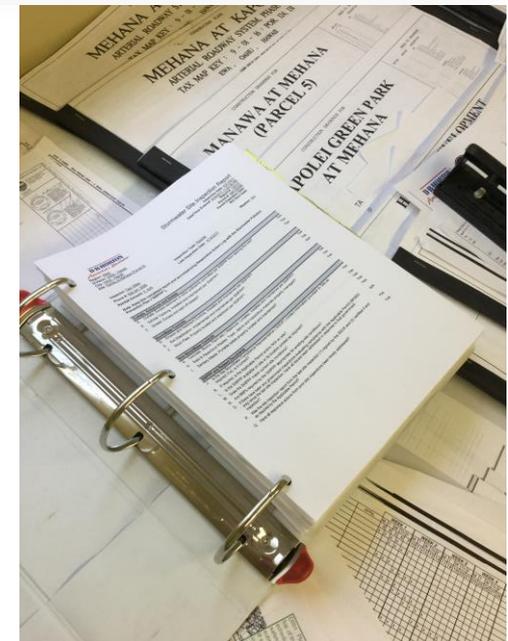
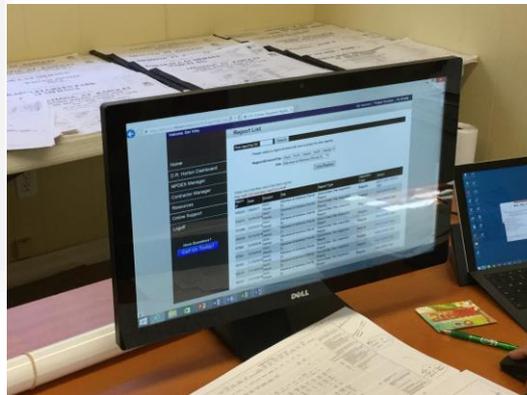
Resources

- ❑ City and County of Honolulu BMP Manual (2011)
- ❑ www.cleanwaterhonolulu.com
- ❑ DOH CWB- www.health.hawaii.gov/cwb/
- ❑ DOH E-Portal for NPDES reporting or SWPPP changes



On-site Documentation

- ❑ Project Log
 - Completed inspection reports
 - Photos
- ❑ Documents
 - Hardcopy onsite
 - Electronic files available by request



Documentation

- SWPPP and ESCP
- NGPC- Notice of General Permit Coverage
- Contacts- owner and Responsible persons
- List of subcontractors
- Schedule
- Staff Training log
- ESCP (include amendments or markups)
- Weather log- NOAA or rain gauge onsite
- Waste management, spill prevention, and response procedures
- Inspection Checklist- BMPs Weekly Inspections and Rain inspections
- Corrective Actions
- City permits posted

Appendix E - SWPPP Training Log

Storm water Pollution Prevention Training Log

Project Name: Mehana 8 (Pohakala)

Project Location: Kapolei, Oahu, HI

Instructor's Name(s): AARON YARTIER

Instructor's Title(s): P.M.

Course Location: ISHUTE Date: 9/21/16

Course Length (hours): As needed per Phase of Construction / Event: 1

Stormwater Training Topic: (check as appropriate)

Erosion Control BMPs Emergency Procedures

Sediment Control BMPs Good Housekeeping BMPs

Non-Stormwater BMPs

Specific Training Objective: TRIP TRAINING

Attendee Roster: (attach additional pages as necessary)

No.	Name of Attendee	Company
1	AUBREY PAULIUKA	JAYAR
2	DANIEL SUNDRA	JAYAR
3	ALAN TILBORN III	JAYAR
4	PAUL ALLOS	JAYAR
5	PAUL OKUNO	JAYAR
6	KEVIN CHOI	"
7		
8		
9		
10		

SWPPP

- Site specific, written document
- Identifies Potential sources of stormwater pollution at your construction site
- Describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from your site
- Identifies procedures you will implement to comply with the terms and conditions of this general permit

