

# **Annual Compliance Report 2011**

**Honolulu Harbor, Hawaii**



**Prepared for**

**Hawaii Department of Transportation  
Harbors Division**

**Prepared by**

**Weston Solutions, Inc.  
841 Bishop Street, Suite 2301  
Honolulu, HI 96813**

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Signature

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Date

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Authorized Representative of Harbors Division





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## LIST OF ACRONYMS AND ABBREVIATIONS

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|                   |  |
|-------------------|--|
| ACR               | Annual Compliance Report                           |
| BMP               | Best Management Practice                           |
| CFR               | Code of Federal Regulations                        |
| Co.               | Company  |
| CSRCP             | Construction Site Runoff Control Program           |
| CWB               | Clean Water Branch                                 |
| dba               | Doing Business As                                  |
| EMS               | Environmental Management System                    |
| HAR               | Hawaii Administrative Rules                        |
| HAR-EE            | Harbors Division Environmental Engineering Section |
| HAR-OE            | Harbors Division Oahu District Enforcement         |
| HDOH              | Hawaii Department of Health                        |
| HDOT              | Hawaii Department of Transportation                |
| Honolulu<br>Tower | Honolulu Harbor Marine Traffic Control Tower       |
| HRS               | Hawaii Revised Statutes                            |
| ICC               | International Coastal Cleanup                      |
| IEP               | Inspection and Enforcement Plan                    |
| IDDE              | Illicit Discharge Detection and Elimination        |
| Inc.              | Incorporated                                       |
| KBPH              | Kalaeloa Barber's Point Harbor                     |
| LIDS              | Low Impact Development Standard                    |
| LLC               | Limited Liability Corporation                      |
| Ltd.              | Limited  |
| MEP               | Maximum Extent Practicable                         |
| MS4               | Municipal Separate Storm Sewer System              |
| NA                | Not Applicable                                     |
| NGPC              | Notice of General Permit Coverage                  |
| NOI               | Notice of Intent                                   |
| NPDES             | National Pollutant Discharge Elimination System    |

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LIST OF ACRONYMS AND ABBREVIATIONS, CONTINUED

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|        |                                      |
|--------|--------------------------------------|
| NSWD   | Non-Stormwater Discharge             |
| ORI    | Outfall Reconnaissance Inventory     |
| SWMP   | Stormwater Management Plan           |
| SWPPP  | Stormwater Pollution Prevention Plan |
| TBD    | To Be Determined                     |
| TMK    | Tax Map Key                          |
| TRP    | Tenant Revocable Permit              |
| TSI    | Tenant Self-Inspection               |
| USEPA  | U.S. Environmental Protection Agency |
| WESTON | Weston Solutions, Inc.               |

## 1.0 INTRODUCTION



The Hawaii Department of Transportation (HDOT), Harbors Division has developed this Annual Compliance Report (ACR) for the Hawaii Department of Health (HDOH) in accordance with its Notice of General Permit Coverage (NGPC), permit number HI03KB482. The ACR details activities conducted by Harbors Division to comply with the requirements of its permit and to keep a record of progress toward annual goals.

The ACR follows the format and organization of the Storm Water Management Plan (SWMP) to facilitate comparison between planned activities and activities that were accomplished. The ACR describes efforts made by Harbors Division to implement the six minimum control measures established by the United States Environmental Protection Agency (USEPA) and as required by the Hawaii Administrative Rules (HAR) 11-55 Appendix K and the NGPC. This report identifies activities completed during calendar year 2011 and presents areas that will be addressed in calendar year 2012. The following is included in this ACR:

- ✓ Status of Compliance;
- ✓ Assessment of the SWMP minimum control measures:
  - Public outreach and education,
  - Public involvement/participation,
  - Illicit discharge detection and elimination,
  - Construction site runoff control,
  - Post-construction stormwater management in new development and redevelopment;
  - Pollution prevention/good housekeeping;
- ✓ Modifications to the SWMP;
- ✓ Summary of Planned Activities; and
- ✓ Modifications to the Small Municipal Separate Storm Sewer System (MS4).



### 1.1 APPLICABLE REGULATIONS

It is the intention of HDOT Harbors that this ACR demonstrates compliance with the following regulations listed in the NGPC:

- ✓ HAR, Chapter 11-55, Appendix K, National Pollutant Discharge Elimination System (NPDES) General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Water Discharges from Small Municipal Separate Storm Sewer Systems;
- ✓ HAR, Chapter 11-55, Appendix A, HDOH, Standard General Permit Conditions; and

- ✓ HAR, Sections 11-55-34.04(a), 11-55-34.07, 11-55-34.11, 11-55-34.12, and other applicable Sections of HAR, Chapter 11-55.

## **1.2 STATUS OF COMPLIANCE**

HAR Chapter 11-55 Appendix K authorizes discharges of storm water and certain non-stormwater discharges from small MS4s. Prior NGPC for the storm drain system was granted by HDOH in a letter dated May 19, 2003. The expiration date of that NGPC was November 19, 2007. However, in a letter dated October 19, 2007 HDOH provided for an extension of the NGPC until a notice of renewed coverage under the applicable general permit is issued or until HDOH notification is received. This extension is in accordance with HAR, Chapter 11-55-34.09(d). The original permit and letter of extension can be found in Appendix A of this document.

## **1.3 SWMP PERFORMANCE EVALUATION**

A process for conducting an annual performance and effectiveness evaluation of the SWMP has been developed and included in this ACR. This evaluation addresses specific direct and indirect measurements in order to track the long-term progress of the SWMP towards achieving improvements in water quality.

The SWMP contains Best Management Practice (BMP) tables that outline activities that are either occurring or will be implemented in the future to ensure each of the minimum control measures are being implemented. Each BMP task is assigned a specific evaluation indicator, milestone, time frame/due date, and responsible party. The ACR is structured such that each section and BMP table corresponds with those in the SWMP. This allows the ACR to be used as an evaluation tool, addressing conformance with established performance standards, quantitative monitoring, estimates of pollutant load reductions or increases, and detailed accounting of SWMP accomplishments.

As trends are detected and the usefulness of specific BMPs or their evaluation indicators become apparent, the SWMP will be modified to ensure the program is protective of the receiving water.

Harbors has committed resources to executing programs described in the 2009 SWMP, and will continue each year to implement new initiatives based on available budget and resources. All ongoing and new activities will be reported in the ACRs.



## 2.0 PUBLIC EDUCATION AND OUTREACH

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### Permit Requirements

*City and County of Honolulu Stormwater Stenciling, 2009*

*HAR, Chapter 11-55, Appendix K, Part 6(a)(1). Develop and implement a public education program to distribute educational materials to users of the small municipal separate storm sewer community or conduct equivalent outreach activities emphasizing each of the following:*

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

## 2.1 TENANT EDUCATION AND OUTREACH

Harbors Division requires tenants to reduce to the maximum extent practicable (MEP) pollution in stormwater discharges and effectively prohibit unauthorized non-stormwater discharges into the MS4 through its tenant lease agreements and Tenant Revocable Permit (TRP), which are attached as Appendix B.

An inventory of tenants at Honolulu Harbor is kept on file at Harbors Oahu District Environmental Section and has been updated this year to include all current tenants. The tenant inventory identifies primary and alternate environmental contacts for each tenant. Personnel identified in the inventory are deemed responsible for implementation of storm water protection measures and BMP requirements at their facility. Please see BMP 2-1. The tenant inventory can be found in Appendix C, and has been updated to reflect changes from 2011. A summary of the tenant changes is also presented on Table 2-1.

Table 2-1      Updates to Tenant Inventory

| Tenant   | Status  | Reason   |
|--|---------|--|
| State of Hawaii, Department of Health                            | Removed | Has an easement for energy corridor. No inspection is required.  |
| State of Hawaii, Department of Transportation, Airports Division | Removed | Has an easement. No inspection is required.  |
| Aloha Petroleum, Ltd.  | Removed | The facility owns its property on Honolulu Harbor.   |
| Garlow Petroleum   | Removed | The contractor does not have a facility on Honolulu Harbor, but delivers fuel through an access agreement. |
| Aloha Tool dba Honolulu Recovery                                 | Removed | Tenant terminated its lease.   |
| Anuenue Refuse, Inc.   | Removed | Tenant terminated its lease.   |
| NCL America  | Removed | Tenant has an easement for one antenna.  |

Harbors Division sends out an annual mailing to Small MS4 users in order to educate them on storm water quality issues, and collect data on tenant operations for updating the database. The 2011 mailing was sent on 28 September 2011 and included:

- A cover letter from the HDOT Harbors Administrator
  - Defined the regulatory background
  - Invited all tenants to attend Tenant Storm Water Pollution Prevention Awareness Training
- The Tenant Self-Inspection (TSI) form
  - Returned forms utilized for updating and tracking tenant operations and contact information
- New BMP flyers
  - “Building and Remodeling” Flier. The flier describes sedimentation as a major concern at construction sites and requires submittal of building or remodeling plans to the HDOT Harbors Division for formal approval.
  - “Outdoor Material Storage” Flier. The flier describes responsible practices for storing chemicals and bulk material.
  - “Vehicle and Equipment Washing” Flier. The flier prohibits washing without approval from HDOT Harbors Division and emphasizes setting up berms to capture wash water for disposal.

A copy of this mailing and its attachments can be found in Appendix D. The TSI responses are compiled and used to update the Tenant Database (Appendix C). Future tenant mailings will be updated with new BMP flyers based on findings from the annual tenant inspections.

This year, the percentage of tenants (Honolulu and KBP Harbors combined) that were responsive to the TSI mailing was thirty-six percent. There has been a noticeable decrease in responsiveness since Harbors Division began tracking this metric in 2009. The decrease in responsiveness is most likely due to redundancy with tenant facility inspections. There appears to be little added benefit to requiring the tenants to complete this form when all of the information can be gathered during facility inspections. Harbors Division proposes modifying the mailing in 2012 by replacing the TSI with a contact information sheet, the purpose of which will be to verify that tenant contact information is up-to-date in order to ensure effective and expedient inspection scheduling and communication. Please see BMP 2-1.

On October 19 and 20, 2011 Harbors Division held annual tenant educational workshops entitled, “2011 Tenant Storm Water Pollution Prevention Awareness Training.” The agenda included background on applicable regulations, followed by Harbors General Permit requirements for Small MS4s, information on pollution prevention and good housekeeping, notification of upcoming facility inspections, the structure of the Inspection and Enforcement Program (IEP), emergency contact information, and a question and answer session. A copy of the presentation and tenant attendance record are provided as Appendix E.

As a part of the tenant outreach program, the “Tenant Environmental Manager of the Year” award program has been created and implemented this year in order to provide incentive for tenant environmental managers to create positive change within their organizations. Not only does it create positive reinforcement for the organization and individual receiving the award, it demonstrates to the remaining tenants that positive change is achievable and provides concrete examples of solutions that are realistic and affordable. The award is presented with a letter that is signed by the Governor of the State of Hawaii. This year, Mr. Nathan Kapule of Young Brothers, Inc. received the award. A copy of the award certificate is included in Appendix F.

Harbors Division has maintained a hotline for storm water information and discharge reporting since October 22, 2009. Please see BMP 2-1. The hotline is reachable by dialing (808)-587-1962. The hotline number is a direct line to the Harbors Division Environmental Engineer. Harbors Environmental Section maintains records of calls, follow-up inspection dates and findings, enforcement actions taken, and resolutions in the Harbors Environmental Engineering (HAR-EE) Stormwater Hotline Occurrence Tracking (SHOT) Form (Appendix G). Although no calls were received from the public, calls from the Honolulu Marine Traffic Control Tower (Honolulu Tower) were received after environmental incidents. Please see Appendix H for the Honolulu Tower Log.

## BMP 2-1      Tenant Education and Outreach

| Goals: 1) Generate tenant awareness of stormwater pollution.<br>2) Engage tenant interest in preventing stormwater pollution.<br>3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution. |  |   |                                |                                 |  |
|--|--|---|--------------------------------|---------------------------------|--|
| Activity   | Evaluation Indicators (or Measurable Goals)                                      | Milestones  | Date Performed                 | Action Performed by             | Status/ Comments   |
| Update mailing items as outreach and education problem areas are identified and recorded   | Percentage of problem areas in education/outreach addressed by updated materials | 100% of identified problem areas updated                              | October 2011                   | Weston Solutions, Inc. (Weston) | Items were updated to include vehicle washing, outdoor material storage, and building and remodeling.  |
|  | Percentage of tenants' feedback about the updates that are positive              | At least 50% of feedback positive                                     | Not Applicable (NA)            | Harbors Environmental Section   | No feedback received.  |
| Review TSI responses from tenants  | Percentage of tenants responsive to the TSI Form                                 | Greater than 90% of tenants   | Ongoing                        | Harbors Environmental Section   | 36% of tenants responded to the TSI form (Honolulu and KBP Harbors). The TSI form will be replaced with a contact information sheet in 2012. |
| Mail educational materials and reporting contacts to tenants   | Number of educational materials distributed                                      | 100% of tenants received educational materials and reporting contacts | Sent Sept 2011.                | Harbors Environmental Section   | 162 mailings were sent (Honolulu and KBP Harbors).   |
|  | Responses on TSI Form show improvement in storm water awareness                  | Completeness of TSI forms increasing from previous year               | Registered mail receipt varies | Harbors Environmental Section   | TSI form completeness is adequate and has increased from previous year although less forms were returned.                                    |
| Establish a reporting/complaint  | Create a hotline system for  | Create and maintain one hotline number                                | 22 Sept 2009                   | Harbors Environmental           | Hotline established.   |

| Goals: 1) Generate tenant awareness of stormwater pollution.<br>2) Engage tenant interest in preventing stormwater pollution.<br>3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution. |   |  |                |                               |                                 |
|--|---|--|----------------|-------------------------------|---------------------------------|
| Activity   | Evaluation Indicators (or Measurable Goals)                         | Milestones   | Date Performed | Action Performed by           | Status/ Comments                |
| tracking system to log response & enforcement activity   | reporting violations and answering questions                        |  |                | Section                       |                                 |
|  | Number of informational inquiries received via hotline              | Number of inquiries increased from previous year   | NA             | Harbors Environmental Section | None received in 2011.          |
|  | Number of hours to respond to complaint from time call is received. | Respond to all reporting/complaints within 24 hrs to minimize water quality impacts or recurrent dumping | NA             | Harbors Environmental Section | No calls were received in 2011. |

## 2.2 GENERAL PUBLIC EDUCATION AND OUTREACH

Public education aims to create awareness and prompt behavioral changes. Equipped with information, the public will be less likely to contribute to water pollution as they will be able to make informed choices. Educating the public with this knowledge and contact information for appropriate authorities will increase the likelihood that a violation or accidental release will be reported. The responsibility for tenant and public education falls under the HDOT Harbors Division Environmental Engineering Section.

Public education activities includes posting signs that advise against dumping or discarding inappropriate materials where they may be carried into Harbor waters. Signs are posted at visible public locations, such as harbor entrances, comfort stations, meeting areas, and garbage collection stations. Please see BMP 2-2.

The Harbors storm water website provides information about water quality issues, emergency reporting numbers, and links to useful sections of the USEPA website. Please see BMP 2-2. The website can be accessed at <http://hawaii.gov/dot/harbors>.

Although no ad was placed in 2011, Harbors Division will continue to foster relationships with other State agencies and develop new programs for public education and outreach in 2012.

**BMP 2-2      General Public Education and Outreach**

| Goals: 1) Generate tenant awareness of stormwater pollution.<br>2) Engage tenant interest in preventing stormwater pollution.<br>3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution. |   |  |                       |   |   |
|--|---|--|-----------------------|---|---|
| <b>Activity</b>  | <b>Evaluation Indicators (or Measurable Goals)</b>  | <b>Milestones</b>  | <b>Date Performed</b> | <b>Action Performed by</b>                        | <b>Status/ Comments</b>   |
| Post or construct signage at visible public locations  | Visible areas covered by "No Dumping" signs   | Signs are hung at additional visible public locations                                | NA                    | Harbors Environmental Section                     | Tenants were instructed to post "no washing" signs where water spigots are located.   |
|  | Storm drains with "flows to ocean" stenciling   | Number of drains stenciled   | NA                    | Harbors Environmental Section                     | Collected contact information for tenant volunteers for stenciling activity. Activity to be held in 2012.                                     |
|  | Track the amount of inappropriate materials dumped and correlate this data to the timing of public sign posting to gauge any change of public behaviors over time | The amount of polluting material generated by dumping or discarding has been reduced | NA                    | Harbors Environmental Section                     | No materials were tracked in 2011. Documentation will be performed during stenciling event and future events will document dumping reduction. |
| Create/update runoff water quality presentations on Harbors Division website   | Create/update presentation and post to website  | Presentation is posted   | Ongoing               | Weston/Harbors Environmental Section              | Presentation created, but not posted to website.  |
| Measure dissemination and effectiveness of water quality presentation  | Percentage increase in presentation viewing, measured by number of hits on presentation website   | Increase viewing from previous year  | TBD                   | Harbors Environmental Section; Harbors web master | Website not yet updated, however tenants were emailed the presentation directly upon request.   |
| Set up and solicit a volunteer cleanup or storm drain stenciling activity  | Participation in activities.  | At least one of the listed activities  | NA                    | Harbors Division                                  | Volunteer activity will be conducted in 2012.   |
|  | Number of employee and public participants  | An increase in participation from previous year                                      | 20 October 2011       | Harbors Tenants, the public                       | Tenants were solicited at training workshop. Tenants interested in volunteering are kept on record.   |

| Goals: 1) Generate tenant awareness of stormwater pollution.<br>2) Engage tenant interest in preventing stormwater pollution.<br>3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution. |   |              |                |                               |                                  |
|--|---|--------------|----------------|-------------------------------|----------------------------------|
| Activity   | Evaluation Indicators (or Measurable Goals) | Milestones   | Date Performed | Action Performed by           | Status/ Comments                 |
| Post public awareness advertisement in local newspaper or magazine to educate the general public on storm water pollution control  | Number of advertisements sponsored          | One per year | NA             | Harbors Environmental Section | No advertisement posted in 2011. |

### 2.3 VESSEL OPERATORS EDUCATIONAL PROGRAM

Outreach to vessel operators docking at Harbors Division facilities ensures awareness of potential pollutant sources associated with vessel operation in the harbor, including vessel equipment wash water and polluted deck wash-down water, and vessel maintenance. A used oil educational flier was distributed to vessel operators and is available in the 2009 SWMP.

Marine Cargo Specialists monitor loading and unloading procedures for the major vessels in the Harbor. Their duties include tracking compliance with various aspects of the process including stormwater pollution control compliance. Harbors is developing a tracking system for Marine Cargo Specialist monitoring records, which will include storm water observations. The monitoring records will be tracked following Marine Cargo Specialist training in 2012. Please see BMP 2-3.

#### BMP 2-3 Expand the Educational Program to Vessel Operators

| Goal: Minimize discharge of pollutants to receiving waters within the harbors                              |   |                       |                |  |                            |
|--|---|-----------------------|----------------|--|----------------------------|
| Activity   | Evaluation Indicators (or Measurable Goals)                             | Milestones            | Date Performed | Action Performed by  | Status/ Comments           |
| Marine Cargo Specialists will Monitor ship cargo loading and unloading to prevent discharges of pollutants | Frequency of monitoring activity at loading/unloading zones             | Increasing frequency  | NA             | Harbors Oahu District; Marine Cargo Specialists; Harbor Agents | To be implemented in 2012  |
|  | Number of Marine Cargo Specialist Attending Annual Storm water Training | Increasing attendance | NA             | Harbors Oahu District; Marine Cargo Specialists; Harbor Agents | Training conducted in 2011 |

| Goal: Minimize discharge of pollutants to receiving waters within the harbors  |   |   |                |  |   |
|--|---|---|----------------|--|---|
| Activity   | Evaluation Indicators (or Measurable Goals)                             | Milestones                              | Date Performed | Action Performed by  | Status/ Comments  |
|  | Number of actions taken as a result of loading and unloading monitoring | For informational purposes              | NA             | Harbors Environmental Section; Marine Cargo Specialists; Harbor Agents | No actions reported from monitoring activities.                                       |
| Develop and maintain inventory of ships agents responsible for tracking vessel operators and provide educational materials | Percentage of ships agents in inventory                                 | 100% of ships agents identified         | NA             | Harbors Environmental Section; Marine Cargo Specialists; Harbor Agents | Ships agents identified in tenant inspections and inventory will be developed in 2012 |
|  | Percentage of ships agents receiving educational materials              | 100% of ships agents received materials | NA             | Harbors Environmental Section; Marine Cargo Specialists; Harbor Agents | Educational materials distributed in training. Total number of agents TBD.            |

## 2.4 INSPECTION AND PROGRESSIVE ENFORCEMENT PROGRAM

A tenant and user inspection and enforcement program has been developed as part of Harbor's Environmental Management System (EMS). This program identifies, tracks, inspects and ensures compliance with the Harbor Division's tenant lease agreements and TRPs. As part of the inspection and progressive enforcement program, the inventory of businesses and industries currently operating at the Harbor has been updated (Appendix C). Inspection and Illicit Discharge Detection and Elimination (IDDE) findings are further discussed in Section 4.0.

Harbors completed inspections of all of its Honolulu Harbor tenants in 2011, with the exception of some non-responsive tenants. Numerous attempts were made to contact these tenants, including phone calls, leaving messages, and visiting their facilities. A log of all communications is kept by Harbors Division. Harbors will pursue more aggressive action, such as contacting property management to gain access to the facilities. To date, the following tenants have not been inspected.

- ✓ Donahue, Shannon dba Paradise Equipment
- ✓ Great Pacific Wholesale Co, LLC
- ✓ Kong Enterprises, Inc



- ✓ Masuda, Richard dba Richard K. Masuda Masonry
- ✓ City and County of Honolulu, HNL Fire Department
- ✓ City and County of Honolulu HNL Police Department, Attn: Juvenile Services, P.A.L.
- ✓ Mauga-Olive Samoan Assembly of God
- ✓ Ocean Libra Corp
- ✓ Pacific Fishing and Supply, Inc
- ✓ Pryne, Ty dba H.B.N.
- ✓ Saito, Lincoln Timothy dba Kokua Recycle
- ✓ The Webe Corporation, LTD
- ✓ Trouble Free Corp.

Inspection of and outreach to commercial and industrial tenants was conducted to ensure the following:

- ✓ Continually evaluate where outreach efforts should be focused;
- ✓ The facility operator has been made aware of storm water pollution prevention requirements and the consequences of non-compliance;
- ✓ The facility operator is in compliance with its tenant lease agreement or TRPs;
- ✓ Unauthorized non-stormwater discharges do not occur at the facility; and
- ✓ Illicit connections are not present at the facility.

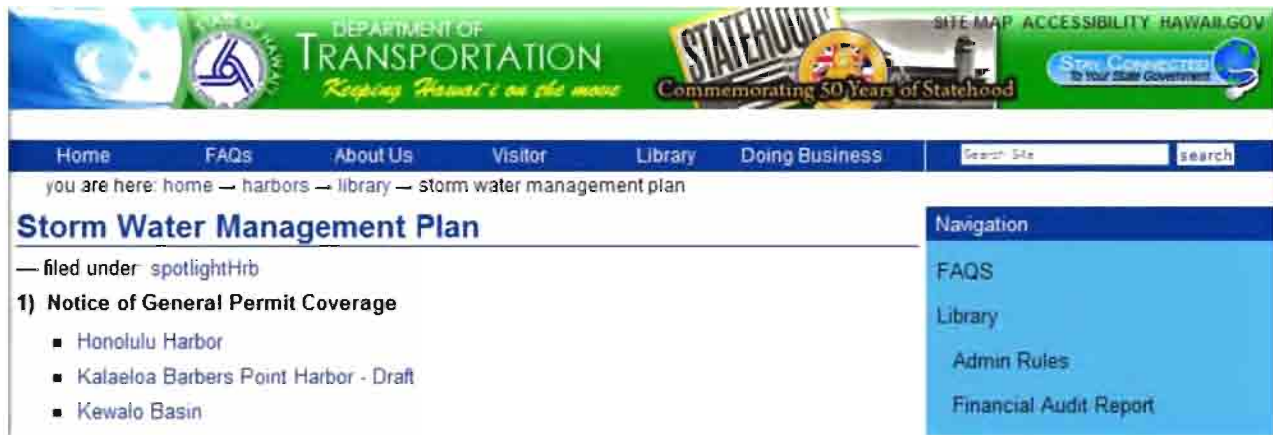
Harbors Division continues to respond to violations observed during these inspections in accordance with the SWMP. Inspection findings were added to the database upon completion in January 2012.

Overall, each of the tenants showed a willingness to cooperate and improve compliance with storm water regulations and the Harbor's SWMP. The 2011 Tenant inspections found a small number of tenants with illicit discharges, such as sinks that discharged onto paved surfaces and vehicle washing without proper procedures, controls, or approval by Harbors Division. In these cases tenants were told to immediately discontinue the activity and take measures to prevent the activity in the future until an approved method is proposed and approved by Harbors Division.

**BMP 2-4      Inspection and Progressive Enforcement Program**

| Goal: Identify, track, inspect and ensure compliance with the Harbor Division's tenant lease agreements and TRPs          |   |  |                        |   |   |
|---|---|--|------------------------|---|---|
| <b>Activity</b>   | <b>Evaluation Indicators (or Measurable Goals)</b>  | <b>Milestones</b>                                | <b>Date Performed</b>  | <b>Action Performed by</b>                  | <b>Status/ Comments</b>   |
| Update inventory of businesses and industries currently operating at the Harbor   | Frequency of inventory update   | On-going   | Annual                 | Harbors Division                            | Inventory is updated  |
| Create/update database to record and track tenant inspection findings, enforcement actions, and resolutions.              | Database is created and functional  | 100% of inspections are recorded in the database | January 2012           | Harbors Environmental Section               | Database is located at Harbors Division office. Last updated in January 2012.   |
| Conduct initial inspection at all commercial and industrial tenant facilities (refer to BMP 4-2 for follow-up inspection) | Percentage of commercial and industrial tenant facilities inspected                                       | 100% for 2011.                                   | Dec 2011; January 2012 | Harbors Environmental Section, Weston, HDOT | 149 of 162 (92%) Honolulu Harbor tenants were inspected in 2011. Additional non-responsive tenants were inspected in January 2012.                |
| Add inspection findings and enforcement taken to database   | Number of sites for which inspection findings, enforcement actions, and resolutions are added to database | 100% of sites                                    | Ongoing                | Harbors Environmental Section               | 7 tenants will receive enforcement letters as a result of the 2011 round of inspections. These enforcement actions will be added to the database. |

### 3.0 PUBLIC INVOLVEMENT/PARTICIPATION



#### Permit Requirements

<http://hawaii.gov/dot/harbors>

HAR, Chapter 11-55, Appendix K, Part 6(a)(2). *Include users of the permittee's small municipal separate storm sewer system in developing, implementing and reviewing the stormwater management plan;*

### 3.1 RECEIVE PUBLIC FEEDBACK ON SWMP

Public participation is intended to raise public consciousness of water quality issues, to create a sense of responsibility for water quality, and to lessen the likelihood that members of the public will commit actions that may lead to water quality degradation.

Public awareness of storm water quality issues is targeted to solicit comment by informed members, which may lead to a better and more effective plan and implementation. Harbors Division has invited public involvement and participation during the previous NGPC term by posting the SWMP to the Harbors Division website.

The current SWMP is in draft review with HDOH and USEPA Region IX; therefore no tenant or public comment has yet been solicited by Harbors Division. When the SWMP is ready for public comment, Harbors will post it on the website and request comments. Comments received will be tracked and changes will be implemented where necessary or improvements can be made. Please see BMP 3-1.

**BMP 3-1      Receive Public Feedback on SWMP**

| Goal: To raise public consciousness of water quality issues, to create a sense of responsibility for water quality, and to lessen the likelihood that members of the public will commit actions that may lead to water quality degradation. |  |                               |                       |   |   |
|---|--|-------------------------------|-----------------------|---|---|
| <b>Activity</b>   | <b>Evaluation Indicators (or Measurable Goals)</b> | <b>Milestones</b>             | <b>Date Performed</b> | <b>Action Performed by</b>                        | <b>Status/ Comments</b>                   |
| Ensure notification to harbor tenants of SWMP development capability  | Percentage of tenants notified                     | 100% of tenants notified      | NA                    | Harbors Environmental Section                     | Not performed. SWMP still in draft review |
| Post the Draft SWMP to the Harbors website during public comment window   | Number of people who viewed the SWMP online        | Increasing from previous year | NA                    | Harbors Environmental Section; Harbors web master | Not performed. SWMP still in draft review |
|   | Number comments received for SWMP revision         | Increasing from previous year | NA                    | Harbors Environmental Section; Harbors web master | Not performed. SWMP still in draft review |
| Develop system for tracking comments and change produced by comments  | Percentage of comments tracked                     | 100% of comments tracked      | NA                    | Harbors Environmental Section                     | Not performed. SWMP still in draft review |

## 4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

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### Permit Requirements

*Kaunakakai Harbor, Hawaii. February 2006.*

*HAR Chapter 11-55 Appendix K Part 6.(a)(3). Develop, implement and enforce a program to detect and eliminate illicit discharges that at a minimum includes the following:*

- (A) Establishment of rules, ordinances or other regulatory mechanism, including enforcement procedures and actions, that prohibit non-stormwater discharges, except those listed in section 1 that do not cause or contribute to any violations of water quality standards, into the permittee's small municipal separate storm sewer system,*
- (B) Procedures to detect and eliminate illicit discharges (as defined in 40 Code of Federal Regulations (CFR) Section 122.26(b)(2)), and*
- (C) Compilation of a list of non-stormwater discharges or flows that are considered to be significant contributors of pollutants and the measures to be taken to prevent these discharges into the permittee's small municipal separate storm sewer system, or reduce the amount of pollutants in these discharges.*

### 4.1 REGULATORY MECHANISMS IN-PLACE

Existing rules and ordinances that prohibit non-stormwater discharges are in place and include the following citation from HAR Title 19, Chapter 42, Section 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."

The rules are made enforceable by Title 19, Chapter 41 Section 12 which grants the HAR the full force and effect of law pursuant to sections 266-2, 266-3, 266- 4, and 266-25, Hawaii Revised Statutes (HRS). The enforcement of these rules shall also be pursuant to the provisions of section 26-14.6, HRS. The violation of these rules shall be subject to penalties as set forth in section 266-25, HRS, and the Harbors' IEP.

Further, HAR Title 19 Chapter 42 Section 15 requires compliance with Federal, State, and County laws, ordinances and rules, and in particular rules of the HDOH pertaining to air and water pollution.

TRPs and tenant lease agreements incorporate language which requires compliance with all storm water quality regulations. Copies of “Lease Agreement Addendum 1, Environmental Compliance - Lessee’s Duties” and an excerpt from the Standard Revocable Permit form, “Section 26. Special Terms and Conditions, Environmental Compliance - Permittee’s Duties” are provided in the SWMP and Appendix B of this report.

## **4.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN**

Harbors Division has developed an IDDE plan as part of its SWMP in an effort to eliminate discharges that the established storm drainage system is not designed to accept, process, or discharge.

In accordance with its IEP, Harbors conducted inspections of 149 of the 162 tenants at the Honolulu Harbor as stated in Section 2.4. Included in this task was the creation of comprehensive lists indicating the locations and quantities of various Non-Stormwater Discharges (NSWDs), potentially polluting materials, and BMPs in use at the facilities. Drafting of the inspection finding reports is ongoing.

The resultant 2011 inspection report for each inspection will be sent to each tenant in 2012. The inspection reports contain the following:

- ✓ An explanation the objective of the inspections;
- ✓ Tenant contact information;
- ✓ Facility description;
- ✓ A list of potential pollutant sources;
- ✓ A description of stormwater flow throughout the site;
- ✓ A summary of inspection observations;
- ✓ A tenant risk ranking;
- ✓ Any required follow-up actions; and
- ✓ A photo log documenting deficiencies and good practices.

Inspection observations include industrial activity, petroleum and solvent storage quantities, mode of storage, potential pollution sources, a description of site drainage, observed BMPs, and required BMPs.

Overall, all tenants that had discrepancies were unaware of storm water regulations pertaining to the issue and showed willingness to comply immediately. In some cases where discrepancies showed an immediate threat to water quality, tenants were asked to rectify the discrepancy during the inspection. For example, in cases where the discrepancy was an outdoor sink that discharged onto the ground, tenants were instructed to remove the sink from service immediately.

Discrepancies that could not be immediately rectified were communicated to the tenant representative and forwarded to the Harbors’ Environmental Section for follow-up.

A letter is sent to each recalcitrant tenant or tenant that is found to have poor practices to the extent that there is a potential negative impact to the environment. These letters are signed by the Deputy Directory of DOT Harbors Division and strongly convey that failure to meet the requirements of the letter can result in fines or termination of the tenant's revocable permit. The letter requires response within 20 days of receipt.

#### 4.2.1 Update Storm Sewer System Map

The most up-to-date MS4 outfall map is included as Appendix I of this document. The map contains outfall locations, drain and piping locations, and outfall IDs. Sources of non-stormwater discharges were identified in the dry-weather outfall reconnaissance inventory (ORI) and documented in reports found in Appendix J. Please see BMP 4-1.

BMP 4-1 Update Storm Sewer System Map

| Goal: Develop a comprehensive infrastructure map of the MS4 storm drain system       |   |                            |                             |                               |   |
|--|---|----------------------------|-----------------------------|-------------------------------|---|
| Activity   | Evaluation Indicators (or Measurable Goals)                         | Milestones                 | Date Performed              | Action Performed by           | Status/ Comments  |
| Update outfall maps to identify sources of outfall discharges and outfall conditions | Percentage of outfalls that have sufficient, up-to-date information | 100% of outfalls           | 12 through 16 December 2011 | Harbors Environmental Section | Locations on maps were confirmed with GPS device.         |
|  | Sources of outfall discharges identified                            | 100% of sources identified | 12 through 16 December 2011 | Harbors Environmental Section | Outfall discharges identified in reports. See Appendix J. |

#### 4.2.2 Outfall Reconnaissance Inventory

An annual dry weather ORI was performed from 12 December to 16 December 2011 by the Harbors Environmental Division. The ORI was performed at low tide and describes outfall conditions, flow characteristics, and descriptions of the surrounding areas. A map of the Honolulu Harbor outfalls is included as Appendix I. The ORI forms are included as Appendix J. Please see BMP 4-2.

Important sections of the form are listed in Table below and include

- ✓ The location of the outfall;
- ✓ Date of the inspection;
- ✓ Qualitative measurement of flow at the outfall; and
- ✓ Notes that include observations of conditions, surroundings, ocean life, etc.

During the outfall inspections, measurable rainfall passed through the Harbor area and may have resulted in rain induced stormwater discharge. Observations were made during these periods and the potential effect of rainfall on the observations was taken into consideration.

Table 4-1 Honolulu Harbor Dry Weather Inspections

| Outfall | Date       | Flow | Indicators of Illicit Discharge                             | Notes   |
|---------|------------|------|---|---|
| P01-01  | 12/15/2011 | No   |   |   |
| P02-05  | 12/15/2011 | No   |   |   |
| P02-06  | 12/15/2011 | No   |   | Tidal Influence   |
| P02-11  | 12/15/2011 | No   |   | Tidal Influence   |
| P02-13  | 12/15/2011 | No   |   | Tidal Influence   |
| P03-02  | 12/15/2011 | No   |   | Tidal Influence   |
| P04-00  | 12/12/2011 | No   |   |   |
| P04-01  | 12/12/2011 | No   |   | Nearby reef fish, sea urchin, snail                     |
| P04-BOX | 12/12/2011 | No   |   | Lots of mollusks, sea urchins                           |
| P05-01  | 12/12/2011 | No   | Outfall drainage spalling, cracking or chipping.            |   |
| P05-02  | 12/12/2011 | No   | Outfall damage, erosion underneath.                         | Is wet  |
| P05-03  | 12/12/2011 | No   | Outfall damage, corrosion.                                  | Wet, behind rocks                                       |
| P05-07  | 12/12/2011 | No   | Outfall damage, corrosion.                                  | Four corroded metal pipes, two flanged                  |
| P07-03  | 12/12/2011 | No   | Deposits/Stains in flow line.                               |   |
| P08-01  | 12/12/2011 | No   |   | 12' west of pier's east edge                            |
| P08-02  | 12/12/2011 | No   |   | 30' in from east edge of pier, crabs, blocked by rubble |
| P08-03  | 12/12/2011 | No   |   |   |
| P08-04  | 12/12/2011 | No   | Outfall drainage spalling, cracking or chipping.            |   |
| P08-05  | 12/12/2011 | No   | Outfall drainage spalling, cracking or chipping.            | Pipe segments at various heights                        |
| P08-06  | 12/12/2011 | No   | Brown benthic growth in pipe.                               | Pipe not inverted correctly - ponding                   |
| P08-07  | 12/12/2011 | No   | Brown benthic growth in pipe.                               | No pipe, just pathway, sea urchin                       |
| P08-08  | 12/12/2011 | No   | Deposits/Stains in flow line.                               | Crab, light brown, corrosion along flow                 |
| P08-09  | 12/12/2011 | No   | Deposits/Stains in flow line, Brown benthic growth in pipe. |   |
| P08-10  | 12/12/2011 | No   | Brown benthic growth in pipe.                               |   |



| Outfall | Date       | Flow | Indicators of Illicit Discharge | Notes  |
|---------|------------|------|---------------------------------|--|
| P08-11  | 12/12/2011 | No   |                                 | Grouted  |
| P08-12  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P09-01  | 12/12/2011 | No   |                                 | no pipe casing   |
| P09-02  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P09-03  | 12/12/2011 | Yes  | Brown benthic growth in pipe.   | Ice maker, sink, or AC condensation suspected. Investigation required. |
| P09-04  | 12/12/2011 | Yes  | Brown benthic growth in pipe.   | Ice maker, sink, or AC condensation suspected. Investigation required. |
| P09-05  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P10-01  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P10-02  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P10-03  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P11-01  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P11-02  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P11-03  | 12/12/2011 | No   |                                 |  |
| P11-04  | 12/12/2011 | Yes  |                                 | Potential rainfall induced flow  |
| P11-05  | 12/12/2011 | No   |                                 |  |
| P11-06  | 12/12/2011 | Yes  | Brown benthic growth in pipe.   | Potential rainfall induced flow  |
| P11-07  | 12/12/2011 | No   |                                 |  |
| P11-08  | 12/12/2011 | Yes  | Brown benthic growth in pipe.   | Potential rainfall induced flow  |
| P11-09  | 12/12/2011 | Yes  | Brown benthic growth in pipe.   | Potential rainfall induced flow  |
| P11-10  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P11-11  | 12/12/2011 | Yes  | Brown benthic growth in pipe.   | Potential rainfall induced flow  |
| P11-12  | 12/12/2011 | No   |                                 |  |
| P11-13  | 12/12/2011 | No   |                                 |  |
| P11-14  | 12/12/2011 | No   |                                 |  |
| P11-15  | 12/12/2011 | Yes  |                                 | Water quality ok. AC condensate suspect.                               |
| P11-16  | 12/12/2011 | Yes  | Green benthic growth in pipe.   | Flow originating from upstream of harbor                               |
| P11-17  | 12/12/2011 | No   |                                 | Wet, ponding   |
| P11-18  | 12/12/2011 | No   | Brown benthic growth in pipe.   |  |
| P11-19  | 12/13/2011 | No   |                                 |  |
| P11-20  | 12/12/2011 | No   |                                 |  |
| P12-01  | 12/12/2011 | No   |                                 | Evidence of cement pouring out in past                                 |

| Outfall | Date       | Flow | Indicators of Illicit Discharge                  | Notes  |
|---------|------------|------|--|--|
| P12-02  | 12/12/2011 | No   |  |  |
| P12-03  | 12/12/2011 | No   |  | Red brick arch above   |
| P12-04  | 12/12/2011 | No   |  |  |
| P12-05  | 12/12/2011 | No   | Brown benthic growth in pipe.                    | Wet, previously flowing, styrofoam cups  |
| P12-06  | 12/12/2011 | No   |  | Large rocks inside   |
| P12-07  | 12/12/2011 | No   | Green benthic growth in pipe.                    | Corroding, blocked by rocks, sediment, trash   |
| P12-08  | 12/12/2011 | No   | Brown benthic growth in pipe.                    | Blocked by rocks, close to sea level   |
| P15-01  | 12/16/2011 | No   |  |  |
| P19-01  | 12/16/2011 | Yes  | Rancid/fishy, noticeable from a distance.        | Upstream inspection with no results. 2012 follow up required.                        |
| P19-02  | 12/16/2011 | No   |  |  |
| P19-03  | 12/16/2011 | No   |  |  |
| P19-04  | 12/16/2011 | No   |  |  |
| P19-05  | 12/16/2011 | No   |  |  |
| P19-06  | 12/16/2011 | No   |  |  |
| P19-07  | 12/16/2011 | No   |  |  |
| P19-08  | 12/16/2011 | No   |  |  |
| P20-01  | 12/15/2011 | No   |  |  |
| P21-01  | 12/15/2011 | No   |  |  |
| P21-01  | 12/14/2011 | No   |  |  |
| P21-02  | 12/15/2011 | No   |  |  |
| P21-03  | 12/15/2011 | No   |  |  |
| P21-04  | 12/15/2011 | No   |  |  |
| P21-05  | 12/15/2011 | No   |  | Filled in with concrete.   |
| P21-06  | 12/15/2011 | Yes  |  | Source visible from pier 21: puddle draining slowly. Potential potable water source. |
| P21-07  | 12/15/2011 | No   |  |  |
| P22-01  | 12/15/2011 | No   |  | Tire bumper in front of outfall  |
| P23-01  | 12/15/2011 | No   | Outfall drainage spalling, cracking or chipping. |  |
| P23-02  | 12/15/2011 | No   |  |  |
| P23-03  | 12/15/2011 | No   |  |  |

| Outfall | Date       | Flow | Indicators of Illicit Discharge                          | Notes  |
|---------|------------|------|--|--|
| P24-01  | 12/15/2011 | No   |  |  |
| P25-01  | 12/15/2011 | No   |  |  |
| P25-02  | 12/15/2011 | No   |  |  |
| P26-01  | 12/15/2011 | No   |  |  |
| P26-02  | 12/15/2011 | No   |  |  |
| P27-01  | 12/15/2011 | No   |  |  |
| P29-02  | 12/14/2011 | No   | Brown benthic growth in pipe.                            |  |
| P29-03  | 12/14/2011 | No   |  |  |
| P31-01  | 12/14/2011 | Yes  |  | Rained in the last 20 minutes. Flow from building downspouts. Clean discharge.                                 |
| P31-02  | 12/14/2011 | Yes  | Cement stains, Green benthic growth in pipe.             | Rained in the last 20 minutes. Flow from building downspouts. Clean discharge.                                 |
| P31-03  | 12/14/2011 | No   |  |  |
| P32-02  | 12/14/2011 | Yes  | Brown benthic growth in pipe.                            |  |
| P32-03  | 12/14/2011 | Yes  |  | Related to rain event, stopped at end  |
| P32-04  | 12/14/2011 | No   | Flow line deposits/stains, Green benthic growth in pipe. |  |
| P33-01  | 12/14/2011 | Yes  | Flow line, oily deposits/stains.                         | Serviced by a lot of storm drains, roof drains. Rained 2 mins before inspection. Oil staining in parking area. |
| P33-02  | 12/14/2011 | No   |  |  |
| P34-01  | 12/14/2011 | No   |  | Lots of organics (branches, leaves)  |
| P34-02  | 12/14/2011 | No   |  | Sunlight (drop drain). Wet, organic debris   |
| P34-03  | 12/14/2011 | No   | Flow line deposits/stains.                               | 12in pipe intersects at 90° on left. Sunlight (drop drain)   |
| P34-04  | 12/14/2011 | No   |  | 50ft from P34-05. Sunlight. Strut 17   |
| P34-05  | 12/14/2011 | No   |  | Strut 20, sunlight 4   |
| P34-06  | 12/14/2011 | No   |  | Absorbent pad and boom around  |
| P34-07  | 12/14/2011 | No   |  | Sunlight visible from above  |
| P34-08  | 12/14/2011 | No   |  | 50ft from P35-01. 30° angle Type   |
| P34-09  | 12/14/2011 | No   |  | 50ft from P34-08. 30° angle Type   |
| P34-10  | 12/14/2011 | No   |  | 30° angle Type   |
| P34-11  | 12/14/2011 | No   | Flow line deposits/stains.                               | new concrete slabs   |
| P35-01  | 12/14/2011 | No   |  | Two outfalls   |
| P35-02  | 12/14/2011 | Yes  | Brown benthic growth in pipe.                            | Rocks. Flow origin undetermined. 2012  |

| Outfall  | Date       | Flow | Indicators of Illicit Discharge  | Notes  |
|----------|------------|------|--|--|
|          |            |      |  | follow up required.  |
| P35-03   | 12/14/2011 | Yes  |  | Under pier. Potentially originating off Harbor property. 2012 follow up required.          |
| P35-04   | 12/14/2011 | No   |  | near oil boom  |
| P35-05   | 12/14/2011 | Yes  | Brown benthic growth in pipe.  | Healthy crabs in the area. Origin of flow not determined. 2012 follow up required.         |
| P36-01   | 12/14/2011 | No   | Flow line deposits/stains.   | Wet  |
| P37-01   | 12/14/2011 | Yes  | Flow line deposits/stains.   | Rocks, crabs, ice maker upstream. No follow up required.                                   |
| P37-02   | 12/14/2011 | Yes  | Oil sheen.   | Drains from parking area trench drain. Parking lot staining visible.                       |
| P38-01   | 12/14/2011 | Yes  | Brown flow line deposits/stains.   | Boat parked in front. Flow from ice plant condensate. No follow up required.               |
| P38-02   | 12/14/2011 | No   | Silty/turbid poor pool quality.  | Crabs.   |
| P38-03   | 12/14/2011 | No   |  | Collapsed, could not find. Traced from manhole, only rubble.                               |
| P38-04   | 12/14/2011 | Yes  | Flow line deposits/stains, silty/turbid poor pool quality, brown/green benthic growth in pipe. | Follow up to be conducted in 2012 to determine pipe layout and possible flow condition.    |
| P38-05   | 12/14/2011 | No   |  | Natural erosion  |
| P41-01   | 12/13/2011 | No   |  | Sheen nearby outlet but from box culvert   |
| P41-02   | 12/13/2011 | No   |  | Appear to be conduits. No other outfalls in area   |
| P41-02   | 12/13/2011 | Yes  | Light brown, slight cloudiness.  | Appears to originate off Harbors property. Follow up to be conducted in 2012.              |
| P41-03   | 12/13/2011 | No   | Oily deposit/stains, poor quality from oil sheen.  | Noticeable sheen in area   |
| P42-01   | 12/13/2011 | Yes  |  | Potential trickle discharge from ponding water.  |
| P42-PSI  | 12/13/2011 | No   |  | 20ft away from another outfall   |
| P44/45-1 | 12/13/2011 | No   |  |  |
| P44/45-2 | 12/13/2011 | No   | Outfall drainage spalling, cracking or chipping.   |  |
| P44/45-3 | 12/13/2011 | No   |  |  |
| P44/45-4 | 12/13/2011 | No   |  |  |
| P44/45-5 | 12/13/2011 | Yes  | Brown, highly turbid. Deposits/Stains/Poor quality from sediment.                              | Discharge from accumulated rainwater ponding. Tenant was notified and remedy is initiated. |

| Outfall | Date       | Flow | Indicators of Illicit Discharge | Notes  |
|---------|------------|------|---------------------------------|--|
| P51A-01 | 12/13/2011 | Yes  | Poor quality from oil sheen.    | Discharge from accumulated rainwater ponding. Tenant was notified and remedy is initiated. |
| P51A-02 | 12/13/2011 | No   |                                 |  |
| P51A-03 | 12/13/2011 | No   |                                 |  |
| P51A-04 | 12/13/2011 | No   |                                 | Below Horizon Lines crane #6   |
| P51A-05 | 12/13/2011 | No   |                                 | Across Island Movers Customs Buildings, between H.L. cranes - 2 closest Ewa                |
| P51A-06 | 12/13/2011 | No   |                                 |  |
| P51A-07 | 12/13/2011 | Yes  |                                 | Upstream flow appears to be potentially rainfall induced. No buildings in the vicinity.    |
| P51A-08 | 12/13/2011 | No   |                                 |  |
| P51B-04 | 12/13/2011 | Yes  |                                 | Below Horizon Lines crane #7. Flow source undetermined. Follow up to be conducted in 2012. |
| P51B-05 | 12/13/2011 | Yes  |                                 | Flow source undetermined. Follow up to be conducted in 2012.                               |
| P51B-06 | 12/13/2011 | No   |                                 |  |
| P51B-07 | 12/13/2011 | No   |                                 |  |
| P51C-02 | 12/13/2011 | No   |                                 |  |
| P51C-03 | 12/13/2011 | Yes  |                                 | Potentially rainfall induced. Follow up to be conducted in 2012                            |
| P51C-04 | 12/13/2011 | No   | Deposits/stains.                |  |
| P51C-05 | 12/13/2011 | No   |                                 |  |
| P51C-06 | 12/13/2011 | No   |                                 |  |
| P51C-07 | 12/13/2011 | No   |                                 |  |
| P52-02  | 12/13/2011 | No   |                                 |  |
| P52-03  | 12/13/2011 | Yes  | Deposits/stains.                | Potentially rainfall induced. Follow up to be conducted in 2012                            |
| P52-04  | 12/13/2011 | No   | Deposits/stains.                |  |
| P52-05  | 12/13/2011 | No   | Deposits/stains.                |  |
| P53-01  | 12/13/2011 | Yes  |                                 | Potentially rainfall induced. Follow up to be conducted in 2012                            |
| P53-02  | 12/13/2011 | No   |                                 |  |
| P53-03  | 12/13/2011 | Yes  | Deposits/stains.                | Potentially rainfall induced. Follow up to be conducted in 2012                            |

BMP 4-2 Outfall Reconnaissance Inventory

| Goal: Establish and carry out procedures to identify and remove illicit discharges            |   |                                    |                |                               |   |
|---|---|------------------------------------|----------------|-------------------------------|---|
| Activity  | Evaluation Indicators (or Measurable Goals)               | Milestones                         | Date Performed | Action Performed by           | Status/ Comments  |
| Dry weather visual inspection of outfalls   | Percentage of outfalls inspected                          | 100% of outfalls inspected on-time | December 2011  | Harbors Environmental Section | Completed   |
| Wet weather inspections of outfalls   | Percentage of outfalls inspected                          | 20% of outfalls inspected on-time  | NA             | Harbors Environmental Section | Wet weather inspection resulted from rainfall during scheduled ORI. |
| Collect and analyze reports of illicit discharges.  | Number of apparent illicit discharges reported.           | 100% of illicit discharges found   | December 2011  | Harbors Environmental Section | No illicit discharges were found. 2012 Follow up required           |
| Input inspection findings into database.  | Percentage of findings input into database                | 100% of findings                   | January 2012   | Harbors Environmental Section | 100% of ORI findings input into database                            |
| Ensure proper measures and controls are implemented to mitigate pollutants in permitted NSWDs | Number of permitted NSWDs found that lack proper controls | Reduced from previous year         | NA             | Harbors Environmental Section | No permitted NSWDs exist to date                                    |
| Document these controls in a database with tenant information and Tax Map Key (TMK)           | Percentage of permitted NSWDs recorded in database        | 100% of identified permitted NSWDs | NA             | Harbors Environmental Section | NA  |

#### **4.2.3 Illicit Discharge Reporting**

The Harbors Division Environmental Section collects and records reports of storm water quality violations through its storm water hotline. Calls are recorded on the SHOT Form, available in Appendix G of this document. There were no illicit discharges reported through the hotline in 2011. The hotline will be advertised in future educational mailings and educational workshops. Please see BMP 4-3.