ESCP

- BMP map

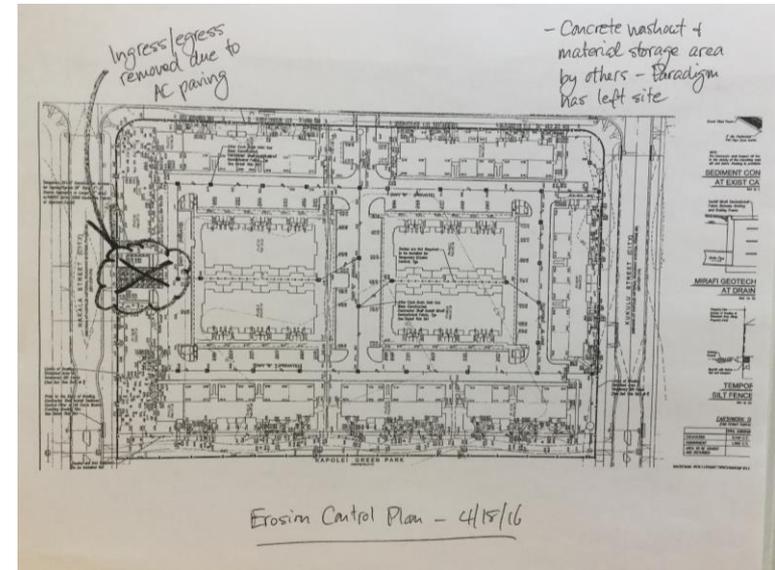
ESCP and SWPPP- Living Documents

□ Minor Changes

- Changes must be noted on the Site copy and initialed by City inspector

□ Major Changes

- Changes must be proposed to DPP Director in writing and approved before work resumes



BMP Inspection Checklist for NPDES- Appendix D

Projects subject to both City (DPP) and State (DOH) NPDES requirements



City and County of Honolulu

Appendix D

Construction Site BMPs Inspection Checklist For NPDES Permitted Construction Projects

Projects subject to both DPP and State NPDES permit requirements

General Information			
Project Name:			Date:
Inspector's Name:	Title:		
Location:	TMC#:		
Project Manager:	Phone #:	Email:	
Authorized Representative:	Title:		
Contractor:	Phone #:	Email:	
Authorized Representative:	Title:		
1. City Permit (check all that apply)	<input type="checkbox"/> Building #:	Exp. Date:	<input type="checkbox"/> Grading #:
	<input type="checkbox"/> Grading #:	Exp. Date:	<input type="checkbox"/> Stockpiling #:
2. NPDES General / Individual Permit (check all that apply)	<input type="checkbox"/> Construction #:	Exp. Date:	Authorized Rep: Title:
	<input type="checkbox"/> Hydrotesting #:	Exp. Date:	Authorized Rep: Title:
	<input type="checkbox"/> Decontaminating #:	Exp. Date:	Authorized Rep: Title:
	<input type="checkbox"/> Individual #:	Exp. Date:	Authorized Rep: Title:
3. Other Permits (list all):			
Inspection Type			
<input type="checkbox"/> Regular Weekly Inspection		<input type="checkbox"/> Re-Inspection	
<input type="checkbox"/> Storm Event Report ¹		Weather Station Address / Location of Onsite Rain Gauge: _____	
		Inches of Rain in the last 24 hrs: _____	

¹ Add additional rows or attach sheets with additional TMC's.
² NPDES General Construction Permit required when project discharges to an impaired water and when > 0.25 inch rainfall event occurs; or NPDES Individual Permit check your specific permit but typically required when > 0.5 inch rainfall event occurs.
 Rev. 06/29/2016

Page 1 of 5

Appendix D

Project Phase (check all that apply)		
<input type="checkbox"/> Mobilization / Demolition	<input type="checkbox"/> Grubbing / Clearing	<input type="checkbox"/> Infrastructure / Utilities
<input type="checkbox"/> Building Construction	<input type="checkbox"/> Final Grading	<input type="checkbox"/> Final Stabilization
Description of Active Construction (Describe the active construction activities observed during the inspection)		
Records Review (If "No" is checked for any of the following columns, complete Deficiencies / Corrective Action Report on page 3.)		
	Available at Site	Complete, Signed, and Current
Pre-Construction Inspection	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Monthly Compliance Reports	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Corrective Action Reports	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Weekly Construction Inspections	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Sequence of Events / Schedule	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Erosion and Sediment Control Plan (ESCP) and / or Storm Water Pollution Prevention Plan (SWPPP)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Training Logs (NPDES permitted projects only)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Rain Gauge Logs (NPDES permitted projects only)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
NPDES Permit Listed above (Notice of Intent (NOI) and Notice of General Permit / Individual Permit Coverage)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Receiving Water Inspection Report (for Individual NPDES Permitted Projects)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
BMP Measures Inspected (Describe the BMPs that were inspected.)		

Rev. 06/29/2016

Page 2 of 5

Appendix D

Construction BMP Inspection Results (Check the boxes on the left to indicate which BMPs were inspected and the boxes on the right for inspection results)			
Construction BMP	Inspected?	Deficiencies?	# of Deficiencies
Erosion Prevention			
<input type="checkbox"/> Project Planning and Design	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Project Scheduling	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Slope Management and Protection (hydroseeding, hydraulic mulch, geotextiles and mats)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Temporary Stabilization (hydroseeding, hydraulic mulch, geotextiles and mats)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Permanent Stabilization (vegetative cover, mulching, or pavement)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Diversion BMPs to divert runoff from upstream areas around disturbed areas of the site	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Velocity Dissipation Devices	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Preserving Existing Vegetation	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Measures that Compensate (in areas where infiltration practices will be installed)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Other (terracing, slope drains, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Sediment Control			
<input type="checkbox"/> Silt Fence	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Perimeter Control	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Buffer Zone (required on projects < 50 ft from State waters)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Sediment Basin or Sediment Trap	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Other (filter berms, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Solid Waste Handling			
<input type="checkbox"/> BMP and Site Maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Dust Control	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Material Delivery, Storage, and Use	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Spill Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Spill Prevention and Control	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Solid Waste Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Hazardous Waste Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Contaminated Soil Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Concrete Waste Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Rev. 06/29/2016

Page 1 of 5

Appendix D

Construction BMP Inspection Results (Check the boxes on the left to indicate which BMPs were inspected and the boxes on the right for inspection results)			
Construction BMP	Inspected?	Deficiencies?	# of Deficiencies
Good Housekeeping (continued)			
<input type="checkbox"/> Sanitary Toilet Waste Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Liquid Waste Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Vehicle and Equipment Cleaning	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Vehicle and Equipment Fueling	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Vehicle and Equipment Maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Vehicle Tracking	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Modified Construction Entrance and Exit	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Decontaminating Practices	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Other:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Inspector Certification Statement			
I certify that I am the person who performed the inspection documented above and that all information recorded on this form is a true and accurate representation of what was observed at the construction site recorded above.			
Inspector Name and Title	Signature	Date	
Owner / Developer Certification Statement			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted on, to the best of my knowledge and belief, was accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Printed Name of Authorized Representative	Signature	Date	

Rev. 06/29/2016

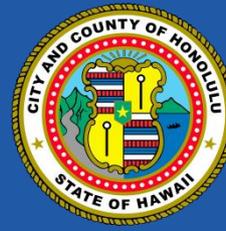
Page 1 of 5

Appendix D

Deficiencies / Corrective Action Reports (attach additional pages as needed)	
Photo # 1	Photo # 2
Photo	Photo
Taken By: _____ Date: _____	Taken By: _____ Date: _____
Description: _____	Description: _____
Comments: _____	Comments: _____
Status: _____ Priority: _____	Status: _____ Priority: _____
Corrected by (initials): _____ Date: _____	Corrected by (initials): _____ Date: _____
Comments: _____	Comments: _____