Harbors Grounds Maintenance personnel track illicit discharge incidents utilizing a Pier Inspection Form to record their observations. No illicit discharges were recorded by Harbors Ground Maintenance in 2011; however a monthly spill log was kept and is included as Appendix K.

The Honolulu Tower keeps a log of all incidents reported for Honolulu Harbor. The log details the date, time, location, vessel involved, and description of the findings or incident reported. A summary of the log entries pertaining to environmental or storm water issues is provided as Appendix H. Please see BMP 4-3. The Honolulu Tower is required to notify Harbors Division Environmental Section on all environmental issues.

BMP 4-3 Illicit Discharge Reporting

| Goal: Encourage public education and involvement in eliminating illicit discharges |   |   |                                |                               |   |
|--|---|---|--------------------------------|-------------------------------|---|
| Activity   | Evaluation Indicators (or Measurable Goals)   | Milestones                                      | Date Performed                 | Action Performed by           | Status/ Comments  |
| Collect violation reports from the Marine Traffic Control Center                   | Percentage of violations reported   | 100% of violation reports collected             | Continuous                     | Harbors Environmental Section | Follow up conducted as needed.  |
| Record report of illegal discharge incidents                                       | Keep Marine Cargo Specialist inspection reports on-file.  | 100% of Pier inspection reports are kept        | NA                             | Harbors Environmental Section | No inspection reports received.   |
| Establish the illicit discharge/illegal dumping hotline                            | A hotline for citizens to report illegal dumping and suspicious discharges will be established in the first year. (See BMP 2-1) | Establish one hotline                           | 22 Oct 2009                    | Harbors Environmental Section | Completed   |
| Determine effectiveness of hotline   | Number of illicit discharge/illegal dumps reported by citizens  | Increasing from previous year                   | NA                             | Harbors Environmental Section | No calls received by Hotline in 2011  |
|  | Number of illicit discharges prevented or stopped due to call to hotline  | Increasing from previous year                   | NA                             | Harbors Environmental Section | NA  |
| Advertise hotline  | The hotline will be advertised on an insert in each TSI mailing and on all stormwater pollution prevention signage              | One TSI mailing insert per year and all signage | Registered mail receipt varies | Harbors Environmental Section | The hotline was advertised in TSI mailing in 2011. Quick reference cards distributed at training. |



#### **4.2.4 Inspection and Enforcement Plan**

When an illicit discharge is determined to have taken place, appropriate action is taken against the responsible parties according to the IEP. This document establishes specific inspection procedures, enforcement tools, and the progressive escalation of enforcement actions with regard to the seriousness of the illicit discharge and the recalcitrance of the dischargers.

Harbors ranked each tenant based on the tenant's potential to contribute pollutants to the environment. See BMP 4-4. The results of the tenant risk rankings will be reevaluated for accuracy with each inspection. The tenant's ranking determines the frequency of inspection according to the IEP. High risk tenants will be inspected twice per year, medium ranking tenants will be inspected annually, and low ranking tenants will be inspected biannually. Risk rankings and corresponding inspection frequencies will be determined following the inspection of all Harbors tenants currently being concluded.

Harbors Division maintains records, including inspection reports, warning letters, notices of violation, resolutions, and other enforcement records, demonstrating its good faith effort to bring tenant facilities into compliance with applicable requirements. Tenants are provided with inspection findings in the form of a letter.

Enforcement actions were taken against certain tenants in 2011 as a result of inspections. See Table 4-2 and BMP 4-4. These tenants performed activities that had potential to cause or were causing illicit discharges.

Table 4-2      Record of Observations and Actions Taken

| Tenant   | Date of Incident | Description   | Action Taken   |
|--|------------------|---|--|
| Akana Trucking   | 22 December 2011 | The tenant has an aggregate petroleum storage capacity greater than 1,320 gallons but has no Spill Prevention Controls and Countermeasures (SPCC) Plan. | <p>The tenant will be sent a letter requiring an Action Plan within 20 days of receipt of the letter. The Action Plan must describe actions to be taken, responsible parties, and a schedule for corrective actions.</p> <p>Verbal discussions with the tenant during the inspection show that the tenant intends to reduce the petroleum storage capacity to less than 1,320 gallons.</p>   |
| Burlington Environmental Inc. c/o PSC Industrial Outsourcing, Inc. | 22 November 2011 | The tenant has an aggregate petroleum storage capacity greater than 1,320 gallons but has no Spill Prevention Controls and Countermeasures (SPCC) Plan. | The tenant was sent a letter requiring an SPCC Plan to be written and kept at the facility.  |
| Erik Builders, Inc.  | 22 November 2011 | The tenant uses a sink and washes vehicles without Harbors Division approval.   | The tenant was sent a letter prohibiting the use of the sink and wash rack without Harbors Division Approval.  |
| Ishikawa, Norman, and Dolores da Norman's Tractor Service          | 21 November 2011 | The tenant has an aggregate petroleum storage capacity greater than 1,320 gallons but has no Spill Prevention Controls and Countermeasures (SPCC) Plan. | <p>The tenant will be sent a letter requiring an Action Plan within 20 days of receipt of the letter. The Action Plan must describe actions to be taken, responsible parties, and a schedule for corrective actions.</p> <p>Verbal discussions with the tenant during the inspection show that the tenant intends to create an SPCC Plan using EPA's SPCC template for Tier 1 facilities.</p>                                      |
| Marine Petroleum Corporation / Fuelman, Inc.                       | 2 December 2011  | The tenant dispenses fuel from an AST without proper engineering controls or an SPCC Plan.  | <p>After the tenant refused to return phone calls, the facility was inspected without appointment and the tenant was told verbally of the requirements regarding dispensing fuel from bulk storage tanks.</p> <p>The tenant was sent a letter requiring an Action Plan within 20 days of receipt of the letter. The Action Plan must describe actions to be taken, responsible parties, and a schedule for corrective actions.</p> |

| Tenant                | Date of Incident | Description  | Action Taken   |
|-----------------------|------------------|--|--|
| Paradise Cruise, Ltd. | 7 December 2011  | The tenant washes limousines and buses over an open storm drain.   | <p>The tenant was told to immediately cease this activity during the inspection. In previous inspections, the storm drain was covered.</p> <p>As the tenant has already been issued a letter prohibiting washing activities, the tenant was sent a letter requiring an Action Plan within 20 days of receipt of the letter. The Action Plan must describe actions to be taken, responsible parties, and a schedule for corrective actions.</p> |
| Quickmove, Inc.       | 2 December 2011  | The tenant has not eliminated activities and storage practices that are potential stormwater pollutant sources. This includes the lack of controls while doing outdoor maintenance, outdoor petroleum storage, washing, and poor housekeeping. | <p>As the tenant has already been issued a letter prohibiting these activities, the tenant was sent a letter requiring an Action Plan within 20 days of receipt of the letter. The Action Plan must describe actions to be taken, responsible parties, and a schedule for corrective actions.</p>  |

BMP 4-4 Inspection and Enforcement Plan

| Goal: Eliminate illicit discharges through inspection and enforcement.                                       |   |                        |                |                               |  |
|--|---|------------------------|----------------|-------------------------------|--|
| Activity   | Evaluation Indicators (or Measurable Goals) | Milestones             | Date Performed | Action Performed by           | Status/ Comments   |
| Establish/update ranking of tenants according to Inspection and Enforcement Manual                           | Percentage of tenants ranked                | 100% of tenants ranked | January 2012   | Harbors Environmental Section | Expected to complete risk ranking of 162 tenants by the end of January 2012.                     |
| Perform initial investigation upon discovery or notification of a suspected illicit discharge or connection. | Percentage of reports investigated          | 100% investigated      | NA             | Harbors Environmental Section | Investigations were conducted during 2011 tenant inspections. 100% of reports were investigated. |
| Follow up investigation of illicit discharge   | Percentage of investigations followed up    | 100% Follow up         | NA             | Harbors Environmental Section | 100%   |
| If enforcement action has taken place, perform follow up inspection within two weeks of initial inspection   | Same as above                               | Same as above          | NA             | Harbors Environmental Section | Follow up conducted during tenant inspections.   |
| Initiate investigation of complaints transmitted by HDOH regarding facilities within its jurisdiction        | Percentage of reports investigated          | 100%                   | NA             | Harbors Environmental Section | No complaints by HDOH.   |

#### 4.2.5 Employee Training

Harbors Division annually provides initial and refresher NPDES training to key personnel to instruct personnel at all levels of responsibility, including Harbors Oahu District Enforcement (HAR-OE) personnel, concerning the components and goals of the SWMP. Please see BMP 4-5. The instruction addresses the following areas:

- ✓ Regulatory requirements,

- ✓ Materials management practices including proper storage, handling, and use of materials,
- ✓ Good housekeeping and criteria for clean working environment,
- ✓ Recognizing conditions that could lead to degraded runoff water quality,
- ✓ Identifying and notifying responsible parties,
- ✓ Taking action to correct conditions that could result in stormwater pollution,
- ✓ Warning and enforcement procedures, and
- ✓ Recording incidents.

A copy of the employee training sign in sheet can be found in Appendix M.

As stated in the SWMP, Harbors Division will train all employees who are responsible for identification, investigation, elimination, cleanup and reporting of illicit connections and other illicit discharges annually.

#### BMP 4-5 Employee Training

| Goal: Eliminate illicit discharges through training of essential personnel.   |   |   |                |                                       |                            |
|---|---|---|----------------|---------------------------------------|----------------------------|
| Activity  | Evaluation Indicators (or Measurable Goals)                             | Milestones  | Date Performed | Action Performed by                   | Status/ Comments           |
| Develop stormwater IDDE training materials  | Training materials address all relevant IDDE aspects and are up to date | IDDE is addressed                                   | May 2011       | Harbors Environmental Section, Weston | Completed. See Appendix M. |
| Train all employees who are responsible for identification, investigation, elimination, clean-up, and reporting of illicit connections/discharges | Frequency of employee training<br><br>Number of employees trained       | Once per year<br><br>Train all applicable employees | May 2011       | Harbors Environmental Section, Weston | Completed.                 |

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## 5.0 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

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### Permit Requirements

*Drain Inlet Control, Barbers Point. January 2006.*

*HAR Chapter 11-55 Appendix K Part 6.(a)(4). Develop, implement and enforce a program to reduce storm runoff pollutants entering the permittee's small municipal separate storm sewer system from construction activities disturbing one acre or more, including construction activities less than one acre that are part of a larger common plan of development or sale that would disturb one acre or more, that, at a minimum, includes the following:*

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

### 5.1 CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

A Construction Site Runoff Control Program (CSRCP) has been developed and included as part of Harbor's SWMP in order to establish rules, ordinances, and other regulatory mechanisms in order to:

- ✓ Require stockpiling or immediate access to materials for erosion prevention and sediment control.
- ✓ Require erosion prevention and sediment controls at all construction projects;

- ✓ Require construction site operators to implement appropriate erosion prevention and sediment control BMPs; and
- ✓ Require construction site operators to implement BMPs appropriate for the control of waste and other potential pollutant sources.

The CSRCP includes the following:

- ✓ Construction site plan reviews;
- ✓ Pollution prevention;
- ✓ Source identification;
- ✓ BMP implementation;
- ✓ Construction site inspections;
- ✓ Enforcement measures;
- ✓ Report of non-compliant sites; and
- ✓ Education outreach for construction site operators.

### 5.1.1 Required Document Review

Harbor Division's CSRCP applies to all construction projects existing within its jurisdiction, regardless of size or ownership of the construction site or activity.

Each Section of the HDOT Engineering Branch, including Planning, Design, Construction, Maintenance, and Environmental, reviews subsets of construction plans specific to their department for potential storm water impacts. The Harbors Division Engineering Branch reviews construction plans for potential storm water quality impacts, and drainage connection and discharge permit applications.

Construction site operators are required to submit a Storm Water Pollution Prevention Plan (SWPPP) and a Notice of Intent (NOI) under the Hawaii NPDES General Permit Authorizing Discharges of Stormwater Associated with Construction Activity, HAR Chapter 11-55 Appendix C (the Hawaii Construction General Permit) for projects greater than one acre prior to approval. Harbors Division ensures that plans reflect the actual site conditions and are updated accordingly. The HDOH Clean Water Branch implements NPDES requirements in Hawaii and administers review and granting of Individual and General Permit Coverage, however NOI requests for discharge of storm water from industrial sites and SWPPPs have been routed to Harbors Division for review and comment. In 2011 the plans listed in Table 5-1 were reviewed by Harbors Division: Several reviews were conducted, but not documented. All future reviews will be documented.

Table 5-1 Summary of Construction Plans Reviewed

| Location    | Date    | Project No. | Project Description                          |
|-------------|---------|-------------|--|
| Piers 24-26 | 12/8/11 | HC 10438    | Repair piles and waterline at Pier 24-26.    |
| Varies      | Varies  | Varies      | Other projects reviewed, but not documented. |



TRPs and tenant lease agreements require compliance with all environmental laws and limit possession, usage and storage of hazardous wastes without lessor knowledge and consent.

Harbors Division requires that prior to new connections or discharge to the regulated drainage system, an application for the connection and/or discharge must be made. Upon review and acceptance of the application, Harbors returns a permit for connection, a permit for discharge or comments explaining a denied connection or discharge. Permits approved during 2011 can be found in Appendix N and are summarized in Table 5-2.

Table 5-2 Summary of Construction Connection Applications Reviewed

| Applicant               | Location  | Harbors ID No. | Date of Approval |
|-------------------------|---|----------------|------------------|
| Fukunaga and Associates | Ala Moana Force Main No. 3 and 4,<br>TMK: 2-1-15:09 | HH-02-U001     | 4/18/2011        |

Storm water BMPs are reviewed by HDOH Clean Water Branch (CWB) during NPDES NOI review, and may be reviewed by the City and County of Honolulu if plans are routed through them. Please see BMP 5-1. Harbors Division personnel including Marine Cargo Specialists, the Harbor agent, and Construction Inspectors may note implementation of BMPs and contractor waste management practices, and have authority to take action in the event of noncompliance.

**BMP 5-1 Required Document Review**

| Goal: Prevent sediment and erosion runoff from construction sites during the planning phase. |   |  |                |   |  |
|--|---|--|----------------|---|--|
| Activity   | Evaluation Indicators (or Measurable Goals)                         | Milestones   | Date Performed | Action Performed by   | Status/ Comments   |
| Review construction plans for potential impacts in respective areas                          | Percentage of construction plans reviewed                           | 100% of plans reviewed                               | April 2011     | All HDOT Engineering Branch Sections                                      | Connection permit applications reviewed and approved. Please see Appendix N. |
| Review plans for stormwater considerations during pre- and post-construction phases          | Percentage of construction plans reviewed                           | 100% of plans reviewed                               | April 2011     | Harbors Design, Maintenance and Environmental Section                     | Construction plans with potential stormwater impact reviewed.                |
| Review SWPPP, NOI, and discharge permit applications for construction projects               | Percentage of documents reviewed                                    | 100% of documents reviewed                           | April 2011     | Harbors Design, Maintenance and Environmental Section                     | Applications reviewed.   |
| Review erosion and sediment BMPs and waste management practices                              | Percentage of sediment BMPs and waste management practices reviewed | 100% of BMPs and waste management practices reviewed | NA             | HDOH Clean Water Branch, City and County of Honolulu, or Harbors Division | Plans reviewed.  |

**5.1.2 Construction Site Best Management Practices**

Construction site BMPs serve the purpose of preventing sediment and other pollutants created from construction activities from reaching waters. In many cases BMPs prevent sediment and pollutants from being dislodged from their original locations.

Harbors Division requires that construction site operators implement appropriate erosion and sediment control BMPs as well as any other BMPs that will reduce the flow of pollutant off-site to the MEP. Selected BMPs must demonstrate an understanding of the soil texture and sediment size such that the BMP chosen provides the maximum benefit to runoff control. A specification sheet that includes stormwater BMP requirements has been developed and will be included with contractor solicitation documents. The Temporary Water Pollution, Dust, and Erosion Control spec is included as Appendix O.

### **5.1.3 Site Inspection and Enforcement**

Construction sites are inspected for compliance with the stormwater-related requirements until construction is terminated, the site has been stabilized, and the site's NPDES construction permit has been closed. Inspections are at least once every two weeks during the months of October through April, then at least bi-monthly during the remaining months. Inspections ensure the following:

- ✓ Sediments generated at the project site are retained using adequate source control and structural BMPs;
- ✓ Construction-related materials and wastes are retained at the project site to avoid discharge to the storm sewer and waters of the United States;
- ✓ Unauthorized non-stormwater runoff is contained at the project site; and
- ✓ Erosion from slopes and channels are controlled by implementing an effective combination of erosion and sediment control BMPs, such as limiting grading during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering slopes susceptible to erosion.

Enforcement is executed according to the IEP located in Harbor Division's EMS Manual.

Reports include a list of all construction projects, inspection dates, and resolution of any violations of stormwater-related requirements can be found in Appendix P and is summarized in Table 5-3. Please see BMP 5-2.

Table 5-3      Summary of Construction Inspections

| Project Number | Project Title  | Dates Inspected   | Corrective Actions |
|----------------|--|---|--------------------|
| HC 10239       | Perimeter Fencing at Honolulu and Kalaeloa Barbers Point           | 2/22/2011, 3/10/2011, 3/22/2011   | None               |
| HC 10352R      | Repair Lighting at Clock Tower Room, Aloha Tower                   | 3/30/2011   | None               |
| HC 10365       | Port of Honolulu Passenger/Cargo Facility IEDS Threat Prevention   | 2/15/2011, 3/2/2011, 3/30/2011, 4/12/2011, 5/4/2011                       | None               |
| HC 10408       | Installation of Additional Cruise Ship Bollard at Pier 2, Honolulu | 8/29/2011, 10/11/2011   | None               |
| HC 10423       | Repair Bollards at Piers 31-33, Honolulu Harbor                    | 4/21/2011, 5/2/2011, 12/9/2011, 12/28/2011                                | None               |
| HC 10428       | Repair Windows at Harbors Administration Building                  | 5/18/2011, 7/19/2011, 9/21/2011   | None               |
| HC 10429       | Fender Repairs at Pier 39, Honolulu Harbor                         | 11/15/2011  | None               |
| HC 10431       | Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harbor | 2/9/2011, 3/1/2011, 3/14/2011, 4/5/2011, 4/18/2011, 5/12/2011, 10/27/2011 | None               |
| HC 10440       | Repair Piles at Pier 40, Honolulu Harbor                           | 3/22/2011, 4/6/2011, 4/20/2011, 5/4/2011                                  | None               |
| HC 10444       | FY11 1-yr Pavement Maintenance Contract for Matson Yard            | 10/25/2011  | None               |
| HC 10454       | Expansion Joint Repairs at Piers 39-40, Honolulu Harbor            | 12/6/2011, 12/27/2011   | None               |
| HC 10466       | Roof Repairs at Pier 10 Shed                                       | 9/23/2011, 10/10/2011   | None               |

## BMP 5-2 Site Inspection and Enforcement

| Goal: Ensure implementation of BMPs and controls by construction site operators through inspection and enforcement. |  |   |                     |  |  |
|---|--|---|---------------------|--|--|
| Activity  | Evaluation Indicators (or Measurable Goals)            | Milestones  | Date Performed      | Action Performed by                            | Status/ Comments   |
| Perform inspections of permitted construction sites for implementation of construction site BMPs                    | Frequency of inspection                                | At least once every two weeks during the months of October thru April, then at least bi-monthly during the remaining months | Throughout the year | Harbors Division, Site Inspectors              | Completed. See Table 5-1 for summary and Appendix P for reports.                 |
|   | Number of construction sites inspected                 | 100% of construction sites  | Throughout 2011     | Harbors Division, Site Inspectors              | 12 sites   |
| Incorporate inspection of storm water components into inspection program  | Construction site storm water deficiencies are reduced | Deficiencies are reduced from previous year   | Throughout 2011     | Harbors Division, Site Inspectors              | Baseline established. Erosion and sediment control inspections already underway. |
| Keep a list of all construction projects, inspection dates, and resolution of any violations for the annual reports | Completeness of inventory                              | 100% of construction sites, inspections, resolutions, and violations recorded   | Throughout 2011     | Harbors Construction and Environmental Section | File created at Harbors and 100% of known construction sites inspected.          |

### 5.1.4 Receipt of Public Input

Harbors Division remains open to public comment and illicit/NSWD reporting. The public is able to contact Harbors Division via hotline, email, website, or mail. Communications are logged on the SHOT Form and appropriate responses are made. No public input was received during the 2011 period. Please see BMP 5-3.

### BMP 5-3 Receipt of Public Input

| Goal: To remain receptive public to opinion and involvement |   |                             |                |                               |                  |
|---|---|-----------------------------|----------------|-------------------------------|------------------|
| Activity  | Evaluation Indicators (or Measurable Goals) | Milestones                  | Date Performed | Action Performed by           | Status/ Comments |
| Accept and follow up on public reporting and record outcome | Track number of public reports              | Increase from previous year | NA             | Harbors Environmental Section | None received    |

#### 5.1.5 Training and Outreach

Harbors Division employees who are responsible for construction plan review and site inspections are trained annually in the requirements of the SWMP and Hawaii General Permits. A copy of the Stormwater Construction Inspection training is available as Appendix Q. Please see BMP 5-4. Employees were trained in plan review and inspection procedures.

Construction plan review training included the following 10 elements taken from EPA guidance:

- ✓ Minimize clearing and grading;
- ✓ Protect waterways;
- ✓ Phase construction to limit soil exposure;
- ✓ Immediately stabilize exposed soils;
- ✓ Protect steep slopes and cuts;
- ✓ Install perimeter controls to filter sediments;
- ✓ Employ advanced sediment settling controls;
- ✓ Certify and train contractors on stormwater site plan implementation;
- ✓ Control waste at the construction site; and
- ✓ Inspect and maintain BMPs.

Construction site inspection included training on specific forms from the Harbors EMS Manual:

- ✓ HDOH CWB NOI General Form
- ✓ HDOH CWB NOI Form C
- ✓ EMS Manual Appendix G – Inspection and Enforcement Program
- ✓ EMS Manual Appendix H – Construction Program
- ✓ HAR 11-55 Appendix C

Education and outreach will be provided for stakeholders. Educational materials currently include a specification section for construction storm water BMPs. Please see BMP 5-4. The intent of

these educational materials is to make certain that the site manager or onsite coordinator is aware of the proper installation and maintenance procedures for construction storm water BMPs.

#### BMP 5-4 Training and Outreach

| Goal: Foster widespread knowledge of construction BMPs                               |   |   |                |  |                                   |
|--|---|---|----------------|--|-----------------------------------|
| Activity   | Evaluation Indicators (or Measurable Goals)   | Milestones  | Date Performed | Action Performed by                            | Status/ Comments                  |
| Develop internal training materials for plan review staff and inspectors             | NA  | NA  | June 2011      | Harbors Environmental Section                  | Updated in 2011. See Appendix O.  |
| Conduct training for employees who are responsible for construction site inspections | Educate construction inspectors about proper selection, installation, inspection, and maintenance of BMPs | 100% of construction site inspectors received education | June 2011      | Harbors Environmental Section                  | Training conducted in June 2011   |
| Provide educational materials for plan reviewers                                     | Percent of plan reviewers receiving educational materials   | 100% of plan reviewers received educational materials   | June 2011      | Harbors Construction and Environmental Section | 100%                              |
| Provide educational package to construction sites                                    | Percentage of construction sites covered  | 100%  | NA             | Harbors Engineering Branch                     | To be implemented in 2012.        |
| Post educational materials on Harbors website  | Increase views to website   | Increased views from previous year                      | NA             | Harbors Web Master                             | Materials to be uploaded in 2012. |

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## 6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

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*Vegetated Swale, Kahului, Hawaii*

### Permit Requirements

*HAR Chapter 11-55 Appendix K Part 6.(a)(4). Develop, implement and enforce a program to reduce pollutants in storm runoff entering the permittee's small municipal separate stormwater sewer system from new development and redevelopment projects which disturb greater than or equal to one acre, including construction sites less than one acre that are part of a large common plan or development or site that would disturb one acre or more, that, at a minimum, includes the following:*

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

### 6.1 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

Harbors Division has developed a Post-Construction Stormwater Management Program as part of its SWMP to prevent polluted storm water discharges from areas of new development and significant redevelopment. This program includes project reviews based on the post-construction erosion control NPDES permit regulations and the Development Standards requirements. The purpose of the post-construction program is to provide a mechanism by which ongoing protection of storm water quality can be addressed and attained.

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

### 6.1.1 Construction Permit Review Process

As part of the NPDES program, HDOH CWB administers review of projects that are equal to or greater than one acre in size. Applicants for coverage under the Nationwide General Permit or Individual Stormwater Discharge Permits submit applications including descriptions of the project scope and schedule, contractor, past land use history, existing conditions and potential pollution sources, construction and post-construction site-specific BMPs.

Harbors Division's review process has the goal of maintaining or improving pre-development runoff conditions. As such, Harbors requires construction applicants to perform a pre- and post-development hydrological analysis to protect natural channels from erosion, to size storm drainage infrastructure, and to address flooding.

Harbors Division identifies controls that provide treatment and reduce storm water volume and velocity. Harbors Division also ensures that on-going maintenance of BMPs is provided in the plans and properly executed, as BMPs are not effective unless properly maintained.

No NPDES Permit and Low Impact Development Standards (LIDS) compliance applications were received in 2011. Please see BMP 6-1.

BMP 6-1 Review NPDES Permit Application

| Goal: To ensure that long-term controls are in place to prevent degradation of stormwater |   |                      |                |   |                           |
|---|---|----------------------|----------------|---|---------------------------|
| Activity  | Evaluation Indicators (or Measurable Goals) | Milestones           | Date Performed | Action Performed by   | Status/ Comments          |
| Review NPDES Permit and LIDS compliance applications                                      | Percentage of applications reviewed         | 100% of applications | NA             | Harbors Division Environmental, Design and Maintenance Sections | No applications received. |

### 6.1.2 Low Impact Development Standards Plan

Harbors Division has developed a low impact development standard (LIDS, see SWMP) that requires measures to reduce pollution discharges to the MEP from all new development and significant redevelopment projects. The LIDS requirements apply to all new development and significant redevelopment projects.

Significant redevelopment includes, but is not limited to expansion of a building footprint, or replacement of a structure; replacement of impervious surface that is not part of a routine maintenance activity; and land-disturbing activities related to structural or impervious surfaces. Where significant redevelopment will result in an increase of less than 50 percent of the impervious surfaces of a previously existing development, and the existing development was not subject to LIDS, the BMP design standards apply only to the addition, and need not be applied to the entire development.

Implementation of LIDS and amendments of TRPs and tenant lease agreements will follow the completion of the Final SWMP. Please see BMP 6-2.

### BMP 6-2 Low Impact Development Standards Plan

| Goal: Reduce pollution discharges to the MEP from all new development and significant redevelopment projects |  |            |                |   |                                |
|--|--|------------|----------------|---|--------------------------------|
| Activity   | Evaluation Indicators (or Measurable Goals)                          | Milestones | Date Performed | Action Performed by                                   | Status/ Comments               |
| Implement LIDS and amend tenant lease agreements and TRPs as necessary                                       | Percentage of necessary lease agreement and TRP amendments conducted | 100%       | TBD            | Harbors Environmental Section, Design and Maintenance | To be released with Final SWMP |

### 6.1.3 Structural and Non-Structural BMPs

Post-construction storm water quality efforts are currently addressed by Harbors Division through the following BMPs or integration of the following BMPs:

- ✓ Preserve undeveloped areas where such areas are not required by operations to be paved,
- ✓ Consider surface treatments for improved areas which retain rainfall and allow percolation rather than impervious surfacing which generates runoff, such as paver tiles in lieu of asphalt or concrete pavement,
- ✓ Preserve naturally occurring flat to low slopes in all areas, which minimize runoff concentration, quantity, velocity and erosive capability,
- ✓ Where runoff flows are concentrated, provide durable drainage systems sized to convey peak flows,
- ✓ Review construction plans to provide and maintain grading which limits the area of the drainage basin discharging into the harbor,
- ✓ Continuously monitor operations to ensure that major tenants using pier aprons adequately clean the aprons upon completion of loading/offloading activities,
- ✓ Implement structural BMPs that reduce the quantity of storm runoff at Honolulu Harbor,
- ✓ Operational areas will be paved with reinforced concrete or asphalt concrete, to prevent erosion. These surfaces will also allow spills of materials to be cleaned up,
- ✓ Maintain minimal to low slopes throughout improved areas (access roadways, piers and aprons) where surfaced with asphalt or reinforced concrete, which reduces runoff peak flow quantities and velocity.

Harbors Division evaluates current BMPs to determine if they sufficiently meet the requirements of the NPDES permit and, if they are lacking, Harbors Division requires tenants and contractors to implement the appropriate BMPs.

Post-construction storm water BMPs are evaluated by Harbors during tenant inspections. No new post-construction BMPs were implemented during 2011. Please see BMP 6-3.

### BMP 6-3 Structural and Non-Structural BMPs

| Goal: Implementation of LID BMPs                                   |   |            |                |  |  |
|--|---|------------|----------------|--|--|
| Activity   | Evaluation Indicators (or Measurable Goals)           | Milestones | Date Performed | Action Performed by  | Status/ Comments                               |
| Evaluate current BMPs  | Percentage of BMPs evaluated                          | 100%       | Ongoing        | Harbors Construction and Environmental Section, Design and Maintenance | BMPs were identified during tenant inspections |
| Enforce development & implementation of new post-construction BMPs | Percentage of site potential pollutants are prevented | 100%       | NA             | Harbors Construction and Environmental Section, Design and Maintenance | No post-construction BMPs developed in 2011    |

#### 6.1.4 Operation, Maintenance, and Inspections

Structural or non-structural BMPs are not considered effective, nor are MEP criteria met, unless a long-term operation and maintenance procedure is put into place and carried out. Upon completion of construction, assurance is required for the long-term operation and maintenance of structural and non-structural BMPs. Please see BMP 6-4.

## BMP 6-4 Operations, Maintenance, and Inspections

| Goal: To maintain effectiveness of BMPs through operations and maintenance plans |  |  |                |   |  |
|--|--|--|----------------|---|--|
| Activity   | Evaluation Indicators (or Measurable Goals)  | Milestones                                   | Date Performed | Action Performed by                                       | Status/ Comments   |
| Create database to track operation and maintenance practices                     | Create a database                            | Database has been created                    | NA             | Harbors Environmental Section                             | To be created in 2012  |
| Perform scheduled operation and maintenance practices                            | On-time completion of maintenance practices  | 100% of O&M has been confirmed conducted     | NA             | Oahu District   | Identified BMPs will be documented and O&M will be confirmed in 2012 |
| Inspect project for post-construction controls                                   | Percentage of potential pollutants mitigated | Equal to maximum standard operating capacity | NA             | Harbors Construction Environmental Section Inspectors and | To be inspected in 2012.   |

### 6.1.5 Stakeholder Education and Outreach, Employee Training

Tenant TRPs and tenant leases require maintenance of post-construction runoff control measures in their premises. An educational packet will be sent to all stakeholders, which include tenants and their contractors. The educational package will includes:

- ✓ A post-construction BMP template
- ✓ BMP Checklist
- ✓ Questions relating to post-construction storm water management on the TSI

While it is the responsibility of the tenant to ensure that their construction contractors are educated in Post-Construction considerations, Harbors will send educational material to contractors that are identified to be working on Harbors property. Please see BMP 6-5.

Harbors internal training will include guidance on the inspection of post-construction BMPs. Please see BMP 6-5. Inspection training also includes proper operations and maintenance of typical post construction BMPs, indicators of BMP failure, and inspection techniques.

BMP 6-5 Stakeholder Education and Outreach

| Goal: Create awareness with stakeholders and employees to reduce post-construction run-off. |   |                            |                |                               |   |
|---|---|----------------------------|----------------|-------------------------------|---|
| Activity  | Evaluation Indicators (or Measurable Goals) | Milestones                 | Date Performed | Action Performed by           | Status/ Comments                                      |
| Develop post-construction educational package   | NA  | NA                         | NA             | Harbors Environmental Section | Educational materials to be developed in 2012         |
| Distribute educational packet in TSI Mailing  | Percentage of tenants in receipt of mailing | 100%                       | NA             | Harbors Environmental Section | Educational materials were developed and distributed. |
| Post information on Harbors Division website  | Track number of views                       | Greater than previous year | NA             | Harbors Web Master            | Information to be uploaded in 2012                    |
| Conduct training  | Percentage of employees and tenants trained | Greater than previous year | NA             | Harbors Environmental Section | Training conducted with general stormwater awareness  |

## **7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING**

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### **Permit Requirements**

*Hawaii Harbor (left) and Sand Island (right), January 2006*

HAR Chapter 11-55 Appendix K Part 6.(a)(4). *Develop, implement and enforce an operation and maintenance program to prevent and reduce stormwater pollution from activities, including but not limited to, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance that, at a minimum, includes the following:*

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

## **7.1 POLLUTION PREVENTION/GOOD HOUSEKEEPING PROGRAM**

A Pollution Prevention/Good Housekeeping Program has been developed with the ultimate goal of preventing or reducing pollutant runoff. The program includes an internal record-keeping system to schedule and document the maintenance activities performed.

### **7.1.1 Maintenance and Housekeeping Practices**

Maintenance is on-going at tenant and Harbors facilities. Please see BMP 7-1. The following maintenance activities are conducted:

- ✓ Emptying dumpsters and remove and dispose of discarded objects, machinery or equipment.
- ✓ Prompt repair/replacement of malfunctioning dumpsters
- ✓ General maintenance and repair of public facilities is conducted in-house, while a contractor is selected for most large projects.



- ✓ Grounds maintenance personnel use fertilizer or herbicides in accordance with the manufacturer's instructions and in a manner that eliminates potential for runoff into the gutters, or storm drain system.
- ✓ Pier and apron cleanliness is assessed for debris and staining, and responsible parties notified to conduct cleaning as needed. Operators with leaking vehicles are required to park vehicles and equipment indoors/under cover, provide drip pans and repair leaks.
- ✓ Vehicle and equipment washing on Harbors property is prohibited unless performed in an approved wash facility.
- ✓ Clean up stains, spills, oil spots using dry cleanup methods. A record of spill cleanups can be found in Appendix K.

#### 7.1.1.1 Sweeping Common Areas and Select Tenant Facilities

Sweeping prevents microscopic pollutants from entering the ocean by removing them before they flow into the storm sewer. Regular sweeping is performed by Harbors Grounds Maintenance. Grounds Maintenance has four sweepers; three are dedicated to Honolulu Harbor. Sweeping includes all common areas and certain areas on tenant facilities where cleaning is requested. Sweeping is performed according to the following schedule presented in Table 7-1.

Table 7-1      Grounds Maintenance Sweeping Schedule

| Location  | Frequency      | Duration (Hours) |
|---|----------------|------------------|
| Young Brothers  | M, Th          | 2.5              |
| Matson  | Tu, F          | 2.75             |
| Horizon Lines Terminal                                  | W              | 3                |
| Aloha Cargo Pier 1                                      | Once per month | 2.5              |
| Kewalo Basin  | T, F           | 1                |
| Piers 10, 11  | M, F           | 1                |
| Sand Island Base Yard                                   | T, W           | 1                |
| Fishing Village Parking Lot and Road Ways, Pier 35      | Once per week  | 1.5              |
| Piers 30, 31, 32 and Shed Areas                         | Twice per week | 1.5              |
| Piers 27, 28, 29  | Twice per week | 1.5              |
| Piers 18, 19, 23, 24                                    | Twice per week | 1.5              |
| Channel Street, Pier 2 Outside and Inside of Shed Areas | M, F           | 3                |
| Pier 1 Entrance   | Twice per week | 1                |
| Piers 1, 2 Common Roadways                              | Twice per week | 1                |

All waste from Honolulu and Kalaeloa Barber's Point Harbors are combined and disposed of at the appropriate disposal contractors. Sweeper waste is disposed of at PVT Land Company and Waimanalo Gulch. This year approximately 251.9 tons of sweeper waste was removed for disposal. Grounds Maintenance is also responsible for collection of trash, leaves and other debris, which prevents debris from blocking storm drains and causing localized flooding. In 2011 approximately 9.48 tons of green waste was disposed of at Hawaiian Earth Products, a green waste disposal company.



### 7.1.1.2 Pressure Washing

The sidewalks and walls at Pier 2 required pressure washing in 2011. A memo was created with the purpose of describing steps to be taken to perform this activity while protecting the storm drains from NSWDs. The three drain inlets were secured with booms before pressure washing began. Fuel was removed from the site before work began. Employees squeegeed water away from sidewalks and walks into the open parking area for the street sweeper to collect. This memo was sent to personnel responsible for pressure washing. A copy of the memo is included as Appendix R.

## 7.2 WASTE COLLECTION

Grounds Maintenance picks up and disposes of other potential pollutants left in drop off areas or discarded illegally by the public in order to prevent pollution to the environment. This includes automobile, boat, and motorcycle lead acid batteries, scrap steel, discarded used tires, and construction debris.

Table 7-2 is a compilation of the different types of waste collected by Harbors Division and their disposal destinations. Quantities listed are the combined amounts from both Honolulu and Kalaeloa Barber's Point Harbors. All disposal receipts are kept as supporting documentation of compliance with storm water regulations. All values are for both Honolulu and Kalaeloa Barber's Point Harbors.

Table 7-2 Waste Destination and Amounts

| Waste Type     | Destination Facility                      | Amount       |
|----------------|---|--------------|
| Green Waste    | Hawaiian Earth Products                   | 9.48 tons    |
| Refuse         | Covanta Energy Honolulu Resource Recovery | 313.53 tons  |
| Sweeper Waste  | PVT Land Company, Ltd.                    | 201.76 tons  |
| Refuse         | Waimanalo Gulch                           | 50.14 tons   |
| Recycled Metal | Schnitzer Steel Hawaii Corp.              | 18.9 tons    |
| Used Batteries | Leeward Auto Recycling                    | 74 batteries |

## BMP 7-1 Maintenance and Housekeeping Practices

| Goal: To prevent pollutants from reaching the storm sewer system by using preventative maintenance practices and BMPs.                                |   |                                 |                                       |   |   |
|---|---|---------------------------------|---------------------------------------|---|---|
| Activity  | Evaluation Indicators (or Measurable Goals)   | Milestones                      | Date Performed                        | Action Performed by                                   | Status/ Comments  |
| Designate appropriate sweeping frequencies and perform sweeping   | Percentage of facilities for which a written schedule is made and sweeping performed      | 100% of facilities              | Common area schedule already in-place | Harbors Maintenance Management and Personnel; tenants | Common areas and facilities with contracts with Harbors are swept according to a schedule.            |
| Designate appropriate drainage system maintenance and perform maintenance according to priority   | Percentage of drainage systems that have been designated as urgent that have been cleaned | 100% of urgent drainage systems | On-going                              | Harbors Maintenance Management and Personnel; tenants | Drainage priorities to be determined from 2011 inspection results.                                    |
| Provide general instructions for identification, storage, use, collection and treatment of drainage and housekeeping educational materials to tenants | Percentage of tenants to which educational materials have been provided                   | 100% of tenants                 | May 2011                              | Harbors Environmental Section                         | Instructions Provided in Harbors Storm Water training and mailing attachments                         |
| Provide training to employees   | Percentage of employees to whom training has been provided                                | 100% of employees               | Ongoing                               | Harbors Environmental Section                         | Maintenance staff has been trained on general stormwater pollution prevention. Please see Appendix M. |

### 7.2.1 Review of Wash Areas, Dry Wells, and Infiltration Sinks

Prior to 2011, Harbors Division prohibited all washing activities, including vehicle/equipment washing and hand washing with the use of sinks that are not already approved by HDOH because of the potential to create NSWDS. In 2011, Harbors Division began to allow tenants to formally submit applications to perform permitted washing activities.