Rev. 06/29/2016

Page 1 of 5



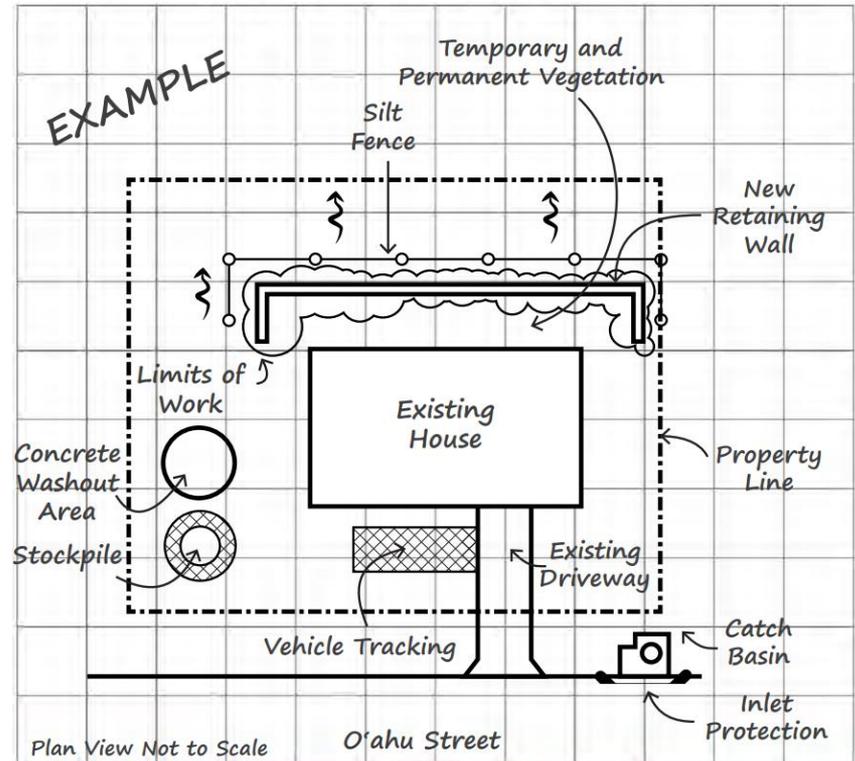
How to Conduct a BMP Inspection

NPDES permitted and Larger sites

During Inspections

□ Walk through all project areas!!!

- ✓ Exposed soils/Existing Vegetation
- ✓ Site perimeter Controls
- ✓ Storm Drain Inlet Protection
- ✓ Entrance/exit BMPs
- ✓ Sidewalk and roadway
- ✓ Dust control
- ✓ Equipment & vehicle parking
- ✓ Housekeeping practices
- ✓ Material storage areas
- ✓ Stockpiles
- ✓ Designated Concrete Washout
- ✓ Other liquid waste materials
- ✓ Spill Prevention



Exposed Soils During Construction



What BMPs to stay compliant?

Ask yourself:

- Is work Completed or Temporarily Inactive?
- Can completed areas be stabilized permanently?
- Do I need temporary coverage on soils while inactive?
- Other options?

Vegetation Preservation

The best way to prevent erosion is to not disturb the land.

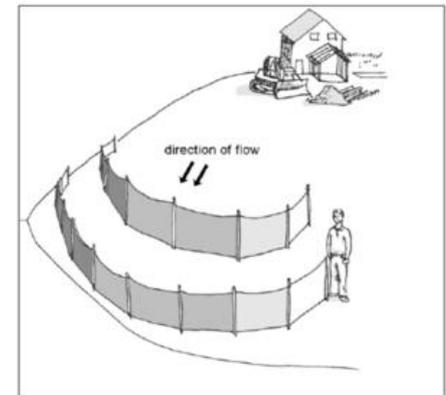
Erosion control is the FIRST LINE OF DEFENSE.