The EPA stormwater BMP for Municipal Vehicle and Equipment Washing states the following:

*“If a vehicle must be washed outside of a facility plumbed to the sanitary sewer, take precautions to avoid wash water discharges to the storm drain system. For small jobs,*

*berm the area surrounding the vehicle and use a wet/dry vacuum to capture the wash water for discharge to the sanitary sewer. For larger jobs, use a combination of berms and a vacuum truck, such as those used to clean storm and sanitary sewer systems, to capture and safely dispose of wash water. If detergents are used, clean the pavement to prevent this material from being carried to the storm drain during the next rainstorm.”*

- EPA Website Reference: <http://cfpub.epa.gov/npdes/stormwater/menuofbmps>

Harbors Division requires that applications for washing include the following information:

- ✓ What the tenant intends to wash;
- ✓ Equipment used (i.e. pressure sprayer, hose, etc.) and flow rate;
- ✓ Wash water containment method (permanent wash rack, temporary berm, etc.);
- ✓ Wash water capture method (vacuum truck, evaporation, etc.);
- ✓ Wash water collection container capacity; and
- ✓ Wash water disposal method.

Tenants are prohibited from washing equipment and vehicles until Harbors Division verifies that these washing activities do not create a potential hazard to the receiving waters. Harbors Division issues a formal letter of approval once these conditions are met. Thus far, one tenant has been tentatively approved to wash vehicles. Table 7-3 summarizes the list of tenants currently approved to conduct washing activities. The application and review process is tracked on an annual basis in BMP 7-2. Approval letters for washing are included as Appendix S.

Table 7-3 Municipal Vehicle and Equipment Washing

| Tenant                                    | Location | Date of Approval | Date of Expiration | Description of Activity  |
|---|----------|------------------|--------------------|--|
| Windward Moving and Storage Company, Inc. | KMR 929E | 12/7/11          | 12/31/12           | Mobile washing equipment provided by J/R Environmental Co. is approved for use at this facility. |

Harbors Division requires that applications for sinks or drains that are not connected to the sanitary sewer include the following information:

- ✓ The intended use of the sink;
- ✓ A list of substances that may be washed into the sink (i.e. bio-degradable soaps, dirt, etc.)
- ✓ Construction drawings for the sink;
- ✓ Proposed treatment of the water (filtration fabric, sand, carbon filters, oil-absorbent material, etc.)
- ✓ Final destination of wash water; and

- ✓ Routine maintenance schedule for the sink (replacement of filtration material).

Tenants are prohibited from using unapproved sinks until Harbors Division verifies that the sinks do not create a potential hazard to receiving waters. Harbors Division may issue a formal letter of approval once these conditions are met. The application and review process is tracked on an annual basis in BMP 7-2. The application and review process is tracked on an annual basis in BMP 7-4. Application letters for sinks are included as Appendix T. No approvals for dry wells or infiltration sinks have been granted by Harbors to date.

Table 7-4 Dry Well or Infiltration Sinks

| Tenant               | Location  | Date of Approval | Date of Expiration | Description of Discharge   |
|----------------------|---|------------------|--------------------|--|
| Don's Makiki Service | Pier 42   | Not yet approved | N/A                | Pre-treated water is diverted to a gravel sump. Sink water pre-treated with absorbent pads with regular replacement. Biodegradable soap product implemented. |
| Marisco, Ltd.        | 91-607 Malakole Road, Kalaeloa Barbers Point Harbor | 5/6/2011         | N/A                | Dry well included in HDOH NPDES Permit: HI 0021786   |

BMP 7-2 Review of Washing, Dry Wells and Infiltration Sinks

| Goal: To prevent pollutants from reaching the storm sewer system by using preventative maintenance practices and BMPs. |  |                       |                |                               |  |
|--|--|-----------------------|----------------|-------------------------------|--|
| Activity   | Evaluation Indicators (or Measurable Goals)    | Milestones            | Date Performed | Action Performed by           | Status/ Comments                                   |
| Review applications for vehicle and equipment wash areas for storm water concerns.                                     | Number of applications submitted and reviewed. | 100% of applications. | Ongoing        | Harbors Environmental Section | 1 application submitted; one application reviewed. |
| Review applications for dry wells and infiltration sinks.  | Number of applications submitted and reviewed. | 100% of applications  | Ongoing        | Harbors Environmental Section | 1 application submitted; review is ongoing.        |

## 7.2.2 Tenant Education and Employee Training

Tenants were educated about pollution prevention and good housekeeping practices at the annual Harbors training. A copy of the presentation given and a record of attendance are located in Appendix E. A video entitled, “Storm Watch,” by EXCAL Visual Communications, was shown during the presentation and topics including the following were discussed:

- ✓ Proper methods for cleaning equipment;
- ✓ Proper labeling and handling of cleaners, solvents, and chemicals;
- ✓ Organized chemical storage;
- ✓ Responsible disposal of chemicals;
- ✓ Storage procedures for stored metals;
- ✓ Proper site drainage;
- ✓ Proper equipment/material storage;
- ✓ Timely equipment operation and maintenance; and
- ✓ Proper site maintenance.

Slides depict examples of proper and improper BMPs were also presented to illustrate acceptable procedures.

### BMP 7-3 Tenant Education, Employee and Contractor Education

| Goal: To prevent pollutants from reaching the storm sewer system by using preventative maintenance practices and BMPs. |   |                   |                |                               |   |
|--|---|-------------------|----------------|-------------------------------|---|
| Activity   | Evaluation Indicators (or Measurable Goals)               | Milestones        | Date Performed | Action Performed by           | Status/ Comments  |
| Develop educational materials and distribute to tenants and contractors  | Percentage of tenants in receipt of educational materials | 100% of tenants   | September 2011 | Weston                        | TSI attachments provided information and tips on housekeeping practices. Will develop contractor educational materials in 2012. |
| Hold training sessions for employees tasked with maintenance activities  | 100% of employees trained                                 | 100% of employees | Ongoing        | Harbors Environmental Section | General awareness training conducted in 2011. Please see Appendix M.  |

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## **8.0 ADDITIONAL ANNUAL COMPLIANCE REPORT REQUIREMENTS**

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### **8.1 MODIFICATIONS TO THE SWMP**

Per USEPA Order for Compliance, paragraph 1, the SWMP was revised to more comprehensively detail specific BMPs that will be implemented for each of the program minimum control measures, with underlying rationale for their selection and inclusion. Requirements to specify quantitative goals, provide metrics for improvement, and milestones for each of the BMPs; and the name or name or position title and affiliation of the person or persons responsible for implementation or coordination of each program component are now tracked through the ACR.

Harbors Division made appropriate modifications to reflect the above requirements with its 2009 Draft SWMP submission and is currently awaiting comments from the EPA and HDOH to incorporate into the revised SWMP.

### **8.2 MODIFICATIONS TO THE SMALL MS4**

No major modifications have been made to the Small MS4 during the 2011 calendar year. A copy of the outfall map is available in Appendix I.

### **8.3 SUMMARY OF PLANNED ACTIVITIES**

#### **8.3.1 Public Education and Outreach**

- ✓ Replace TSI form with contact information form to eliminate redundancy with inspection program
- ✓ Add additional educational materials
- ✓ Record hotline inquiries and track response time
- ✓ Post signs that advise against dumping
- ✓ Complete Harbors website
- ✓ Post tenant training presentation on Harbors website
- ✓ Set up and solicit a volunteer cleanup or storm drain stenciling activity
- ✓ Sponsor a yearly advertisement in the newspaper
- ✓ Monitor ship cargo loading and unloading

- ✓ Develop and maintain an inventory of ships and agents responsible for tracking vessel operators
- ✓ Provide educational materials to vessel operators
- ✓ Keep tenant inventory up-to-date
- ✓ Determine appropriate inspection frequencies per tenant according to the Harbors EMS
- ✓ Add findings, follow-up to the database

#### **8.3.2 Public Involvement**

- ✓ Post SWMP to the Harbors website for public review and comment when completed
- ✓ Track comments and include them in the ACR for 2011

#### **8.3.3 Illicit Discharge Detection and Elimination**

- ✓ Create a comprehensive list of NSWDS and control measures for all tenants
- ✓ Continue procedures outlined in the IEP
- ✓ Conduct dry and wet weather ORI
- ✓ Perform follow-up on dry weather NSWDS observations

#### **8.3.4 Construction Site Runoff Control**

- ✓ Dependent on construction plan submittal
- ✓ Perform construction site plan and permit reviews
- ✓ Include Water Pollution Prevention specifications in contractor solicitation documents
- ✓ Report and implement enforcement procedures against construction sites that are found to be out of compliance
- ✓ Perform construction site inspections to identify possible sources of pollution and to ensure BMP's are providing an appropriate level of pollution prevention. Inspections will specifically target the following:
  - ✓ Require stockpiling or immediate access to materials for erosion prevention and sediment control.
  - ✓ Require erosion prevention and sediment controls at all construction projects;
  - ✓ Require construction site operators to implement appropriate erosion prevention and sediment control BMPs; and
  - ✓ Require construction site operators to implement BMPs appropriate for the control of waste and other potential pollutant sources.

#### **8.3.5 Post-Construction Storm Water Management**

- ✓ Inventory existing BMPs if found during tenant inspections



- ✓ Perform follow-up construction site permit reviews
- ✓ Enforce the incorporation of Low Impact Development Standards into all new development
- ✓ Ensure structural and non-structural BMP's are in place post-construction to minimize water quality impacts and attempt to maintain pre-development runoff conditions
- ✓ Ensure the longevity of post-construction BMP's via the creation of a long-term operation and maintenance programs
- ✓ Generate and distribute educational materials in annual mailings to tenants and maintain educational materials on the Harbors Division Stormwater Management website
- ✓ Conduct annual tenant training workshop

#### **8.3.6 Pollution Prevention/Good Housekeeping**

- ✓ Continue the ongoing maintenance of tenant and Harbor's facilities
- ✓ Require all tenants that wish to perform wash activities to submit applications for washing vehicles and equipment with proper controls and procedures to prevent pollution of receiving waters. Track review and approval process.
- ✓ Harbors will expand its maintenance program to include preventative maintenance of the storm drainage system, internal record keeping and scheduling, and appropriate training of employees
- ✓ Perform inspections at the frequency determined by risk rankings and conduct annual training to ensure tenant's compliance with employee training, pollution prevention, and good housekeeping requirements

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**APPENDIX A**

**NGPC FROM HDOH AND 2007 LETTER OF EXTENSION**

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LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to  
EMD / CWB

03KB482.FNL

May 19, 2003

The Honorable Rodney K. Haraga  
Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Attention: Mr. Fred Nunes  
Harbors Division  
Engineering Program Manager

Dear Mr. Haraga:

**Subject: NOTICE OF GENERAL PERMIT COVERAGE (NGPC)  
National Pollutant Discharge Elimination System (NPDES)  
Honolulu Harbor Small Municipal Separate Storm Sewer System  
Honolulu, Oahu, Hawaii  
File No. HI 03KB482**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. § 1251 et seq.; the "Act"); Chapter 342D, Hawaii Revised Statutes; and Chapters 11-54 and 11-55, Hawaii Administrative Rules (HAR), Department of Health (DOH), State of Hawaii,

**STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION**

(hereinafter "PERMITTEE")

authorized to discharge storm water runoff and certain non-storm water discharges as identified in Section 2.b. of this NGPC from the Hawaii Department of Transportation, Harbors Division (DOT-Harbors) Small Municipal Separate Storm Sewer System (Small MS4) outfalls identified in the Notice of Intent (NOI), dated March 7, 2003, and additional Small MS4 outfalls that may be identified from time to time by the DOT-Harbors, to the receiving waters named Honolulu Harbor, a Class A, Marine Water Embayment.

This NGPC is subject to the Permittee's compliance with:

- HAR, Chapter 11-55, Appendix K, NPDES General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Water Discharges from Small Municipal Separate Storm Sewer Systems.
- HAR, Chapter 11-55, Appendix A, DOH, Standard General Permit Conditions.
- HAR, Sections 11-55-34.04(a), 11-55-34.07, 11-55-34.11, 11-55-34.12, and any other applicable Sections of HAR, Chapter 11-55.

The Permittee shall, but not be limited to, comply with the following General Requirements, Discharge Monitoring Requirements, and Reporting Requirements.

## 1. GENERAL REQUIREMENTS

The Permittee shall:

- a. Comply with all materials submitted in and with the NOI, dated March 7, 2003.
- b. Retain a copy of the NOI; the submitted Storm Water Management Plan (SWMP), and all subsequent revisions; and this NGPC at the facility.
- c. Ensure that anyone working under this NGPC complies with the terms and conditions of this NGPC.
- d. Revise the SWMP if any discharge limitation or water quality standards established in HAR, Section 11-54-04 for marine waters are exceeded. The revisions shall include Best Management Practices (BMPs) and/or other measures to reduce the amount of pollutants found to be in exceedance from entering State waters.
- e. Obtain all necessary permits, certifications, approvals, etc. from all pertinent agencies for the subject project.
- f. Include the file number, **HI 03KB482**, and the following certification with all information required under this NGPC:

**"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 is, to the best of my knowledge and belief, true, 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.”**

- g. Submit all information required under this NGPC to the following address:

Director of Health  
Clean Water Branch  
Environmental Management Division  
State Department of Health  
P.O. Box 3378  
Honolulu, HI 96801-3378

## **2. DISCHARGE MONITORING REQUIREMENTS**

- a. The Permittee shall effectively prohibit non-storm water discharges through its system into State waters. NPDES permitted discharges and discharges identified in Section 2.b. of this NGPC are exempt from this prohibition.
- b. The following non-storm water discharges may be discharged into DOT-Harbors' Small MS4 without an NPDES permit, provided that the DOT-Harbors determines that such discharges will not contain pollutants in amounts that will cause or contribute to a violation of an applicable water quality standard and the SWMP shall “identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.”
- i. Water line flushing;
  - ii. Landscape irrigation;
  - iii. Diverted stream flows;
  - iv. Rising ground waters;
  - v. Uncontaminated ground water infiltration (as defined in Title 40, Code of Federal Regulations (40 CFR) §35.2005(20));
  - vi. Uncontaminated pumped ground water;

- vii. Discharges from potable water sources and foundation drains;
  - viii. Air conditioning condensate;
  - ix. Irrigation water;
  - x. Springs;
  - xi. Water from crawl space pumps and footing drains;
  - xii. Lawn watering runoff;
  - xiii. Water from individual residential car washing;
  - xiv. Flows from riparian habitats and wetlands;
  - xv. Dechlorinated swimming pool discharges;
  - xvi. Residual street wash water; and
  - xvii. Discharges or flows from fire fighting activities.
- c. The discharge of pollutants from the DOT-Harbors' Small MS4 shall be reduced to the maximum extent practicable.

### **3. REPORTING REQUIREMENTS**

The permittee shall:

- a. Develop, implement, and enforce the SWMP designed to reduce the discharge of pollutants from the DOT-Harbors' Small MS4 to the maximum extent practicable in order to protect water quality and satisfy the appropriate water quality requirements of the Act. In accordance with Section 6(a) of Appendix K, Chapter 11-55, HAR, the SWMP shall include the minimum control measures identified below:
  - i. Public Education and Outreach
  - ii. Public Involvement/Participation
  - iii. Illicit Discharge Detection and Elimination



- iv. Construction Site Runoff Control
  - v. Post-Construction Storm Water Management in New Development and Redevelopment
  - vi. Pollution Prevention/Good Housekeeping
- b. Submit the SWMP within 120 days of the Permittee's claimed automatic coverage which became effective on April 7, 2003.
- c. Develop measurable goals to gauge permit compliance and program effectiveness for each minimum control measure identified above. The permittee shall select measurable goals using an integrated approach that fully addresses the requirements and intent of the minimum control measure.
- d. Report in writing any proposed modification described in accordance with Section 6(c)(1) of Appendix K, Chapter 11-55, HAR, to the DOH for approval at least thirty days prior to the initiation date of the modification. The permittee shall report and justify all other modifications made to the SWMP in the annual report for the year in which the modification was made.
- e. Submit an annual report by January 28th of the following year in accordance with Section 9(a) of Appendix K, Chapter 11-55, HAR. The annual report shall cover each calendar year during the term of this NGPC and include the following:
- i. Status of compliance with conditions of this NGPC;
  - ii. Assessment of the SWMP, including progress towards implementing each minimum control measure;
  - iii. Modifications made to the SWMP and implementation schedule during that calendar year, including justifications;
  - iv. Summary of the storm water activities planned to be undertaken during the next calendar year; and
  - v. Major modifications made to DOT-Harbors' Small MS4, including, but not limited to, addition and removal of outfalls, drainage lines, and treatment facilities.

- f. Properly address all modifications, concerns, requests and/or comments to the DOH's satisfaction.
  - i. SWMP Modifications - The storm water pollution control activities described in the SWMP may need to be modified, revised, or amended from time to time over the life of the NGPC to respond to changed conditions and to incorporate more effective approaches to pollutant control. Minor changes may be proposed by the Permittee or requested by the DOH. Proposed changes that imply a major reduction in the overall scope and/or level of effort of the SWMP must be made for cause and in compliance with 40 CFR Section 122.62 and Part 124.
  - ii. System Modifications include any planned physical alterations or additions to the permitted Small MS4, any existing outfalls newly identified over the term of this NGPC.

**This NGPC will take effect on the date of this notice. This NGPC will expire at midnight, November 6, 2007, or when amendments to HAR, Chapter 11-55, Appendix K, are adopted, whichever occurs first.**

If you have any questions, please contact Ms. Joanna L. Seto of the Engineering Section, Clean Water Branch, at 586-4309.

Sincerely,



CHIYOME L. FUKINO, M.D.  
Director of Health

Enclosures: 1. HAR, Sections 11-55-01 and 11-55-34 to 11-55-34.12  
2. HAR, Chapter 11-55, Appendices A and K  
3. Title 40, CFR Citations as referenced in HAR, Chapter 11-55, Water Pollution Control, Appendix A

- c: Mr. Fred Nunes, Engineering Program Manager, DOT-Harbors (w/o encls.)  
[via fax 587-1864 only]  
Mr. Dean Yanagisawa, Highways Division, Oahu District, Department of Transportation  
(w/o encls.) [via fax 831-6725 only]  
Mr. Gerald Takayasu, Storm Water Quality Branch, City and County of Honolulu,  
Department of Environmental Services (w/o encls.) [via fax 692-5520 only]  
Mr. Charles G. Schuster, P.E., Edward K. Noda and Associates, Inc. (w/ Receipt No. 03553  
for \$500 Filing Fee only)

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P O BOX 3378  
HONOLULU, HI 96801-3378

CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

In reply, please refer to  
DOH/CWB

03KB482.EXT

October 19, 2007

The Honorable Barry Fukunaga  
Director  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813-5097

Attention: Mr. Frederick S. Nunes, P.E.  
Engineering Program Manager  
Harbors Division

Dear Mr. Fukunaga:

**Subject: Administrative Extension of  
Notice of General Permit Coverage (NGPC)  
Honolulu Harbor, Honolulu, Oahu, Hawaii  
File No. HI 03KB482**

The Department of Health (Department), Clean Water Branch (CWB) acknowledges receipt of your Notice of Intent (NOI) and \$500 filing fee for coverage under the National Pollutant Discharge Elimination System general permit provisions, in accordance with the Hawaii Administrative Rules (HAR), Section 11-55-34.08.

The Department is unable to complete the processing of your project's NOI prior to the current NGPC expiration date. Therefore, in accordance with HAR, Section 11-55-34.09(d), the Department hereby administratively extends the subject NGPC until a notice of renewed coverage under the applicable general permit is issued or until notified by the Department, whichever occurs first. Please note that the Department may request you submit additional information in order to complete the processing of your NOI for the renewed coverage.


The Permittee shall not be held in violation of Hawaii Revised Statutes, Chapter 342D-6(h) and HAR, Chapter 11-55 during the pendency of its NOI, so long as it acts consistently with the NGPC presently granted. Any non-compliance with the conditions of the administratively extended NGPC may be subject to penalties of up to \$25,000 per violation per day.

It is the Permittee's responsibility to ensure that anyone working under this administrative extension of your NGPC understands and complies with the terms and conditions therein.

The Honorable Barry Fukunaga  
October 19, 2007  
Page 2

If you have any questions, please contact Ms. Joanna L. Seto, Supervisor of the Engineering Section, CWB, at 586-4309.

Sincerely,

  
FOR Chiyome Leinaala Fukino, M.D.  
Director of Health

c: Mr. Randal Leong, DOT-HAR [via fax 587-1864 only]  
Mr Charles Schuster, EKNA Services, Inc. (w/Receipt No. 31731 for \$500 Filing Fee)

RECEIVED  
OCT 26 2007

EKNA SERVICES, INC

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**APPENDIX B**

**TENANT LEASE AGREEMENT AND TENANT REVOCABLE PERMIT**

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# Lease Agreement Addendum 1

## Environmental Compliance - Lessee's Duties

### ADDENDUM 1

#### ENVIRONMENTAL COMPLIANCE – LESSEE'S DUTIES

##### A. Definitions.

For purposes of this Lease, Lessee agrees and understands that the following terms shall have the following meanings:

“Environmental Laws” shall mean all federal, state and local laws of every nature including statutes, ordinances, rules, regulations, codes, notices, standards, directives of every kind, guidelines, permits, licenses, authorizations, approvals, interpretations of the foregoing by any court, legislative body, agency or official, judicial decisions, orders, rulings or judgments, or rules of common law which currently are in effect or which may come into effect through enactment, issuance, promulgation, adoption or otherwise, which in any way pertain to, relate to, or have any relevance to the environment, health or safety. These environmental laws include, but are not limited to, regulations and orders of the federal Environmental Protection Agency and of the State of Hawaii Department of Health.

“Hazardous Substance” shall mean and include any chemical, substance, organic or inorganic material, controlled substance, object, condition, waste, living organism, or combination thereof which is, may be, or has been determined by proper state or federal authority under any environmental law to be, hazardous to human health or safety or detrimental to the environment. This term shall include, but not be limited to, petroleum hydrocarbons, asbestos, radon, polychlorinated biphenyls (PCBs), methane, and other materials or substances that are regulated by state or federal authorities.

##### B. Lessee's Activities and Duties.

**1. Compliance with Environmental Laws.** Lessee agrees, at its sole expense and cost, to comply with all environmental laws that apply to the leased premises during the term of this lease, and Lessee's occupancy of, and activities on, the leased premises. This duty shall survive the expiration or termination of this lease which means that the Lessee's duty to comply with environmental laws shall include complying with all environmental laws, regulations and orders that may apply, or be determined to apply, to the occupancy and activities of the Lessee on the leased premises after the expiration or termination of this lease. Failure of the Lessee to comply with any environmental laws shall constitute a breach of this lease for which the Lessor shall be entitled, in its discretion, to terminate this lease and take any other action at law or in equity it deems appropriate. Lessee shall conform its operations with 49 CFR, Part 195 (Pipeline Safety), and shall install Time Domain Reflectivity (TDR) cable leak detection and monitoring equipment, which meet or exceed industry standards, adjacent to the fuel pipelines and related facilities, to provide an indication of any leak occurrence from any fuel pipeline or containment

device. In addition, the Lessee shall install a secondary containment wall/vaulting to prevent releases into the environment. The Lessee shall also develop, implement, and follow a written integrity management program that addresses the risks of each pipeline, and provides for periodic assessment of the integrity of each pipeline through internal inspection, pressure testing, or other equally effective assessment means, on a regular basis.

**2. Hazardous Substances.** Lessee shall not use, store, treat, dispose, discharge, release, generate, create, or otherwise handle any Hazardous Substance, or allow the same by any third person, on the leased premises (with the exception of the intended routine management of the petroleum products within the proposed pipeline) without first obtaining the written consent of the Lessor and complying with all environmental laws, including giving all required notices, reporting to, and obtaining permits from, all appropriate authorities, and complying with all provisions of this lease.

**3. Notice to Lessor.** Lessee shall keep Lessor fully informed at all times regarding all environmental law related matters affecting the Lessee or the leased premises. This duty shall include, without limited the foregoing duty, providing the Lessor with a current and complete list and accounting of all hazardous substances of every kind which are present on or about the leased premises and with evidence that the Lessee has in effect all required and appropriate permits, licenses, registrations, approvals and other consents that may be required of or by federal and state authorities under all environmental laws. This duty shall also include providing immediate written notice of any investigation, enforcement action, remediation, or other regulatory action, order of any type, or any legal action, initiated, issued, or any indication of an intent to do so, communicated in anyway to the Lessee by any federal or state authority, or individual, which relates in any way to any environmental law, or any hazardous substance, and the Lessee or the leased premises. As part of this written notice to the Lessor, the Lessee shall also immediately provide the Lessor with copies of all written communications from individuals, or state and federal authorities, including copies of all correspondence, claims, complaints, warnings, reports, technical data and any other documents received or obtained by the Lessee. At least thirty days prior to termination of this lease, or termination of the possession of the leased premises by Lessee, Lessee shall provide the Lessor with written evidence satisfactory to the Lessor that Lessee has fully complied with all environmental laws, including any orders issued by any governmental authority to the Lessee that relate to the leased premises.

**4. Notice to Authorities.** Lessee shall provide written notice to the Environmental Protection Agency and the State of Hawaii Department of Health at least sixty days prior to the termination of this lease, or sixty days prior to Lessee's termination of possession of the leased premises, whichever occurs first, that Lessee intends to vacate the leased premises and terminate its operations on those leased premises. Lessee shall allow the agents or representatives of said authorities access to the leased premises at any and all reasonable times for the purpose of inspecting the leased premises, and taking samples of any material for inspection or testing for compliance with any environmental laws. Lessee shall provide copies of said written notices to Lessor at the time said notices are provided to said authorities.

**5. Disposal/Removal.** Except for materials that are lawfully sold in the ordinary course of the Lessee's business, Lessee shall cause any hazardous substances to be removed from the leased premises for disposal, and to be transported from the leased premises solely by duly licensed hazardous substances transporters, to duly licensed facilities for final disposal as



required by all applicable environmental laws. Lessee shall provide Lessor with copies of documentary proof, including manifests, receipts, or bills of lading, which reflect that said hazardous substances have been properly removed and disposed of in accordance with all environmental laws.

**6. Environmental Investigations and Assessments.** The Lessee, at its sole cost and expense, shall cause to be conducted such investigations and assessments of the leased premises to determine the presence of any hazardous substance on, in, or under the leased premises as may be directed from time to time by the Lessor, in its sole discretion, or by any federal or state authority. The extent and number of any environmental investigations and assessments shall be determined by the Lessor or the federal or state authority directing said investigations and assessments to be conducted. Lessee shall retain a competent and qualified person or entity that is satisfactory to the Lessor or governmental authority, as the case may be, to conduct said investigations and assessments. Lessee shall direct said person or entity to provide the Lessor or governmental authority, if so requested, with testable portions of all samples of any soils, water, ground water, or other material that may be obtained for testing, and provide to the Lessor and the governmental authority written results of all tests on said samples upon completion of said testing.

**7. Remediation.** In the event that any hazardous substance is used, stored, treated, disposed on the premises, handled, discharged, released, or determined to be present on the leased premises, Lessee shall, at its sole expense and cost, remediate the leased premises of any hazardous substances, and dispose/remove said hazardous substance in accordance with paragraph 4. This duty to remediate includes strictly complying with all environmental laws and directives to the Lessee to remediate said hazardous substance from the Lessor. This duty to remediate shall include replacement of any materials, such as soils, so removed with material that is satisfactory to the Lessor and governmental authority, as the case may be. In the event Lessee does not remediate the leased premises to the same condition as it existed at the commencement of the lease, as determined by the Lessor, Lessee understands and agrees that Lessor may exercise its rights under the paragraph entitled Lessor's Right to Act, and until such time as the remediation is complete to the satisfaction of the Lessor, Lessee shall be liable for lease rent in the same manner and amount as if the lease had continued in effect during the period of remediation.

**8. Restoration and Surrender of Premises.** The Lessee hereby agrees to restore the leased premises, at its sole cost and expense, including the soil, water and structures on, in, or under the leased premises to the same condition as the premises existed at the commencement of this lease, fair wear and tear to the structures excepted. In the event Lessee does not restore the leased premises to the same condition as it existed at the commencement of the lease, as determined by the Lessor, Lessee understands and agrees that Lessor may exercise its rights under the paragraph entitled Lessor's Right to Act, and until such time as the restoration is complete to the satisfaction of the Lessor, Lessee shall be liable for lease rent in the same manner and amount as if the lease had continued in effect during the period of restoration.

**9. Lessor's Right to Act.** In the event Lessee fails for any reason to comply with any of its duties under this lease or under any environmental laws within the time set for doing so, or within a reasonable time as determined by the Lessor, Lessor shall have the right, but not the obligation, in its sole discretion, to perform those duties, or cause them to be performed. Lessee

hereby grants access to the leased premises at all reasonable hours to the Lessor, its agents, and anyone designated by the Lessor in order to perform said acts and duties. Any cost, expense, or liability of any type that may be incurred by the Lessor in performing said acts or duties shall be the sole responsibility of the Lessee, and Lessee hereby agrees to pay for those costs and expenses, and indemnify the Lessor for any liability incurred. This obligation shall extend to any costs and expenses incident to enforcement of Lessor's right to act, including litigation costs, attorneys fees, and the costs and fees for collection of said cost, expense or liability.

**10. Release and Indemnity.** Lessee hereby agrees to release the Lessor, its officers, agents, successors, and assigns from any liability of any kind, including, but not limited to, any liability for any damages, penalties, fines, judgments, or assessments that may be imposed or obtained by any person, agency, or governmental authority against the Lessee by reason of any hazardous substance that may be present by whatever means on, in or under the leased premises. The Lessee hereby agrees to indemnify, defend with counsel suitable to the Lessor, and hold harmless the Lessor from any liability that may arise in connection with, or by reason of, any occurrence involving any hazardous substance that may be alleged to be connected or related in any way with the leased premises, the Lessor's ownership of the premises, or this lease, including the presence of any hazardous substance on the leased premises.

**11. Surety/Performance Bond for Cleanup/Restoration.** At its sole cost and expense, Lessee shall provide the Lessor with a Bond, or other security satisfactory to Lessor, in the amount of \$100,000.00 to assure removal of any hazardous substances, and the remediation and restoration of the leased premises during the term of, and at the conclusion of the lease so as to comply with the terms of this lease to the satisfaction of the Lessor, and in order to comply with environmental laws. Lessee shall provide written evidence that said Bond or security has been secured by the Lessee, which evidence shall indicate the term during which said Bond or other security shall irrevocably remain in effect.

**12. Insurance.** Effective at the commencement of this lease, Lessee shall obtain and keep in force a comprehensive liability and property damage policy of insurance issued by an insurer licensed to do business in the State of Hawaii, with limits of indemnity coverage no less than \$1,000,000. Said policy of insurance shall provide coverage for personal injury or damage to property caused by hazardous substances or any occurrence that may constitute a violation of any environmental law by the Lessee. Said policy of insurance shall name the Lessor as an additional insured. Lessee shall provide proof of said insurance satisfactory to the Lessor which shall include, at a minimum, the coverage provided, and the term during which said policy shall be effective.

## **Excerpt from Standard Revocable Permit**

### **Environmental Compliance - Permittee's Duties**

#### **26. SPECIAL TERMS AND CONDITIONS.**

##### **ENVIRONMENTAL COMPLIANCE – PERMITTEE'S DUTIES**

###### **A. Definitions.**

For purposes of this Revocable Permit, Permittee agrees and understands that the following terms shall have the following meanings:

“Environmental Laws” shall mean all federal, state and local laws of every nature including statutes, ordinances, rules, regulations, codes, notices, standards, directives of every kind, guidelines, permits, licenses, authorizations, approvals, interpretations of the foregoing by any court, legislative body, agency or official, judicial decisions, orders, rulings or judgments, or rules of common law which currently are in effect or which may come into effect through enactment, issuance, promulgation, adoption or otherwise, which in any way pertain to, relate to, or have any relevance to the environment, health or safety. These environmental laws include, but are not limited to, regulations and orders of the federal Environmental Protection Agency and of the State of Hawaii Department of Health.

“Hazardous Substance” shall mean and include any chemical, substance, organic or inorganic material, controlled substance, object, condition, waste, living organism, or combination thereof which is, may be, or has been determined by proper state or federal authority under any environmental law to be, hazardous to human health or safety or detrimental to the environment. This term shall include, but not be limited to, petroleum hydrocarbons, asbestos, radon, polychlorinated biphenyls (PCBs), methane, and other materials or substances that are regulated by state or federal authorities.

###### **B. Permittee's Activities and Duties.**

**30 Compliance with Environmental Laws.** Permittee agrees, at its sole expense and cost, to comply with all environmental laws that apply to the premises during the term of this Revocable Permit, and Permittee's occupancy of, and activities on, the premises. This duty shall survive the expiration or termination of this Revocable Permit which means that the Permittee's duty to comply with environmental laws shall include complying with all environmental laws, regulations and orders that may apply, or be determined to apply, to the occupancy and activities of the Permittee on the premises after the expiration or termination of this Revocable Permit. Failure of the Permittee to comply with any environmental laws shall constitute a breach of this Revocable Permit for which the State shall be entitled, in its discretion, to terminate this Revocable Permit and take any other action at law or in equity it deems appropriate.

**40 Hazardous Substances.** Permittee shall not use, store, treat, dispose, discharge, release, generate, create, or otherwise handle any Hazardous Substance, or allow the same by any third

person, on the premises without first obtaining the written consent of the State and complying with all environmental laws, including giving all required notices, reporting to, and obtaining permits from, all appropriate authorities, and complying with all provisions of this Revocable Permit.

**3. Notice to the State.** Permittee shall keep the State fully informed at all times regarding all Environmental law related matters affecting the Permittee or the premises. This duty shall include, without limit to the foregoing duty, providing the State with a current and complete list and accounting of all hazardous substances of every kind which are present on or about the premises and with evidence that the Permittee has in effect all required and appropriate permits, licenses, registrations, approvals and other consents that may be required of or by federal and state authorities under all environmental laws. This duty shall also include providing immediate written notice of any investigation, enforcement action, remediation or other regulatory action, order of any type, or any legal action, initiated, issued, or any indication of an intent to do so, communicated in anyway to the Permittee by any federal or state authority or individual which relates in any way to any environmental law or any hazardous substance and the Permittee or the premises. This written notice to the State shall include the Permittee immediately providing the State with copies of all written communications from individuals or state and federal authorities, including copies of all correspondence, claims, complaints, warnings, reports, technical data and any other documents received or obtained by the Permittee. At least thirty (30) days prior to termination of this Revocable Permit, or termination of the possession of the premises by Permittee, which ever shall first occur, Permittee shall provide the State with written evidence satisfactory to the State that Permittee has fully complied with all environmental laws, including any orders issued by any governmental authority to the Permittee that relate to the premises.

**4. Notice to Authorities.** Permittee shall provide written notice to the Environmental Protection Agency and the State of Hawaii Department of Health at least sixty (60) days prior to the termination of this Revocable Permit, or sixty (60) days prior to Permittee's termination of possession of the premises, whichever occurs first, the fact that Permittee intends to vacate the premises and terminate its operations on those premises. Permittee shall allow the agents or representatives of said authorities access to the premises at any and all reasonable times for the purpose of inspecting the premises and taking samples of any material for inspection or testing for compliance with any environmental laws. Permittee shall provide copies of said written notices to the State at the time said notices are provided to said authorities.

**70 Disposal/Removal.** Except for materials that are lawfully sold in the ordinary course of the Permittee's business and for which the Permittee has obtained all required authorizations from appropriate authorities including the prior written permission of the State to have said substance on the premises, Permittee shall cause any hazardous substances to be removed from the premises for disposal. This duty shall include the transportation of said hazardous substance from the premises solely by duly licensed hazardous substance transporters to duly licensed facilities for final disposal as required by all applicable environmental laws. Permittee shall provide the State with copies of documentary proof, including manifests, receipts or bills of lading, which reflect that said hazardous substances have been properly removed and disposed of in accordance with all environmental laws.

**80 Environmental Investigations and Assessments.** The Permittee, at its sole cost and expense, shall cause to be conducted such investigations and assessments of the premises to determine the presence of any hazardous substance on, in, or under the premises as may be directed from time to time by the State, in its sole discretion, or by any federal or state authority. The extent

and number of any environmental investigations and assessments shall be determined by the State or the federal or state authority directing said investigations and assessments to be conducted. Permittee shall retain a competent and qualified person or entity that is satisfactory to the State or governmental authority, as the case may be, to conduct said investigations and assessments. Permittee shall direct said person or entity to provide the State or governmental authority, if so requested, with testable portions of all samples of any soils, water, ground water or other material that may be obtained for testing and provide directly to the State and the governmental authority at the sole expense of the Permittee written results of all tests on said samples upon completion of said testing.

**90 Remediation.** In the event that any hazardous substance is used, stored, treated, disposed on the premises, handled, discharged, released, or determined to be present on the premises, or to have migrated from the premises, Permittee shall, at its sole expense and cost, remediate the premises, or any location off the premises to which it is determined that the hazardous substance has migrated, of any hazardous substances. Said duty to remediate includes the removal and disposal of said hazardous substances in accordance with paragraph 5. This duty to remediate includes strictly complying with all environmental laws and directives to remediate said hazardous substance issued from the State or any federal or State governmental authority charged with enforcing the Environmental laws. This duty to remediate shall include replacement of any materials, such as soils, removed with material that is satisfactory to the State and governmental authority, as the case may be.

**:0 Restoration and Surrender of Premises.** The Permittee hereby agrees to restore the premises, at its sole cost and expense, including the soil, water and structures on, in, or under the premises, to the same condition as the premises existed at the commencement of this Revocable Permit, fair wear and tear to the structures excepted. In the event Permittee does not restore the premises to the same condition as it existed at the commencement of the Revocable Permit, as determined by the State, the Permittee understands and agrees that the State may exercise its rights under the paragraph entitled State's Right to Act, and until such time as the restoration is complete to the satisfaction of the State, Permittee shall be liable for Revocable Permit rent in the same manner and amount as if the Revocable Permit had continued in effect during the period of restoration.

**;0 State's Right to Act.** In the event the Permittee fails for any reason to comply with any of its duties under this Revocable Permit or under any environmental laws within the time set for doing so, or within a reasonable time as determined by the State, the State shall have the right, but not the obligation, in its sole discretion, to perform those duties, or cause them to be performed. Permittee hereby grants access to the premises at all reasonable hours to the State, its agents and anyone designated by the State in order to perform said acts and duties. Any cost, expense or liability of any type that may be incurred by the State in performing said acts or duties shall be the sole responsibility of the Permittee and Permittee hereby agrees to pay for those costs and expenses and indemnify the State for any liability incurred. This obligation shall extend to any costs and expenses incident to enforcement of State's right to act, including litigation costs, attorneys fees and the costs and fees for collection of said cost, expense or liability.

**10. Release and Indemnity.** Permittee hereby agrees to release the State, its officers, agents, successors and assigns from any liability of any kind, including, but not limited to, any liability for any damages, penalties, fines, judgments or assessments that may be imposed or

obtained by any person, agency or governmental authority against the State and/or the Permittee by reason of any hazardous substance that may be present by whatever means on, in or under the premises. The Permittee hereby agrees to indemnify, defend with counsel suitable to the State, and hold harmless the State from any liability that may arise in connection with, or by reason of, any occurrence involving any hazardous substance that may be alleged to be connected or related in any way with the premises, the State's ownership of the premises, or this Revocable Permit, including the presence of any hazardous substance on the premises. Permittee understands and agrees that any assessments, fines or penalties that may be assessed against the Permittee or the State by reason of any environmental law violation concerning the premises shall be paid, complied with, and in every way satisfied by the Permittee and not the State.

**11. Surety/Performance Bond for Cleanup/Restoration.** At its sole cost and expense, Permittee shall provide the State with a Bond, or other security satisfactory to State, in the amount of \$ N/A to assure removal of any hazardous substances and the remediation and restoration of the premises during the term of, and at the conclusion of the Revocable Permit so as to comply with the terms of this Revocable Permit to the satisfaction of the State and in order to comply with environmental laws. Permittee shall provide written evidence that said Bond or security has been secured by the Permittee which evidence shall indicate the term during which said Bond or other security shall irrevocably remain in effect.

**340 Insurance.** Effective at the commencement of this Revocable Permit, Permittee shall obtain and keep in force a comprehensive liability and property damage policy of insurance issued by an insurer licensed to do business in the State of Hawaii with limits of indemnity coverage no less than \$500,000.00. Said policy of insurance shall provide coverage for personal injury and damage to property caused by hazardous substances or any occurrence that may constitute a violation of any environmental law by the Permittee or the State. Said policy of insurance shall name the State as an additional insured. Permittee shall provide proof of said insurance satisfactory to the State which shall include, at a minimum, the coverage provided and the term during which said policy shall be effective.