Existing vegetation to be preserved on the site should be protected from mechanical and other injury while the land is being developed.



Natural Buffer

- ❑ Land Disturbance > 50 feet from State Water:
 - Provide 50 foot undisturbed natural buffer and sediment control
- ❑ Land Disturbance < 50 feet from State Water:
 - Provide undisturbed natural buffer less than 50 feet plus a double sediment control
- ❑ Cannot Provide Natural Buffer of any Size:
 - Provide double sediment control and complete stabilization within 7 calendar days of temporary or permanent cessation of earth disturbance.



NPDES

- ❑ Install sediment controls along all perimeter areas of site that will receive stormwater from earth disturbing activities.
- ❑ Protect storm drain inlets (DIs) that receives project site storm water only if Permittee has authority to access storm drain inlet.
 - **DI Protection-** May be removed in event of flood conditions where **SAFETY** or loss of property is concern. **Otherwise** let the BMP do its job during rain.
- ❑ Discharges of all non-storm water is prohibited. This includes stormwater mixed with wash water/ effluent and stormwater that has contacted contaminated soil. (contaminated soils must be segregated)
- ❑ For any portion of the site that discharges to sediment or nutrient-impaired State waters, complete stabilization within 7 calendar days after temporary or permanent cessation of earth disturbing activities.
- ❑ Complete BMP routine maintenance by close of next work day after discovering problem.
- ❑ Complete significant repairs to BMPs no later than 7 calendar days from time of discovery

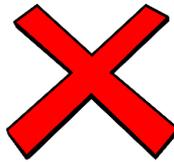
Site Perimeter Controls



Sagging fence



Full of sediment



Wind blown and not trenched in



Not installed properly

Site Perimeter Controls



- Silt fence
- Biosock



Storm Drain Inlet Protection



Missing BMP



Materials on inlet



Vehicle Parked on BMP



Exposed soils- Need more BMPs



BMP pulled aside



BMP falling into inlet



Storm Drain Inlet Protection



Gutter buddies



Filter fabric under grate



Silt fence surrounding



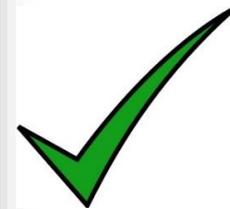
Maintenance



Gravel bag surrounding



Witches hat



Entrance/Exit BMPs



Exposed Soils



Dust Control- Watering site



Hydroseed



Temporary or permeant matting

Material Storage



Material Storage



Concrete Waste Management



Concrete Waste Management



Spill Prevention



Spill Kits



During Inspections

- ❑ Ask questions like:
 - Is it the right BMP for the application?
 - Is the BMP installed correctly?
 - Is the BMP maintained?
- ❑ If answer is “NO”, make necessary BMP adjustments
 - BMP not working as desired
 - Improper installation
 - Damaged BMP
 - Make prompt fixes and repairs
- ❑ Note any BMP changes/modifications in your ESCP and SWPPP



Changes to ESCP during Construction

- ❑ Minor Changes
 - Changes must be noted on the Site copy and initialed by City inspector

- ❑ Major Changes
 - Changes must be proposed to DPP Director in writing and approved before work resumes

During Inspections

- ❑ Fill checklist as you go
 - Recommend to use a pen to fill out
- ❑ Note deficiencies observed

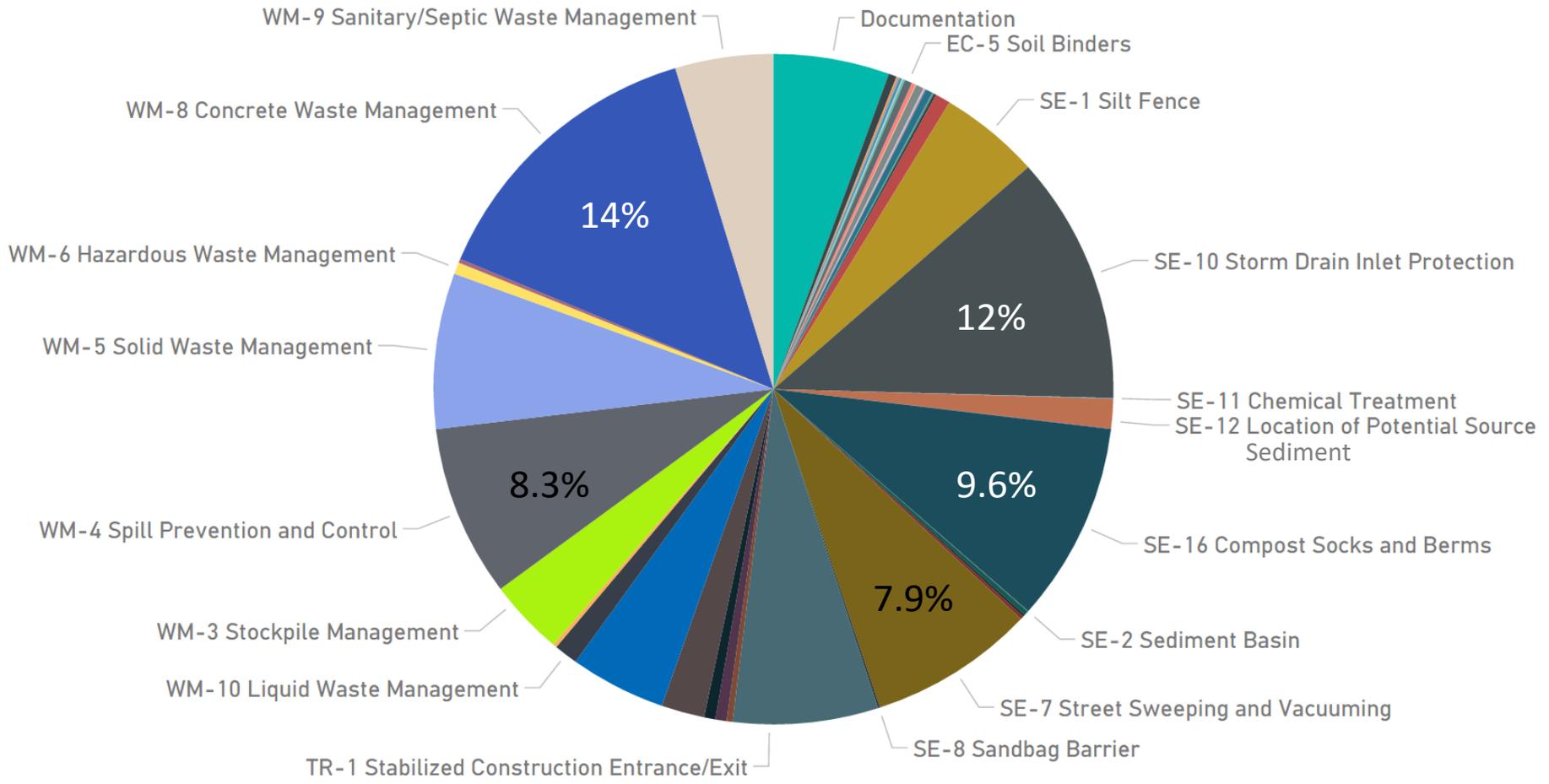
- Take photos



- ❑ Anticipate what activity will happen next and prepare for it
- ❑ Communicate findings with other Site workers
 - Goal: to improve work practices



BMP Deficiencies- July 1, 2017- June 30, 2018



BMP Deficiency Categories

Minor Deficiencies - Do not pose a threat of discharging pollutants to the MS4 or surface waters, but are not in strict conformance with ESCP