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**APPENDIX C**  
**TENANT INVENTORY**

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| Honolulu Harbor Tenant Inventory                                      |   |                         |                             |                    |        |                              |               |
|---|---|-------------------------|-----------------------------|--------------------|--------|------------------------------|---------------|
| Lessee  | Mailing Address                               | City and Zip Code       | Inspection POC              | Phone Number       | Lease  | Revocable Permit             | NPDES Permits |
| 1726, Inc.  | 4348 Waialae Avenue, Suite 334,               | Honolulu, HI 96816-5307 | Mark Glen                   | 8085993888         |        |                              |               |
| Aala Produce, Inc.  | 869 North Nimitz Highway,                     | Honolulu, HI 96817-4517 | Rodney Tamamoto             | 808-576-0566       | H-98-2 |                              |               |
| Aircraft Service International Group/Hawaii Fueling Facility Group    | 3201 Aolele Street                            | Honolulu, HI 96819      | Glenn Jinbo                 | (808) 833-3291 x29 |        | H-31-953                     |               |
| Akana Trucking, Inc.  | 209 Hao,                                      | Honolulu, HI 96821      | Kevin M Akana               | 8459825            |        | DOT-94-64                    |               |
| Aloha Agricultural Consultants, Inc.                                  | P.O. Box 17220                                | Honolulu, HI 96817      | Sidney Goo                  | 8088455991         |        | H-97-1985                    |               |
| Aloha Cargo Agency, Inc.  | 677 Ala Moana Blvd., Suite 917                | Honolulu, HI 96813      | Thomas Crescenzi            | 479-8260           |        | H-02-2321 H-93-1822          |               |
| Aloha Container Sales & Rental, Inc.                                  | P.O. Box 30936                                | Honolulu, HI 96820      | Richard D. Preston II (Rick | (808) 843-8600     |        | H-02-2344                    |               |
| Aloha Liquers, Inc.   | 5 Sand Island Access Road, Bldg 929, Box 118, | Honolulu, HI 96819      | Dave Fazendin               | (808) 841-5787     |        |                              |               |
| Aloha Tower Marketplace   | 1 Aloha Tower Drive                           | Honolulu, HI 96813      | Marlene                     | 556-2310           |        |                              |               |
| Aluminium Shake Roofing, Inc.   | 5 Sand Island Access Road, Building 919-B,    | Honolulu, HI 96819      | Fred Rehm                   | 847-8885           |        | DOT-94-86                    |               |
| Amazon Construction Company   | 5 Sand Island Access Road, Box 139,           | Honolulu, HI 96819      | duston onaga                | (808) 841-6595     |        | H-98-2104 DOT-96-136         |               |
| American Marine Corporation   | 65 North Nimitz Highway, Pier 14,             | Honolulu, HI 96817      | Roger Nall                  | 808-545-5190       |        | H-01-2277 H-01-2256 H-86-138 |               |
| Ameron International Corporation                                      | 2344 Pahounui Drive                           | Honolulu, HI 96819      | Linda F. Goldstein          | (808) 266-2672     |        | S-6856                       | HIR00759      |
| Anchor Construction Management Corp.                                  | P.O. BOX 359                                  | HAUULA, HAWAII 96717    | David B. Thielem            | (808) 306-0826     |        | H-99-184                     |               |
| ARA Contracting   | 1433 Kewalo Street #304,                      | Honolulu, HI 96822      | Kenneth Park                | (808) 387-6108     |        | DOT-96-144                   |               |
| Arita/Poulson General Contracting                                     | P.O. Box 1035                                 | Puunene, HI 96784       | Steve Jorgensen             | (808) 368-4764     |        | H-98-2101                    |               |
| Atlantic Submarine Hawaii   | 1600 KAPIOLANI BOULEVARD, SUITE 1630          | Honolulu, HI 96814      | Kekua                       | 386-0123           |        |                              |               |
| BCP Construction Company of Hawaii, Inc.                              | 5 Sand Island Access Road, Box 112,           | Honolulu, HI 96819      | Timothy S. Burke            | 808-841-4574 x208  |        | H-02-214                     |               |
| Brookins Boatworks, Ltd.  | 5 Sand Island Access Road, Unit 117,          | Honolulu, HI 96819      | Gary Brookins               | 841-2525           |        | H-03-2396                    |               |
| Build Systems Intl (Hawaii), Inc.                                     | 664-A KAKOI STREET                            | Honolulu, HI 96819      | Environmental Manager       |                    |        |                              |               |
| Burlington Environmental, Inc.  | 5 Sand Island Access Road, Box 161            | Honolulu, HI 96819      | Otto Audirsch               | 808-845-0032       |        | DOT-94-77                    |               |
| CB Tech Services  | Sand Island Access Road, Box 102              | Honolulu, HI 96819      | fay                         | 848-0060           |        | DOT-95-108                   |               |
| Central Pacific Distributing, Inc.                                    | 5 Sand Island Access Road, Box 127,           | Honolulu, HI 96819      | Brian Oda                   | (808) 848-0787     |        | DOT-95-107                   |               |
| Certified Sheet Metal, Inc.   | 1544 Mahiole Street,                          | Honolulu, HI 96819      | Michael Yamauchi            | (808) 372-3918     |        |                              |               |
| Chang, David D and Eun Ik   | P. O. BOX 30054                               | Honolulu, HI 96820      | David Chang                 | 808853-1122        |        |                              |               |
| Chase Sales & Distribution, Inc.                                      | 5 Sand Island Access Road, Box 147,           | Honolulu, HI 96819      | Hank Hatakenaka             | (808) 842-4588     |        | H-11-2703                    |               |
| City & County of Honolulu, Honolulu Fire Department                   | 111 North Nimitz Highway, Pier 15             | Honolulu, HI 96817      | Captain Lance Orillo or Mr  | 808-523-4957       |        | H-91-22                      |               |
| City & County of Honolulu, Honolulu Police Department, Juvenile Servi | 801 South Beretania St.                       | Honolulu, HI 96813      | Lieutenant J. Averell Pedd  | (808) 529-3881     | H-203  |                              |               |
| Classic Tile Corp.  | P.O. Box 30568,                               | Honolulu, HI 96820      | Casey                       | 808-216-3801       |        | DOT-93-13                    |               |
| Clean Islands Council   | 179 Sand Island Access Road,                  | Honolulu, HI 96819      | Tim Sawyer                  | 536-5814           |        | H-93-1815 H-90-1689 H-94-184 |               |
| Concrete Coring Company of Hawaii, Inc.                               | 99-1026 Iwaena Street,                        | Aiea, HI 96701          | John Neff / Nathan Sabey    | (808) 488-8222     |        | H-02-2355 / H-00-2235        |               |
| Conocophillips Company  | P.O. BOX 7500                                 | Barlesville, OK 74005   | Environmental Manager       |                    |        |                              |               |

| Lessee                                 | Mailing Address                         | City and Zip Code       | Inspection POC         | Phone Number       | Lease     | Revocable Permit            | NPDES Permits |
|--|---|-------------------------|------------------------|--------------------|-----------|-----------------------------|---------------|
| Control Tech, LLC                      | P.O. Box 30992,                         | Honolulu, HI 96820      | Melvin Tsue            | (808) 847-7490     |           | H-00-196                    |               |
| Convention Set Builders                | 5 Sand Island Access Road, Box 103      | Honolulu, HI 96819      | Eric Van der Voort     | 808-216-1507       |           | DOT-98-177                  |               |
| Custom Bilt Metals                     | 5 sand island access road. Building 928 | Honolulu, HI 96819      | Steve                  | 808-479-1451       |           |                             |               |
| DD-M Leasing, Inc.                     | 65 North Nimitz Highway, Pier 14,       | Honolulu, HI 96817      | Tiare Ohelo            | (808) 791-0067     | H-300138  | H-04-2467                   |               |
| Dedrick, Dewain                        | 701 North Nimitz Highway,               | Honolulu, HI 96817      | David Donaldson        | (808) 587-7779     | H-06-2552 | H-02-2383                   |               |
| Dependable Hawaiian Express, Inc.      | 703 North Nimitz Highway,               | Honolulu, HI 96817      | Ron Richardson         | (808) 841-7311 x17 |           | H-01-2285                   |               |
| Division 8, Inc.                       | 5 Sand Island Access Road, Box 126,     | Honolulu, HI 96819      | Brad Granger           | 808-845-8999       |           | DOT-96-142                  |               |
| Donahue, Shannon                       | P.O. Box 356,                           | Kihei, HI 96753         | Shannon Donahue        | 808-330-1370       |           |                             |               |
| Don's Makiki Service                   | 1406 South Beretania Street,            | Honolulu, HI 96814      | Holly Moran            | 301-775-7692       |           |                             |               |
| East West Marketing                    | 95-1101 Wikao St.                       | Mililani, HI 96789      | Bertram                | 753-7964           |           |                             |               |
| Erik Builders, Inc.                    | 50-CC Sand Island Access Road,          | Honolulu, HI 96819      | Jimmy Sakata           | 845-7736           |           | H-98-2092 H-97-1984         |               |
| Five "C" Corp.                         | 80 Sand Island Access Road, #226,       | Honolulu, HI 96819      | Eric Carlbom           | 832-0555           |           | H-97-158                    |               |
| Frank P. White Jr. Properties          | 2276 Pahounui Drive,                    | Honolulu, HI 96819      | Frank White            | (808) 841-5555     |           |                             |               |
| Fresh Island Fish, LLC                 | 1135 North Nimitz Highway               | Honolulu, HI 96817      | Derek Higa             | 808-831-4911       | H-05-24   |                             |               |
| Friends of Falls of Clyde              | P.O. BOX 25008                          | Honolulu, HI 96825      | Chris                  | 263-4227           |           |                             |               |
| Friends of Hokule'a & Hawai'iloa       | P.O. Box 696,                           | Kailua, HI 96734        | Jay Dowsett            | 808256-1841        |           |                             |               |
| Fukunaga, Paul N.                      | 1391 Haloa Drive                        | Honolulu, HI 96818      | Paul N Fukunaga        | 842-1330           |           | H-02-2339                   |               |
| Gillis, Eugene                         | 5928 Kalaniana'ole Highway,             | Honolulu, HI 96821      | Eugene Gillis          | 808-383-1959       |           | H-02-2366                   |               |
| Global Specialty Contractors, Inc.     | 5 Sand Island Access Road, Box 159,     | Honolulu, HI 96819      | Marvin G. Krael        | 808368-3993        |           |                             |               |
| Great Pacific Wholesale Co., LLC       | P.O. Box 31062,                         | Honolulu, HI 96820      | Todd Patterson         | (808) 395-8048     |           | H-03-2399                   |               |
| Hajalee Inc.                           | 1010 Kaili Street                       | Honolulu, HI 96819      | Jason Yang, Kevin Lee  | (808) 841-8699     |           | H-07-2592                   |               |
| Hardy Construction Co., Inc.           | 2410 A Makiki Heights Drive,            | Honolulu, HI 96822      | William Hardy          | (808) 845-0267     |           |                             |               |
| Hawaii Explosives & Pyrotechnics, Inc. | P.O. Box 1244,                          | Keaau, HI 96749         | Ronald Pascual         | 968-0600           |           | H-02-2385                   |               |
| Hawaii Maritime Center                 | 1525 Bernice Street                     | Honolulu, HI 96817      | Donald                 | 523-6151           | H-87-30   |                             |               |
| Hawaii Painting & Wallcovering         | P.O. Box 17038,                         | Honolulu, HI 96817-0038 | Dean & Brian Negatoshi | (808) 479-6825     |           | H-99-2153                   |               |
| Hawaii Stevedores, Inc.                | P.O. Box 2160,                          | Honolulu, HI 96805-2160 | Ken Chung              | 808-527-3400 x415  | H-90-4    | H-98-2038 H-96-1912 H-92-17 | R80A305       |
| Hawaii Toys & Gifts                    | 1547 Kokea Street,                      | Honolulu, HI 96817      | danny ung              | 292-2023           |           | DOT-96-133                  |               |
| Hawaii Transfer Company, Ltd.          | P.O. Box 665,                           | Pearl City, HI 96782    | Joseph Aguon           | 677-3111 x134      | H-98-9    | H-02-2375                   | NGPC File No. |
| Hawaiian Aqua Products                 | 1130 Wilder Avenue, Suite 102,          | Honolulu, HI 96822      | Yal M. Lim, Foo W. Lim | (808) 521-5468     |           |                             | HI R20A 196   |
| Hawktree International                 | P.O. Box 17865,                         | Honolulu, HI 96817      | Patrick Hee            | 808839-1120        | H-02-1    |                             | HI R80A506    |
| Heumann, James                         | P.O. Box 8672,                          | Honolulu, HI 96830      | Jim Heumann            | 808220-7675        |           |                             |               |
| Hirose Electric                        | P.O. Box 30448,                         | Honolulu, HI 96820      | Gena or Kevin          | (808) 848-8830     |           | DOT-96-132                  |               |
| Hi-Tec Roofing, Inc.                   | 5 Sand Island Access Road, Box 157,     | Honolulu, HI 96819      | Tenali Hicks           | 808841-7663        |           | DOT-94-59                   |               |

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|--|-------------------------------------|-------------------------|------------------------|--------------------|-----------|--------------------------------|---------------|
| Honolulu Community Action Program, Inc.              | 33 South King Street, Suite 300     | Honolulu, HI 96813      | John Park              | 808277-3716        |           |                                |               |
| Honolulu Marathon Association                        | 3435 Waialae Ave Rm 208             | Honolulu, HI 96826      | Ronald Chun            | 808734-7200        |           |                                |               |
| Hook Up Towing, Inc.                                 | 1843 Liliha Street, Apt. B,         | Honolulu, HI 96817-2368 | Randy                  | 486-4665           |           | H-03-2398                      |               |
| Horizon Lines, LLC                                   | 1601 Sand Island Parkway            | Honolulu, HI 96819      | Frank Roznerski        | 808-842-5389       | H-90-4    |                                | HI R808909    |
| HPBS, Inc.   | P.O. Box 721,                       | Honolulu, HI 96808      | Fay Leong              | 532-7233           |           | H-99-2159 H-93-1819            |               |
| HPC Foods, Ltd.                                      | 288 Libby Street,                   | Honolulu, HI 96819      | Ron Yamauchi           | (808) 848-2431 x 1 | H-06-2563 |                                |               |
| Industrial Chemical & Lubricants, Inc.               | P.O. Box 30173,                     | Honolulu, HI 96820      | Patricia Shinsato      | 842-4112           |           | DOT-93-12 H-06-2542            |               |
| International Express, Inc.                          | P.O. Box 797,                       | Honolulu, HI 96808      | David Hinchey / Kalani | (808) 841-6005     | H-99-7    | H-02-2370 H-98-171             |               |
| Ishikawa, Norman & Dolores                           | P.O. Box 2280,                      | Ewa Beach, HI 96706     | Billy                  | 808-778-1084       |           | H-97-1988                      |               |
| Island Beach Activities                              | P.O. Box 8181                       | Honolulu, HI 96830      | John Salvio            | 808-223-8735       |           | H-06-2543                      |               |
| Jas W. Glover, Ltd.                                  | PO Box 579                          | Honolulu, HI 96809      | Maile Romanowski       | 808591-8978        | H-06-2553 | HI R70C472                     | HI R70C472    |
| Jems Enterprises, LLC                                | 1125 North Nimitz Hwy               | Honolulu, HI 96817      | Marshall Joy           | (808) 538-6918     | HAR-PM 49 |                                |               |
| Jet Pro, Inc.  | 486 Cabot Road,                     | San Francisco, CA 94080 | Margaret Guerrero      | 845-8826           |           | H-00-202                       |               |
| JFC International                                    | P.O. Box 4404,                      | Honolulu, HI 96812      | Toshiaki Wada          | (808) 537-9528     |           | H-02-2330                      |               |
| Kagami, Inc.   | P.O. Box 17129                      | Honolulu, HI 96817-0129 | Wayne M. Kagami        | (808) 523-5700     | 300135    | Contract # H-05-2509, H-04-246 |               |
| Kirkwood, Clarke                                     | 50-C Sand Island Access Road,       | Honolulu, HI 96819      | Matt Buckman           | (808) 306-6012     |           | H-97-2000                      |               |
| Kong Enterprises, Inc.                               | P.O. BOX 5187                       | Kaneohe, HI 96744       | Richard Kong           | 487-3582           |           |                                |               |
| K-Sea Transportation, Hawaii Division                | Pier 21,                            | Honolulu, HI 96817      | Bill Boland            | 522-1000 x108      |           | H-01-2273 H-01-2249 H-93-18    |               |
| Kumu Corp and Transmission Hotline                   | 50 K Sand Island Access Road,       | Honolulu, HI 96819      | Dan Kahler             | 808-232-2577       |           | H-97-1995                      |               |
| Lansdown, Ian J.                                     | 665 IANA Street,                    | Kailua, HI 96734        | Jeff Lansdown          | 263-2383           |           |                                |               |
| Marine Petroleum Corporation and Fuelman, Inc.       | P.O. Box 29249,                     | Honolulu, HI 96820      | Michael P. Rossman     | 841-0169           |           | H-98-2082                      |               |
| Marine Spill Response Corporation                    | 179 Sand Island Access Road,        | Honolulu, HI 96819      | John                   | 847-8144           |           | H-94-1845                      |               |
| Maritime License Center                              | 707 Alakea Street, Suite 314        | Honolulu, HI 96813      | Charles Howard         | 589-0123           |           | H-02-2364 H-01-2298            |               |
| Masuda, Richard                                      | 833 Ekoa Place,                     | Honolulu, HI 96821      |                        |                    |           | H-97-1987                      |               |
| Matson Navigation Company and Matson Terminals, Inc. | 1411 Sand Island Parkway            | Honolulu, HI 96819      | Keahi Birch            | 848-1252           | H-79-5    | H-00-2225, H-99-2156, H-98-212 |               |
| Mauga-Olive Assembly of God                          | P.O. Box 4114                       | Honolulu, HI 96813      | Setu Tiafane           | (808) 778-0127     |           | DOT-97-152                     |               |
| McCabe, Hamilton & Renny                             | P.O. Box 210,                       | Honolulu, HI 96810      | Andrew Souza           | 808-479-0356       |           | H-99-2160; H-96-1911; H-93-182 |               |
| Military HQ  | 5 Sand Island Access Road, Box 123  | Honolulu, HI 96819      | Sandii Kamaunu         | 808843-0189        |           |                                |               |
| Miller Industries, Inc.                              | 5 Sand Island Access Road, Box 105, | Honolulu, HI 96819      | William Miller         | 808848-0855        |           |                                |               |
| Miller/Watts Constructors, Inc.                      | 737 Bishop Street, Suite 2900       | Honolulu, HI 96813      | Vincent E. Fragomene   | 808-543-5201       |           | H-06-2564                      | HI 06GC529 HI |
| MLC Int'l, LLC                                       | P.O. Box 10459                      | Honolulu, HI 96816      | Matty Lyum             | 808-282-5496       |           | H-06-2541                      |               |
| Moana Pa'a Kai, Inc.                                 | P.O. Box 3288, Pier 40              | Honolulu, HI 96801-3288 | Nathan Kapule          | (808) 543-9398     |           |                                | HI R80B059    |
| Myung Soo Han  | 1617 Keeaumoku Street, #501,        | Honolulu, HI 96822      | Myun Soo Han           | 808-841-6688       |           |                                |               |

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|--|-------------------------------------|-------------------------|----------------------------|-------------------|-----------|-----------------------------|---------------|
| Nakamura, Rodney S.                    | 2433 Rooke Avenue,                  | Honolulu, HI 96817      | Rodney S. Nakamura         | (808) 228-2551    | 600053    |                             |               |
| Nanakuli Neighborhood Housing Services | P.O. Box 17489,                     | Honolulu, HI 96817-0489 | Wilbert Barber             | (808) 842-0770    |           | H-01-2248                   |               |
| Norko Marine Agency, Inc.              | 791 North Nimitz Highway,           | Honolulu, HI 96817      | Norman Cheu                | 808-216-4790      |           | H-01-2314                   |               |
| Oceantronics, Inc.                     | 711 North Nimitz Highway,           | Honolulu, HI 96817      | Sharon                     | (808) 522-5600    |           | H-98-2102                   |               |
| Ohai, Leo A.                           | PO Box 37038                        | Honolulu, HI 96820      | Nephi Ohai                 | 531-2524          | H-99-3    |                             |               |
| P&R Water Taxi, Ltd.                   | P.O. Box 2851,                      | Honolulu, HI 96803      | Ralph Dewitt               | 808554-3436       |           | H-05-2504 H-91-1714         | HI R80A153    |
| Pacific Commercial Services, LLC       | P.O. Box 235117,                    | Honolulu, HI 96813      | Jingo Chang                | 808-545-4599      | H-02-223  | H-06-2529                   |               |
| Pacific Divers Equipment Supply, Inc.  | 5 SAND ISLAND ACCESS ROAD, BOX 140  | Honolulu, HI 96819      | Thomas Coyne               | 808847-4455       |           | H-08-2642                   |               |
| Pacific Environmental Corporation      | 65 North Nimitz Highway, Pier 14,   | Honolulu, HI 96817      | Teal Cross / Jeremy Sirkin | (808) 545-5195    |           | H-98-2055 H-96-1898 H-93-18 |               |
| Pacific Fishing and Supply, Inc.       | 504 N Nimitz Hwy                    | Honolulu, HI 96817      | Roger Dang                 | 533-1195          |           | H-97-1969                   |               |
| Pacific Ocean Producers, Inc.          | 1133 North Nimitz Highway,          | Honolulu, HI 96817      | Arlen Walsten              | 537-2905 x105     | H-03-18   | H-98-2096 H-98-2079 H-95-18 |               |
| Pacific Shipyards International, LLC   | P.O. Box 31328,                     | Honolulu, HI 96820      | Tom Atkinson               | 387-8925          |           | H-98-2123 H-84-1229         | HI0020753     |
| Pang, Sandra                           | 139 Mokauea Street,                 | Honolulu, HI 96819      | Sandra Pang                | (808) 848-0040    |           | H-91-1735                   |               |
| Paradise Cruise, Ltd.                  | 5 Sand Island Access Road, Box 121, | Honolulu, HI 96819      | Marc Rubenstein            | (808) 536-6626    | DOT 93-22 |                             |               |
| Paradise Inn Hawaii, LLC               | P. O. BOX 25367                     | Honolulu, HI 96825      |                            |                   |           |                             |               |
| PBC Wholesalers, Inc.                  | 5 Sand Island Access Road, Box 116, | Honolulu, HI 96819      | Alan Nozawa                | (808) 842-6565    |           | DOT-94-76                   |               |
| Pendeton Flour Mills, LLC              | P.O. Box 1238,                      | Honolulu, HI 96807-1238 | Tim Byam                   | (808) 527-3272    |           | H-01-2283                   |               |
| Petrospect, Inc.                       | 499 North Nimitz Highway            | Honolulu, HI 96817      | David Harrington           | (808) 536-6626    |           | H-88-1517 H-87-1411         |               |
| Pioneer Machinery, Inc.                | P.O. Box 22265,                     | Honolulu, HI 96823-2265 | Rodney Yee                 | (808) 371-4892    |           | H-90-1678                   |               |
| Prime Builders                         | 411 Hobron Lane, #912,              | Honolulu, HI 96815      | Damian Roncevich           | (808) 371-5086    |           | DOT-96-146                  |               |
| Protech Roofing, LLC                   | 5 Sand Island Access Rd, Box 163    | Honolulu, HI 96819      | Charles E. Spicgel         | (808) 597-8120    |           |                             |               |
| Pryne, Ty                              | 742 Queen Street, Suite 301,        | Honolulu, HI 96813      | Ty Pryne                   | (808) 597-8120    | 1009557   | H-01-2271                   |               |
| Quick Move, Inc.                       | P.O. Box 26                         | Aiea, HI 96701          | Eugene Fontanilla          | 808-486-7223      |           | H-98-162                    |               |
| Rebecca's Fine Collection              | 1585 Kapiolani Blvd., #812          | Honolulu, HI 96814      | Rebecca                    | 478-6688          |           |                             |               |
| Reef Development of Hawaii, Inc.       | P.O. Box 1055                       | Aiea, HI 96701          | Frank A. Machado. Mech     | 808-488-1228 x114 |           | DOT-94-69                   |               |
| Robert Marcos, Inc.                    | 5 Sand Island Access Road, Box 143, | Honolulu, HI 96819      | Mark Gaulke                | (808) 841-1123    |           | DOT-96-141                  |               |
| Roberto's, Inc.                        | 5 Sand Island Access Road, Box 137, | Honolulu, HI 96819      | Grace Siu                  | 808-843-1688 x110 |           | DOT-96-131                  |               |
| Ron's Concrete Specialist, Ltd.        | P.O. Box 17370                      | Honolulu, HI 96817      | James                      | 808845-0467       | H-982115  |                             |               |
| Saito, Lincoln Timothy                 | 1058 12th Avenue, Unit B            | Honolulu, HI 96816      | Timothy Saito              | 808-284-0420      |           | H-97-1991                   |               |
| Salassa, Fred                          | 1845 Auiki Street,                  | Honolulu, HI 96819      | Natalie Hew-Len            | 808-842-9133 x 12 | H-99-6    |                             |               |
| Sause Bros., Inc.                      | 705 North Nimitz Highway, Fl. 2     | Honolulu, HI 96817      | Wayne Stachel for HNL, M   | HNL: (808)306-217 |           |                             |               |
| Schofield Federal Credit Union         | P.O. Box 860669,                    | Wahiawa, HI 96786       | Gary Yonamine, CEO         | (808) 624-9884    |           |                             |               |
| Sea Engineering, Inc.                  | 863 N Nimitz Hwy                    | Honolulu, HI 96817      | W. Patrick Ross            | (808) 536-3603    | H-01-2289 |                             |               |

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| Shobu's Refrigeration & Air Conditioning                            | 45-616 APUAKEA STREET               | Kaneohe, HI 93744       | Environmental Manager     |                    |           |                  |               |
| Siu, Wai Lun  | 750 N. Nimitz Hwy                   | Honolulu, HI 96819      | Raymond Siu               | (808) 597-8120     |           |                  |               |
| Southern Food Group   | 925 Cedar Street,                   | Honolulu, HI 96814      | Jason Fujimoto            | (808) 630-7401     |           |                  |               |
| State of Hawaii Department of the Attorney General/Criminal Justice | 425 Queen Street,                   | Honolulu, HI 96813      | Kern Nishioka             | (808) 586-1383     |           |                  |               |
| Steinke Brothers, Inc.  | 98-889 Kaahele Street,              | Aiea, HI 96701          | Robert Steinke            | (808) 488-9668     |           | H-97-1981        |               |
| Submarines Hawaii, L.P.   | 680 Iwilei Road, Suite 700,         | Honolulu, HI 96817      | Laki Sagiao               | 808823-7750        |           | H-99-2168        |               |
| Sun Chong Company, Ltd.   | 5 Sand Island Access Road, Box 148, | Honolulu, HI 96819      | Kevin Lam                 | (808) 381-2495     |           | DOT-94-71        |               |
| Tai Polythene of Hawaii, Inc.                                       | 60 Laimi Road,                      | Honolulu, HI 96817      | Tai Lee                   | (808) 848-5591     |           | DOT-97-148       |               |
| TBC, LLC  | 1172 Lunaai street                  | Kailua, HI 96734        | Patrick Casey             | 808292-7468        | H-06-2522 |                  |               |
| The Custom Co., Inc.  | 205 Kalihi Street,                  | Honolulu, HI 96819      | Caroline                  | 808-843-2805       |           |                  |               |
| The Gas Company, LLC  | P.O. Box 3000,                      | Honolulu, HI 96802-3000 | Zoe Williams              | 808594-5637        | H-06-28   |                  |               |
| The Pasha Group   | 677 Ala Moana Blvd., Suite 700      | Honolulu, HI 96813      | Darren Lee                | (808) 590-3617     |           | H-06-2565        |               |
| The Sussex Co., Inc.  | 2270 Makiki Heights Drive,          | Honolulu, HI 96822      | Tony Sussex               | (808) 537-3001     |           | H96-128          |               |
| The Webe Corporation, Ltd.  | 680 Iwilei Road, Suite 700,         | Honolulu, HI 96817      | Laki Sagiao               | 808779-4041        | H-84-11   | H-05-2508        |               |
| Theophyllus, Inc.   | 224 Mokauea Street,                 | Honolulu, HI 96819      | Layne Kano                | (808) 848-8844 x23 |           |                  |               |
| Tropical J's, Inc.  | 5 Sand Island Access Road, Box 122, | Honolulu, HI 96819      | Chris                     | 848-0888           |           | DOT-94-80        |               |
| Tropical Rain Gutter and Roofing, Inc.                              | 5 Sand Island Access Road, Box 141, | Honolulu, HI 96819      | Kim Beattie               | (808) 847-0030     | H-02-217  | H-02-217         |               |
| U.S. Bureau of Customs and Border Protection, Department of Homel   | 300 Ala Moana Boulevard, Room 2-267 | Honolulu, HI 96813      | Nancy Graham              | 808-522-8001 X223  |           | H-03-2419        | H-97-1934     |
| Uniroc Marble & Granite   | 5 Sand Island Access Road, Box 101, | Honolulu, HI 96819      | Jonathan N. Ing           | 808845-5586        |           |                  |               |
| United Fishing Agency, Ltd.   | 1131 North Nimitz Highway,          | Honolulu, HI 96817      | Daniel Otani              | (808) 536-2148     |           |                  |               |
| Unitek Technical Services, Inc.                                     | P.O. Box 29177,                     | Honolulu, HI 96820      | Frank Schumann / Tony     | 447-2619           |           | H-99-182         |               |
| Universal Wholesalers   | P.O. Box 160927,                    | Honolulu, HI 96816      | Patrick Chan              | (808) 842-7427     |           |                  |               |
| Van, Kevin  | Pier 20, Warehouse #6,              | Honolulu, HI 96817      | Kevin Van                 | 808521-6076        |           |                  |               |
| Viking V., Inc  | 309 Ilihau Street,                  | Kailua, HI 96734-1856   | John Myking               | (808) 254-6228     |           | H-05-2515        |               |
| Welsh, JR., Darrell, G., AIA  | One Aloha Drive, Box 63             | Honolulu, HI 96813      | Darrell G. Welch Jr., AIA | (808) 585-8522     |           | H-99-2134        |               |
| Wikoliana Educational Excursions, LLC                               | 665 IANA STREET                     | Kailua, HI 96734        | IAN JEFFREY LANSDOWN      | 230-0940           |           |                  |               |
| Windward Moving and Storage   | 5 SAND ISLAND ACCESS ROAD, BOX 140  | Honolulu, HI 96819      | Greg Hamilton             | 808-845-6100       |           |                  |               |
| Y. Fukunaga Products, Ltd.  | 5 Sand Island Access Road, Box 125, | Honolulu, HI 96819      | Neal M. Otani             | (808) 841-1555     |           | H-02-2353        |               |
| Y. Hata & Company, Ltd.   | 285 SAND ISLAND ACCESS ROAD         | Honolulu, HI 96819      | Chad Diaz                 | 808-864-2615       |           |                  |               |
| Yim, Donald T.  | 5 Sand Island Access Road, Box 153, | Honolulu, HI 96819      | Donald Yim                | (808) 841-3911     |           | H-03-2406        |               |
| Young Brothers, Ltd.  | P.O. Box 3288,                      | Honolulu, HI 96801      | Nathan Kapule             | (808) 543-9398     |           |                  | HA R80A119    |



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**APPENDIX D**

**EXAMPLE TENANT MAILING**

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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION  
79 SOUTH NIMITZ HIGHWAY  
HONOLULU, HAWAII 96813-4898

IN REPLY REFER TO:

HAR-EE  
1592.12

September 28, 2011

TO: HARBORS DIVISION TENANTS

FROM: RANDY GRUNE   
DEPUTY DIRECTOR - HARBORS

SUBJECT: ANNUAL TENANT STORM WATER SELF-INSPECTION FORM AND  
NOTIFICATION OF ANNUAL AWARENESS TRAINING

We require that you carefully read, fill-out and return the attached Tenant Self-Inspection (TSI) Form.

The returned TSI Form will provide us essential information about your operational activities and storm water management practices that will aid us to comply with mandated requirements of the Federal Water Pollution Act, commonly referred to as the Clean Water Act (CWA), and State of Hawaii requirements under the Department of Health, Hawaii Administrative Rules (HAR). The regulations are defined in Title 40, Code of Federal Regulations (40 CFR), Parts 122 and 123, and in the HAR, Chapter 11-55. The regulations establish a framework that governs the discharge of storm water runoff into waters of the United States, and could impose penalties of up to \$27,500 per day per violation for non-compliance.

The Harbors Division has obtained coverage from the Department of Health to operate the storm drainage systems which discharge into Honolulu Harbor and Kalaeloa Barbers Point Harbor. The TSI Form is designed to help you and allow us to assess compliance with state and federal regulations, and our discharge permits. The form must be completely filled out and returned by October 31, 2011. Please send the completed TSI Form to the Harbors Division, Attention: Randal Leong, Environmental Engineer, 79 South Nimitz Highway, Honolulu, Hawaii 96813. You may also deliver the form in person to one of the two tenant training meetings detailed below.

We are enclosing three handouts pertaining to matters that all Harbors Division tenants need to be aware of. The three topics addressed are: (1) Washing of equipment and vehicles; (2) Construction of improvements for, on or within your area; and (3) Material Storage Best Management Practices.

We are also notifying you of our third annual mandatory storm water awareness training meetings where we will share information with all of our tenants about the present status of our Storm Water Management Programs established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor

Harbors Division Tenants  
Page 2  
September 28, 2011

HAR-EE  
1592.12

Small Municipal Separate Storm Sewer System (MS4) Permits. We will discuss the history and direction of the programs, how they impact your tenancy with Harbors Division and discuss the contents of the enclosed handouts.

For your convenience, two sessions will be provided for facility owners, environmental managers and/or other representatives of your company at the Honolulu Harbor Pier 2 Passenger Terminal on **October 19 and 20, 2011, from 10:00 am to 12:00 noon, with check-in starting at 9:30 am.** Please send at least one representative from your company to either of the two sessions. Parking is available at the Pier 2 Passenger Terminal parking lot at no charge.

If you have any questions, please contact Mr. Randal Leong, Harbors Environmental Engineer at 587-1962.

Att: Tenant Self-Inspection Form  
Handouts (3)

# STORMWATER BEST MANAGEMENT PRACTICES



## Building and Remodeling

The storm drainage system at our harbor facilities collects rainfall from storm events and releases it directly, without treatment, into the harbor. Sediment is the pollutant of most concern during construction due to the removal of soil cover. Heavy metals and nutrients attach to soil particles that, if allowed to reach the storm drain, degrade water quality. Other items of concern include paints, thinners, mortars and construction rubble/debris.

Implementing Best Management Practices (BMPs) and good housekeeping practices will help maintain water quality in the harbor.

**NOTE: SUBMITTAL OF BUILDING OR REMODELING PLANS TO THE  
HDOT HARBORS DIVISION FOR FORMAL APPROVAL IS REQUIRED**

### BMP Implementation

#### Soil Erosion and Sedimentation

- Minimize removal of existing vegetation.
- Reduce traffic on disturbed soils and divert runoff around them.
- Re-vegetate as soon as possible using native seed mix and mulch.
- Frequently sweep soil back from streets and sidewalks.
- Dry sweep paved surfaces rather than hosing down or using blowers.
- Use sediment control devices, including silt fences, inlet protection, diversion ditches, and swales to minimize off-site migration of soil.

#### Housekeeping During Work

- Properly store and dispose of materials such as paints and solvents.
- Properly contain and dispose of mop water, sweepings, and sediments.
- Use non-toxic substitutes for chemicals when possible.
- Inspect vehicles and equipment for leaks regularly and fix problems as soon as possible.
- Keep a spill kit of absorbent material, such as kitty litter or sand, and safety equipment, such as safety glasses and gloves, in case a spill does occur. Never hose down an area to clean up after a spill.
- Control litter by sweeping and picking up trash on a regular basis.
- Cover dumpsters and replace leaking ones.

Train employees (document) on proper materials storage, handling and spill response responsibilities. Report all spills in accordance with the Hawaii Department of Health's (HDOH) Spill Reporting and Emergency Response requirements found at the link below and document response actions.  
<http://hawaii.gov/health/environmental/hazard/spill.html>

*The State Department of Transportation, Harbors Division has developed the Storm Water Management Program (SWMP) in compliance with the National Pollutant Discharge Elimination System (NPDES) and the State of Hawaii Municipal Separate Storm Sewer System (MS4) General Permit requirements.*

*The SWMP is administered by the Environmental Section under the Engineering Branch.*

*Phone: 808-587-1962*

*Website:  
<http://hawaii.gov/dot/harbors/library/storm-management-plan>*

**Cover it; Clean it; Collect it; Keep our waters Clear!**

# STORMWATER BEST MANAGEMENT PRACTICES



## Outdoor Material Storage

Responsible storage of chemicals, such as paints, solvents, and cleaners can significantly reduce polluted storm water runoff. Containerized products (such as bottles, cans, and drums) and bulk material must be handled properly in all stages of storage, use, and disposal. In many cases, businesses can implement simple housekeeping practices in order to store materials more effectively. Proper storage practices reduce the likelihood of accidental spills or releases of hazardous materials during storm events. In addition, health and safety conditions at the facility will improve.

### BMP Implementation

Outdoor material storage should be placed only in designated areas specifically designed to contain spills and prevent contact with storm water. Store liquids in an area where containers cannot be knocked over and releases can be contained.

- Avoid positioning upstream or adjacent to storm drainage features.
- Place bagged materials on pallets and under cover.
- Utilize impervious surfaces and containment devices (e.g., dikes, curbs) to contain possible leaks and prevent storm water run-on/off.
- Store all containers under cover to protect from rain and sun.
- Close and secure any opened containers, and utilize drip pans for dispensing from containers.
- Cover stockpiles with plastic or comparable material when not in use or at the end of each day.
- Provide physical diversion to protect stockpiles from concentrated runoff.
- As necessary, place silt fence, fiber filtration tubes, or straw wattles around stockpiles.

Appropriate spill response procedures, including notification, initial response and follow-up actions, should be developed and posted.

- Keep a spill kit appropriate for the materials in a readily accessible location, stocked, and ready for use (re-stock after each use).
- Clean up spills immediately using absorbent material or containment booms for liquid spills. Immediately sweep up and properly dispose of used absorbent materials.
- Always use dry methods to clean spills (sweeping) and never hose down the spill area.

Periodic inspections should be performed to verify that the conditions of containers, secondary containment devices, and other structural controls are acceptable. Train employees (document) on proper storage, handling and spill response responsibilities. Report all spills in accordance with the Hawaii Department of Health Spill Reporting and Emergency Response requirements (<http://hawaii.gov/health/environmental/hazard/spill.html>).

*The State Department of Transportation, Harbors Division has developed the Storm Water Management Program (SWMP) in compliance with the National Pollutant Discharge Elimination System (NPDES) and the State of Hawaii Municipal Separate Storm Sewer System (MS4) General Permit requirements.*

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*Phone: 808-587-1962*

*Website:  
<http://hawaii.gov/dot/harbors/library/storm-management-plan>*

**Cover it; Clean it; Collect it; Keep our waters Clear!**



# STORMWATER BEST MANAGEMENT PRACTICES



## Vehicle and Equipment Washing

Wash water from vehicle and equipment cleaning activities performed outdoors or in areas where wash water flows onto the ground can generate dry weather runoff contaminated with detergents, heavy metals, oils and greases, toxic substances, sediments, and other pollutants.

Releasing pollutants directly or indirectly into the storm drain system or the harbor by vehicle or equipment washing is a violation of the Harbor Municipal Separate Storm Sewer System (MS4) General Permit. Proper employee training, BMP implementation, and pollution prevention methods are required for compliance with the Harbor's Storm Water Management Program (SWMP).

### BMP Implementation

#### Primary Option: Off-site Washing

Facilities with small fleets should consider contracting with a commercial car wash. Commercial car wash facilities often recycle their water or are required to treat their wash water discharge prior to release into the sanitary sewer system. Pressure cleaning and steam cleaning should be done off-site to avoid generating runoff with high pollutant concentrations.

#### Secondary Option: On-Site Washing

**NOTE: ON-SITE WASHING IS ALLOWED ONLY AFTER WASHING PROCEDURES ARE SUBMITTED TO THE HDOT HARBORS DIVISION FOR FORMAL APPROVAL**

Vehicle and equipment washing should be conducted only in designated areas specifically designed to collect and hold generated wash and rinse water.

*"For small jobs, berm the area surrounding the vehicle and use a wet/dry vacuum to capture the wash water for discharge to the sanitary sewer. For larger jobs, use a combination of berms and a vacuum truck, such as those used to clean storm and sanitary sewer systems, to capture and safely dispose of wash water. If detergents are used, clean the pavement to prevent this material from being carried to the storm drain during the next rainstorm."*<sup>1</sup>

The contained wash water effluent should be recycled, discharged to the sanitary sewer system (permit may be required) or collected for off-site disposal at a permitted facility. Additionally, designated wash areas should be paved and contained using berms and a sump. Use hose nozzles with automatic shut off and bio-degradable soaps where appropriate. Inspect paved surfaces within the wash area and clean periodically to remove buildup of particulate matter or other pollutants. Vehicle maintenance, chemical storage, and other activities that could release pollutants are prohibited in washing areas. Train employees on proper cleaning, maintenance, and wash water disposal procedures. Documentation of this training should include a list of attendees, the date, the topic covered, and signatures of attendees.

<sup>1</sup> EPA Municipal Vehicle and Equipment Washing BMP Fact Sheet

*The State Department of Transportation, Harbors Division has developed the Storm Water Management Program (SWMP) in compliance with the National Pollutant Discharge Elimination System (NPDES) and the State of Hawaii Municipal Separate Storm Sewer System (MS4) General Permit requirements.*

*The SWMP is administered by the Environmental Section under the Engineering Branch.*

*Phone: 808-587-1962*

*Website:  
<http://hawaii.gov/dot/harbors/library/storm-management-plan>*





## Tenant Stormwater Compliance Self Inspection Form

| Company Information  |   |    |
|--|---|----|
| Business Name(s)   |   |    |
| Mailing Address for HDOT Harbors Division Correspondence   |   |    |
| Street Address 1   |   |    |
| Street Address 2   |   |    |
| City, State  |   |    |
| Zip Code   |   |    |
| Point(s) of Contact for Stormwater Compliance  |   |    |
| Telephone Number   |   |    |
| Email Address  |   |    |
| Fax Number   |   |    |
| Tenant Since (month/year)  |   |    |
| Alternate Contact Name   |   |    |
| Facility Information (only facilities on Harbors Division property)  |   |    |
| Harbor(s)  | Honolulu Harbor      Kalaeloa Barber's Point Harbor      (check all that apply) |    |
| Facility Location(s)   | Same as above   |    |
| (Pier, street address, building, or other directions for visitors)   |   |    |
|  |   |    |
| Tenant Information   |   |    |
| List Sub-tenants (if applicable)   |   |    |
| EPCRA Section 313 SIC Code   |   |    |
| Lease Number   |   |    |
| Permit Number  |   |    |
| Business Activity Description  |   |    |
| Pollution Prevention Info  |   |    |
| Do you use or store any oil products over 1,320 gallons total (over 24 55-gallon drums or bulk storage. Note: Count only containers over 55 gallons)?  | YES   | NO |
| (If no to above question, skip)<br>Does your site have a SPCC Plan (Spill Prevention Control and Countermeasures) (Regulation-Title 40 CFR, Part 112)?<br>If yes, please attach your current SPCC Plan, approved and certified by a registered Professional Engineer, if you did not submit it previously. | YES   | NO |
| Do you have a National Pollutant Discharge Elimination System (NPDES) Permit or Notice of General Permit Coverage (NGPC), if so what is the number?<br>_____   | YES   | NO |
| Do you generate any Hazardous Waste? If so identify the waste and provide your EPA Generator Identification Number.<br>_____   | YES   | NO |

| Pollution Prevention Info (Continued)   |                           |  |                  |                      |
|---|---------------------------|--|------------------|----------------------|
| What chemicals, which could pollute storm water runoff if released, are presently being stored on-site? (Attach additional sheets as necessary)   |                           |  |                  |                      |
| Chemical Name   | Quantity                  | Method of Storage  | Outdoor / Indoor |                      |
|   |                           |  |                  |                      |
|   |                           |  |                  |                      |
| Check possible pollutants in storm water from your facility/site. This should include any chemicals that are used, stored, or disposed of in the areas where potential pollutants may come into contact with rainwater and/or water runoff. Also include lubrication oil leaks from service equipment and vehicles. |                           |  |                  |                      |
| Acid Waste  | Non-halogenated Solvents* | Alkaline Waste   | Oils and Grease  | Arsenic              |
| Pesticides  | Cadmium                   | Petroleum Hydrocarbons   | Chromium         | PCB's                |
| Copper  | Phenols                   | Cyanide  | Selenium         | Halogenated Solvents |
| Silver  | Herbicides                | Thallium   | Mercury          | Zinc                 |
| Nickel  | Lubrication oil leaks     | *(see 40 CFR 261.30 for a listing of non-halogenated solvents) |                  |                      |
| Are there any other possible pollutants at your facility/site: (Identify them)  |                           |  |                  |                      |
|   |                           |  |                  |                      |
| Does your facility operate under a Department of Army Permit (Section 401 WQC)?   |                           |  | YES              | NO                   |
| Are there any other Federal Permits that you are required to submit? If so identify the permits.  |                           |  |                  |                      |
|   |                           |  |                  |                      |
| Where does your storm water discharge?  |                           |  |                  |                      |
|   |                           |  |                  |                      |
| Do you have any floors/decks located in chemical storage areas  |                           |  | YES              | NO                   |
| Do you have to submit SARA III reporting?   |                           |  | YES              | NO                   |
| Please provide a copy of your facility plans/drawing.   |                           |  |                  |                      |
| Attach copies of any storm water studies conducted at your facility.  |                           |  |                  |                      |

| Pollution Prevention Info (Continued)   |                  |    |
|---|------------------|----|
| <p>Non-storm water discharges can be activity-based (subtle) or overt (pipe connections). Activities based non-storm water discharges include, but are not limited to: wash water, diluted solvents/chemicals, floor/dock-apron sweeper waste, and spillage. Typical overt discharges include, but are not limited to: process wastewater, cooling water, and sanitary wastewater.</p> <p>Any post-construction runoff control measures (such as detention basins and vegetated swales) on tenant premises must be maintained by the occupant as per the tenant lease agreement. These post-construction runoff controls will be identified during annual on site tenant inspections.</p> |                  |    |
| <p>Are you aware of any non-storm water discharges or unauthorized connections to storm drains or groundwater surfaces at your facility?</p> <p>If yes, please describe location and nature of discharge.</p> <hr/>   | YES              | NO |
| <p>Are floor drains or deck drains located in the areas of chemical storage or chemical use, present at your facility?</p> <p>If yes, where is the discharge point?</p> <p>Sanitary sewer                      Ground surface                      Unknown</p>  | YES              | NO |
| Points of Contact for Water Pollution Reporting   |                  |    |
| <p>The responsibility to maintain the cleanliness of Hawaii's coastal water lies with all Harbor tenants and users, and Hawaii residents. We all need to pitch in to anticipate, prevent and report inappropriate discharges. Reports of inappropriate discharges may be made to:</p>   |                  |    |
| Point of Contact  | Telephone Number |    |
| Marine Traffic Control Center   | 808-587-2076     |    |
| Marine Cargo Specialist   | 808-587-2053     |    |
| City and County of Honolulu Environmental Concern Hotline   | 808-768-3300     |    |
| Department of Health, Clean Water Branch  | 808-586-4309     |    |
| Coast Guard   | 1-800-424-8802   |    |
| Feedback  |                  |    |
| <p>We want to hear from you on how we can improve this program. Please fill out the comments section below to provide feedback on the information provided and the content of this form.</p>  |                  |    |
| Did you find the information in this mailing useful?  | YES              | NO |
| <p>Comments:</p>  |                  |    |



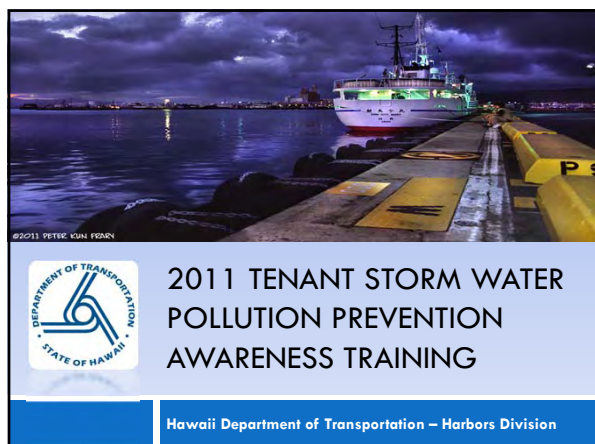
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**APPENDIX E**

**HARBORS TENANT TRAINING RECORDS**

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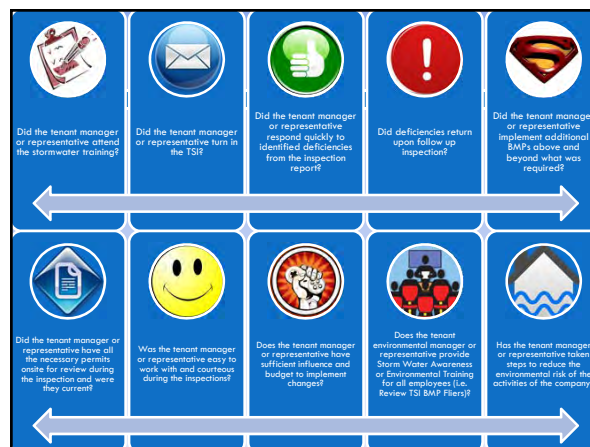


## Introduction

- Hawaii Department of Transportation – Harbors Division
  - Randy Grune – Deputy Director
  - Carter Luke PE – Engineering Program Manager
  - Randal Leong PE – Environmental Engineer
  - Jim Galariada – Environmental Health Specialist
- Weston Solutions, Inc.
  - David Johnson
  - Mark Ambler PE, PMP
  - Joe Weidenbach
  - Sandy Peterson
  - Anthony Rodriguez
- Hawaii Department of Health
  - Matthew Kurano

## 2011 TENANT ENVIRONMENTAL MANAGER OF THE YEAR

for Exemplary Management of a Tenant Stormwater Program Focused on Directing Meaningful Change



## 2011 TENANT ENVIRONMENTAL MANAGER OF THE YEAR

for Exemplary Management of a Tenant Stormwater Program Focused on Directing Meaningful Change

**NATHAN KAPULE**

*For management of Young Brothers, Ltd.*

## AGENDA

- Regulatory Background
- Harbors (Small MS4) General Permit Requirements
  - Public Education
  - Public Participation
  - Illicit Discharge Detection and Elimination (IDDE) Program
  - Construction Site Run-Off Control
  - Post Construction Control
- Video Presentation (20 mins) – “Storm Watch”
- Pollution Prevention and Good Housekeeping
- Facility Inspections
- Enforcement Response Program
- Contact Information
- Questions and Answers

## FEDERAL REGULATORY BACKGROUND

- Clean Water Act (40 CFR 100-149)
  - 1972 Clean Water Act– Swimmable, Fishable
  - 1987 Amendments – NPDES (National Pollutant Discharge Elimination System) regulations
- NPDES – Environmental Protection Agency Regulatory Authority
  - Phase I issued in 1990 – Individual Permit
    - Industrial Facilities (PENDING MODIFICATION AND RENEWAL)
    - Construction Sites > 5 acres (PENDING MODIFICATION AND RENEWAL)
    - Medium and Large Municipal Separate Storm Sewer System (MS4)
  - Phase II issued in 1999 – General Permit
    - Small MS4
    - Construction Sites > 1 acre, < 5 acres (PENDING MODIFICATION AND RENEWAL)
- MS4 – conveyance that is owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; designed or used to collect or convey stormwater; and not combined with sewer.