Level of Severity	Examples include, but are not limited to:
Minor	<ul style="list-style-type: none"> • ESCP does not reflect current operations and an amendment is needed • BMPs are not deficient, but are not consistent with the ESCP • Site inspections by the ESCP Coordinator are not being conducted at the required frequencies • Hazardous materials or waste stored within the project area in improper locations • Oil, fuel, or brake or transmission fluid spills covering less than one (1) square yard • Evidence of active wind erosion on exposed slopes/stockpiles • Minor tracking on public roadway (less than 50 feet from project from defined ingress/egress locations)

Must be corrected within 7 calendar days or before the next forecasted rain event, whichever is sooner

Minor Deficiencies - Examples



Must be corrected within 7 calendar days or before the next forecasted rain event, whichever is sooner

Major Deficiencies - Indicate a lack of good-faith efforts to comply and could reasonably result in the discharge of pollutants to the MS4 or surface waters under rain conditions.

Level of Severity	Examples include, but are not limited to:
Major	<ul style="list-style-type: none"> • Failure to obtain an approved ESCP before land disturbance activities • Erosion and Sediment Control BMPs and/or Good Housekeeping BMPs that are improperly installed or which are not functional or effective • Oil, fuel, or brake or transmission fluid spills covering more than one (1) square yard • Sediment tracking more than 50 feet from the project ingress/egress in any direction or 25 feet from the project perimeter in any direction • Dust from project site visible blowing off the site

Must be corrected within 5 calendar days or before the next forecasted rain event, whichever is sooner

Major Deficiencies - Examples



Must be corrected within 5 calendar days or before the next forecasted rain event, whichever is sooner

Critical Deficiencies - Result in or pose an immediate threat of pollutant discharges to the storm drain inlets or surface waters.

Level of Severity	Examples include, but are not limited to:
Critical	<ul style="list-style-type: none">• Any observed discharge, or evidence of discharge, of untreated storm water or non-storm water to the storm drain system or surface waters• Missing Erosion and Sediment Control BMPs and/or Good Housekeeping BMPs• Work in an active stream channel or other surface water body without proper implementation of required BMPs

Must be corrected **immediately** by close of business

Critical Deficiencies - Examples



Must be corrected **immediately** (by close of business)

Critical Discharge- What to do?

- ❑ Stop construction activities that are contributing to the discharge
- ❑ Is the discharge a threat to Public Health or Safety?
- ❑ Report to DOH-CWB
- ❑ Report to MS4 owner (City and County of Honolulu)
- ❑ Isolate and contain discharge, implement BMPs
- ❑ Clean up discharge
- ❑ Investigate and determine the extent of discharge
 - Example: gallons/minute
- ❑ Inspect all BMPs and repair as necessary
- ❑ Document the discharge and corrective actions taken

Self Reporting

- ❑ You are required to notify the DOH of ALL instances of non-compliance with the NPDES permit
 - Tel: 808-586-4309