## Hawaii Regulatory Background

- NPDES regulatory authority is administered by Hawaii Department of Health
- Hawaii Administrative Rules (HAR)
  - Title 11 Chapter 55 (11-55)
    - Water Pollution Control
  - Appendix K
    - NPDES General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Discharges from Small MS4s
- Harbors Division – Notice of General Permit Coverage (NGPC)
  - HI 03KB482 – Honolulu Harbor Permit
  - HI 03KB488 – Kalaheo Barbers Point Harbor Permit



## RECENT PROGRAM HISTORY

- HDOT Harbors General Permit – May 19, 2003
- EPA Audit – December 2008
- Finding of Violation – June 18, 2009
- Tenant Inspections – 2009 (44)
- Inspection Reports – 2010
- Stormwater Management Plan Revision – Dec 2009
- Tenant Inspections – 2010 (All)
- Deficiency Letters – 2011

## GENERAL PERMIT REQUIREMENTS

### Minimum Control Measures

#### Each Minimum Control Measure Requires:

- Written Plan – SWMP
- BMP Implementation
- Training
- Reporting
- Enforcement

- Public Education & Outreach
- Public Participation & Involvement
- Illicit Discharge Detection & Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention & Good Housekeeping

## General Permit Allowable Discharges\*

- Water Line Flushing
- Landscape Irrigation
- Diverted Stream Flows
- Rising Ground Water
- Uncontaminated Ground Water Infiltration
- Uncontaminated Pumped Ground Water
- Discharges from Potable Water Sources
- Air Conditioning Condensate
- Crawl Space Pumps and Footing Drains
- Dechlorinated Swimming Pool Water
- Discharges from Fire Fighting Activities

\* Unless discharges "Cause or contribute to water quality objective exceedances."

## UNDERSTANDING POLLUTANT TRANSPORT AND MANAGEMENT STRATEGIES

Understanding the source, vehicle, and route of storm drain pollution is key to cost effectively managing facilities and discharges.



## STORM WATER BEST MANAGEMENT PRACTICES

### What Are They?

Administrative and structural controls are utilized to

- remove,
- contain, or
- treat pollutants

through

- Source removal,
- Preventative containment, and
- Capture/treatment methods.

- Administrative Controls
  - Laws and ordinances
  - Leases and tenant agreements
  - Inspections
  - Housekeeping
  - Material Handling and Storage Practices
  - Maintenance Schedules
- Structural Controls
  - Secondary Containment
  - Berms
  - Washracks
  - Silt Fencing
  - Exclusion
  - Drain Inlet Protection, etc...

## Minimum Control Measure 1 TENANT SELF INSPECTION FORM



## Minimum Control Measures 1&2 Public Outreach & Participation

<http://www.state.hi.us/dot/harbors/oahu/storm.htm>



## Minimum Control Measure 3 Illicit Discharge Detection & Elimination (IDDE) Program

### Common sources of illicit discharges include -

- Sewage inflows from leaking sewage collection and transmission lines
- Commercial carwash and laundry wastewater
- Floor washing to shop drains
- Commercial Vehicle and Equipment washwater
- Potable line flushing that runs across hardscapes
- Pumping of vaults or trenches
- Construction activities
- Liquid wastes containing oil, paint, and process water
- Waste water from manufacturing or equipment processes
- Pesticides, herbicides, and other industrial chemicals



## Minimum Control Measure 3 IDDE and Outfall Inspections

- Dry Weather Outfall Inspections will be performed to detect illicit discharges into outfalls.
- Dry Weather Flow indicates non-storm water discharges. Tracking these drain systems back to the source is an efficient way to detect illicit.
- Utilize sampling, instruments, and observations to discern ground water vs potable water and presence of nutrients, toxic substances, sediments, bacteria, and general chemistry to "fingerprint" sources for abatement proceedings.

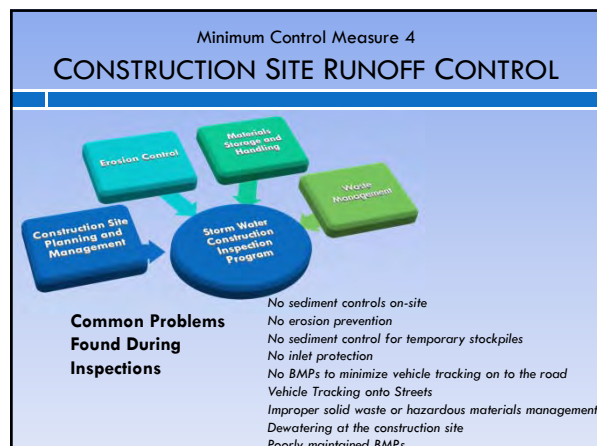
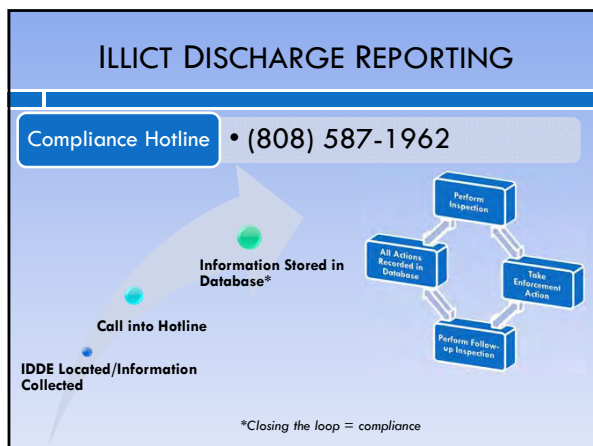


## Illicit Discharges Threaten our Waters



**REPORT IT!!**  
**587-1962**





## BUILDING AND REMODELING

- All construction (even < 1 acre) must receive formal, written approval from HDOT Harbors Division
- All construction over 1 acre must receive NPDES permit from HDOH prior to breaking ground

## Waste Management (Source Control)

Exposed Waste Management  
Subject to Rainfall and Birds

Unsecured / Unlocked  
Dumpster – Trespassing –  
Illegal Dumping

## Waste Management

Secured Enclosure – Minimized Illegal Dumping. Add non-galvanized corrugated roofing to prevent rain runoff.

Secured Enclosure – Minimized Illegal Dumping. Add non-galvanized corrugated roofing to prevent rain runoff.

ZERO RUNOFF SOLUTION

## Stockpiling (Source Control and Pollution Prevention)

Use Silt Fences to Contain Stockpiles

Cover Stockpiled Material  
\*Covers provide dust suppression and prevent polluted runoff.



### Silt Fencing (Treatment)




Inspection and maintenance of BMP's is as important as installing them. Improperly maintained silt fences are ineffective.

### Silt Fencing



Vegetated Swale!!

### Storm Drain Inlet Protection (Pollution Prevention)



### Storm Drain Inlet Protection



### Cleaning Equipment (source control)



### Construction Equipment Cleaning



### Minimum Control Measure 5 Post-Construction Design Features

Goal: Eliminate and minimize exposure of pollutants to storm water and to capture and infiltrate / treat.



### Minimum Control Measure 5 Post-Construction Controls

Considering water quality impacts early in the design process can provide long-term water quality benefits and lower administrative environmental management costs.

Retrofits you can use to manage your site:

- ❑ Low-Impact Development
- ❑ Green Design
- ❑ Site Specific/Innovative BMPs
- ❑ Infiltration
- ❑ Filtration
- ❑ Retention/Detention
- ❑ Isolation/Separation of Runoff from Processes

Eliminating Curbs and Gutters  
Green Parking  
Green Roofs  
Rain Barrels / Cisterns  
Protection of Natural Features  
Urban Forestry  
Grassed Swales  
Infiltration Basin/Trench  
Permeable Pavement  
Porous Asphalt Pavement  
Vegetated Filter Strip  
Dry Detention Ponds  
Storm Water Wetland

### Minimum Control Measure 5 LOW-IMPACT DEVELOPMENT

- ❑ Significant Redevelopment = 5,000 ft<sup>2</sup>
- ❑ Report → Change in Peak Flow

TABLE 2-1 Sample Results Table for Change in Peak Runoff Flow Rate

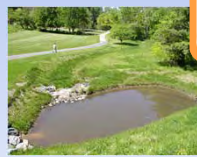
| Location                                     | C <sub>1</sub> | C <sub>2</sub> | I (in/hr) | A (ft <sup>2</sup> ) | Q <sub>1</sub> (cfs) | Q <sub>2</sub> (cfs) |
|--|----------------|----------------|-----------|----------------------|----------------------|----------------------|
| Porous Pavement Parking Lot                  | 0.20           | 0.25           | 2.0       | 90,150               | 29.7                 | -                    |
| Vegetated Bio-Swales Surrounding Parking Lot | 0.20           | 0.10           | 2.0       | 12,000               | -                    | 7.9                  |
| Greenroof on Adjacent Storage Warehouse      | 1.0            | 0.10           | 2.0       | 1,000                | -                    | 5.9                  |
| TOTAL CHANGE IN PEAK RUNOFF FLOW:            |                |                |           |                      | 15.9                 |                      |

- ❑ List BMPs
  - ❑ Bio-swale
  - ❑ Rain Barrels
  - ❑ Smart Irrigation
  - ❑ Etc.

### Minimum Control Measure 5 Post-Construction Structural Controls



Drainage Swales



Storm Water Retention Ponds



Green Roofs

### Minimum Control Measure 6 Pollution Prevention & Good Housekeeping

#### VIDEO Presentation

#### "Storm Watch"

Municipal Stormwater Pollution Prevention  
EXCAL Visual Communications



### Pollution Prevention & Good Housekeeping

- ❑ Inventory of Activities and Potential Pollutants
- ❑ Proper Labeling and Handling of Cleaners, Solvents, and Chemicals
- ❑ Organized Chemical Storage
- ❑ Responsible Disposal of Chemicals
- ❑ Storage Procedures should include covering stored metals
- ❑ Proper site drainage should be in place
- ❑ Proper Equipment/Material Storage
- ❑ Timely Equipment O&M
- ❑ Site maintenance and cleaning procedures should be in place. They should address environmental considerations and they should include BMP's





Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping



Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping



Stocked metals should be covered to prevent heavy metal intrusion into waterways

Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping



All drums should be in good, working condition. Inspections should be held regularly and any drums with damage should be replaced immediately.

Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping



Access to chemicals should be restricted to personnel trained in proper handling and disposal procedures; all must be labeled and have MSDS available

Flammable chemicals, solvents, and paints should be stored in a fireproof locker. Chemicals must be separated by compatibility

Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping

Do not overfill



Trash bin kept covered when not in use

Keep trash and debris from accumulating around the bin, because storm water will carry it out to the ocean

NEW PROGRAM  
VEHICLE AND EQUIPMENT WASHING

□ "For small jobs, berm the area surrounding the vehicle and use a wet/dry vacuum to capture the wash water for discharge to the sanitary sewer. For larger jobs, use a combination of berms and a vacuum truck, such as those used to clean storm and sanitary sewer systems, to capture and safely dispose of wash water. If detergents are used, clean the pavement to prevent this material from being carried to the storm drain during the next rainstorm."<sup>1</sup>

<sup>1</sup> EPA Municipal Vehicle and Equipment Washing BMP Fact Sheet

Submit This for Approval:

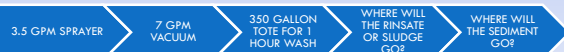
- What are you Washing?
- Pressure Sprayer Flow Rate
- Vacuum Rate
- Berm/Drain Map
- Container Capacity
- Waste Disposal Plan

... Then Have This Onsite:

- Wet Vacuum
- Berm
- Proper Containment
- Proper Waste Disposal

## VEHICLE AND EQUIPMENT WASHING

- Formal, written approval
- Contain Wash Water
- NO Wash Water → Storm Drain
- Example: 3.5 GPM Spray → 7 GPM Vacuum
- Enough storage for job?
- Proper transport and disposal
- Is the rinsate staying onsite?



## Vehicle and Equipment Washing (Pollution Prevention)



## Vehicle and Equipment Washing (Pollution Prevention)



No grinding,  
painting,  
welding, or  
sand blasting

Containment and  
Collection is  
required!

## Vehicle and Equipment Washing



Permitted Vehicle Wash Rack



Temporary Only: Wash  
water and debris  
require off-site disposal;  
Minimize detergents and  
overspray



## Spill Prevention and Response

- PREVENTION FIRST!!
- Proper Storage
  - Secondary Containment
  - Protected from equipment damage
  - Install shut-off controls, overfill protection, etc...
  - Stored away from storm drains
- Proper filling and handling procedures
  - Use drip pans
  - Use drop cloths

Control

Contain

Capture

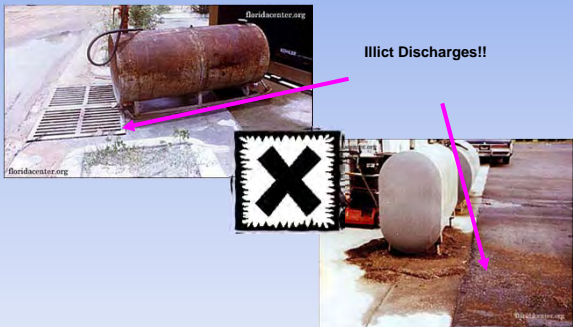
## Spill Prevention and Response

### SPILL RESPONSE

- Assess the Spill
  - What Spilled
  - How Much Spilled
  - Where did it Spill; Surface Water Impacted?
  - Toxic or Hazardous Substance?
- Stop the release
- Contain the Spill
- Clean the Spill
- Properly Dispose of Materials
- Report All Spills
  - Small Spills should be tracked internally
  - Large Spills
    - Harbors Environmental
    - Hawaii Department of Health
    - U.S. Coast Guard




## Secondary Containment



Illicit Discharges!!

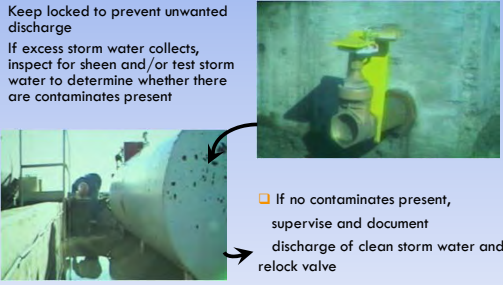
## Secondary Containment



Option: Add overhead coverage to eliminate exposure and reduce management of ponded water potentially containing pollutants


## Secondary Containment (Pollution Prevention)

- Keep locked to prevent unwanted discharge
- If excess storm water collects, inspect for sheen and/or test storm water to determine whether there are contaminants present



- If no contaminants present, supervise and document discharge of clean storm water and relock valve

## Spill Prevention and Response



Procedures should focus on prevention first. Then clean up if spills still occur

## Best Management Practices – Vehicle Pans/Pads

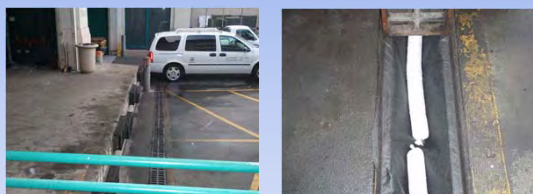


## Best Management Practices – Spill Kit





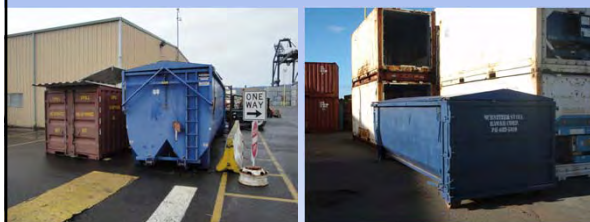
### Best Management Practices – Trench Drain



### Best Management Practices – Equipment Wash Area



### Best Management Practices – Covered Metal Bin



### Best Management Practices – Rain Barrel

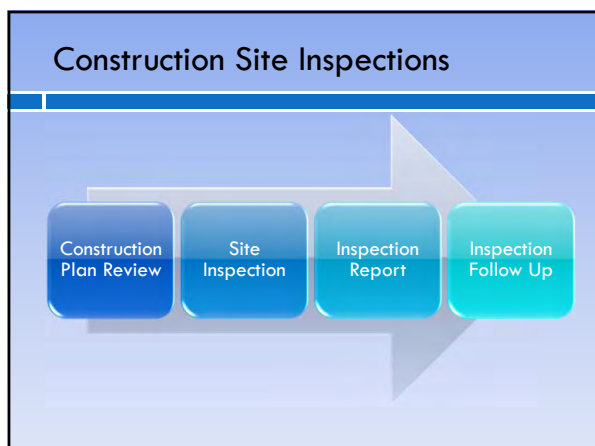
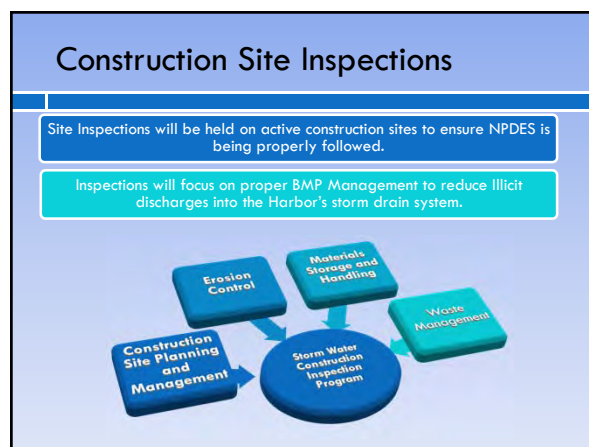
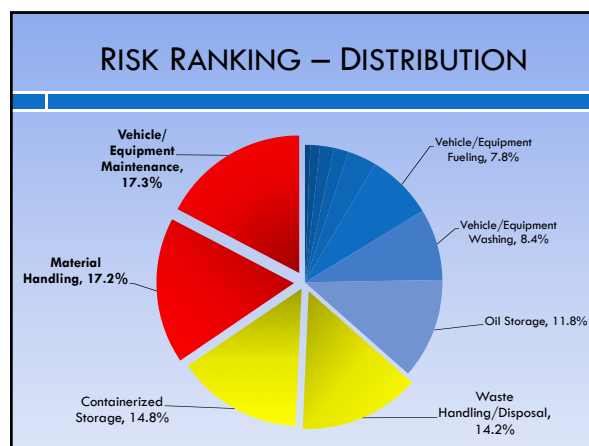
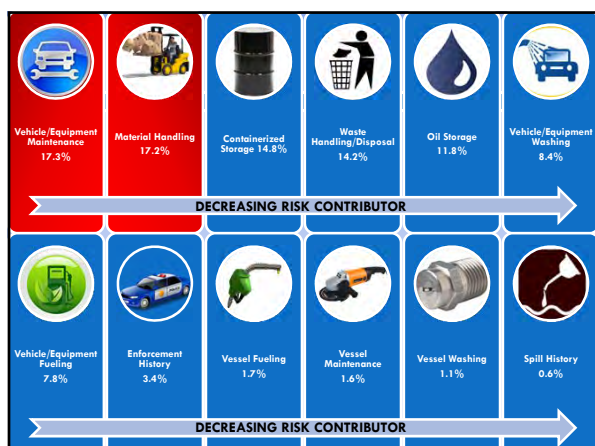


### Tenant Facility Inspections

- 1 week notification
- High Priority Tenants First, then ALL TENANTS
- Inspection Checklist
- Inspection Report and Findings to be provided following Site Visits
- Follow-up Inspections will be scheduled if required
- SERIOUS VIOLATIONS WILL RESULT IN IMMEDIATE ACTION
  - Depending on the severity of the discharge, regulatory actions may be pursued.
  - All inspection results and actions will be added to our database.
- Risk ranking developed based on findings

### FACILITY INSPECTIONS





### Enforcement Response Program

| Regulatory Mechanisms   | Penalties for Lack of Compliance (dependant on severity of violation)  |
|---|--|
| <ul style="list-style-type: none"> <li>Hawaii Administrative Rules (HAR)</li> <li>Hawaii Revised Statutes (HRS)</li> <li>Tenant Leases/Revocable Permits</li> <li>40 CFR - Clean Water Act &amp; NPDES</li> <li>Other Applicable State &amp; Federal Regulations</li> </ul> | <ul style="list-style-type: none"> <li>Verbal Warnings</li> <li>Written Notices</li> <li>Citation with Monetary Fines</li> <li>Stop Work Orders</li> <li>Abatement by Harbors Division with Reimbursement by the Responsible Party</li> <li>Lease/Permit Termination</li> <li>Referral to HDOH or Other Appropriate Regulatory Agency</li> <li>Monetary Fines – Up to \$27,500 Per Day!!!</li> <li>Mandatory Minimum Penalties under CWA.</li> </ul> |

## STORM WATER CONTACTS

### FIRST CALL HARBORS HOTLINE

- Harbors Hotline @ (808) 587-1962

### DISCHARGES

- Marine Traffic Control Unit @ (808) 587-2076

### SERIOUS OFFENSES

- Hawaii Department of Health, Clean Water Branch @ (808) 586-4309
- U.S. Coast Guard @ (800) 424-8802
- USEPA @ (808) 541-2721



**REMOVE! CONTAIN! TREAT!**  
**KEEP OUR WATERS CLEAN.....**

**QUESTIONS OR COMMENTS?**



A single tin of paint can contaminate millions of gallons of water!

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# Weston Solutions, Inc

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

## HDOT HARBORS STORMWATER MANAGEMENT TENANT TRAINING October 19, 2011



### SIGN-IN SHEET

| COMPANY                      | PRINT NAME        | SIGNATURE          | PHONE/EMAIL                               | VOLUNTEER FOR<br>CLEAN-UP? |
|------------------------------|-------------------|--------------------|---|----------------------------|
| HAWAII STEVEDORES            | KEN CHUNG         | <i>[Signature]</i> | 808-927-2740                              |                            |
| KEEF DEVELOPMENT OF          | ISLANDER ARTHUR   | <i>[Signature]</i> | 478-5840                                  |                            |
| CENTRAL PACIFIC DIST.        | ROY MAWU          | <i>[Signature]</i> | 840-0707                                  |                            |
| Aloha Cargo Transport        | Tracy Fujikawa    | <i>[Signature]</i> | 808-748-7895                              |                            |
| Harbor's/Kalamita            | Logan Williams IV | <i>[Signature]</i> | 682-6428                                  |                            |
| IF MARINE                    | POOL FUKUNAGA     | <i>[Signature]</i> | 842-1330                                  | ✓                          |
| Asphalt Hawaii               | Aaron Stewart     | <i>[Signature]</i> | 343-5229                                  |                            |
| WINDWARD MOUNTAIN INDUSTRIES | GREG LOMILO       | <i>[Signature]</i> | 805-515-6100                              | ✓                          |
| R.S. NAKAMURA WELDING        | RODNEY NAKAMURA   | <i>[Signature]</i> | 228 2551                                  |                            |
| MILLER INDUSTRIES            | RODNEY NAKAMURA   | <i>[Signature]</i> | 848 0855                                  |                            |
| ALUMINUM SHAKES              | RODNEY NAKAMURA   | <i>[Signature]</i> | 847 8885                                  |                            |
| SHIR MOO CORPORATION         | DAVID CHANG       | <i>[Signature]</i> | 853-1132 / todavilchhang@aol.com          |                            |
| Robert Marcos Inc            | Mark Gaultke      | <i>[Signature]</i> | 864-1703 / rmi.markg@aol.com              |                            |
| POP DESIGNING & MORE         | RODNEY NAKAMURA   | <i>[Signature]</i> | 478-8997                                  |                            |
| Pertumance Landscapers       | Mariko Ziv        | <i>[Signature]</i> | 132-8988                                  |                            |
| PERMANENT LANDSCAPING        | RONALD CHEN       | <i>[Signature]</i> | 255 2602 / jchen@permanentlandscaping.com |                            |
| PAR WATER TREAT              | Ralph Dumit       | <i>[Signature]</i> | 554-3436                                  |                            |
| AKANA TRUCKING               | Ralph Pacheco     | <i>[Signature]</i> | 845-9825                                  |                            |

10/20

VOLUNTEER FOR  
CLEAN-UP?

COMPANY

PRINT NAME

SIGNATURE

PHONE/EMAIL

McKee's Gold Diggers

Aryson Furutaro

*[Signature]*

808-944-5978  
larryson@furygold.com

Parsha Hawaii

Trevor Kubo

*[Signature]*

594-3765  
trevor@parsha.net

Bella D'etta

David Donaldson

*[Signature]*

587-7779 david@bellahawaii.com

Harbors Division

Neal Miyasato

*[Signature]*

587-2007 neal.h.miyasato@hawaii.gov

Harbor Division

Jon Meece

*[Signature]*

587-8323845

Young Brothers Ltd

Nathan Kapule

*[Signature]*

543-9398 / nkapule@hilo.org

*[Signature]*

nkapule@hilo.org

yes

# Weston Solutions, Inc

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

## HDOT HARBORS STORMWATER MANAGEMENT TENANT TRAINING October 19, 2011



### SIGN-IN SHEET

| COMPANY                | PRINT NAME       | SIGNATURE | PHONE/EMAIL                           | VOLUNTEER FOR<br>CLEAN-UP? |
|------------------------|------------------|-----------|---------------------------------------|----------------------------|
| HARDY CONST            | Melvin Blum      |           | 226-5343                              |                            |
| Phoenix LLC            | Greg Powell      |           | 226-8575                              |                            |
| Friends at Hukue       | Yang Densett     |           | 256-1241                              |                            |
| HAALEE INC             | Fred Yang        |           | 841-8647                              |                            |
| HOMER LIVES            | FRANK KOVACSIC   |           | 804-4638                              |                            |
| Steinke Bros. inc      | Robert Steinke   |           | 478-9777                              |                            |
| AARA Setup Service     | POORNEY TANANOTU |           | 478-8732                              |                            |
| HAWAIIAN ICE CO.       | MARSHALL JOY     |           | 538-6918 marshall@hawaii-ice.com      |                            |
| "                      | RUNNETTE HANNA   |           | "                                     |                            |
| P&R Water Taxi         | Steve Morita     |           | 388-4458                              |                            |
| Robert Marcos Inc      | Robert Marcos    |           | 841-1123                              |                            |
| Sun Chong              | Patrick Lam      |           | 383-1756 lampatrick109@gmail.com      |                            |
| Jas. W. Glover, LTD    | KEOLA GAO        |           | 804-036-8 keelag@gloverltd.com        |                            |
| Sauss Bros             | Wayne Stachel    |           | 306-7177 waynes@sauss.com             |                            |
| KANO Trenching         | Lanyre Kano      |           | 216-9474 / kano@hawaii.com            |                            |
| Amman Const. Co. Inc.  | Dustin Onaga     |           | 841-6995                              |                            |
| Meadows Gold Dairies   | Darrel Tayjine   |           | 944-5958 darrel-tayjine@cleanford.com |                            |
| STATE OF HAWAII HAWAII | MICHAEL K. FEELY |           | 822-3845 MICHAEL.K.FEELY@HAWAII.GOV   |                            |

# Weston Solutions, Inc

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

## HDOT HARBORS STORMWATER MANAGEMENT TENANT TRAINING October 20, 2011



### SIGN-IN SHEET

| COMPANY               | PRINT NAME         | SIGNATURE          | PHONE/EMAIL                           | VOLUNTEER FOR<br>CLEAN-UP? |
|-----------------------|--------------------|--------------------|---------------------------------------|----------------------------|
| Pioneer Machinery     | Rodney T. V62      | <i>[Signature]</i> | 808-311-4892                          |                            |
| HAR DOT OCG           | Vandy Sibauheane   | <i>[Signature]</i> | 808-537-2310                          |                            |
| Tropical JS, Inc.     | Charis Cabral      | <i>[Signature]</i> | 808-849-0808                          |                            |
| HIB/YS                | LANOR LAM          | <i>[Signature]</i> | 753-734 / rlauchkyb.com               |                            |
| Pacific SHIPYARDS INC | Wes Alesai         | <i>[Signature]</i> | 2213916 / wansai@pacificshipyards.com |                            |
| Island Movers, Inc.   | Patrick HEE        | <i>[Signature]</i> | 839-1120 / pathe.hawtree.net          |                            |
| HCAP Head Start       | Phil B. Salas      | <i>[Signature]</i> | 847-24 00                             |                            |
| Matson                | Enriqueta Tanaka   | <i>[Signature]</i> | 848-1241 etanaka@matson.com           |                            |
| y. Hata & Co., Ltd.   | Attilio R. Leonard | <i>[Signature]</i> | 447-4333 pleamand. @ y hata.com       |                            |
| ANAKULI HOUSING       | DILBERT BARBER     | <i>[Signature]</i> | 306-3526                              |                            |
| HCAP                  | Alfred B. Reimo    | <i>[Signature]</i> | 348-5074                              |                            |
| RCR Const.            | Kevin Close        | <i>[Signature]</i> | 841-4574                              |                            |
| Custom-Bilt Metals    | Mandy Fowler       | <i>[Signature]</i> | 845-1000                              |                            |
| Lt. Tommy medeiros    | Harbor Police      | <i>[Signature]</i> | 368-5995                              |                            |
|                       |                    |                    |                                       |                            |
|                       |                    |                    |                                       |                            |
|                       |                    |                    |                                       |                            |

**COMPANY**

HI-SEA HAWAII FISHING

$$X \in \mathbb{R}^{2 \times 2}$$

08/11/74

808-282-1452

386-0123/KVell @ 211737/corpus.simples.com



# Weston Solutions, Inc

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

## HDOT HARBORS STORMWATER MANAGEMENT TENANT TRAINING October 20, 2011



### SIGN-IN SHEET

| COMPANY               | PRINT NAME        | SIGNATURE                | PHONE/EMAIL                              | VOLUNTEER FOR<br>CLEAN-UP? |
|-----------------------|-------------------|--------------------------|--|----------------------------|
| Clean Island Council  | PATRICK GILLEN    | <i>Patrick Gilen</i>     | 953 907 1505                             |                            |
| Matson Navigation     | Kenji Parich      | <i>Kenji Parich</i>      | 848-1252 kirchomatson.com                |                            |
| FAST WEST WIRE        | BELZ BARRAMIENTO  | <i>BELZ BARRAMIENTO</i>  | 753-7964                                 |                            |
| Marisco Ltd.          | Brett Houseman    | <i>Brett Houseman</i>    | 864-1171 / bhouseman@marisco.net         |                            |
| QUICK MOVE            | EUGENE FONTANILLA | <i>EUGENE FONTANILLA</i> | 285-4785                                 |                            |
| THE CUSTOM COMPANY    | CHARLINE PASCUAL  | <i>CHARLINE PASCUAL</i>  | 841-4411                                 |                            |
| Pacific Shipyard Int. | Jennifer Haight   | <i>Jennifer Haight</i>   | 434 825 4807                             |                            |
| HEAD Headstart        | Manuel Galarza    | <i>Manuel Galarza</i>    | 271 2921                                 | yes                        |
| " "                   | Edward Chen       | <i>Edward Chen</i>       | " "                                      | yes                        |
| Sea Engineering       | TOR HARRIS        | <i>TOR HARRIS</i>        | (623) 978-6800 tharris@seaengineer.org   |                            |
| DOT / Hagan           | DON KAWISJANWIL   | <i>DON KAWISJANWIL</i>   | 832 3849                                 |                            |
| Ron's Concrete Speaks | James Mainaunui   | <i>James Mainaunui</i>   | 808 845-0467 jmainaunui@ronspk.com       |                            |
| Control Technic       | Pourban Hargish   | <i>Pourban Hargish</i>   | (808) 8477490 / etech@controltechnic.com |                            |
| Hi-Tec Roofing        | Luphia Zeller     | <i>Luphia Zeller</i>     | 841-7423 gahitecapi.com                  |                            |
| DOT - ITANOMI         | ALAN MUZAKAMI     | <i>ALAN MUZAKAMI</i>     | 587-2070 alan.muzakami@hq.hawaii.gov     |                            |
| THE SUXSEX CO         | Tony Suxsex       | <i>Tony Suxsex</i>       | 537-3001 TONY SUXSEX@GMAIL.COM           |                            |
| THE PONY'S CLUB       | Tony Suxsex       | <i>Tony Suxsex</i>       | 537-3001 TONY SUXSEX@GMAIL.COM           |                            |

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**APPENDIX F**

**TENANT ENVIRONMENTAL MANAGER OF THE YEAR AWARD**

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EXECUTIVE CHAMBERS  
HONOLULU

NEIL ABERCROMBIE  
GOVERNOR

October 19, 2011

Mr. Nathan Kapule  
Safety and Environmental Manager  
Young Brothers, Ltd.  
P. O. Box 3288  
Honolulu, Hawaii 96801-3288

Dear Mr. Kapule:

I am pleased to present you with our first annual Department of Transportation Harbors Division Tenant Environmental Manager of the Year Award.

The Harbors Division will annually recognize an outstanding Tenant Environmental Manager that implements meaningful change in their facility environmental practices and company environmental culture. I laud your efforts as a leader in implementing environmental policies for your company.

Your environmental program was chosen from 44 tenant programs that were evaluated during the annual Storm Water Compliance inspections in 2009 and 2010. The award represents the positive contributions you and your company have made toward protecting our valuable ocean resources. The changes and programs implemented at your facility and your valuable influence in making environmental awareness a key component of your company culture is genuinely appreciated. Your program is a model for similar facilities and an example for others to follow as they improve their environmental systems.

Please continue to work with the Harbors Division and all Harbors Division tenants in keeping our ocean resources clean and ensuring its protection for future generations.

Sincerely,

A handwritten signature in dark ink that reads "Neil Abercrombie".

NEIL ABERCROMBIE  
Governor, State of Hawaii





**THE STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION**

presents the

**2011 TENANT ENVIRONMENTAL MANAGER OF THE YEAR**  
to

**NATHAN KAPULE**

for

**Exemplary Management of a Tenant Stormwater Program Focused on Directing  
Meaningful Change**

**CATEGORY A**



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**APPENDIX G**

**STORMWATER HOTLINE OCCURRENCE TRACKING FORM**

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## Stormwater Hotline Occurrence Tracking (SHOT) Form

| LINE ITEM   | FORM FIELD  |
|---|---|
| <b>Caller Information</b>   |   |
| Caller Name   |   |
| Caller Company  |   |
| Telephone Number  |   |
| Email Address   |   |
| Date/Time Received  |   |
| <b>Occurrence Information</b>   |   |
| <input type="checkbox"/> Information Request  | <input type="checkbox"/> Discharge Reporting <input type="checkbox"/> Complaint <input type="checkbox"/> Commendation |
| <input type="checkbox"/> <b>Information Request</b>   |   |
| Information Requested   |   |
| Actions Taken   |   |
| Additional Information  |   |
| <input type="checkbox"/> <b>Discharge Reporting</b>   |   |
| Address or Location of Discharge  |   |
| Time/Date of Discharge  |   |
| Substance/Amount Discharged (if known)  |   |
| Media into which the discharge occurred:<br><input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Natural Ground <input type="checkbox"/> Concrete/Asphalt <input type="checkbox"/> Stream <input type="checkbox"/> Ocean   Other: _____ |   |
| Responsible Party (if known)  |   |
| Cause of Discharge (if known)   |   |
| Clean-up Actions Taken (if applicable)  |   |
| Notifications Made/Actions Taken by Harbors Division  |   |
| Follow Information  |   |

| LINE ITEM   | FORM FIELD              |
|---|-------------------------|
| <input type="checkbox"/> <b>Complaint</b>   |                         |
| Nature of Complaint   |                         |
| Complaint Details   |                         |
| Notifications Made/Actions Taken by Harbors Division                                    |                         |
| <input type="checkbox"/> <b>Commendation</b>  |                         |
| Commendation Details  |                         |
| Notifications Made/Actions Taken by Harbors Division                                    |                         |
| <b>Points of Contact for Immediate Response</b>   |                         |
| In the event of an emergency needing immediate response, call the numbers listed below: |                         |
| <b>Point of Contact</b>   | <b>Telephone Number</b> |
| Marine Traffic Control Center   | 808-587-2076            |
| Marine Cargo Specialist   | 808-587-2053            |
| City and County of Honolulu Environmental Concern Hotline                               | 808-768-3300            |
| Department of Health, Clean Water Branch  | 808-586-4309            |
| Coast Guard   | 1-800-424-8802          |



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**APPENDIX H**

**HONOLULU HARBOR MARINE TRAFFIC CONTROL TOWER LOG**

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# Hawaii Department of Transportation – Harbors Division Annual Compliance Report Summary of Tower Logs Honolulu Harbor, 2011

| Date      | Time | Action Taken   |
|-----------|------|--|
| 1/8/2011  | 1540 | CAPT OF STAR OF HNL REPT PAINT DRAFT FLOATING IN WATER NEAR PIER 8, MAYBE CAME OUT FROM PIER 9 SE, A1 NTFD TO CK IT OUT  |
| 1/8/2011  | 1542 | A1 10-7  |
| 1/8/2011  | 1547 | A1 10-8 PER CAPT OF STAR OF HNL IT WENT UNDER PIER 8, INFORMED CAPT TO CALL TOWER AGAIN WHEN HE SEE IT AGAIN   |
| 1/9/2011  | 705  | ATM SEC JERRY RPTS DEBRIES AT P8 BEHIND THE STAR OF HNL - A1 NFYD  |
| 1/9/2011  | 714  | A1 ALL UNITS 10-7 P8   |
| 1/9/2011  | 717  | A1 RPTS PAINT FLOAT FROM SE HAS BROKEN FREE AND IS BEHIND THE STAR OF HNL TWR CALLED JEFF OF SE AND HE SAID THAT HE WILL BE IN TO RETRIEVE THAT PAINT FLOAT (ETA @ 45 MINS)  |
| 1/9/2011  | 837  | ATM TWR SEC RPTS DEAD BIRD ON THE THIRD FLOOR,THE DOOR IS UNLOCKED & WINDOWS ARE OPEN - ATM SEC JERRY NFYD OF LAST AND WILL CALL TWR SEC FOR DETAILS   |
| 1/9/2011  | 846  | JEFF OF SE RPTS 8-10' LOOSE SECTION OF BOOM FLOATING BY P2 DOES NOT BELONG TO THEM BUT HE WILL RETRIEVE IT AND TIE IT UP AT P2 - A1 WILL ESCORT TO P2 AREA   |
| 1/9/2011  | 1008 | JEFF OF SE RPTS 8' BOOM PIECE OUT OF THE WATER AT P4 - WILL P/U TOMORROW   |
| 1/10/2011 | 1600 | CAPT OF STAR OF HNL REPT PAINT RAFT FLOATING INFRONT OF PIER 8, A1 NTFD  |
| 1/10/2011 | 1622 | A1 10-8 USCG PICKED UP THE PAINT RAFT NOT SURE WHAT THEY WANT TO DO WITH IT  |
| 1/11/2011 | 1039 | CAPT OF THE GOLDEN PRINCESS RPTS SHEEN ABOUT 10 METERS OFF HIS PORT BOW SAID THAT IT IS NOT COMING FROM HIS SHIP - A1 NFYD   |
| 1/11/2011 | 1056 | A1 ABOARD THE GLDN PRINCESS SAID THAT SHEEN HAS DISSIPATED   |
| 1/13/2011 | 1220 | RALPH (P&R) REPT A GAS SMELL AT P-36 / A3 NTFD & THINKS ITS COMING FROM THE FUELING OF THE BARGE AT P-30   |
| 1/13/2011 | 1227 | A3 10-8 P-36, HE NTFD RALPH  |
| 1/13/2011 | 1234 | PER A3 THEY WILL BE FUELING TILL ABOUT 1500, SO TWR MAY GET MORE CALLS ABOUT THE SMELL   |
| 1/19/2011 | 915  | FAYE FRM HAWAII PIOTS ADVZD V/-PACIFIC STAR WASHING THIER BOAT, WHICH RESULTING IN SOAPY WATER RUN-OFF...A2 NTFD   |
| 1/20/2011 | 1230 | OCG (GREG) REPTS HIS CREW SEES SOMEONE TAKING APART AN ENGINE AND SPILLING OIL ON THE GROUND AT P-36. A3 NTFD. A2 ENROUTE.   |
| 1/20/2011 | 1237 | OC9 NTFD.  |
| 1/20/2011 | 1240 | A3 & A4 10-7 IN THE AREA CKING P-36  |
| 1/20/2011 | 1244 | A2 10-7 P-36   |
| 1/20/2011 | 1308 | ALL UNITS 10-8, PER A3 BOTH PARTIES ID CHECKED.  |
| 1/21/2011 | 919  | U4 ASKED TOWER TO CONTACT TROY BROWN TO LET HIM KNOW THAT PAX SHIP AT P-10 IS CLEANING THE SHIP WITH SOME SORT OF SOAP AND ITS GOING INTO THE WATER.   |
| 1/21/2011 | 923  | TOWER LEFT MESSAGE ON TROY BROWN's CELL PHONE.   |
| 1/21/2011 | 952  | LT 10-7 MEETING P-19 WITH SECRET SERVICE   |
| 1/21/2011 | 1045 | TROY BROWN CALLS TOWER BACK AND ASK's IF ANYONE CALLED HIM. TOWER EX-PLAINED THAT A MESSAGE WAS LEFT ON HIS PHONE AND I AGAIN, REPEATED THE 0919 ENTRY. TROY ASKED IF TOWER SAW THEM DO THIS. I TOLD TROY NO, THAT ALL I WAS DOING IS REPEATING WHAT WAS SHARED BY U4. |
| 2/11/2011 | 1015 | PER U9; HAR-O ASKED TO REPORT SHEEN IN WATER AT P-10. DOH, CG, HAR-E NTFD.   |



Hawaii Department of Transportation – Harbors Division  
Annual Compliance Report Summary of Tower Logs  
Honolulu Harbor, 2011

| Date      | Time | Action Taken   |
|-----------|------|--|
| 2/25/2011 | 931  | UH SNUGG HARBOR REPT's DIESEL SHEEN IN WATER, DOES NOT KNOW SOURCE AND ABOUT 100 FEET LONG PER ROSS BARNES 294-6915. CG, DOH, U3, HAR-E (R. LEONG) ALL NTFD.   |
| 3/1/2011  | 1108 | USCG REPT OIL SPILL AT PIER 37-38 ON THE GROUND, A3 NTFD TO CK IT OUT  |
| 3/1/2011  | 1113 | A3 10-7  |
| 3/1/2011  | 1119 | PER A3 ONLY OIL SPILL FOUND ON THE GROUND AT PIER 36 NEAR ALL THE CONTAINERS ARE, MAINT NTFD FOR CLEAN UP  |
| 3/22/2011 | 1851 | K3 @ P38 AND ADVZD THAT HE DISCOVERED OIL COMING OUT FROM ONE OF THE DUMPSTERS IN THE AREA. HE RQST THAT ON-CALL OM BE ADVZD TO ASST WITH CLEAN UP, AS OIL IS HEADING TOWARDS DRAIN, WHICH LEADS INTO THE HARBOR K3 ADVZD THAT HE IS LAYING DOWN CARPET STRIPS TO SOAK-UP WHAT OIL HE CAN.   |
| 3/22/2011 | 1857 | TWR CONTACTED OM1-ELMER TO RQST ASST...OM1 ADVZD THAT THIS IS HANDLED BY OMG STAFF AND TO ADVZD ON-DUTY HARBOR MSTR.   |
| 3/22/2011 | 1859 | NTFD U1 OF SITUATION....TWR CTC K3 TO GET AN ESTIMATE OF JUST HOW MUCH OIL WAS LEAKING. K3 ADVZD HE ESTIMATES ABOUT 2 QUARTS AND HE HAS THE SITUATION CONTAINED SO THAT THE AREA CAN BE CLEANED UP TMRW. INFO PASSED TO U1   |
| 4/3/2011  | 1041 | USCG P O AT P36 RPTNG HAZ MAT MATERIAL NOT STORED PROPERLY RQST HP TO P36 A1 NTFD ENROUTE<br>A1 RPTS TWR PHONE NOT RINGING - WANTED TO RPT THAT USCG PEOPLE WERE JUST PATROLING THE AREA AND NOTICED UNSEALED CANS - A3 RPTS THAT U9 WAS NTFD EARILIER OF THIS PALLET OF DISCARDED ITEMS - HE SAID HE THINKS A TARP WAS RQSTD - 10-8 |
| 4/7/2011  | 811  | DOH LIZ GALVEZ NTFD OF DISCOLORED RUNOFF WATER IN THE HARBOR   |
| 4/16/2011 | 617  | PILOT #14 RPRT A LIGHT OIL SHEEN IN THE AREA OF P18..UNK SOURCE  |
| 4/16/2011 | 622  | A1 NTFD OF OIL SHEEN...WILL CHECK IT OUT AND ADVZD TWR   |
| 4/16/2011 | 630  | A1 ADVZD OF LIGHT OIL SHEEN BETWEEN P17 & 18 AND IT APPEARS TO BE THE RESULT OF RUN-OFF FROM THE RIVER, DUE TO EARLY MORNING RAIN  |
| 5/8/2011  | 856  | FSO-FUJIHARA ADVZD TWR THAT THE FORKLIFT USED TO MOVE THE CONCRETE JERSEY BARRIER @ P10 BROKE A HYDRUALIC HOSE...MINIMAL FLUID ON THE GROUND   |
| 5/15/2011 | 1515 | (ATHL) KEITH REPORTS STRONG ODOR @ P40...A3 NTFD A1 - ENROUTE  |
| 6/2/2011  | 1447 | DARREN OF USCG RTPS SHEEN AT P21 AREA - INVESTIGATOR IS ENROUTE TO P21<br>CONFIRMED NOTIFICATION : DOH HEERS - CIVIL DEF - NOAA - DLNR - PWLF<br>- HE WAS NOTIFIED BY NATIONAL RESPONSE CENTER - R. LEONG NTFD TOO   |
| 6/17/2011 | 1328 | TWR OBSERVED THE CREW ON THE VESL "TAMSEN" @ P9 USING SOAP TO WASH THE DECK, AND IT IS RUNNING INTO THE HARBOR. U6 NTFD.   |
| 6/17/2011 | 1330 | U6 NTFD THE TAMSEN THAT THEY CANNOT USE SOAP. AS U6 WAS DRIVING AWAY, TWR NOTICED THAT THE CREW CONTINUED TO WASH THE SOAP INTO THE WATER. U6 NTFD, AND STATED THAT HE NTFD THEM.  |
| 7/23/2011 | 1047 | USC GUARD REPT OIL SPILL AT PIER 1 FROM BARGE WAIALEALE PENCO I CLEANING IT UP NOW, PER USCG ALREADY NTFD EVERYONE, U1 NTFD  |
| 8/1/2011  | 1638 | USCG P O DARREN RPTS SMALL DIESEL SPILL AT P30 OFF OF TUG TORTEL - R. LEONG NTFD (LESS THAN 1/2 GALLON)  |