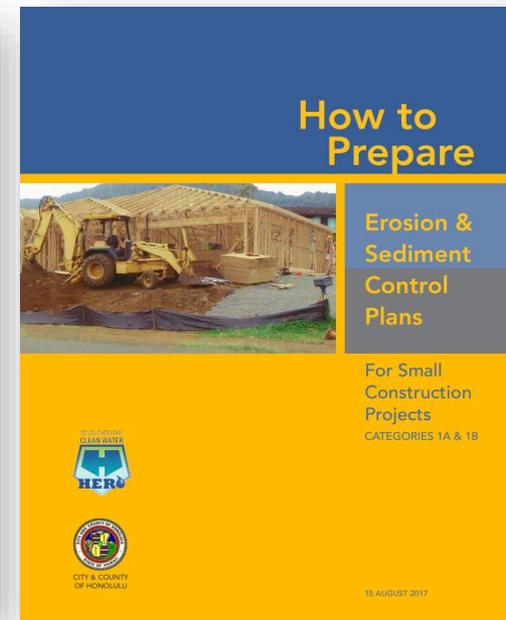
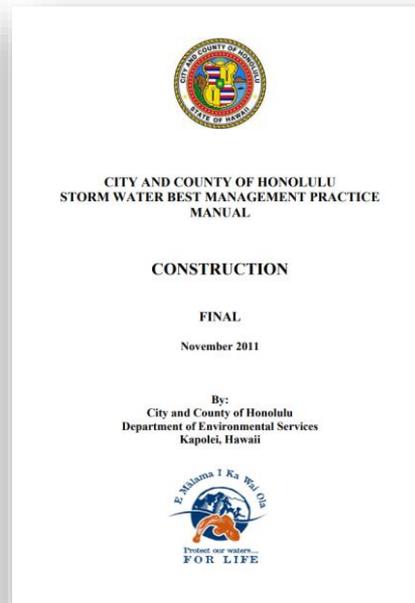
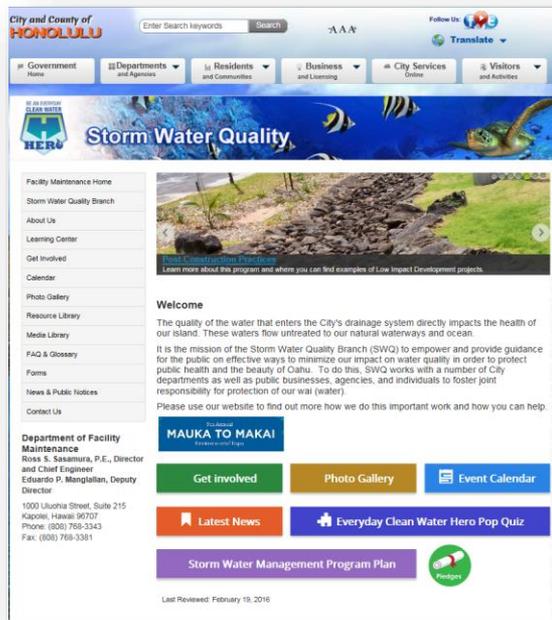
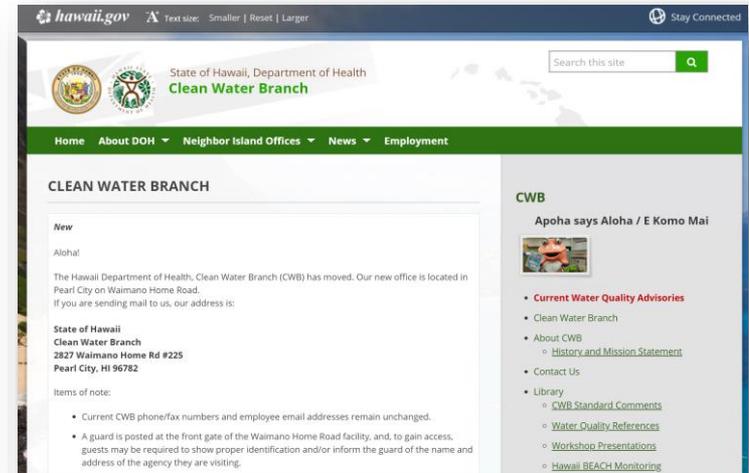
- ❑ Critical Discharges require reports to both DPP and DOH
 - Stormwater
 - Non-stormwater

Useful Resources:

☐ www.cleanwaterhonolulu.com

☐ www.health.hawaii.gov/cwb/

☐ City and County of Honolulu BMP Manual (2011)



DOH CWB Contacts

- ❑ DOH-CWB Email: cleanwaterbranch@doh.hawaii.gov
- ❑ DOH Phone: (808) 586-4309

Questions?

Jennifer Little

Jennifer.little@Jacobs.com

808-440-0236