Hawaii Department of Transportation – Harbors Division  
Annual Compliance Report Summary of Tower Logs  
Honolulu Harbor, 2011

| Date       | Time | Action Taken   |
|------------|------|--|
| 9/12/2011  | 1803 | USCG P.O. CHARLES RPTS MVC AT P51 CRANE VS VAN (OWNED BY DAVE OF PACIFIC DIVING CO). THE VAN HAS SUBSTANTIAL DAMAGE AND IS HANGING OVER THE EDGE OF THE APRON. AN UNDETERMINED AMOUNT OF BRAKE FLUID HAS ENTERED THE HARBOR - A3 NFYD  |
| 9/12/2011  | 1935 | A3 ALL UNITS 10-8 P51 - PENCO & USCG ON SCENE - PIER HAS BEEN BOOMED. DOH, U1 AND R LEONG NFYD (NOT SURE IF BRAKE FLUID IS TO BE REPORTED SO I DID)  |
| 10/6/2011  | 1605 | PILOT # 9 REPT VESSEL ODYSSEY IN DUMPING SOAP IN THE WATER AT P -10/11 / U3.   |
| 10/6/2011  | 1610 | USCG (TURNER), KILO 3 , RANDAL & PH (LIZ) ALL NTFD   |
| 10/6/2011  | 1625 | PER U3 THE ODYSSEY IS PUMPING OUT SEAWATER THAT WAS CIRCULATED THRU THE VESSEL, THAT IS CAUSING THE FOAMING IN THE WATER. USCG ( TURNER), PH & RANDAL ALL NTFD. KILO 3 IN THE AREA.  |
| 10/6/2011  | 1630 | KILO 3 REPT, HE IS ON THE VESSEL & THE WATER IS BEING PUMPED OUT REALLY STRONG & CAUSING THE FOAMING IN THE WATER.   |
| 10/7/2011  | 912  | HFD NTFD TWR THAT THEY RCVD A CALL FROM A PERSON THAT LIVES IN A HIGH RISE ACROSS FROM P11 (SCOTT @ 945-807-4104). HE RPTD THE BILGE ON THE ODYSSEY PUMPING OIL WHICH IS CAUSING AN OIL SHEEN. HFD ALSO NTFD USCG / DOH. U3 NTFD. TWR RQSTD A1 HEAD THERE TO CHECK IT OUT. K1 ALSO RESPONDING. |
| 10/7/2011  | 920  | A1/HFD 10-8 FROM P11. NO SIGNS OF AN OIL SHEEN. THE SHIP'S ENGINEER STATED THAT IT WAS COOLANT WATER. U3 NTFD.   |
| 10/20/2011 | 830  | FV CAROLEIGH REPT AN OIL SHEEN BETWEEN P-35 & 36, ABOUT 200' LONG & 100' WIDE UNKNOWN SOURCE / USCG, U3, U9, TERRY (PH) ALL NTFD & LEFT MESSAGE WITH RANDAL  |
| 10/26/2011 | 856  | DEPT. OF HEALTH RCVD NOTIFICATION FROM USCG OF AN OIL SHEEN APPROXIMATELY 50 YDS IN DIAMETER IN THE MAIN BASIN OF HNL HARBOR. TWR NTFD DoH THAT THERE ARE NO SIGNS OF A SHEEN IN THE MAIN BASIN. DoH ACKNOWLEDGED.   |
| 10/31/2011 | 645  | TWR OBSERVED SHEEN WEST OF THE TWR - LOOKS LIKE RAIN RUN-OFF COMING FROM P13 - WILL NFY DOH @ 8:00   |
| 10/31/2011 | 817  | A1 RQST MAINT BE NFYD TO BRING OIL ABSORBENT PADS (HYDROLIC LEAK) OM1 NFYD   |
| 10/31/2011 | 1248 | K-O-K RQST SML BT INTO THE WATER TO BOOM THEIR SHIP - OK DONE 1344   |
| 11/16/2011 | 814  | P14 RPTS OIL SHEEN CORNER OF P28. NTFD DOH-TERRY, USCG SEALE, RANDAL LEONG AND U3.   |
| 11/29/2011 | 924  | U1 REQ U6 CONTACT AGENT FOR GOLDEN PRINCESS AT P-10/11. THEY ARE PAINTING & PAINT IS FALLING IN THE WATER. U6 NTFD & WILL CALL STEVE LAMBERT (TNC)   |
| 11/29/2011 | 926  | U6 REPT HE CONTACTED STEVE & HE WILL TAKE CARE OF 0924 ENTRY.  |
| 12/12/2011 | 1020 | JON (OM) RPTS THAT THE HAZ MAT TEAM HAS BEEN NFYD TO RESPOND TO AN EXPANDING 55 GAL DRUM AT P36 DISPOSAL AREA-U2, U9, A3, & EE-LEONG NFYD  |
| 12/12/2011 | 1028 | A3 AND A1 10-7 P36 (HFD 10-7)  |
| 12/12/2011 | 1032 | A3 RPTS HFD ORDERED THE EVACUATION OF P36 UNTIL HAZ MAT CAN DETERMINE CONTENTS - U2, U9, EE-LEONG NFYD   |
| 12/12/2011 | 1038 | LT1 & K2 10-7 P36  |
| 12/12/2011 | 1050 | K2 RPTS HFD HAS CLEARED DRUM MATERIAL FOR DISPOSAL - OM JON NFYD   |



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**APPENDIX I**  
**HONOLULU HARBOR OUTFALL MAP**

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Honolulu Harbor Storm Water Drainage and Outfalls

Hawaii DOT Harbors Division Storm Water Management Program  
Hawaii Department of Transportation – Harbors Division



| DATE | BY | REVISION NO. |
|------|----|--------------|
|      |    |              |
| DATE | BY | REVISION NO. |
|      |    |              |
|      |    |              |
|      |    |              |
|      |    |              |
|      |    |              |
|      |    |              |
|      |    |              |
|      |    |              |





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**APPENDIX J**  
**HONOLULU HARBOR**  
**OUTFALL RECONNAISSANCE INVENTORY REPORTS**

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# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |            |   |            |
|---|------------|---|------------|
| Subwatershed:   |            | Outfall ID: 79-03                                 |            |
| Today's date: 12/12/11  |            | Time (Military): 1315                             |            |
| Investigators: JW, AL   |            | Form completed by: SW                             |            |
| Temperature (°F):   |            | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |            |
| Latitude: 2358837.854   | Longitude: | GPS Unit:   | GPS LMK #: |
| Camera: Nikon-  |            | Photo #s: 3512, 3513                              |            |
| Land Use in Drainage Area (Check all that apply):   |            |   |            |
| <input type="checkbox"/> Industrial   |            | <input type="checkbox"/> Open Space               |            |
| <input type="checkbox"/> Ultra-Urban Residential  |            | <input type="checkbox"/> Institutional            |            |
| <input type="checkbox"/> Suburban Residential   |            | Other: _____                                      |            |
| <input checked="" type="checkbox"/> Commercial  |            | Known Industries: _____                           |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |            |   |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>24"                             | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If No, Skip to Section 5   |  |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS             |                 |          |                  |  |
|---|-----------------|----------|------------------|--|
| PARAMETER                                   | RESULT          | UNIT     | EQUIPMENT        |  |
| <input checked="" type="checkbox"/> Flow #1 | Volume          | Liter    |                  |  |
|   | Time to fill    | Sec      |                  |  |
|   | Flow depth      | In       |                  |  |
| <input type="checkbox"/> Flow #2            | Flow width      | Ft, In   |                  |  |
|   | Measured length | Ft, In   |                  |  |
|   | Time of travel  | Sec      |                  |  |
| Temperature                                 |                 | °F       |                  |  |
| pH  |                 | pH Units | Test strip/Probe |  |
| Ammonia                                     |                 | ppm      | Test strip       |  |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present                    | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|-------------------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/>            | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/>            | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/>            | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely 
 ☒ Potential (presence of two or more indicators) 
 ☐ Suspect (one or more indicators with a severity of 3) 
 ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

possibly the water

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: 89-04                      |            |
| Today's date: 12/12/11  |   | Time (Military): 1720                  |            |
| Investigators: JW, AR   |   | Form completed by: JW                  |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2358837.854   | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #s: 28 3515                                 |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>24"                             | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |               |          |                  |
|----------------------------------|-----------------|---------------|----------|------------------|
| PARAMETER                        |                 | RESULT        | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |               | Liter    |                  |
|                                  | Time to fill    | 1 qt / 10 sec | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      | 1/8"          | In       |                  |
|                                  | Flow width      | 0' 6"         | Ft, In   |                  |
|                                  | Measured length | 0' "          | Ft, In   |                  |
|                                  | Time of travel  |               | Sec      |                  |
| Temperature                      |                 |               | °F       |                  |
| pH                               |                 |               | pH Units | Test strip/Probe |
| Ammonia                          |                 |               | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely
 ☐ Potential (presence of two or more indicators)
 ☐ Suspect (one or more indicators with a severity of 3)
 ☐ Obvious

Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: P11-04   |            |
| Today's date: 12/12/11   |   | Time (Military):   |            |
| Investigators:   |   | Form completed by:   |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2358837.854  | Longitude:  | GPS Unit:  | GPS LMK #: |
| Camera: Nikon-   | Photo #s: 3532 33                                 |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input type="checkbox"/> Industrial<br><input type="checkbox"/> Ultra-Urban Residential<br><input type="checkbox"/> Suburban Residential<br><input checked="" type="checkbox"/> Commercial |   | <input type="checkbox"/> Open Space<br><input type="checkbox"/> Institutional<br>Other: _____<br>Known Industries: _____ |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.  |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>6"<br>12" trickle               | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                |          |                  |
|----------------------------------|-----------------|----------------|----------|------------------|
| PARAMETER                        |                 | RESULT         | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                | Liter    |                  |
|                                  | Time to fill    | 10 sec / 3 sec | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                | In       |                  |
|                                  | Flow width      | 0' "           | Ft, In   |                  |
|                                  | Measured length | 0' "           | Ft, In   |                  |
|                                  | Time of travel  |                | Sec      |                  |
| Temperature                      |                 |                | °F       |                  |
| pH                               |                 |                | pH Units | Test strip/Probe |
| Ammonia                          |                 |                | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely    ☒ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: <span style="border: 1px solid black; padding: 2px;">Rename to P11-06</span>                                 |            |
| Today's date: <u>12/12/11</u>  |   | Time (Military):   |            |
| Investigators:   |   | Form completed by:   |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2358837.854  | Longitude:  | GPS Unit:  | GPS LMK #: |
| Camera: Nikon-   | Photo #s: <u>3538</u>                             |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input type="checkbox"/> Industrial<br><input type="checkbox"/> Ultra-Urban Residential<br><input type="checkbox"/> Suburban Residential<br><input checked="" type="checkbox"/> Commercial |   | <input type="checkbox"/> Open Space<br><input type="checkbox"/> Institutional<br>Other: _____<br>Known Industries: _____ |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.  |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)   | SUBMERGED   |
|---|---|--|--|---|
| <input checked="" type="checkbox"/> Closed Pipe                         | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: <u>8"</u><br><br>In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage                                  | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____  |   |
| <input type="checkbox"/> In-Stream (applicable when collecting samples) |   |  |  |   |
| Flow Present?   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |  |   |
| Flow Description (If present)   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |  |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                     |                  |  |  |
|----------------------------------|-----------------|---------------------|------------------|--|--|
| PARAMETER                        | RESULT          | UNIT                | EQUIPMENT        |  |  |
| <input type="checkbox"/> Flow #1 | Volume          | Liter               |                  |  |  |
|                                  | Time to fill    | <u>1200 / 2 sec</u> | Sec              |  |  |
| <input type="checkbox"/> Flow #2 | Flow depth      | In                  |                  |  |  |
|                                  | Flow width      | <u>0' "</u>         | Ft, In           |  |  |
|                                  | Measured length | <u>0' "</u>         | Ft, In           |  |  |
|                                  | Time of travel  |                     | Sec              |  |  |
| Temperature                      |                 | °F                  |                  |  |  |
| pH                               |                 | pH Units            | Test strip/Probe |  |  |
| Ammonia                          |                 | ppm                 | Test strip       |  |  |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
|                                      |                          |  | 1 - Faint  | 2 - Easily detected   | 3 - Noticeable from a distance                               |
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are Physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present                    | DESCRIPTION   |  | COMMENTS           |
|---------------------|-------------------------------------|---|--|--------------------|
|                     |                                     | Spalling, Cracking or Chipping<br><input type="checkbox"/> Corrosion  | Peeling Paint                          |                    |
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping<br><input type="checkbox"/> Corrosion   | <input type="checkbox"/> Peeling Paint |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   |  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |  |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |  |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |  |                    |

### Section 6: Overall Outfall Characterization

☐ Unlikely 
 ☒ Potential (presence of two or more indicators) 
 ☐ Suspect (one or more indicators with a severity of 3) 
 ☐ Obvious

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <b>Rename to P11-08</b>    |            |
| Today's date: <b>12/12/11</b>   |   | Time (Military): <b>1532</b>           |            |
| Investigators:  |   | Form completed by:                     |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 235837.854  | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #s: <b>3541</b>                             |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><b>near skid 100</b> |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)   | SUBMERGED   |
|---|---|--|--|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: <b>8"</b><br><br>In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____  |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |  |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |  |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |  |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                |          |                  |
|----------------------------------|-----------------|----------------|----------|------------------|
| PARAMETER                        |                 | RESULT         | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                | Liter    |                  |
|                                  | Time to fill    | <b>1.5 min</b> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                | In       |                  |
|                                  | Flow width      | 0' "           | Ft, In   |                  |
|                                  | Measured length | 0' "           | Ft, In   |                  |
|                                  | Time of travel  |                | Sec      |                  |
| Temperature                      |                 |                | °F       |                  |
| pH                               |                 |                | pH Units | Test strip/Probe |
| Ammonia                          |                 |                | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Paint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

*[Signature]*

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

### Section 6: Overall Outfall Characterization

☐ Unlikely 
 ☒ Potential (presence of two or more indicators) 
 ☐ Suspect (one or more indicators with a severity of 3) 
 ☐ Obvious

### Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <b>Rename to P11-09</b>    |            |
| Today's date: <b>12/12/11</b>   |   | Time (Military): <b>1540</b>           |            |
| Investigators:  |   | Form completed by:                     |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 235837.854  | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #: <b>3542</b>                              |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><b>105-106</b> |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: <b>8"</b><br>In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                |          |                  |
|----------------------------------|-----------------|----------------|----------|------------------|
| PARAMETER                        |                 | RESULT         | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                | Liter    |                  |
|                                  | Time to fill    | <b>50m/sec</b> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                | In       |                  |
|                                  | Flow width      | <b>0' "</b>    | Ft, In   |                  |
|                                  | Measured length | <b>0' "</b>    | Ft, In   |                  |
|                                  | Time of travel  |                | Sec      |                  |
| Temperature                      |                 |                | °F       |                  |
| pH                               |                 |                | pH Units | Test strip/Probe |
| Ammonia                          |                 |                | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely ☒ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |                  |  |
|---|---|--|------------------|--|
| Watershed:  |   | Outfall ID:                            | Rename to P11-11 |  |
| Today's date: 12/12/11  |   | Time (Military):                       | 1545             |  |
| Investigators:  |   | Form completed by:                     | JES JW           |  |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |                  |  |
| Latitude: 2358837.854   | Longitude:  | GPS Unit:                              | GPS LMK #:       |  |
| Camera: Nikon-  | Photo #s: 3548                                    |  |                  |  |
| Land Use in Drainage Area (Check all that apply):   |   |  |                  |  |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |                  |  |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |                  |  |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |                  |  |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                |                  |  |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |                  |  |

## Section 2: Outfall Description

| LOCATION  | MATERIAL   | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED  |
|---|--|---|---|--|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: 8"<br>In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____   | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____                                 | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |  |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)   |   |   |  |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>  |   |   |  |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |   |   |  |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |              |          |                  |
|----------------------------------|-----------------|--------------|----------|------------------|
| PARAMETER                        |                 | RESULT       | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |              | Liter    |                  |
|                                  | Time to fill    | 0.5 qt / min | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |              | In       |                  |
|                                  | Flow width      | 0' "         | Ft, In   |                  |
|                                  | Measured length | 0' "         | Ft, In   |                  |
|                                  | Time of travel  |              | Sec      |                  |
| Temperature                      |                 |              | °F       |                  |
| pH                               |                 |              | pH Units | Test strip/Probe |
| Ammonia                          |                 |              | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

N/C above

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |            |   |            |
|---|------------|---|------------|
| Subwatershed:   |            | Outfall ID: <b>Rename to P11-15</b>               |            |
| Today's date: <b>12/12/11</b>   |            | Time (Military):                                  |            |
| Investigators: <b>JW</b>  |            | Form completed by:                                |            |
| Temperature (°F):   |            | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |            |
| Latitude: 2358837.854   | Longitude: | GPS Unit:   | GPS LMK #: |
| Camera: Nikon-  |            | Photo #s: <b>3553</b>                             |            |
| Land Use in Drainage Area (Check all that apply):   |            |   |            |
| <input type="checkbox"/> Industrial   |            | <input type="checkbox"/> Open Space               |            |
| <input type="checkbox"/> Ultra-Urban Residential  |            | <input type="checkbox"/> Institutional            |            |
| <input type="checkbox"/> Suburban Residential   |            | Other: _____                                      |            |
| <input checked="" type="checkbox"/> Commercial  |            | Known Industries: _____                           |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |            |   |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED  |
|---|---|--|---|---|--|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><b>36"</b>                      | In Water:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |  |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |  |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |  |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |  |   |   |  |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                    |          |                  |
|----------------------------------|-----------------|--------------------|----------|------------------|
| PARAMETER                        |                 | RESULT             | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                    | Liter    |                  |
|                                  | Time to fill    | <b>2-3 gal/sec</b> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                    | In       |                  |
|                                  | Flow width      | <b>0' "</b>        | Ft, In   |                  |
|                                  | Measured length | <b>0' "</b>        | Ft, In   |                  |
|                                  | Time of travel  |                    | Sec      |                  |
| Temperature                      |                 |                    | °F       |                  |
| pH                               |                 |                    | pH Units | Test strip/Probe |
| Ammonia                          |                 |                    | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                             | CHECK if Present         | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|---------------------------------------|--------------------------|---|--|---|--|
| Odor                                  | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Paint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                 | <input type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                             | <input type="checkbox"/> | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables - Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight, origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide *could be tidal: sustained flow - does not alternate*

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely 
 ☒ Potential (presence of two or more indicators) 
 ☐ Suspect (one or more indicators with a severity of 3) 
 ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <span style="border: 1px solid black; padding: 2px;">Rename to P11-16</span> |            |
| Today's date: <u>12/12/11</u>   |   | Time (Military): <u>1553</u>   |            |
| Investigators:  |   | Form completed by:   |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2358837.854   | Longitude:  | GPS Unit:  | GPS LMK #: |
| Camera: Nikon-  | Photo #s: <u>3555</u>                             |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space  |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional   |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____   |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____  |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>18"</u>                      | In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (if present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |             |          |                  |
|----------------------------------|-----------------|-------------|----------|------------------|
| PARAMETER                        |                 | RESULT      | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |             | Liter    |                  |
|                                  | Time to fill    |             | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |             | In       |                  |
|                                  | Flow width      | <u>Q'</u> " | Ft, In   |                  |
|                                  | Measured length | <u>Q'</u> " | Ft, In   |                  |
|                                  | Time of travel  |             | Sec      |                  |
| Temperature                      |                 |             | °F       |                  |
| pH                               |                 |             | pH Units | Test strip/Probe |
| Ammonia                          |                 |             | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|--------------------------------------|--------------------------|--|---|---|---|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oil <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input checked="" type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |                      |  |            |
|---|----------------------|--|------------|
| Subwatershed:   |                      | Outfall ID: <u>819-0</u>               |            |
| Today's date:   |                      | Time (Military):                       |            |
| Investigators:  |                      | Form completed by:                     |            |
| Temperature (°F):   | Rainfall (in.):      | Last 24 hours: 0 Last 48 hours: 0      |            |
| Latitude:   | Longitude:           | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #: <u>1960</u> |  |            |
| Land Use in Drainage Area (Check all that apply):   |                      |  |            |
| <input type="checkbox"/> Industrial   |                      | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |                      | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |                      | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |                      | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |                      |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   |  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>30"</u>                      | In Water:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____                                 |  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |  |   |   |
| Flow Present?                                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i> <u>tidal</u>  |   |  |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |   |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |             |          |                  |
|----------------------------------|-----------------|-------------|----------|------------------|
| PARAMETER                        |                 | RESULT      | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |             | Liter    |                  |
|                                  | Time to fill    |             | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |             | In       |                  |
|                                  | Flow width      | <u>0'</u> " | Ft, In   |                  |
|                                  | Measured length | <u>0'</u> " | Ft, In   |                  |
|                                  | Time of travel  |             | Sec      |                  |
| Temperature                      |                 |             | °F       |                  |
| pH                               |                 |             | pH Units | Test strip/Probe |
| Ammonia                          |                 |             | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

no flow

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present                    | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|--------------------------------------|-------------------------------------|--|---|---|---|
| Odor                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> Sewage<br><input type="checkbox"/> Sulfide<br><input checked="" type="checkbox"/> Rancid/sour<br><input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input checked="" type="checkbox"/> 3 - Noticeable from a distance  |
| Color                                | <input type="checkbox"/>            | <input type="checkbox"/> Clear<br><input type="checkbox"/> Green<br><input type="checkbox"/> Brown<br><input type="checkbox"/> Orange<br><input type="checkbox"/> Gray<br><input type="checkbox"/> Red<br><input type="checkbox"/> Yellow<br><input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                            | <input type="checkbox"/>            | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/>            | <input type="checkbox"/> Sewage (Toilet Paper, etc.)<br><input type="checkbox"/> Petroleum (oil sheen)<br><input type="checkbox"/> Suds<br><input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

Whole area was filthy, may not have been from outfall

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping<br><input type="checkbox"/> Corrosion<br><input type="checkbox"/> Peeling Paint   |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily<br><input type="checkbox"/> Flow Line<br><input type="checkbox"/> Paint<br><input type="checkbox"/> Other:  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive<br><input type="checkbox"/> Inhibited  |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors<br><input type="checkbox"/> Colors<br><input type="checkbox"/> Excessive Algae<br><input type="checkbox"/> Floatables<br><input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown<br><input type="checkbox"/> Orange<br><input type="checkbox"/> Green<br><input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely ☒ Potential (presence of two or more indicators) ☒ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |                           |   |            |
|---|---------------------------|---|------------|
| Subwatershed:   |                           | Outfall ID: <u>021-06</u>                         |            |
| Today's date: <u>12/15/11</u>   |                           | Time (Military): <u>1122</u>                      |            |
| Investigators: <u>AR TW</u>   |                           | Form completed by: <u>AR</u>                      |            |
| Temperature (°F):   |                           | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |            |
| Latitude: <u>2356894</u>  | Longitude: <u>0617313</u> | GPS Unit:   | GPS LMK #: |
| Camera: Nikon-  |                           | Photo #s: <u>1899</u>                             |            |
| Land Use in Drainage Area (Check all that apply):   |                           |   |            |
| <input checked="" type="checkbox"/> Industrial  |                           | <input type="checkbox"/> Open Space               |            |
| <input type="checkbox"/> Ultra-Urban Residential  |                           | <input type="checkbox"/> Institutional            |            |
| <input type="checkbox"/> Suburban Residential   |                           | Other: _____                                      |            |
| <input type="checkbox"/> Commercial   |                           | Known Industries: _____                           |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |                           |   |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input checked="" type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>10" x 10"</u>                | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i> <u>Wet, maybe trickle</u>   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |             |          |                  |
|----------------------------------|-----------------|-------------|----------|------------------|
| PARAMETER                        |                 | RESULT      | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |             | Liter    |                  |
|                                  | Time to fill    |             | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |             | In       |                  |
|                                  | Flow width      | <u>0'</u> " | Ft, In   |                  |
|                                  | Measured length | <u>0'</u> " | Ft, In   |                  |
|                                  | Time of travel  |             | Sec      |                  |
| Temperature                      |                 |             | °F       |                  |
| pH                               |                 |             | pH Units | Test strip/Probe |
| Ammonia                          |                 |             | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

### Section 6: Overall Outfall Characterization

☐ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

### Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: <u>P31-01</u>              |            |
| Today's date: <u>12/14/11</u>  |   | Time (Military):                       |            |
| Investigators:   |   | Form completed by:                     |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <u>2357061</u>   | Longitude: <u>0616726</u>                         | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-   | Photo #s: <u>1865</u>                             |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input checked="" type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential   |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential  |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><u>rain in last 20 mins</u> |   |  |            |

## Section 2: Outfall Description

| LOCATION                               | MATERIAL   | SHAPE   |  | DIMENSIONS (IN.)  | SUBMERGED   |
|--|--|---|--|---|---|
| <input type="checkbox"/> Closed Pipe   | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: _____                              | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____   | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____                                 |  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream     | (applicable when collecting samples)   |   |  |   |   |
| Flow Present?                          | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>  |   |  |   |   |
| Flow Description (If present)          | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |   |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                     |          |                  |
|----------------------------------|-----------------|---------------------|----------|------------------|
| PARAMETER                        |                 | RESULT              | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                     | Liter    |                  |
|                                  | Time to fill    | <u>0.25 gal/min</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                     | In       |                  |
|                                  | Flow width      | <u>0' "</u>         | Ft, In   |                  |
|                                  | Measured length | <u>0' "</u>         | Ft, In   |                  |
|                                  | Time of travel  |                     | Sec      |                  |
| Temperature                      |                 |                     | °F       |                  |
| pH                               |                 |                     | pH Units | Test strip/Probe |
| Ammonia                          |                 |                     | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

## Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: P31-02                     |            |
| Today's date: 12/14/11  |   | Time (Military): 1532                  |            |
| Investigators: SW, AR   |   | Form completed by: SW                  |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2357085   | Longitude: 0616698                                | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #s: 1861                                    |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br>cerment(?) on bottom of pipe, rain in last 20 mins |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>18"                             | In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If No, Skip to Section 5   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |             |          |                  |
|----------------------------------|-----------------|-------------|----------|------------------|
| PARAMETER                        |                 | RESULT      | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |             | Liter    |                  |
|                                  | Time to fill    | 0.5 gal/min | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |             | In       |                  |
|                                  | Flow width      | 0' "        | Ft, In   |                  |
|                                  | Measured length | 0' "        | Ft, In   |                  |
|                                  | Time of travel  |             | Sec      |                  |
| Temperature                      |                 |             | °F       |                  |
| pH                               |                 |             | pH Units | Test strip/Probe |
| Ammonia                          |                 |             | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Paint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: <i>green</i>  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input checked="" type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely    ☒ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <u>P32-02</u>              |            |
| Today's date: <u>12/14/11</u>   |   | Time (Military): <u>1520</u>           |            |
| Investigators:  |   | Form completed by: <u>SW</u>           |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude:   | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  |   | Photo #s: <u>1856</u>                  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: <u>18</u><br><br>In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |          |                  |  |
|----------------------------------|-----------------|----------|------------------|--|
| PARAMETER                        | RESULT          | UNIT     | EQUIPMENT        |  |
| <input type="checkbox"/> Flow #1 | Volume          | Liter    |                  |  |
|                                  | Time to fill    | Sec      |                  |  |
| <input type="checkbox"/> Flow #2 | Flow depth      | In       |                  |  |
|                                  | Flow width      | Ft, In   |                  |  |
|                                  | Measured length | Ft, In   |                  |  |
|                                  | Time of travel  | Sec      |                  |  |
| Temperature                      |                 | °F       |                  |  |
| pH                               |                 | pH Units | Test strip/Probe |  |
| Ammonia                          |                 | ppm      | Test strip       |  |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                               | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|---|--------------------------|--|--|---|--|
| Odor                                    | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                   | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                               | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables<br>-Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

### Section 6: Overall Outfall Characterization

☒ Unlikely   
 ☐ Potential (presence of two or more indicators)   
 ☐ Suspect (one or more indicators with a severity of 3)   
 ☐ Obvious

### Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: 32-03                      |            |
| Today's date: 12/14/11  |   | Time (Military): 1515                  |            |
| Investigators: JWA  |   | Form completed by: JWA                 |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 23° 57' 16" N   | Longitude: 061° 6' 53" W                          | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #: 1855                                     |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br>related to rain event. Stopped at end. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>24"                             | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If No, Skip to Section 5   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |        |          |                  |
|----------------------------------|-----------------|--------|----------|------------------|
| PARAMETER                        |                 | RESULT | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |        | Liter    |                  |
|                                  | Time to fill    | 29 min | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |        | In       |                  |
|                                  | Flow width      | 0' "   | Ft, In   |                  |
|                                  | Measured length | 0' "   | Ft, In   |                  |
|                                  | Time of travel  |        | Sec      |                  |
| Temperature                      |                 |        | °F       |                  |
| pH                               |                 |        | pH Units | Test strip/Probe |
| Ammonia                          |                 |        | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are Physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oil <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely   
 ☐ Potential (presence of two or more indicators)   
 ☐ Suspect (one or more indicators with a severity of 3)   
 ☐ Obvious

Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <u>P33-01</u>              |            |
| Today's date: <u>12/14/11</u>   |   | Time (Military): <u>1500</u>           |            |
| Investigators: <u>N, AR</u>   |   | Form completed by: <u>SW</u>           |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <u>235722N</u>  | Longitude: <u>0616471</u>                         | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  |   | Photo #s: <u>1848-49</u>               |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |
| <u>serviced by a lot of storm drains, roof drains. Rained 2 mins before inspection.</u>   |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>18"</u>                      | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i> <u>began while inspecting</u>   |  |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |          |                  |  |
|----------------------------------|-----------------|----------|------------------|--|
| PARAMETER                        | RESULT          | UNIT     | EQUIPMENT        |  |
| <input type="checkbox"/> Flow #1 | Volume          | Liter    |                  |  |
|                                  | Time to fill    | Sec      |                  |  |
| <input type="checkbox"/> Flow #2 | Flow depth      | In       |                  |  |
|                                  | Flow width      | Ft, In   |                  |  |
|                                  | Measured length | Ft, In   |                  |  |
|                                  | Time of travel  | Sec      |                  |  |
| Temperature                      |                 | °F       |                  |  |
| pH                               |                 | pH Units | Test strip/Probe |  |
| Ammonia                          |                 | ppm      | Test strip       |  |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input checked="" type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:<br><input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited                             | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |
| Pipe benthic growth | <input type="checkbox"/>            |   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |                    |  |            |
|--|--------------------|--|------------|
| Subwatershed:  |                    | Outfall ID: P3502  |            |
| Today's date: 12/14/4  |                    | Time (Military): 1330  |            |
| Investigators: J, AL   |                    | Form completed by: J   |            |
| Temperature (°F):  |                    | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0  |            |
| Latitude: 2357595  | Longitude: 0616530 | GPS Unit:  | GPS LMK #: |
| Camera: Nikon-   |                    | Photo #s: 1819, 1821   |            |
| Land Use in Drainage Area (Check all that apply):  |                    |  |            |
| <input type="checkbox"/> Industrial<br><input type="checkbox"/> Ultra-Urban Residential<br><input type="checkbox"/> Suburban Residential<br><input checked="" type="checkbox"/> Commercial |                    | <input type="checkbox"/> Open Space<br><input type="checkbox"/> Institutional<br>Other: _____<br>Known Industries: _____ |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br>rocks                                     |                    |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>18"                             | In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If No, Skip to Section 5   |  |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |          |          |                  |
|----------------------------------|-----------------|----------|----------|------------------|
| PARAMETER                        |                 | RESULT   | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |          | Liter    |                  |
|                                  | Time to fill    | 1gal/min | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |          | In       |                  |
|                                  | Flow width      | 0' "     | Ft, In   |                  |
|                                  | Measured length | 0' "     | Ft, In   |                  |
|                                  | Time of travel  |          | Sec      |                  |
| Temperature                      |                 |          | °F       |                  |
| pH                               |                 |          | pH Units | Test strip/Probe |
| Ammonia                          |                 |          | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

Section 7: Any Non-Mlicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: <u>P35-03</u>              |            |
| Today's date: <u>12/14/4</u>   |   | Time (Military): <u>1322</u>           |            |
| Investigators:   |   | Form completed by:                     |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude:  | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-   | Photo #s: <u>1818</u>                             |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential   |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential  |   | Other: _____                           |            |
| <input checked="" type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><u>under pier</u> |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>24"</u>                      | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                  |          |                  |
|----------------------------------|-----------------|------------------|----------|------------------|
| PARAMETER                        |                 | RESULT           | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                  | Liter    |                  |
|                                  | Time to fill    | <u>3 gal/min</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                  | In       |                  |
|                                  | Flow width      | <u>0'</u> "      | Ft, In   |                  |
|                                  | Measured length | <u>0'</u> "      | Ft, In   |                  |
|                                  | Time of travel  |                  | Sec      |                  |
| Temperature                      |                 |                  | °F       |                  |
| pH                               |                 |                  | pH Units | Test strip/Probe |
| Ammonia                          |                 |                  | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |   |            |
|---|---|---|------------|
| Subwatershed:   |   | Outfall ID: <u>05</u><br><u>P35-08-04</u> |            |
| Today's date: <u>12/14/11</u>   |   | Time (Military): <u>1303</u>              |            |
| Investigators: <u>SW, AR, MA</u>  |   | Form completed by: <u>SW</u>              |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |   |            |
| Latitude: <u>2357626</u>  | Longitude: <u>0616490</u>                         | GPS Unit:                                 | GPS LMK #: |
| Camera: Nikon-  | Photo #s: <u>1813-1814</u>                        |   |            |
| Land Use in Drainage Area (Check all that apply):   |   |   |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space       |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional    |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                              |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                   |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><u>crabs</u> |   |   |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>36"</u>                      | In Water: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment: <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |   |
| Flow Description (if present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                    |          |                  |
|----------------------------------|-----------------|--------------------|----------|------------------|
| PARAMETER                        |                 | RESULT             | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                    | Liter    |                  |
|                                  | Time to fill    | <u>1-2 gal/min</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                    | In       |                  |
|                                  | Flow width      | <u>0' "</u>        | Ft, In   |                  |
|                                  | Measured length | <u>0' "</u>        | Ft, In   |                  |
|                                  | Time of travel  |                    | Sec      |                  |
| Temperature                      |                 |                    | °F       |                  |
| pH                               |                 |                    | pH Units | Test strip/Probe |
| Ammonia                          |                 |                    | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|--------------------------------------|--------------------------|--|---|---|---|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: P37-01                     |            |
| Today's date:  |   | Time (Military): 1151                  |            |
| Investigators:   |   | Form completed by: JW                  |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2357650  | Longitude: 0616351                                | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-   | Photo #s: 1796                                    |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential   |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential  |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br>rocks, clabs - tracked upstream - ice maker |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED  |
|---|---|--|---|--|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>24"                             | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |  |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |  |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |  |
| Flow Description (if present)                   | <input checked="" type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |  |   |  |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |               |          |                  |
|----------------------------------|-----------------|---------------|----------|------------------|
| PARAMETER                        |                 | RESULT        | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |               | Liter    |                  |
|                                  | Time to fill    | ~ 0.5 gal/min | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |               | In       |                  |
|                                  | Flow width      | 0' "          | Ft, In   |                  |
|                                  | Measured length | 0' "          | Ft, In   |                  |
|                                  | Time of travel  |               | Sec      |                  |
| Temperature                      |                 |               | °F       |                  |
| pH                               |                 |               | pH Units | Test strip/Probe |
| Ammonia                          |                 |               | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input checked="" type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

### Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |   |            |
|---|---|---|------------|
| Subwatershed:   |   | Outfall ID: <del>P37-01</del> P37-01 P37-02 |            |
| Today's date:   |   | Time (Military): 1200                       |            |
| Investigators:  |   | Form completed by: SW                       |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |   |            |
| Latitude: 235758B   | Longitude: 0616313                                | GPS Unit:                                   | GPS LMK #: |
| Camera: Nikon-  | Photo #s: 1797 (sheen), 1A131-133                 |   |            |
| Land Use in Drainage Area (Check all that apply):   |   |   |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space         |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional      |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                                |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                     |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br>drains from parking area |   |   |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br>12"                             | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If No, Skip to Section 5   |   |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |               |          |                  |
|----------------------------------|-----------------|---------------|----------|------------------|
| PARAMETER                        |                 | RESULT        | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |               | Liter    |                  |
|                                  | Time to fill    | hardly a drip | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |               | In       |                  |
|                                  | Flow width      | 0' "          | Ft, In   |                  |
|                                  | Measured length | 0' "          | Ft, In   |                  |
|                                  | Time of travel  |               | Sec      |                  |
| Temperature                      |                 |               | °F       |                  |
| pH                               |                 |               | pH Units | Test strip/Probe |
| Ammonia                          |                 |               | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION  | COMMENTS           |
|---------------------|-------------------------------------|--|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion   |                    |
| Deposits/Stains     | <input type="checkbox"/>            | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited  |                    |
| Poor pool quality   | <input checked="" type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input checked="" type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

### Section 6: Overall Outfall Characterization

☒ Unlikely ☒ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

### Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: <u>P38-01</u>              |            |
| Today's date: <u>12/14/11</u>  |   | Time (Military): <u>1207</u>           |            |
| Investigators: <u>SW, MA, AR</u>   |   | Form completed by: <u>SW</u>           |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0         |  |            |
| Latitude: <u>2357625</u>   | Longitude: <u>0616215</u>                                 | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-   | Photo #s: <u>1798-1799, 1800-02 (hole from ice maker)</u> |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential   |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential  |   | Other: _____                           |            |
| <input checked="" type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><u>boat parked in front. could be from ice maker. Flow into ice maker discharge</u> |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>12"</u>                      | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                  |          |                  |
|----------------------------------|-----------------|------------------|----------|------------------|
| PARAMETER                        |                 | RESULT           | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                  | Liter    |                  |
|                                  | Time to fill    | <u>5 gal/min</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                  | In       |                  |
|                                  | Flow width      | <u>0' "</u>      | Ft, In   |                  |
|                                  | Measured length | <u>0' "</u>      | Ft, In   |                  |
|                                  | Time of travel  |                  | Sec      |                  |
| Temperature                      |                 |                  | °F       |                  |
| pH                               |                 |                  | pH Units | Test strip/Probe |
| Ammonia                          |                 |                  | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS                   |
|---------------------|-------------------------------------|---|----------------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                            |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input checked="" type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:  | sediment and algae buildup |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                            |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                            |
| Pipe benthic growth | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                            |

### Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

### Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <u>P38-04</u>              |            |
| Today's date: <u>12/14/11</u>   |   | Time (Military): <u>1240</u>           |            |
| Investigators: <u>SW, AB, MA</u>  |   | Form completed by: <u>SW</u>           |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <u>23° 57' 860</u>  | Longitude: <u>066° 35' 1</u>                      | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #s: <u>1506</u>                             |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input checked="" type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED  |
|---|---|--|---|---|--|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>30"</u>                      | In Water:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |  |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |  |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>  |  |   |   |  |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial    ←   |  |   |   |  |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                 |          |                  |
|----------------------------------|-----------------|-----------------|----------|------------------|
| PARAMETER                        |                 | RESULT          | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                 | Liter    |                  |
|                                  | Time to fill    | <u>variable</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                 | In       |                  |
|                                  | Flow width      | <u>0' "</u>     | Ft, In   |                  |
|                                  | Measured length | <u>0' "</u>     | Ft, In   |                  |
|                                  | Time of travel  |                 | Sec      |                  |
| Temperature                      |                 |                 | °F       |                  |
| pH                               |                 |                 | pH Units | Test strip/Probe |
| Ammonia                          |                 |                 | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                              | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--|--------------------------|--|--|---|--|
| Odor                                   | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                  | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                              | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables - Does Not Include Trash !! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

*tidal, interesting*

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|---------------------|-------------------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input checked="" type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:  | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input checked="" type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input checked="" type="checkbox"/> Other: <i>turbidity</i> |                    |
| Pipe benthic growth | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Orange <input checked="" type="checkbox"/> Green <input type="checkbox"/> Other:   | <i>algae</i>       |

## Section 6: Overall Outfall Characterization

☒ Unlikely    ☒ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: <b>P41-01</b>              |            |
| Today's date: <b>12/13/11</b>  |   | Time (Military): <b>1321</b>           |            |
| Investigators: <b>A. JW</b>  |   | Form completed by:                     |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <b>2357950</b>   | Longitude: <b>0615879</b>                         | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-   |   | Photo #s: <b>1739</b>                  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input checked="" type="checkbox"/> Industrial   |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential   |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential  |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial  |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><b>Shore nearby outlet but from box culvert</b> |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><b>30"</b>                      | In Water:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |   |
| Flow Present?                                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |   |
| Flow Description (if present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |             |          |                  |
|----------------------------------|-----------------|-------------|----------|------------------|
| PARAMETER                        |                 | RESULT      | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |             | Liter    |                  |
|                                  | Time to fill    |             | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |             | In       |                  |
|                                  | Flow width      | <b>0'</b> " | Ft, In   |                  |
|                                  | Measured length | <b>0'</b> " | Ft, In   |                  |
|                                  | Time of travel  |             | Sec      |                  |
| Temperature                      |                 |             | °F       |                  |
| pH                               |                 |             | pH Units | Test strip/Probe |
| Ammonia                          |                 |             | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                             | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|---------------------------------------|--------------------------|--|---|---|---|
| Odor                                  | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                 | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                             | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not include Trash !! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

### Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

### Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <u>P41-02</u>              |            |
| Today's date: <u>12/13/11</u>   |   | Time (Military): <u>1310</u>           |            |
| Investigators: <u>R JW</u>  |   | Form completed by: <u>R</u>            |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <u>23° 57' 89.3" N</u>  | Longitude: <u>061° 58' 06.0" W</u>                | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon- <u>2357850</u>   | <u>0615865</u>                                    | Photo #s: <u>1738</u>                  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED  |
|---|---|--|---|--|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: <u>18"</u><br><br>In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |  |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |  |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |  |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |  |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                     |          |                  |
|----------------------------------|-----------------|---------------------|----------|------------------|
| PARAMETER                        |                 | RESULT              | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                     | Liter    |                  |
|                                  | Time to fill    | <u>200 mL / sec</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                     | In       |                  |
|                                  | Flow width      | <u>0' "</u>         | Ft, In   |                  |
|                                  | Measured length | <u>0' "</u>         | Ft, In   |                  |
|                                  | Time of travel  |                     | Sec      |                  |
| Temperature                      |                 |                     | °F       |                  |
| pH                               |                 |                     | pH Units | Test strip/Probe |
| Ammonia                          |                 |                     | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present                    | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|--------------------------------------|-------------------------------------|--|---|---|---|
| Odor                                 | <input type="checkbox"/>            | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: <i>lt. brown</i> | <input type="checkbox"/> 1 - Paint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                            | <input checked="" type="checkbox"/> | See severity   | <input checked="" type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/>            | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely ☒ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: P42-01                     |            |
| Today's date: 12/13/11  |   | Time (Military): 1342                  |            |
| Investigators: R TW   |   | Form completed by: R                   |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2357667   | Longitude: 0615824                                | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #: 1741                                     |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: 24"<br>In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial <i>lt Rain currently</i>   |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |        |          |                  |
|----------------------------------|-----------------|--------|----------|------------------|
| PARAMETER                        |                 | RESULT | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |        | Liter    |                  |
|                                  | Time to fill    |        | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |        | In       |                  |
|                                  | Flow width      | 0' "   | Ft, In   |                  |
|                                  | Measured length | 0' "   | Ft, In   |                  |
|                                  | Time of travel  |        | Sec      |                  |
| Temperature                      |                 |        | °F       |                  |
| pH                               |                 |        | pH Units | Test strip/Probe |
| Ammonia                          |                 |        | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |                                 |            |
|---|---|---------------------------------|------------|
| Subwatershed:   |   | Outfall ID: <u>P41/45-5</u>     |            |
| Today's date: <u>12/13/11</u>   |   | Time (Military): <u>14 1242</u> |            |
| Investigators: <u>AR JW</u>   |   | Form completed by: <u>AR</u>    |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |                                 |            |
| Latitude: <u>2357548</u>  | Longitude: <u>0615701</u>                         | GPS Unit:                       | GPS LMK #: |
| Camera: Nikon-  | Photo #s: <u>1735</u>                             |                                 |            |
| Land Use in Drainage Area (Check all that apply):   |   |                                 |            |
| <input type="checkbox"/> Industrial   | <input type="checkbox"/> Open Space               |                                 |            |
| <input type="checkbox"/> Ultra-Urban Residential  | <input type="checkbox"/> Institutional            |                                 |            |
| <input type="checkbox"/> Suburban Residential   | Other: _____                                      |                                 |            |
| <input type="checkbox"/> Commercial   | Known Industries: _____                           |                                 |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><u>New eng. design - low pt / depression</u> |   |                                 |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL   | SHAPE   | DIMENSIONS (IN.)   | SUBMERGED   |
|---|--|---|--|---|
| <input type="checkbox"/> Closed Pipe              | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Circular <input type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: _____<br>_____<br>_____                       | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input checked="" type="checkbox"/> Open drainage | <input type="checkbox"/> Concrete<br><input checked="" type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____                                      | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input checked="" type="checkbox"/> Other: _____  | Depth: <u>4'11"</u><br>Top Width: <u>12</u><br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream                | (applicable when collecting samples)   |   |  |   |
| Flow Present?                                     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>  |   |  |   |
| Flow Description (If present)                     | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |   |  |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                             |          |                  |
|----------------------------------|-----------------|-----------------------------|----------|------------------|
| PARAMETER                        |                 | RESULT                      | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                             | Liter    |                  |
|                                  | Time to fill    | <u>max 1/2 gallon / sec</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                             | In       |                  |
|                                  | Flow width      | <u>0' "</u>                 | Ft, In   |                  |
|                                  | Measured length | <u>0' "</u>                 | Ft, In   |                  |
|                                  | Time of travel  |                             | Sec      |                  |
| Temperature                      |                 |                             | °F       |                  |
| pH                               |                 |                             | pH Units | Test strip/Probe |
| Ammonia                          |                 |                             | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                            | CHECK if Present                    | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|-------------------------------------|---|--|---|--|
| Odor                                 | <input type="checkbox"/>            | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input checked="" type="checkbox"/> | See severity <b>Highly</b>  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/>            | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present                    | DESCRIPTION  | COMMENTS                           |
|---------------------|-------------------------------------|--|------------------------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion   |                                    |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oil <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae <b>Sediment</b> |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited  |                                    |
| Poor pool quality   | <input checked="" type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input checked="" type="checkbox"/> Other: <b>Sediment</b> |                                    |
| Pipe benthic growth | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                                    |

### Section 6: Overall Outfall Characterization

☐ Unlikely    ☐ Potential (presence of two or more indicators)    ☒ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |                           |   |            |
|---|---------------------------|---|------------|
| Subwatershed:   |                           | Outfall ID: <u>PSIA-01</u>                        |            |
| Today's date: <u>12/13/11</u>   |                           | Time (Military): <u>1700</u>                      |            |
| Investigators:  |                           | Form completed by: <u>AR</u>                      |            |
| Temperature (°F):   |                           | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |            |
| Latitude: <u>2357298</u>  | Longitude: <u>0615476</u> | GPS Unit:   | GPS LMK #: |
| Camera: Nikon-  |                           | Photo #s: <u>1783</u>                             |            |
| Land Use in Drainage Area (Check all that apply):   |                           |   |            |
| <input checked="" type="checkbox"/> Industrial  |                           | <input type="checkbox"/> Open Space               |            |
| <input type="checkbox"/> Ultra-Urban Residential  |                           | <input type="checkbox"/> Institutional            |            |
| <input type="checkbox"/> Suburban Residential   |                           | Other: _____                                      |            |
| <input type="checkbox"/> Commercial   |                           | Known Industries: _____                           |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |                           |   |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>30"</u>                      | In Water:<br><input type="checkbox"/> No<br><input checked="" type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |               |          |                  |
|----------------------------------|-----------------|---------------|----------|------------------|
| PARAMETER                        |                 | RESULT        | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |               | Liter    |                  |
|                                  | Time to fill    | <u>Ft/sec</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |               | In       |                  |
|                                  | Flow width      | <u>0'</u> "   | Ft, In   |                  |
|                                  | Measured length | <u>0'</u> "   | Ft, In   |                  |
|                                  | Time of travel  |               | Sec      |                  |
| Temperature                      |                 |               | °F       |                  |
| pH                               |                 |               | pH Units | Test strip/Probe |
| Ammonia                          |                 |               | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Paint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION  | COMMENTS           |
|---------------------|--------------------------|--|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion   |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oil <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited  |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input checked="" type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:  |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <u>PSIA-07</u>             |            |
| Today's date: <u>12/13/11</u>   |   | Time (Military): <u>1645</u>           |            |
| Investigators: <u>AR JW</u>   |   | Form completed by: <u>AR</u>           |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <u>2357321</u>  | Longitude: <u>0615587</u>                         | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #s: <u>1779</u>                             |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>18</u>                       | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (if present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                     |                              |
|----------------------------------|-----------------|---------------------|------------------------------|
| PARAMETER                        | RESULT          | UNIT                | EQUIPMENT                    |
| <input type="checkbox"/> Flow #1 | Volume          |                     | Liter                        |
|                                  | Time to fill    | <u>~2 gal / min</u> | Sec                          |
| <input type="checkbox"/> Flow #2 | Flow depth      |                     | In                           |
|                                  | Flow width      | <u>0' "</u>         | Ft, In                       |
|                                  | Measured length | <u>0' "</u>         | Ft, In                       |
|                                  | Time of travel  |                     | Sec                          |
| Temperature                      |                 |                     | °F                           |
| pH                               |                 |                     | pH Units    Test strip/Probe |
| Ammonia                          |                 |                     | ppm    Test strip            |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|--------------------------------------|--------------------------|--|---|---|---|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|  |   |  |            |
|--|---|--|------------|
| Subwatershed:  |   | Outfall ID: <b>PSIB-04</b>   |            |
| Today's date: <b>12/13/11</b>  |   | Time (Military): <b>1552</b>   |            |
| Investigators: <b>AR-JW</b>  |   | Form completed by: <b>AR</b>   |            |
| Temperature (°F):  | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <b>2357271</b>   | Longitude: <b>005923</b>                          | GPS Unit:  | GPS LMK #: |
| Camera: Nikon-   | Photo #s: <b>1765</b>                             |  |            |
| Land Use in Drainage Area (Check all that apply):  |   |  |            |
| <input checked="" type="checkbox"/> Industrial<br><input type="checkbox"/> Ultra-Urban Residential<br><input type="checkbox"/> Suburban Residential<br><input type="checkbox"/> Commercial |   | <input type="checkbox"/> Open Space<br><input type="checkbox"/> Institutional<br>Other: _____<br>Known Industries: _____ |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.<br><b>Below Crane #7</b>                     |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><b>12"</b>                      | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                    |          |                  |
|----------------------------------|-----------------|--------------------|----------|------------------|
| PARAMETER                        |                 | RESULT             | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                    | Liter    |                  |
|                                  | Time to fill    | <b>3 gal / min</b> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                    | In       |                  |
|                                  | Flow width      | <b>0' "</b>        | Ft, In   |                  |
|                                  | Measured length | <b>0' "</b>        | Ft, In   |                  |
|                                  | Time of travel  |                    | Sec      |                  |
| Temperature                      |                 |                    | °F       |                  |
| pH                               |                 |                    | pH Units | Test strip/Probe |
| Ammonia                          |                 |                    | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                            | CHECK if Present                    | DESCRIPTION   | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|-------------------------------------|---|--|---|--|
|                                      |                                     |   | 1 - Faint  | 2 - Easily detected   | 3 - Noticeable from a distance                               |
| Odor                                 | <input type="checkbox"/>            | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/>            | See severity  | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/>            | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present         | DESCRIPTION   |   | COMMENTS |
|---------------------|--------------------------|---|---|----------|
|                     |                          | <input type="checkbox"/> Spalling, Cracking or Chipping<br><input type="checkbox"/> Corrosion   | <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Other: |          |
| Outfall Damage      | <input type="checkbox"/> |   |   |          |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Only <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae  |          |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |   |          |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |   |          |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |   |          |

### Section 6: Overall Outfall Characterization

☒ Unlikely 
 ☐ Potential (presence of two or more indicators) 
 ☐ Suspect (one or more indicators with a severity of 3) 
 ☐ Obvious

### Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <b>P51B-05</b>             |            |
| Today's date: <b>12/13/11</b>   |   | Time (Military): <b>1600</b>           |            |
| Investigators: <b>AR, JW</b>  |   | Form completed by: <b>AR</b>           |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: <b>2357 272</b>   | Longitude: <b>0615894</b>                         | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  |   | Photo #s: <b>1768</b>                  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><b>18"</b>                      | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                      |          |                  |
|----------------------------------|-----------------|----------------------|----------|------------------|
| PARAMETER                        |                 | RESULT               | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                      | Liter    |                  |
|                                  | Time to fill    | <b>1-2 gal / min</b> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                      | In       |                  |
|                                  | Flow width      | 0' "                 | Ft, In   |                  |
|                                  | Measured length | 0' "                 | Ft, In   |                  |
|                                  | Time of travel  |                      | Sec      |                  |
| Temperature                      |                 |                      | °F       |                  |
| pH                               |                 |                      | pH Units | Test strip/Probe |
| Ammonia                          |                 |                      | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No (If No, Skip to Section 5)

| INDICATOR                             | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|---------------------------------------|--------------------------|--|---|---|---|
| Odor                                  | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                 | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                             | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables - Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: P51C-03                    |            |
| Today's date: 12/13/11  |   | Time (Military): 1405                  |            |
| Investigators: AR JW  |   | Form completed by: AR                  |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude: 2357236   | Longitude: 016109                                 | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #: 1745                                     |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED  |
|---|---|--|---|--|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input checked="" type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: 6"<br><br>In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |  |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |  |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |  |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial <i>drip / second</i>   |  |   |  |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |        |          |                  |
|----------------------------------|-----------------|--------|----------|------------------|
| PARAMETER                        |                 | RESULT | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |        | Liter    |                  |
|                                  | Time to fill    |        | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |        | In       |                  |
|                                  | Flow width      | 0' "   | Ft, In   |                  |
|                                  | Measured length | 0' "   | Ft, In   |                  |
|                                  | Time of travel  |        | Sec      |                  |
| Temperature                      |                 |        | °F       |                  |
| pH                               |                 |        | pH Units | Test strip/Probe |
| Ammonia                          |                 |        | ppm      | Test strip       |

## Outfall Reconnaissance Inventory Form

### Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|--------------------------------------|--------------------------|--|---|---|---|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

### Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

### Section 6: Overall Outfall Characterization

☒ Unlikely    ☐ Potential (presence of two or more indicators)    ☐ Suspect (one or more indicators with a severity of 3)    ☐ Obvious

Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <b>P52-03</b>              |            |
| Today's date: <b>12/13/11</b>   |   | Time (Military):                       |            |
| Investigators: <b>AR JW</b>   |   | Form completed by: <b>AR</b>           |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude:   | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  |   | Photo #s: <b>1755</b>                  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: <b>12</b><br><br>In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  | Depth: _____<br>Top Width: _____<br>Bottom Width: _____   |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial <b>2 drops / sec</b>   |  |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |          |                  |  |
|----------------------------------|-----------------|----------|------------------|--|
| PARAMETER                        | RESULT          | UNIT     | EQUIPMENT        |  |
| <input type="checkbox"/> Flow #1 | Volume          | Liter    |                  |  |
|                                  | Time to fill    | Sec      |                  |  |
| <input type="checkbox"/> Flow #2 | Flow depth      | In       |                  |  |
|                                  | Flow width      | 0' "     | Ft, In           |  |
|                                  | Measured length | 0' "     | Ft, In           |  |
|                                  | Time of travel  |          | Sec              |  |
| Temperature                      |                 | °F       |                  |  |
| pH                               |                 | pH Units | Test strip/Probe |  |
| Ammonia                          |                 | ppm      | Test strip       |  |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Faint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are Physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present                    | DESCRIPTION   | COMMENTS                         |
|---------------------|-------------------------------------|---|----------------------------------|
| Outfall Damage      | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                                  |
| Deposits/Stains     | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae discoloration |
| Abnormal Vegetation | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                                  |
| Poor pool quality   | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                                  |
| Pipe benthic growth | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                                  |

## Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <u>P53-01</u>              |            |
| Today's date: <u>12/13/11</u>   |   | Time (Military): <u>1434</u>           |            |
| Investigators: <u>A TW</u>  |   | Form completed by:                     |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude:   | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  |   | Photo #s: <u>1748</u>                  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Elliptical <input type="checkbox"/> Double<br><input type="checkbox"/> Box <input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions:<br><u>12"</u>                      | In Water:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input checked="" type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |   |   |   |
| Flow Description (If present)                   | <input checked="" type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial   |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                        |          |                  |
|----------------------------------|-----------------|------------------------|----------|------------------|
| PARAMETER                        |                 | RESULT                 | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                        | Liter    |                  |
|                                  | Time to fill    | <u>~ 1 qt / 30 sec</u> | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                        | In       |                  |
|                                  | Flow width      | <u>0'</u> "            | Ft, In   |                  |
|                                  | Measured length | <u>0'</u> "            | Ft, In   |                  |
|                                  | Time of travel  |                        | Sec      |                  |
| Temperature                      |                 |                        | °F       |                  |
| pH                               |                 |                        | pH Units | Test strip/Probe |
| Ammonia                          |                 |                        | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                            | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)  |   |  |
|--------------------------------------|--------------------------|--|--|---|--|
| Odor                                 | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Paint   | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance      |
| Color                                | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle   | <input type="checkbox"/> 2 - Clearly visible in sample bottle   | <input type="checkbox"/> 3 - Clearly visible in outfall flow |
| Turbidity                            | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness   | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque                          |
| Floatables -Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious<br><input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some: origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |  |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR           | CHECK if Present         | DESCRIPTION   | COMMENTS           |
|---------------------|--------------------------|---|--------------------|
| Outfall Damage      | <input type="checkbox"/> | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains     | <input type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:   | sediment and algae |
| Abnormal Vegetation | <input type="checkbox"/> | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality   | <input type="checkbox"/> | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe benthic growth | <input type="checkbox"/> | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely   
 ☐ Potential (presence of two or more indicators)   
 ☐ Suspect (one or more indicators with a severity of 3)   
 ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



# OUTFALL RECONNAISSANCE INVENTORY FORM

## Section 1: Background Data

|   |   |  |            |
|---|---|--|------------|
| Subwatershed:   |   | Outfall ID: <del>P52-3</del> P53-3     |            |
| Today's date: 12/13/11  |   | Time (Military): 1445                  |            |
| Investigators: AR JW  |   | Form completed by: AR                  |            |
| Temperature (°F):   | Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0 |  |            |
| Latitude:   | Longitude:  | GPS Unit:                              | GPS LMK #: |
| Camera: Nikon-  | Photo #s: 1752                                    |  |            |
| Land Use in Drainage Area (Check all that apply):   |   |  |            |
| <input checked="" type="checkbox"/> Industrial  |   | <input type="checkbox"/> Open Space    |            |
| <input type="checkbox"/> Ultra-Urban Residential  |   | <input type="checkbox"/> Institutional |            |
| <input type="checkbox"/> Suburban Residential   |   | Other: _____                           |            |
| <input type="checkbox"/> Commercial   |   | Known Industries: _____                |            |
| Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic. |   |  |            |

## Section 2: Outfall Description

| LOCATION  | MATERIAL  | SHAPE  |   | DIMENSIONS (IN.)  | SUBMERGED   |
|---|---|--|---|---|---|
| <input checked="" type="checkbox"/> Closed Pipe | <input type="checkbox"/> RCP <input type="checkbox"/> CMP<br><input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Circular<br><input type="checkbox"/> Elliptical<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Single<br><input type="checkbox"/> Double<br><input type="checkbox"/> Triple<br><input type="checkbox"/> Other: _____ | Diameter/Dimensions: 12"                                | In Water:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully<br><br>With Sediment:<br><input type="checkbox"/> No<br><input type="checkbox"/> Partially<br><input type="checkbox"/> Fully |
| <input type="checkbox"/> Open drainage          | <input type="checkbox"/> Concrete<br><input type="checkbox"/> Earthen<br><input type="checkbox"/> rip-rap<br><input type="checkbox"/> Other: _____  | <input type="checkbox"/> Trapezoid<br><input type="checkbox"/> Parabolic<br><input type="checkbox"/> Other: _____  |   | Depth: _____<br>Top Width: _____<br>Bottom Width: _____ |   |
| <input type="checkbox"/> In-Stream              | (applicable when collecting samples)  |  |   |   |   |
| Flow Present?                                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>   |  |   |   |   |
| Flow Description (If present)                   | <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial  |  |   |   |   |

## Section 3: Quantitative Characterization

| FIELD DATA FOR FLOWING OUTFALLS  |                 |                |          |                  |
|----------------------------------|-----------------|----------------|----------|------------------|
| PARAMETER                        |                 | RESULT         | UNIT     | EQUIPMENT        |
| <input type="checkbox"/> Flow #1 | Volume          |                | Liter    |                  |
|                                  | Time to fill    | 8 Lgt / 30 sec | Sec      |                  |
| <input type="checkbox"/> Flow #2 | Flow depth      |                | In       |                  |
|                                  | Flow width      | 0' "           | Ft, In   |                  |
|                                  | Measured length | 0' "           | Ft, In   |                  |
|                                  | Time of travel  |                | Sec      |                  |
| Temperature                      |                 |                | °F       |                  |
| pH                               |                 |                | pH Units | Test strip/Probe |
| Ammonia                          |                 |                | ppm      | Test strip       |

# Outfall Reconnaissance Inventory Form

## Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

| INDICATOR                             | CHECK if Present         | DESCRIPTION  | RELATIVE SEVERITY INDEX (1-3)                               |   |   |
|---------------------------------------|--------------------------|--|---|---|---|
| Odor                                  | <input type="checkbox"/> | <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas<br><input type="checkbox"/> Sulfide <input type="checkbox"/> Other:  | <input type="checkbox"/> 1 - Faint                          | <input type="checkbox"/> 2 - Easily detected  | <input type="checkbox"/> 3 - Noticeable from a distance   |
| Color                                 | <input type="checkbox"/> | <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow<br><input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: | <input type="checkbox"/> 1 - Paint colors in sample bottle  | <input type="checkbox"/> 2 - Clearly visible in sample bottle                               | <input type="checkbox"/> 3 - Clearly visible in outfall flow  |
| Turbidity                             | <input type="checkbox"/> | See severity   | <input type="checkbox"/> 1 - Slight cloudiness              | <input type="checkbox"/> 2 - Cloudy   | <input type="checkbox"/> 3 - Opaque   |
| Floatables - Does Not Include Trash!! | <input type="checkbox"/> | <input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds<br><input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:   | <input type="checkbox"/> 1 - Few/slight; origin not obvious | <input type="checkbox"/> 2 - Some; indications of origin (e.g., possible suds or oil sheen) | <input type="checkbox"/> 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials) |

Notes: Potential tidal influence due to low tide

## Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

| INDICATOR            | CHECK if Present                    | DESCRIPTION   | COMMENTS           |
|----------------------|-------------------------------------|---|--------------------|
| Outfall Damage       | <input type="checkbox"/>            | <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint<br><input type="checkbox"/> Corrosion  |                    |
| Deposits/Stains      | <input checked="" type="checkbox"/> | <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: <i>Discoloration</i>  | sediment and algae |
| Abnormal Vegetation  | <input type="checkbox"/>            | <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited   |                    |
| Poor pool quality    | <input type="checkbox"/>            | <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen<br><input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: |                    |
| Pipe berthing growth | <input type="checkbox"/>            | <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:   |                    |

## Section 6: Overall Outfall Characterization

☒ Unlikely   
 ☐ Potential (presence of two or more indicators)   
 ☐ Suspect (one or more indicators with a severity of 3)   
 ☐ Obvious

## Section 7: Any Non-Ilicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

---

**APPENDIX K**

**HARBORS GROUND MAINTENANCE SPILL CLEANUP LOG**

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## MONTHLY SPILL LOG

JANUARY 2011

| Date | Material Spilled | Quantity | Responsible Person(s) | Discharge to Storm Drain or Ocean? (Y/N) | If Yes, Identify Water Body | Describe Clean-up Method, Disposal, and Group and Individuals Involved |
|------|------------------|----------|-----------------------|--|-----------------------------|--|
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |

NO OIL SPILLS FOR JANUARY 2011

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR OF HARBOUR

DOT/HARBOR DIVISION/STATE OF HAWAII

## MONTHLY SPILL LOG

February 2011

| Date | Material Spilled | Quantity | Responsible Person(s) | Discharge to Storm Drain or Ocean? (Y/N) | If Yes, Identify Water Body | Describe Clean-up Method, Disposal, and Group and Individuals Involved |
|------|------------------|----------|-----------------------|--|-----------------------------|--|
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |

NO OIL SPILLS FOR FEBRUARY 2011

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR OF HAR/OCG  
DOT/HARBORS DIVISION/STATE OF HAWAII

March 2011

[illegible]

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II OF DOT/HARBOR DIVISION /OCG  
STATE OF HAWAII

## MONTHLY SPILL LOG

[illegible]

NO SPILLS FOR THE MONTH OF APRIL 2011

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II

DEPARTMENT OF TRANSPORTATION

HARBOR DIVISION

STATE OF HAWAII

## SANITATION AND GROUNDS UNITS

*[Signature]*



MAY 2011

## MONTHLY SPILL LOG

| Date | Material Spilled | Quantity | Responsible Person(s) | Discharge to Storm Drain or Ocean? (Y/N) | If Yes, Identify Water Body | Describe Clean-up Method, Disposal, and Group and Individuals Involved |
|------|------------------|----------|-----------------------|--|-----------------------------|--|
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |
|      |                  |          |                       |  |                             |  |

NO OIL SPILLS TO REPORT FOR THE MONTH OF MAY 2011

DON KAULEINAMOKU , MAINTENANCE AND REPAIR SUPERVISOR II, DOT/HARBOR DIVISION/ HAR OCG  
STATE OF HAWAII

JUNE 2011

[illegible]

FOR THE MONTH OF JUNE 2011

FOR THE MONTH OF JUNE 2011

## MONTHLY SPILL LOG

July 2011

| Date      | Material Spilled   | Quantity | Responsible Person(s) | Discharge to Storm Drain or Ocean? (Y/N) | If Yes, Identify Water Body | Describe Clean-up Method, Disposal, and Group and Individuals Involved   |
|-----------|--------------------|----------|-----------------------|--|-----------------------------|--|
| 7/5/11    | OIL MIX WITH WATER | 6"x3'    | UNKNOWN               | NO                                       |                             | OIL & WATER MIX WAS FOUND UNDER REFUSE CONTAINER AT PIER 37. REFUSE CREW NOTIFIED SUPERVISOR AND PROCEEDED TO CLEAN THE SPILL. REFUSE CREW AND THE GENERAL LABOR CREW WHO MET THE REFUSE CREW CLEANED PIER 37 USED 1 1/2 GALLONS OF DEGREASER WITH WATER, 24 OIL PADS AND 1/2 BAG OF OIL SPONGE. SPILL WAS REPORTED AT 0652 HRS AND AREA WAS SECURED AT 0719 HOURS |
| 7/5/11    | OIL SPILL          | 1'x1'    | UNKNOWN               | NO                                       |                             | OIL WAS FOUND ON THE GROUND NEXT TO A REFUSE CONTAINER AT PIER 36. LABORERS NOTIFIED SUPERVISOR AND PROCEEDED TO CLEAN THE AREA. LABOR CREW USED 3 OIL PADS, 1/4 GALLON DEGREASER WITH WATER AND 1/6 OF A BAG OF OIL SPONGE. SPILL WAS REPORTED AT 0650 AND AREA WAS SECURED AT 0700 HOURS   |
| 7/27/2011 | oil spill          | 1/2 gln. | unkown                | no                                       |                             | labor crew report pier 36 time 12:15pm oil coming out from benneth refuse container. cleaned spill with 4u degreaser water oil pads & oil dust absorbent.  |

August 2011

[illegible]

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II FOR THE MONTH OF AUGUST 2011  
STATE OF HAWAII/DEPARTMENT OF TRANSPORTATION/HARBOR DIVISION/SANITATION AND GROUND UNITS

## MONTHLY SPILL LOG

[illegible]

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II FOR THE MONTH OF SEPTEMBER 2011  
STATE OF HAWAII/DEPARTMENT OF TRANSPORTATION/HARBOR DIVISION/SANITATION AND GROUND UNITS

OCTOBER 2011

[illegible]

November 2011

## MONTHLY SPILL LOG

| Date  | Material Spilled | Quantity | Responsible Person(s) | Discharge to Storm Drain or Ocean? (Y/N) | If Yes, Identify Water Body | Describe Clean-up Method, Disposal, and Group and Individuals Involved   |
|-------|------------------|----------|-----------------------|--|-----------------------------|--|
| 11/16 | oil              | 1/2gal.  | unkown                | no                                       |                             | pier 36 oil containment center at 6:45am labor crew report oil coming from underside of cont.center.cleaned with 4-u, water,powder & pads. |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |
|       |                  |          |                       |  |                             |  |

December 2011

[illegible]



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**APPENDIX L**  
**RECORD OF ENFORCEMENT ACTIONS**

---



HAR-EE  
1758.12

December 29, 2011

Mr. James Cook, Vice President  
POP Fishing & Marine, LLC  
1133 North Nimitz Highway  
Honolulu, Hawaii 96817

Dear Mr. ~~Cook~~: *JIM*

Subject: Potential Illicit Discharge at a Fishing Village Storm Drain

On December 16, 2011, at about noon and during dry weather conditions, it was observed that turbid water was flowing from a storm drain outlet into harbor waters causing a plume. When asked about the discharge, you replied that one of your contractors for the modifications to the Multi-User Building at the Fishing Village was washing down a paved surface with water.

This is to remind you that the Fishing Village storm drainage system is regulated under the Honolulu Harbor Small MS4 permit and the construction activities at the Fishing Village are regulated by the requirements of an NPDES general permit. The use of the storm drainage system to transport wash water and discharge it into harbor waters is a potential violation of both permits and could subject the operators and owners under those permits to administrative and/or criminal fines.

Please remind your contractor(s) to avoid clean-up methods using water and to use only dry clean-up methods that do not introduce flows into storm drainage systems.

Thank you for your cooperation in this matter. If you have any questions, please call me at 587-3651.

Sincerely,



RANDY GRUNE  
Deputy Director, Department of Transportation  
Harbors Division

bc: DEP-P, HAR, HAR-O, HAR-PM

RL:lm



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**APPENDIX M**

**HARBORS EMPLOYEE TRAINING RECORDS**

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**HDOT HARBORS  
STORMWATER GENERAL AWARENESS  
EMPLOYEE TRAINING  
MAY 27, 2011**



**VOLUNTEER FOR  
CLEAN-UP?**





---

**APPENDIX N**

**CONNECTION PERMIT APPLICATIONS**

---



R/S 11.0635

HAR-EE

0734.11

April 18, 2011

Mr. Wynn Miyamoto  
Fukunaga & Associates, Inc.  
1357 Kapiolani Boulevard, Suite 1530  
Honolulu, Hawaii 96814

Dear Mr. Miyamoto:

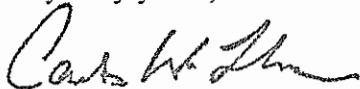
Subject: Permit to Discharge into Honolulu Harbor Storm Drainage System  
Ala Moana Force Main No. 3 and No. 4, Harbors ID No. HH-02-U001

Please find attached an approved permit to discharge into the Harbors Division storm drainage system from Shaft AM No. 1 and Shaft AM No. 2 sites. In addition to the terms mentioned on the permit, please note the following:

1. In addition to a copy of the NPDES permit for the project, please provide us with the approved Site-Specific BMP plan for the portion of the project on Harbors Division property.
2. As our Storm Water Management Plan calls for BMP inspections of construction sites, please return the attached Permit with the construction start date and a point of contact to arrange for the inspections. We intend to inspect the installed BMP prior to the start of construction and on a regular basis thereafter.

If there are any questions, please contact Mr. Randal Leong of our Harbors Division Engineering Environmental Section at 587-1962.

Very truly yours,



Carter W. S. Luke, P. E.  
Engineering Program Manager

Att.

bc: HAR-PM, HAR-O

RL:lm

Harbors I.D. No.: HH-02-U001  
(for office use)

Harbor: Honolulu  
(NPDES)

NPDES File No. \_\_\_\_\_  
(DOH)

**PERMIT TO DISCHARGE INTO THE STATE HARBORS DRAINAGE SYSTEM**

Application Date \_\_\_\_\_

Pursuant to Hawaii Administrative Rules, Chapter 11-55, application is hereby made to discharge into the State Harbors drainage system at the location(s) specified below and at no other place.

1. Name of Harbor: Honolulu Harbor
2. Tax Map Key: 2-1-15:09
3. Location: 1) Trench drain on Ilalo Street, 2) Drain inlet at Fort Armstrong
4. Type of Discharge (check one):  
☐ Storm water associated with industrial activities      ☐ Construction activity dewatering  
☒ Storm water associated with construction activities      ☐ Hydrotesting  
☐ Others (Describe): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

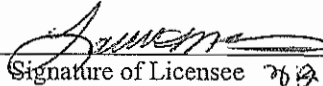
Licensee\*, the undersigned, hereby agree to the following:

1. That Licensee shall indemnify and hold the State free and harmless from all suits and actions resulting from the licensee's discharge operations.
2. That Licensee shall provide appropriate best management practices 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 waters, as identified in Section 11-54-04, and any other applicable sections in Chapter 11-54, Hawaii Administrative Rules, at the point of discharge into State waters.
3. That Licensee shall obtain National Pollutant Discharge Elimination System (NPDES) permit/permit coverage as required by the State Department of Health and submit a copy to the State Department of Transportation Harbors Division.
4. That a copy of any effluent monitoring required by the NPDES permit shall be furnished to the State Department of Transportation Harbors Division.
5. That the Licensee shall make all restorations to any State Harbors property damaged during the Licensee's discharge operations in accordance with the State Department of Transportation Harbors Division requirements.
6. That Licensee shall discontinue the discharge should the State Department of Health determine that the receiving waters are being polluted, or the discharge does not meet the effluent requirements of the NPDES permit, or 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 State Department of Transportation Harbors Division determines that any materials or substances from the Licensee's discharge operations have settled into any storm sewer, Licensee shall immediately remove and clear any material and substance to the satisfaction of the State Department of Transportation Harbors Division.
8. That Licensee shall inspect and clean the State Harbors drainage system prior to discharging.

9. That Licensee shall notify the Harbors Engineering Program Manager or <sup>Environmental</sup> Maintenance Engineer at least 24 hours before commencing discharge and at the conclusion of the discharge operation to arrange for necessary inspectional services at telephone number 587-1860 or 587-1877.

1962.

10. The Licensee shall require this permit to be a part of the contract with the contractor.

  
Signature of Licensee

3/3/11  
Date

for Collins Lam, Director  
Print Name and Title

City and County of Honolulu, Department of Design and Construction  
Company Name

650 South King Street, 11<sup>th</sup> Floor  
Company Address

Honolulu, HI 96813  
City, State, Zip Code

808-768-8480  
Telephone No.

808-768-4567  
Fax No.

APPROVED:



Engineering Program Manager

4/5/11

Date

#### CONSTRUCTION DATA

Work Started: \_\_\_\_\_

Work Completed: \_\_\_\_\_

Inspector: \_\_\_\_\_

\*Licensee shall be the owner or authorized representative of the owner applying for the permit.  
Attach: Drain Connection Plans (3 sets)



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**APPENDIX O**

**WATER POLLUTION PREVENTION SPECIFICATIONS**

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## **ARTICLE XXX – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL**

**XXX.XX Description.** This section is required for all work and describes the following:

- (A) A detailed site-specific Best Management Practices (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). For projects that require a National Pollutant Discharge Elimination System (NPDES) Appendix C General Permit from the Department of Health (DOH), the Site-Specific Construction Best Management Practices (SSCBMP) Plan required for the permit shall satisfy this requirement.
- (B) Compliance with applicable State and Federal 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.

Requirements of this section also apply to the Contractor's storage sites.

**XXX.XX Materials.** Materials shall conform to the following:

- (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 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 Engineer.
- (C) **Fertilizer and Soil Conditions.** Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Engineer.
- (D) **Silt Fences.** Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in accordance with contract documents, and shall be in compliance with ASTM D6462, 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 Engineer.

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

**XXX.XX Construction.**

(A) **Preconstruction Requirements.**

(1) **Water Pollution, Dust, and Erosion Control Meeting.** The contractor shall be required to submit a site-specific BMP plan to the Engineer and address all comments by the Engineer. After the site-specific BMP plan is accepted in writing by the Engineer, the Contractor shall schedule a meeting with the Engineer 14 days before the start of construction work to discuss the sequence of work, and plans and proposals for water pollution, dust, and erosion control.

(2) **Water Pollution, Dust, and Erosion Control Submittals.** The Contractor shall submit the following site-specific BMP plan for approval by the Engineer prior to the start of work:

(a) Written site-specific BMP plan shall include the following:

1. Identification of potential pollutants and their sources.
2. A list of all material and heavy equipment to be used during construction.
3. Descriptions of the methods and devices used to minimize the discharge of pollutants into State waters and drainage systems.
4. Description of maintenance and subsequent removal of any erosion or siltation control devices
5. Method(s) of removal and disposal of solid and hazardous wastes encountered or generated during construction.
6. Method(s) of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydrodemolition water.

**7.** Method(s) of containing, removing and disposing of demolition dust and debris to minimize the discharge of pollutants into State waters and drainage systems.

**8.** Spill kit contents and location.

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

**10.** Method(s) of storing and handling of hazardous materials (i.e. oils, paints, etc.) and other products used for the project.

**11.** Method(s) of concrete washout/waste control.

**12.** Good housekeeping practices.

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

**b.** Litter management.

**13.** Other factors that may cause water pollution, dust and erosion.

**(b)** Provide plan(s)/drawing(s) showing location of:

**1.** Water pollution, dust and erosion control devices.

**2.** Material storage and handling areas, and other staging areas.

**3.** Storage of aggregate (indicate types of aggregate), asphalt cold mix, soil and waste.

**4.** Concrete truck washouts.

**5.** Toilet facilities.

**6.** Fueling and maintenance of vehicles and other equipment.

**7.** Areas of soil disturbance in cut and fill.

**8.** Areas of vegetative practices to be implemented.

9. Drainage patterns; including a separate drawing for each phase of construction that alters drainage patterns.

- (c) Provide details of BMP to be installed or utilized.
- (d) Indicate approximate date when BMP will be installed and removed.
- (e) Construction schedule.
- (f) 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.
- (g) Description of fill material to be used.

The Contractor shall date and sign the site-specific BMP plan. Keep an accepted copy on site throughout the duration of the project. Revisions to the plan shall be included with the original plan. Modify contract documents to conform to revisions. Include actual date of installation and removal of BMP. Obtain written acceptance by the Engineer before revising BMP.

The Contractor shall follow guidelines in the “Best Management Practices Manual for Construction Sites in Honolulu,” in developing, installing, and maintaining BMP for the project. Follow City and County of Honolulu Soil Erosion Guidelines for all projects on Oahu. Use respective Soil Erosion Guidelines for Maui, Kauai and Hawaii County projects. Information can be found at the respective County websites.

**(B) Construction Requirements.** No work shall be allowed to begin until submittals detailed in Subsection XXX.XX(A)(2) – Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Engineer.

For projects that require an NPDES Appendix C General Permit from the DOH, furnish and install a rain gage in a secure location to monitor rainfall at the project site. Provide the rain gage with a tolerance of at least 0.05 inches of rainfall, and an opening of at least 1-inch diameter. Install rain gage on project site in an area that will not deter rainfall from entering the gage opening. Maintain the rain gage and replace the gage if stolen, it does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until the rain gage is installed and the site-specific BMP are in place.

Address all comments received from the Engineer.

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

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

BMP shall be in place and operational at the end of the workday.

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.

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

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.

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

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.

Properly maintain BMP. For projects that require an NPDES Appendix C General Permit from the DOH, inspect, prepare a written report and make repairs to BMP. Maintain records of BMP inspections for the duration of the project. Submit copies of the inspection reports to the Engineer upon request. Inspections shall be made at the following intervals:

- (1) Weekly during dry periods.
- (2) Within 24 hours of any rainfall of 0.5 inches or greater which occurs in a 24-hour period.
- (3) Daily during periods of prolonged rainfall.

- (4) When existing erosion control measures are damaged or not operating properly as required by the site-specific BMP plan.

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.

The Contractor's designated representative specified in Subsection XXX.XX(A)(2)(f) shall address any BMP concerns brought up by the Engineer within 24 hours of notification, including weekends and holidays. Should the Contractor fail to satisfactorily address these concerns, the Engineer reserves the right to employ outside assistance or use the Engineer's own labor forces to provide necessary corrective measures. The Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The 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 the State, 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 DOH Clean Water Branch (CWB). If a permit is required, prepare and submit permit application (CWB-Notice of Intent (NOI) Form F) to the DOH CWB.

Do not begin hydrotesting activities until the DOH 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 Engineer.

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

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

**XXX.XX Measurement.**

(A) Installation, maintenance, monitoring, and removal of the BMP will be paid on a lump sum basis. Measurement for payment will not apply.

(B) The Engineer will only measure additional water pollution, dust and erosion control required and requested by the Engineer on a force account basis in accordance with Subsection 109.06 -- Force Account Provisions and Compensation of the *Hawaii Standard Specifications for Road and Bridge Construction, 2005*.

**XXX.XX Payment.** The Engineer will pay for accepted pay items listed below at contract price per pay unit, as shown in the proposed schedule. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for the following pay item when included in the proposed schedule:

| <b>Pay Item</b>   | <b>Pay Unit</b> |
|---|-----------------|
| Installation, Maintenance, Monitoring, and Removal of BMP | Lump Sum        |

No progress payment will be authorized until the 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 within 30-days for the full amount of all outstanding costs incurred by the State for all citations or fines received as a result of the Contractor's non-compliance with regulations.





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**APPENDIX P**

**HARBORS CONSTRUCTION INSPECTION REPORTS**

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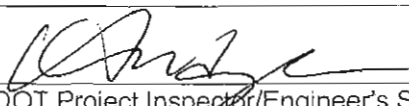


# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Port of Honolulu Passenger/Cargo Facility IEDS Threat Prevention NGPC No. N/A  
 Project No.: HC 10365 11:30AM  
 Contractor: Hawaiya Technologies, Inc. SUNNY  
 Verified By:  Date: 4/12/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments              |
|----------|----------------|-------------------------------------|------------------------------|---------------------|-----------------------|
| N/A      |                |                                     |                              |                     | No Ground disturbance |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |

#### Notes/Actions:

Work at KBPH today is all indoor work inside the Harbors Agent's office. Inspected by Joe.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments               |
|----------|--|-------------------------|--------------------------------------|------------------------|
| N/A      |  |                         |                                      | No ground disturbance. |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

#### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                               |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.          |
| Dust Control | Yes                        | No dust created today.                 |
| Dewatering   | N/A                        | No dewatering activity involved today. |
|              |                            |  |
|              |                            |  |

#### CONTRACTOR ACTIVITIES

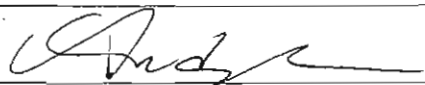
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.   |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.  |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.<br>Equipment (lift) is a rental only. |
| Material Storage              | Yes                        | Materials are stored in trucks or vans and won't be stored on site.                      |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day.   |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Port of Honolulu Passenger/Cargo Facility IEDS Threat Prevention NGPC No. N/A  
 Project No.: HC 10365 2:00PM  
 Contractor: Hawaiiya Technologies, Inc. SUNNY  
 Verified By:  Date: 5/4/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments              |
|----------|----------------|-------------------------------------|------------------------------|---------------------|-----------------------|
| N/A      |                |                                     |                              |                     | No Ground disturbance |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |

## Notes/Actions:

Pre-final inspection day at Pier 2 FSO office

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments               |
|----------|--|-------------------------|--------------------------------------|------------------------|
| N/A      |  |                         |                                      | No ground disturbance. |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                               |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.          |
| Dust Control | N/A                        | No work observed today.                |
| Dewatering   | N/A                        | No dewatering activity involved today. |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

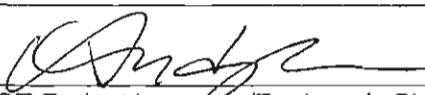
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.   |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.  |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.<br>Equipment (lift) is a rental only. |
| Material Storage              | Yes                        | Materials are stored in trucks or vans and won't be stored on site.                      |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day.   |
|                               |                            |  |
|                               |                            |  |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Installation of Additional Cruise Ship Bollard at Pier 2, Honolulu NGPC No. N/A  
 Project No.: HC 10408 9:00AM  
 Contractor: Ideal Construction, Inc. Sunny  
 Verified By:  Date: 10/11/2011  
 (HDO Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

Notes/Actions:

Final inspection today. Job closed.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

\_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments  |
|--------------|----------------------------|---|
| Sawcutting   | N/A                        | No sawcutting involved today.   |
| Dust Control | N/A                        | Catchment system was set up under the pier and above the water level to catch all falling debris. |
| Dewatering   | N/A                        | No dewatering activity involved today.  |
|              |                            |   |
|              |                            |   |

### CONTRACTOR ACTIVITIES

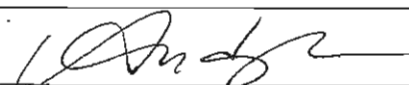
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.                |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.             |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.            |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site. |
| Material Storage              | Yes                        | Materials are hauled away.                         |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | Yes                        | No project-related wastes are on site.             |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Installation of Additional Cruise Ship Bollard at Pier 2, Honolulu NGPC No. N/A  
 Project No.: HC 10408 8:00AM  
 Contractor: Ideal Construction, Inc. CLOUDY / Showers  
 Verified By:  Date: 08/29/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

## Notes/Actions:

Rebars are installed. Forms will be set up in the afternoon

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments  |
|--------------|----------------------------|---|
| Sawcutting   | N/A                        | No sawcutting involved today.   |
| Dust Control | N/A                        | Catchment system was set up under the pier and above the water level to catch all falling debris. |
| Dewatering   | N/A                        | No dewatering activity involved today.  |
|              |                            |   |
|              |                            |   |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.                |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.             |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.            |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site. |
| Material Storage              | Yes                        | Materials are mostly stored inside Pier 2 shed.    |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day.     |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Windows at Harbors Administration Building NGPC No. N/A  
 Project No.: HC 10428 9:00 pm  
 Contractor: All Maintenance and Repair  
 Verified By: Lauren Tokura *Lauren M Tokura* Date: 07/19/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

## Notes/Actions:

No ground disturbance. Work conducted within Harbors Administration Building.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      | N/A      |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity                | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------|----------------------------|--|
| Sawcutting              | N/A                        |  |
| Dust Control            | N/A                        |  |
| Dewatering              | N/A                        |  |
| Lead/Asbestos-Abatement | Acknowledged               | Work conducted by Unitek. Inspected again at 12:15am and lead/asbestos-abatement work completed. |
|                         |                            |  |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        |  |
| Vehicle/Equipment Fueling     | N/A                        | No vehicles fueled on site.                      |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaned on site.        |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site.    |
| Material Storage              | N/A                        | Materials stored within vehicles or under cover. |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Windows at Harbors Administration Building NGPC No. N/A  
 Project No.: HC 10428 10:00 am  
 Contractor: All Maintenance and Repair Sunny  
 Verified By: Lauren Tokura *Lauren M. Tokura* Date: 09/21/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

## Notes/Actions:

No ground disturbance. Work conducted on Nimitz Highway exterior of Harbors Administration Building.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      | N/A      |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity                            | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------------|----------------------------|--|
| Sawcutting                          | N/A                        |  |
| Dust Control                        | N/A                        |  |
| Dewatering                          | N/A                        |  |
| Caulking and painting window frames | Acknowledged               | Work consists of sanding, caulking and painting frames. No drain inlets located within work areas. |
| Housekeeping                        | Acknowledged               | Work area cleaned at end of each day.  |

### CONTRACTOR ACTIVITIES

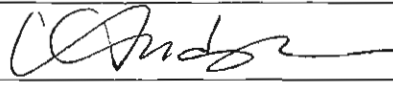
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        |  |
| Vehicle/Equipment Fueling     | N/A                        | No vehicles fueled on site.                      |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaned on site.        |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site.    |
| Material Storage              | N/A                        | Materials stored within vehicles or under cover. |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Fender Repairs at Pier 39, Honolulu Harbor NGPC No. N/A  
 Project No.: HC 10429 2:30PM  
 Contractor: Integrated Construction, Inc. SUNNY  
 Verified By:  Date: 11/15/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

Notes/Actions:

Final inspection today.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                               |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting work today.              |
| Dust Control | N/A                        | No dust work today.                    |
| Dewatering   | N/A                        | No dewatering activity involved today. |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

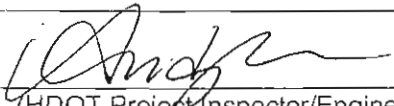
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.  |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.  |
| Spill Prevention/Control      | Yes                        |   |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day. Told contractor to clean up debris at the end of each day. |
|                               |                            |   |
|                               |                            |   |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harb NGPC No. N/A  
 Project No.: HC 10431 1:00PM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 04/5/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

## Notes/Actions:

Formwork for new bullrails at Pier 16 are being set up. Electrical sub was working at pier 17 with working rafts.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments   |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.                                  |
| Dust Control | Yes                        | Wood forms are set up first to catch the debris from drilling. |
| Dewatering   | N/A                        | No dewatering activity involved today.                         |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

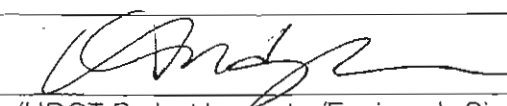
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.  |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.  |
| Spill Prevention/Control      | Yes                        |   |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day. Told contractor to clean up debris at the end of each day. |
|                               |                            |   |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harbor NGPC No. N/A  
 Project No.: HC 10431 1:00PM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 04/18/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

#### Notes/Actions:

Formwork for new travel-way bullrails at Pier 17 are being set up. Electrical sub are working at pier 16 to remove old pipe stanchions.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments   |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.                                  |
| Dust Control | Yes                        | Wood forms are set up first to catch the debris from drilling. |
| Dewatering   | N/A                        | No dewatering activity involved today.                         |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

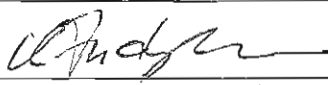
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.  |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.  |
| Spill Prevention/Control      | Yes                        |   |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day. Told contractor to clean up debris at the end of each day. |
|                               |                            |   |
|                               |                            |   |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harb NGPC No. N/A  
 Project No.: HC 10431 9:50AM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 05/12/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

## Notes/Actions:

New 2" copper lines are being installed.

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments  |
|--------------|----------------------------|---|
| Sawcutting   | N/A                        | No sawcutting involved today.                             |
| Dust Control | Yes                        | Work are contained within the new conc. bullrail systems. |
| Dewatering   | N/A                        | No dewatering activity involved today.                    |
|              |                            |   |
|              |                            |   |

### CONTRACTOR ACTIVITIES

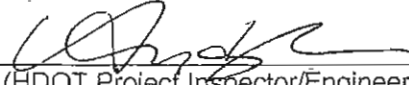
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.  |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.  |
| Spill Prevention/Control      | Yes                        |   |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day. Told contractor to clean up debris at the end of each day. |
|                               |                            |   |
|                               |                            |   |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harb NGPC No. N/A  
 Project No.: HC 10431 10:00 AM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 10/27/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

Notes/Actions:

Final inspection today.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                               |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.          |
| Dust Control | N/A                        | No work today.                         |
| Dewatering   | N/A                        | No dewatering activity involved today. |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

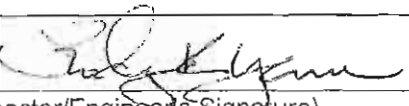
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.                        |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.                     |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.                    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.         |
| Material Storage              | N/A                        | No work today.   |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | No construction debris is observed on site. No work today. |
|                               |                            |  |
|                               |                            |  |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Piles at Pier 40, Honolulu, Harbor NGPC No. N/A  
 Project No.: HC 10440 10:15 am  
 Contractor: American Marine Corporation sunny  
 Verified By: RODNEY YAMANE  Date: 04/06/11  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location              | Type of Control<br>(Silt fence, inlet protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments   |
|-----------------------|---|-------------------------|--------------------------------------|--|
| Around the sheetpile  | Floating Silt Curtain                                   | Acknowledged            |                                      |  |
| Under the repair area | Raft  | Acknowledged            |                                      | A raft is placed under the repair area to catch chippings. |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |
|                       |   |                         |                                      |  |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity        | Adequate BMPs?<br>(Yes/No) | Comments  |
|-----------------|----------------------------|---|
| Sawcutting      | N/A                        |   |
| Dust Control    | N/A                        |   |
| Dewatering      | N/A                        |   |
| Demolition Work | Acknowledged               | A raft is placed under the repair area to catch any overspill of chipped materials. |
|                 |                            |   |

### CONTRACTOR ACTIVITIES


| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments                                      |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        |   |
| Vehicle/Equipment Fueling     | Yes                        | Drip pans present, spill kit on hand.         |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaning on site.    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site. |
| Material Storage              | N/A                        |   |
| Spill Prevention/Control      | Yes                        | Spill kit on site.                            |
| Waste Storage/Disposal        | N/A                        |   |
|                               |                            |   |
|                               |                            |   |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Piles at Pier 40, Honolulu, Harbor NGPC No. N/A  
 Project No.: HC 10440 1:10 pm  
 Contractor: American Marine Corporation sunny  
 Verified By: RODNEY YAMANE  Date: 04/20/11  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location             | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------------------|--|-------------------------|--------------------------------------|----------|
| Around the sheetpile | Floating Silt Curtain                                      | Acknowledged            |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity        | Adequate BMPs?<br>(Yes/No) | Comments             |
|-----------------|----------------------------|----------------------|
| Sawcutting      | N/A                        |                      |
| Dust Control    | N/A                        |                      |
| Dewatering      | N/A                        |                      |
| Demolition Work | N/A                        | Demolition complete. |
|                 |                            |                      |

### CONTRACTOR ACTIVITIES

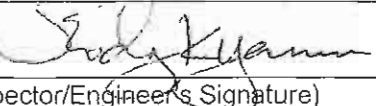
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | Yes                        | Plastic wading pools on site for upcoming concrete pour. |
| Vehicle/Equipment Fueling     | Yes                        | Drip pans present, spill kit on hand.                    |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaning on site.               |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site.            |
| Material Storage              | N/A                        |  |
| Spill Prevention/Control      | Yes                        | Spill kit on site.                                       |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |
|                               |                            |  |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Piles at Pier 40, Honolulu, Harbor NGPC No. N/A  
 Project No.: HC 10440 9:35 am  
 Contractor: American Marine Corporation cloudy  
 Verified By: RODNEY YAMANE  Date: 05/04/11  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location             | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------------------|--|-------------------------|--------------------------------------|----------|
| Around the sheetpile | Floating Silt Curtain                                      | Acknowledged            |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |
|                      |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_



### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity        | Adequate BMPs?<br>(Yes/No) | Comments             |
|-----------------|----------------------------|----------------------|
| Sawcutting      | N/A                        |                      |
| Dust Control    | N/A                        |                      |
| Dewatering      | N/A                        |                      |
| Demolition Work | N/A                        | Demolition complete. |
|                 |                            |                      |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | Yes                        | Plastic wading pools employed on 4/29, removed from site. |
| Vehicle/Equipment Fueling     | Yes                        | Drip pans present, spill kit on hand.                     |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaning on site.                |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site.             |
| Material Storage              | N/A                        |   |
| Spill Prevention/Control      | Yes                        | Spill kit on site.  |
| Waste Storage/Disposal        | N/A                        |   |
|                               |                            |   |

# BEST MANAGEMENT PRACTICES CHECKLIST

|                                |  |   |  |
|--------------------------------|--|---|--|
| Date of Inspection: 5 / 4 / 11 |  | Project Title and Job No.: HC 10440 Repair Piles at Pier 40, Honolulu |  |
| Insp: Rodney Yamane            | Photographs: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | NGPC No. (if applicable):   |  |
| Weather: Cloudy                |  |   |  |
| Tide Level: N/A                |  |   |  |

|   | N/A | Properly Installed/ Observed |    | Require Maintenance |    | Description of Required Maintenance/ Deficiencies | Date Corrective Actions Taken | Notes:                              |
|---|-----|------------------------------|----|---------------------|----|---|-------------------------------|-------------------------------------|
|   |     | Yes                          | No | Yes                 | No |   |                               |                                     |
| A. Stabilized Construction Egress?  | X   |                              |    |                     |    |   |                               |                                     |
| Vehicle Tracking  | X   |                              |    |                     |    |   |                               |                                     |
| B. Erosion Control Device(s)  | X   |                              |    |                     |    |   |                               |                                     |
| Storm Drain Inlet Protection  | X   |                              |    |                     |    |   |                               |                                     |
| C. Dust Control/Suppressant   | X   |                              |    |                     |    |   |                               |                                     |
| Concrete Washout Area (AC)  |     | X                            |    |                     |    |   |                               | See additional comments             |
| D. Vehicle/Equipment Maintenance Area (ACoC)  | X   |                              |    |                     |    |   |                               |                                     |
| Vehicle/Equipment Fueling Area (AC)   | X   |                              |    |                     |    |   |                               |                                     |
| Vehicle/Equipment Storage Area (AC)   | X   |                              |    |                     |    |   |                               |                                     |
| E. Material Storage Area (ACoC)   |     | X                            |    |                     |    |   |                               | Materials stored in a 20' container |
| Stockpiles of Materials (ACoC)  | X   |                              |    |                     |    |   |                               |                                     |
| F. Flammable/Fuel Storage Area (ACoC)   | X   |                              |    |                     |    |   |                               |                                     |
| Hazardous Material Storage (ACoC)   | X   |                              |    |                     |    |   |                               |                                     |
| Waste Storage Area (AC)   | X   |                              |    |                     |    |   |                               |                                     |
| G. Good Housekeeping Practices (Is project generally free of litter, sediment, etc.?) |     | X                            |    |                     |    |   |                               |                                     |
| H. Spill Kit  |     | X                            |    |                     |    |   |                               |                                     |

**Major Site Activities:**

Demolition ☐ Yes ☐ Paving ☐

Excavation ☐ Hauling Materials ☐

Concrete Pouring ☐ Yes ☐ Other ☐

Contaminated Soils (adequate containment) ☐ Sediment Basin(s) (control and maintenance) ☐

Discharge(s) to State Waters Control ☐ Evidence of discharge of pollutant(s) to receiving waters? Y ☒ N ☐

Dewatering and/or Hydrotesting (Is this project in compliance with all NPDES storm water permitting requirements?) Y ☐ N ☐

Rodney Yamane  5/4/2011 (AC) = Adequate Containment

Verified By (HDOT Project Inspector/Engineer's Signature) \_\_\_\_\_ Date (ACoC) = Adequate Cover or Containment

ADDITIONAL NOTES:

A.

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B.

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C.

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Concrete poured on 4/29/11 only. Plastic wading pools provided for concrete washout and removed from site.

D.

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E.

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F.

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G.

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H.

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# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Windows at Harbors Administration Building NGPC No. N/A  
 Project No.: HC 10428 9:00 pm  
 Contractor: All Maintenance and Repair  
 Verified By: Lauren Tokura *Lauren M Tokura* Date: 05/18/11  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

#### Notes/Actions:

No ground disturbance. Work conducted within Harbors Administration Building.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      | N/A      |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity                | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------|----------------------------|--|
| Sawcutting              | N/A                        |  |
| Dust Control            | N/A                        |  |
| Dewatering              | N/A                        |  |
| Lead/Asbestos-Abatement | Acknowledged               | Work conducted by Unitek. Inspected again at 12:30am and lead/asbestos-abatement work completed. |
|                         |                            |  |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        |  |
| Vehicle/Equipment Fueling     | N/A                        | No vehicles fueled on site.                      |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaned on site.        |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site.    |
| Material Storage              | N/A                        | Materials stored within vehicles or under cover. |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |
|                               |                            |  |

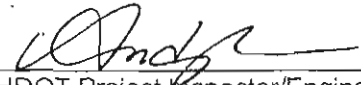


## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: FY11 1-yr Pavement Maintenance Contract for Matson Yard NGPC No. HI R10C108  
 Project No.: HC 10444 9:45AM  
 Contractor: Jas. W. Glover, Ltd. SUNNY  
 Verified By:  Date: 10/25/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

## Notes/Actions:

Cold-planing 6" thick of area 6 (126ft x 83.5ft) today and expected to put back new 6" asphalt pavement this afternoon

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location              | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|-----------------------|--|-------------------------|--------------------------------------|----------|
| Drain inlet by Area 7 | Inlet protection   | Yes                     | Good                                 |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |
|                       |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments  |
|--------------|----------------------------|---|
| Sawcutting   | Yes                        | Cold-planning today with dump truck to catch old asphalt immediately. |
| Dust Control | Yes                        | Sweeper is used to contain any debris runoffs.                        |
| Dewatering   | N/A                        | No dewatering activity involved today.                                |
|              |                            |   |
|              |                            |   |

### CONTRACTOR ACTIVITIES

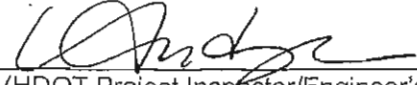
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete pouring in this project.  |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.                                  |
| Material Storage              | Yes                        | Materials are mostly stored on trucks. Materials (new asphalt) will come as needed. |
| Spill Prevention/Control      | Yes                        |   |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day.                                      |
|                               |                            |   |
|                               |                            |   |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Expansion Joint Repairs at Piers 39-40, Honolulu Harbor NGPC No. N/A  
 Project No.: HC 10454 11:15AM  
 Contractor: Ideal Construction, Inc. SUNNY  
 Verified By:  Date: 12/6/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments             |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------------------|
| N/A      |                |                                     |                              |                     | No soil disturbance. |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |

Notes/Actions:

Project started on Sunday, 12/4/11.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments   |
|--------------|----------------------------|--|
| Sawcutting   | Yes                        | Vacuum is on site and actively being used to suck up slurry. |
| Dust Control | Yes                        | Using vacuum on site.  |
| Dewatering   | N/A                        | No dewatering activity involved today.                       |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.                        |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.                     |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.                    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.         |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.             |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Told contractor to clean up debris at the end of each day. |
|                               |                            |  |
|                               |                            |  |

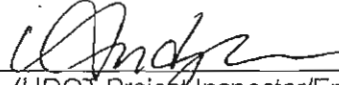


## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Expansion Joint Repairs at Piers 39-40, Honolulu Harbor NGPC No. N/A  
 Project No.: HC 10454 6:30PM  
 Contractor: Ideal Construction, Inc.  
 Verified By:  Date: 12/27/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments             |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------------------|
| N/A      |                |                                     |                              |                     | No soil disturbance. |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |
|          |                |                                     |                              |                     |                      |

## Notes/Actions:

Phase 1 completed. Began phase 2.

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments   |
|--------------|----------------------------|--|
| Sawcutting   | Yes                        | Vacuum is on site and actively being used to suck up slurry. |
| Dust Control | Yes                        | Using vacuum on site.  |
| Dewatering   | N/A                        | No dewatering activity involved today.                       |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

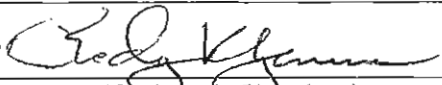
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete pouring observed today.                        |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.                     |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.                    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.         |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.             |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Told contractor to clean up debris at the end of each day. |
|                               |                            |  |
|                               |                            |  |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: ROOF REPAIRS AT PIER 10 SHED NGPC No. N/A  
 Project No.: H. C. 10466 07:30 AM  
 Contractor: CERTIFIED CONSTRUCTION, INC. sunny  
 Verified By: Rodney Yamane  Date: SEPT. 23, 2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

#### Notes/Actions:

No ground disturbance. Work conducted on the Pier 10 shed roof.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### SEDIMENT CONTROL

| Location       | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments  |
|----------------|--|-------------------------|--------------------------------------|---|
| 6 DRAIN INLETS | FILTERING CLOTH  | Acknowledge             | Adequate                             | Entire work area was first swept,<br>then six inlets were double lined<br>with Universal absorbent and<br>filtering cloths prior to pressure-<br>washing. The filtering cloths were<br>then discarded and replaced with<br>new filtering cloths for the duration<br>of the project. |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |
|                |  |                         |                                      |   |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments |
|--------------|----------------------------|----------|
| Sawcutting   | N/A                        |          |
| Dust Control | N/A                        |          |
| Dewatering   | N/A                        |          |
|              |                            |          |
|              |                            |          |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        |   |
| Vehicle/Equipment Fueling     | N/A                        | No vehicle or equipment fueling on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicle or equipment cleaning on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle or equipment maintenance on site.  |
| Material Storage              | Acknowledge                | Hydrostop Roof Coating stored on plastic tarps and covered with 6 mil. plastic sheeting.                      |
| Spill Prevention/Control      | Acknowledge                | Absorbent pads on site.   |
| Waste Storage/Disposal        | N/A                        | Debris removed on a daily basis. ( debris consist of empty plastic buckets and remnants of foundation fabric) |
|                               |                            |   |

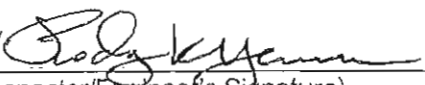


## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: ROOF REPAIRS AT PIER 10 SHED NGPC No. N/A  
 Project No.: H. C. 10466 08:00 AM  
 Contractor: CERTIFIED CONSTRUCTION, INC. sunny  
 Verified By: Rodney Yamane /  Date: OCT. 10, 2011  
 (HDOT Project Inspector/Engineer's Signature)

EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

## Notes/Actions:

No ground disturbance. Work conducted on the Pier 10 shed roof.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location       | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------------|--|-------------------------|--------------------------------------|----------|
| 6 DRAIN INLETS | FILTERING CLOTH  | Acknowledge             | Adequate                             |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |
|                |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

### Notes/Actions:

The filtering cloths will remain over the drain inlets for the duration of the project.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments |
|--------------|----------------------------|----------|
| Sawcutting   | N/A                        |          |
| Dust Control | N/A                        |          |
| Dewatering   | N/A                        |          |
|              |                            |          |
|              |                            |          |

### CONTRACTOR ACTIVITIES

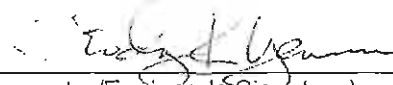
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        |   |
| Vehicle/Equipment Fueling     | N/A                        | No vehicle or equipment fueling on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicle or equipment cleaning on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle or equipment maintenance on site.  |
| Material Storage              | Acknowledged               | Hydrostop Roof Coating stored on plastic tarps and covered with 6 mil. plastic sheeting.                      |
| Spill Prevention/Control      | Acknowledged               | Absorbent pads on site.   |
| Waste Storage/Disposal        | N/A                        | Debris removed on a daily basis. ( debris consist of empty plastic buckets and remnants of foundation fabric) |
|                               |                            |   |
|                               |                            |   |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Lighting at Clock Tower Room, Aloha Tower NGPC No. N/A  
 Project No.: HC 10352R 7:30 am  
 Contractor: Ted's Wiring Service, Ltd. sunny  
 Verified By: Rodney Yamane  Date: 03/30/11  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

Notes/Actions:

No ground disturbance. Work conducted within clock tower room.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      | N/A      |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity       | Adequate BMPs?<br>(Yes/No) | Comments  |
|----------------|----------------------------|---|
| Sawcutting     | N/A                        |   |
| Dust Control   | N/A                        |   |
| Dewatering     | N/A                        |   |
| Lead-Abatement | Acknowledged               | Work conducted by Iniki Enterprises Ltd. Inspected again at 1:30pm and lead-abatement work completed. |
|                |                            |   |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments                          |
|-------------------------------|----------------------------|-----------------------------------|
| Concrete Washout/Waste        | N/A                        |                                   |
| Vehicle/Equipment Fueling     | N/A                        | No vehicles or equipment on site. |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment on site. |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment on site. |
| Material Storage              | N/A                        | No material stored on site.       |
| Spill Prevention/Control      | N/A                        |                                   |
| Waste Storage/Disposal        | N/A                        |                                   |
|                               |                            |                                   |
|                               |                            |                                   |

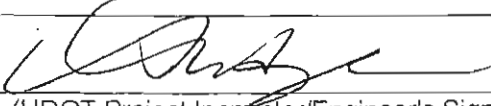


# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Port of Honolulu Passenger/Cargo Facility IEDS Threat Prevention NGPC No. N/A  
 Project No.: HC 10365 10:15AM  
 Contractor: Hawaiya Technologies, Inc. SUNNY  
 Verified By:  Date: 3/30/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments              |
|----------|----------------|-------------------------------------|------------------------------|---------------------|-----------------------|
| N/A      |                |                                     |                              |                     | No Ground disturbance |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |
|          |                |                                     |                              |                     |                       |

#### Notes/Actions:

Work at KBPH shed was resumed on 3/28/11. Today's work is only mounting security equipment on light pole #3.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments               |
|----------|--|-------------------------|--------------------------------------|------------------------|
| N/A      |  |                         |                                      | No ground disturbance. |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |
|          |  |                         |                                      |                        |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                               |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.          |
| Dust Control | Yes                        | Minimal dust created today.            |
| Dewatering   | N/A                        | No dewatering activity involved today. |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

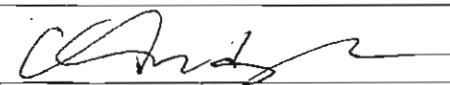
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.   |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.  |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.<br>Equipment (lift) is a rental only. |
| Material Storage              | Yes                        | Materials are stored in trucks or vans and won't be stored on site.                      |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day.   |
|                               |                            |  |
|                               |                            |  |

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
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Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Port of Honolulu Passenger/Cargo Facility IEDS Threat Prevention NGPC No. N/A  
 Project No.: HC 10365 11:20AM  
 Contractor: Hawaiya Technologies, Inc. SUNNY  
 Verified By:  Date: 3/2/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| N/A      |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

#### Notes/Actions:

Trenching work at KBPH Marina peninsula is complete. Ground is backfilled.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments                      |
|----------|--|-------------------------|--------------------------------------|-------------------------------|
| N/A      |  |                         |                                      | No drain inlet near job site. |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                               |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.          |
| Dust Control | N/A                        | No construction work observed today.   |
| Dewatering   | N/A                        | No dewatering activity involved today. |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.                   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.             |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.            |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site. |
| Material Storage              | Yes                        | No materials were observed on site.                |
| Spill Prevention/Control      | N/A                        | No construction work observed today.               |
| Waste Storage/Disposal        | Yes                        | Waste were hauled away from job site each day.     |
|                               |                            |  |
|                               |                            |  |

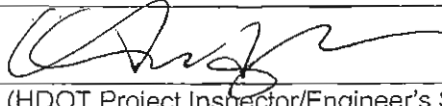


# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
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Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Port of Honolulu Passenger/Cargo Facility IEDS Threat Prevention NGPC No. N/A  
 Project No.: HC 10365 10:00AM  
 Contractor: Hawaiya Technologies, Inc. SUNNY  
 Verified By:  Date: 2/15/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location                          | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used             | Acceptable (yes/no) | Comments  |
|-----------------------------------|----------------|-------------------------------------|--|---------------------|---|
| Light Pole #1 & #2 at KBPH Marina | 2/7/11         |                                     | Plastic sheeting is used to cover dirts. | Yes                 | No slope, just conduit trench. Plastic sheeting is on site. |
|                                   |                |                                     |  |                     |   |
|                                   |                |                                     |  |                     |   |
|                                   |                |                                     |  |                     |   |
|                                   |                |                                     |  |                     |   |
|                                   |                |                                     |  |                     |   |

#### Notes/Actions:

Project resumed in Kalaheo Barbers Point Harbor in late Jan <sup>2011</sup>~~2010~~.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments                      |
|----------|--|-------------------------|--------------------------------------|-------------------------------|
| N/A      |  |                         |                                      | No drain inlet near job site. |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |
|          |  |                         |                                      |                               |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                                  |
|--------------|----------------------------|---|
| Sawcutting   | N/A                        | No sawcutting involved today.             |
| Dust Control | Yes                        | Plastic sheeting is used to cover debris. |
| Dewatering   | N/A                        | No dewatering activity involved today.    |
|              |                            |   |
|              |                            |   |

### CONTRACTOR ACTIVITIES

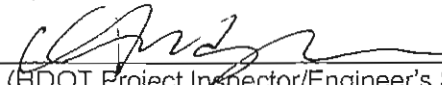
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.   |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.  |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.   |
| Material Storage              | Yes                        | No materials were observed on site. Materials stored in the van or company's pick-up trucks. |
| Spill Prevention/Control      | Yes                        |  |
| Waste Storage/Disposal        | Yes                        | Waste were hauled away from job site each day.   |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harb NGPC No. N/A  
 Project No.: HC 10431 8:30AM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 03/14/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

## Notes/Actions:

Formwork for new bullrails are being set up.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                                 |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.            |
| Dust Control | N/A                        | No major demolition work involved today. |
| Dewatering   | N/A                        | No dewatering activity involved today.   |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.  |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.  |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.  |
| Spill Prevention/Control      | Yes                        |   |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day. Told contractor to clean up debris at the end of each day. |
|                               |                            |   |
|                               |                            |   |

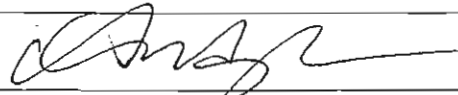


# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harbor NGPC No. N/A  
 Project No.: HC 10431 11:30AM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 03/1/2011  
 (HDOT Project Inspector/Engineer's Signature)

### EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

#### Notes/Actions:

Electrical sub is installing new electrical enclosure and utilizing existing conduits.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                                 |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.            |
| Dust Control | N/A                        | No major demolition work involved today. |
| Dewatering   | N/A                        | No dewatering activity involved today.   |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

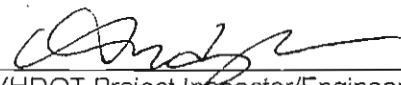
| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments   |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.                   |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.             |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.            |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site. |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.     |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | Yes                        | Wastes are hauled away from job site each day.     |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Electrical and Water Lines Repairs at Piers 16-17, Honolulu Harb NGPC No. N/A  
 Project No.: HC 10431 1:30PM  
 Contractor: Royal Contracting Co, Inc. SUNNY  
 Verified By:  Date: 02/9/2011  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments               |
|----------|----------------|-------------------------------------|------------------------------|---------------------|------------------------|
| N/A      |                |                                     |                              |                     | No ground disturbance. |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |
|          |                |                                     |                              |                     |                        |

## Notes/Actions:

Electrical sub is doing layout marking on the pier. Removal of electrical enclosures is complete.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| N/A      |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| N/A      |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| N/A      |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments                                 |
|--------------|----------------------------|--|
| Sawcutting   | N/A                        | No sawcutting involved today.            |
| Dust Control | N/A                        | No major demolition work involved today. |
| Dewatering   | N/A                        | No dewatering activity involved today.   |
|              |                            |  |
|              |                            |  |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments  |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        | No concrete work observed today.  |
| Vehicle/Equipment Fueling     | N/A                        | No equipment fueling observed on site.  |
| Vehicle/Equipment Cleaning    | N/A                        | No equipment cleaning observed on site.   |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle/equipment maintenance observed on site.                                    |
| Material Storage              | Yes                        | Materials are mostly stored on pick-up trucks.  |
| Spill Prevention/Control      | N/A                        |   |
| Waste Storage/Disposal        | Yes                        | Demolished enclosures are not on site. Wastes are hauled away from job site each day. |
|                               |                            |   |



## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Perimeter Fencing at Honolulu and Kalaheo Barbers Point NGPC No. N/A  
 Project No.: H. C. 10239 12:12pm  
 Contractor: Mocon Corporation sunny  
 Verified By: Joe Cheng *JC* Date: 02/22/11  
 (HDOT Project Inspector/Engineer's Signature)

EROSION CONTROL - SLOPES/EXPOSED AREAS

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

## Notes/Actions:

Pier 39 Fence modification. No ground disturbance anticipated in this project.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments |
|--------------|----------------------------|----------|
| Sawcutting   | N/A                        |          |
| Dust Control | N/A                        |          |
| Dewatering   | N/A                        |          |
|              |                            |          |
|              |                            |          |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments                                     |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        |  |
| Vehicle/Equipment Fueling     | N/A                        | No vehicle or equipment fueling on site.     |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicle or equipment cleaning on site.    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle or equipment maintenance on site. |
| Material Storage              | N/A                        | No material storage on site.                 |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Perimeter Fencing at Honolulu and Kalaheo Barbers Point NGPC No. N/A  
 Project No.: H. C. 10239 11:17am  
 Contractor: Mocon Corporation sunny  
 Verified By: Joe Cheng *J2* Date: 03/10/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

## Notes/Actions:

Pier 1 Fence modification. No ground disturbance anticipated in this project.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

#### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments |
|--------------|----------------------------|----------|
| Sawcutting   | N/A                        |          |
| Dust Control | N/A                        |          |
| Dewatering   | N/A                        |          |
|              |                            |          |
|              |                            |          |

#### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments                                     |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        |  |
| Vehicle/Equipment Fueling     | N/A                        | No vehicle or equipment fueling on site.     |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicle or equipment cleaning on site.    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle or equipment maintenance on site. |
| Material Storage              | N/A                        | No material storage on site.                 |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |




## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Perimeter Fencing at Honolulu and Kalaheo Barbers Point NGPC No. N/A  
 Project No.: H. C. 10239 02:30pm  
 Contractor: Mocon Corporation sunny  
 Verified By: Joe Cheng  Date: 03/22/11  
 (HDO Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

## Notes/Actions:

New Post Holes - Dirt removed from site as holes are being drilled.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments |
|----------|--|-------------------------|--------------------------------------|----------|
| None     |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |
|          |  |                         |                                      |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity     | Adequate BMPs?<br>(Yes/No) | Comments |
|--------------|----------------------------|----------|
| Sawcutting   | N/A                        |          |
| Dust Control | N/A                        |          |
| Dewatering   | N/A                        |          |
|              |                            |          |
|              |                            |          |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments                                     |
|-------------------------------|----------------------------|--|
| Concrete Washout/Waste        | N/A                        |  |
| Vehicle/Equipment Fueling     | N/A                        | No vehicle or equipment fueling on site.     |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicle or equipment cleaning on site.    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicle or equipment maintenance on site. |
| Material Storage              | N/A                        | No material storage on site.                 |
| Spill Prevention/Control      | N/A                        |  |
| Waste Storage/Disposal        | N/A                        |  |
|                               |                            |  |
|                               |                            |  |

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Piles at Pier 40, Honolulu, Harbor NGPC No. N/A  
 Project No.: HC 10440 12:35 pm  
 Contractor: American Marine Corporation sunny  
 Verified By: Lauren Tokura *Lauren M Tokura* Date: 03/22/11  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

| Location | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments |
|----------|----------------|-------------------------------------|------------------------------|---------------------|----------|
| None     |                |                                     |                              |                     | N/A      |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |
|          |                |                                     |                              |                     |          |

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

## SEDIMENT CONTROL

| Location              | Type of Control<br>(Silt fence, inlet<br>protection, etc.) | Acceptable?<br>(Yes/No) | *Rate<br>Effectiveness<br>of Control | Comments   |
|-----------------------|--|-------------------------|--------------------------------------|--|
| Around the sheetpile  | Floating Silt Curtain                                      | Acknowledged            | Fair                                 |  |
| Under the repair area | Raft   | Acknowledged            | Fair                                 | A raft is placed under the repair area to catch chippings. |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |
|                       |  |                         |                                      |  |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STABILIZED CONSTRUCTION ENTRANCE

| Location | Type of Stabilization | Acceptable?<br>(Yes/No) | *Effectiveness<br>of method used | Comments |
|----------|-----------------------|-------------------------|----------------------------------|----------|
| None     |                       |                         |                                  | N/A      |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |
|          |                       |                         |                                  |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### STRUCTURAL CONTROLS (SEDIMENT BASINS)

(Check for Condition of Basin and Condition of outfall)

| Location | Type of Sediment<br>Basin | Acceptable?<br>(Yes/No) | *Effectiveness of<br>Sediment Basin | Comments |
|----------|---------------------------|-------------------------|-------------------------------------|----------|
| None     |                           |                         |                                     | N/A      |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |
|          |                           |                         |                                     |          |

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

| Activity        | Adequate BMPs?<br>(Yes/No) | Comments  |
|-----------------|----------------------------|---|
| Sawcutting      | N/A                        |   |
| Dust Control    | N/A                        |   |
| Dewatering      | N/A                        |   |
| Demolition Work | Acknowledged               | A raft is placed under the repair area to catch any overspill of chipped materials. |
|                 |                            |   |

### CONTRACTOR ACTIVITIES

| Activity                      | Adequate BMPs?<br>(Yes/No) | Comments                                      |
|-------------------------------|----------------------------|---|
| Concrete Washout/Waste        | N/A                        |   |
| Vehicle/Equipment Fueling     | Yes                        | Drip pans present, spill kit on hand.         |
| Vehicle/Equipment Cleaning    | N/A                        | No vehicles or equipment cleaning on site.    |
| Vehicle/Equipment Maintenance | N/A                        | No vehicles or equipment maintenance on site. |
| Material Storage              | N/A                        |   |
| Spill Prevention/Control      | Yes                        | Spill kit on site.                            |
| Waste Storage/Disposal        | N/A                        |   |
|                               |                            |   |
|                               |                            |   |



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**APPENDIX Q**

**HARBORS CONSTRUCTION PLAN REVIEWER AND INSPECTOR**

**TRAINING RECORDS**

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## EMPLOYEE STORM WATER MANAGEMENT TRAINING CONSTRUCTION INSPECTION

Hawaii Department of Transportation – Harbors Division

## INTRODUCTION


- Hawaii Department of Transportation – Harbors Division
  - Engineering Branch
- Weston Solutions, Inc.
  - Mr. David Johnson
  - Mr. Mark Ambler PE/PMP

## AGENDA

- Regulatory Background
- Small MS4 General Permit Requirements
- DOT-HARBORS Construction Program
- Construction Site Stormwater Runoff Control
  - Plan Review
  - Site Inspections and Video
    - BMPs for Construction Sites in Hawaii
  - Enforcement Actions
  - Reporting
  - Educational Outreach
- Contact Information
- Question/Comments


## REGULATORY BACKGROUND - FEDERAL

- Clean Water Act (40 CFR 100-149)
  - 1972 Clean Water Act– Swimmable, Fishable
  - 1987 Amendments – NPDES (National Pollution Discharge Elimination System) regulations
- Effluent Limitation Guidelines and Standards for the Construction and Development Point Source Category (40 CFR 450)
- NPDES – Environmental Protection Agency Regulatory Authority
  - Phase I issued in 1990 – Individual Permit
    - Industrial Facilities
    - Construction Sites > 5 acres
    - Medium and Large Municipality Separate Storm Sewer System (MS4)
  - Phase II issued in 1999 – General Permit
    - Small MS4
    - Construction Sites > 1 acre < 5 acres
- MS4 – conveyance that is owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; designed or used to collect or convey stormwater; and not combined with sewer.



## REGULATORY BACKGROUND - HAWAII


- NPDES regulatory authority is issued to Hawaii Department of Health by the EPA
- Hawaii Administrative Rules (HAR)
  - Title 11 Chapter 55 (11-55)
    - Water Pollution Control
  - **Appendix C**
    - Storm Water Associated with Construction Activity
  - Appendix K
    - NPDES General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Discharges from Small MS4s
- Harbors Division – Notice of General Permit Coverage (NGPC)
  - HI 03KB482 – Administratively extended in October 2007
  - HI 03KB488 – Administratively extended in October 2007



## INTENT OF NPDES PROGRAM

- NPDES ensures that Non-Storm Water Discharges (NSWDs) are NOT allowed into the ocean
- Exceptions:

|  |                                    |  |   |
|--|------------------------------------|--|---|
| Water Line Flushing                      | Landscape Irrigation               | Diverted Stream Flows                    | Rising Ground Water                           |
| Uncontaminated Ground Water Infiltration | Uncontaminated Pumped Ground Water | Discharges from Portable Water Sources   | Air Conditioning Condensate                   |
| Crawl Space Pumps and Footing Drains     | Dechlorinated Swimming Pool Water  | Discharges from Fire Fighting Activities | Does not Include Construction Site Dewatering |



Does not Include Construction Site Dewatering ❌

## SMALL MS4 GENERAL PERMIT REQUIREMENTS

### Minimum Control Measures

- ☐ Public Education & Outreach
- ☐ Public Participation & Involvement
- ☐ Illicit Discharge Detection & Elimination
- ☐ **Construction Site Runoff Control**
- ☐ **Post-Construction Runoff Control**
- ☐ Pollution Prevention & Good Housekeeping

## CONSTRUCTION SITE RUNOFF CONTROL

- ☐ Defined in Section 5.0 of the Storm Water Management Plan
- ☐ The purpose is to prevent construction projects from polluting storm water during and after construction
- ☐ The program includes:
  - ☐ Plan Review
  - ☐ Site Inspections
  - ☐ Enforcement
  - ☐ Reporting
  - ☐ Educational Outreach

## Where Do Construction Projects Originate?



## CONSTRUCTION DISCHARGE PERMIT

### Construction Site Runoff Control Plan:

- ☐ Plan Review
- ☐ Site Inspections
- ☐ Enforcement Actions
- ☐ Reporting
- ☐ Educational Outreach

- ☐ Construction site operators must submit a CWB-NOI Form when a construction activity results in the disturbance of greater or equal to 1 acre (includes base yard)
- ☐ The form must be submitted at least 30 calendar days prior to construction
- ☐ Both the General Form and the Site Specific Construction BMP Plan must be filled out and \$500 filing fee submitted
  - ☐ See handouts for SSCBMP (2/15/2011)

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cnpl-index.html>

## CWB-NOI GENERAL FORMS

### Construction Site Runoff Control Plan:

- ☐ Plan Review
- ☐ Site Inspections
- ☐ Enforcement Actions
- ☐ Reporting
- ☐ Educational Outreach

- ☐ Owner information
- ☐ Owner Type
- ☐ Operator Information
- ☐ Facility/Project Information
- ☐ List of Receiving Waters
- ☐ Authorized Representatives

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cnpl-index.html>

## CWB-NOI SSCBMP PLAN

### Construction Site Runoff Control Plan:

- ☐ Plan Review
- ☐ Site Inspections
- ☐ Enforcement Actions
- ☐ Reporting
- ☐ Educational Outreach

- ☐ Project Dates
- ☐ Certification
- ☐ Owner Information
- ☐ Contractor Information
- ☐ Facility Information
- ☐ Receiving Waters
- ☐ Drain System
- ☐ Existing Pollution Sources (Site History)
- ☐ Site Disturbance Calculations
- ☐ Storm Water Flow Estimates
- ☐ Construction Phasing
- ☐ Maps and Plans

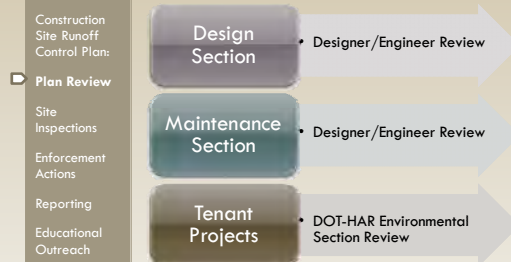
<http://hawaii.gov/health/environmental/water/cleanwater/forms/cnpl-index.html>

## CWB-NOI SSCBMP PLAN (cont.)

- Construction Site Runoff Control Plan:
- Plan Review
  - Storm Water Flow Chart
  - Planned Construction BMPs
  - Maps and Plans
  - Training
  - Project Schedule
  - NPDES Inspection Schedule
  - Contingency Plan
  - BMP Specification Sheets
  - Post-Construction Pollution Control Measures
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cwb-index.html>

## Who Reviews the Stormwater Plans?



<http://cfpub.epa.gov/npdes/stormwater/manualamps/index.cfm?action=browse&Rbutton=detail&bmp=116&minmeasure=4>

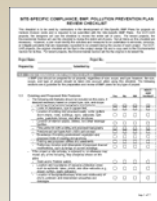
## EMS Manual as a Tool for Plan Review

- Construction Site Runoff Control Plan:
- Plan Review
  - Harbors' Environmental Management System Manual Appendix H Contains tools for managing internal and tenant construction activities
    - Plan Review checklist
    - Plan Amendment and Review Form
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach



## Site-Specific Compliance, BMP, Pollution Prevention Plan Review Checklist

- Construction Site Runoff Control Plan:
- Plan Review
  - For review of Construction Plan and NOI Forms
    - Designers & Engineers
  - No grading or site work will commence until Harbors has verified that regulations are met
  - Filed in the project design file and a copy sent to DOT-HAR Environmental Section
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach



## Site-Specific Compliance, BMP, Pollution Prevention Plan Amendment Review Form

- Construction Site Runoff Control Plan:
- Plan Review
  - For amendment of Construction Plan and NOI Forms
  - Responsibility depends on phase of process
    - Planning
    - Construction
    - Post-Construction Controls
  - No grading or site work will commence until Harbors has verified that regs are met.
  - File with Review Checklist
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach



## NON-NPDES Project Plan Review

- Construction Site Runoff Control Plan:
- Plan Review
  - Projects Less than 1 Acre
    - Maintenance Projects
    - Tenant Projects
    - Other?
  - To Be Developed
    - BMP Manual
    - SWPPP Template
    - Plan Review Form
    - Site Inspection Form
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

## USEPA: 10 ELEMENTS OF AN EFFECTIVE REVIEW



<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&button=detail&bmp=116&minmeasure=4>

## CONSTRUCTION SITE INSPECTION TOOLS



- Appendix G: Inspection and Enforcement Manual
  - Section 5.0 Inspection Procedures
- Appendix H: Construction Program
  - Inspection and Maintenance Report Form
- HDOH-CWB SSCBMP Plan
  - Inspection Checklist

## Construction Site Inspections

- Construction Site Runoff Control Plan:
- Plan Review
  - Site Inspections
    - Construction Site Inspections are dictated by *Harbors EMS Manual Appendices G & H*
    - Inspections will occur after approval of plans to ensure that BMPs have been installed and maintained
    - Contractor will not be allowed to begin grading or site work until Harbors has documented inspection.
    - Inspections will continue throughout the life of the project.
      - Rainy season (Oct-Apr): every two weeks
      - Dry Season (May-Sept): every two months
  - Enforcement Actions
  - Reporting
  - Educational Outreach

## Inspector Roles and Responsibilities

- Construction Site Runoff Control Plan:
- Plan Review
  - Site Inspections
    - Professional Responsibility – Show common courtesy toward facility personnel by
      - Scheduling inspections ahead of time
      - Giving a courtesy call at least 20 minutes before inspection
      - Asking permission to take photos
      - Providing introductions and credentials
      - Providing facility with copy of findings
      - Thanking facility personnel
  - Enforcement Actions
  - Reporting
  - Educational Outreach

## Inspector Roles and Responsibilities

- Construction Site Runoff Control Plan:
- Plan Review
  - Site Inspections
    - Safety Responsibility – Protect yourself from accidents
      - Wearing appropriate gear (hard hat, steel-toed shoes)
      - Assessing hazards in surroundings and acting appropriately
      - Ensure you have proper safety for hazards known at the site (i.e. HAZWOPER requirements for environmentally impaired sites)
    - Documentation Responsibility
      - Take photos
      - Take complete notes with locations, dates, and times
      - Obtain contact information for representative for follow up or future inspections
  - Enforcement Actions
  - Reporting
  - Educational Outreach

## Construction Pre-Inspection

- Construction Site Runoff Control Plan:
- Plan Review
  - Site Inspections
    - Collect and analyze background information on tenant/construction site
      - Records of environmental assets
      - Past inspection records
      - Property management files
      - Maps
      - Plans
      - NOI General Form & SSCBMP Plan Review
    - Develop strategy for inspection. What are the specific concerns/goals?
    - Prepare safety equipment
    - Unannounced inspections are allowed, but only recommended for higher levels of enforcement
    - Announced inspections allow time for gathering of records and making appropriate representative available
  - Enforcement Actions
  - Reporting
  - Educational Outreach

## Construction Pre-Inspection

Construction  
Site Runoff  
Control Plan:  
Plan Review  
Site  
Inspections  
Enforcement  
Actions  
Reporting  
Educational  
Outreach

- If tenant or contractor is hostile, Harbor police can escort
- A conference may allow tenant/operators to locate additional documents or key personnel
- A site representative must accompany the inspector to answer questions and describe operations

## Site Inspections

Construction  
Site Runoff  
Control Plan:  
Plan Review  
Site  
Inspections  
Enforcement  
Actions  
Reporting  
Educational  
Outreach

- Inspection procedures will follow Section 5.0 of IEP. Substitute reporting requirements with:
- Site Specific Compliance, BMP, Pollution Prevention Plan Inspection and Maintenance Report Form
- Sections covered:
  - Erosion control
  - Sediment controls
  - Stabilized construction entrance
  - Structural controls
  - Other construction activities
  - Contractor activities

## Non-NPDES Site Inspections

Construction  
Site Runoff  
Control Plan:  
Plan Review  
Site  
Inspections  
Enforcement  
Actions  
Reporting  
Educational  
Outreach

- Program in Development
- BMP Plan Review
- Simplified Inspection Checklist
- Approval Process for repeat operations
  - Street Cleaning
  - Painting
  - Building Maintenance
  - Etc...

Video

## Video Review

- 1<sup>st</sup> Priority – Minimize erosion
- 2<sup>nd</sup> Priority – Prevent pollution runoff from leaving site
- Update BMPs when there is a change in
  - Construction process
  - Environment
- Erosion Control Measure – Source prevention
- Sediment Control Measure – Stops pollution after it has eroded
- Tracking Controls – Prevents/minimizes sediment from leaving site on vehicles







| EROSION CONTROL - SLOPES/EXPOSED AREAS |                |                                     |                              |                     |   |
|--|----------------|-------------------------------------|------------------------------|---------------------|---|
| Location                               | Date Disturbed | Erosion Control Measure established | Type of Erosion Control used | Acceptable (yes/no) | Comments  |
| North perimeter                        | 2/18/10        | yes                                 | Silt Fence                   | No                  | Fence is damaged and maintenance records not provided |
|  |                |                                     |                              |                     |   |
|  |                |                                     |                              |                     |   |
|  |                |                                     |                              |                     |   |
|  |                |                                     |                              |                     |   |
|  |                |                                     |                              |                     |   |
|  |                |                                     |                              |                     |   |
|  |                |                                     |                              |                     |   |

Notes/Actions:  
 Damaged area of silt fence is allowing sediment to leave property. Contractor must repair Silt fence.

To be performed by: ABC Construction on or before: 3/4/10



| SEDIMENT CONTROL |  |                      |                                |                                  |
|------------------|--|----------------------|--------------------------------|----------------------------------|
| Location         | Type of Control (Silt fence, inlet protection, etc.) | Acceptable? (Yes/No) | *Rate Effectiveness of Control | Comments                         |
| Nimitz Gate      | Drain Inlet Protection                               | No                   | Poor                           | Not maintained, breached control |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |
|                  |  |                      |                                |                                  |

\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor

Notes/Actions:  
 Drain inlet protection is insufficient. Immediate replacement/repair required.

To be performed by: ABC Construction on or before: 3/4/10



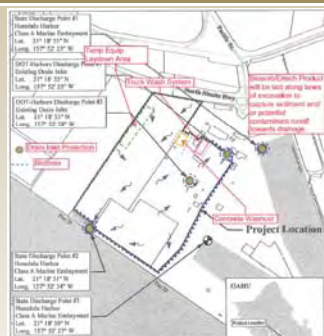














## Low Impact Development Standard

Construction  
Site Runoff  
Control Plan:

Plan Review

Site Inspections

Enforcement  
Actions

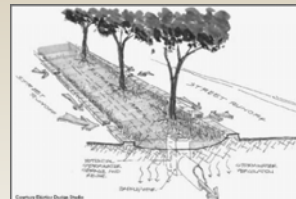
Reporting

Educational  
Outreach

- Appendix K of SWMP
- Manage storm water as close to the source as possible and limit discharge to MS4 receiving waters
- New or Redevelopment >5,000 sq.ft. impervious surface
- Submittal Requirements
  - Peak flow rate calculation
  - Installation design specifications
  - Performance specifications
  - Operations and Maintenance Manuals
- Options
  - BioSwales, Green Roofs, Bio-Retention Planter Box, Porous Sidewalk, Rain Barrels, Curb Openings, Amended Soil, ect...

## Post-Construction Controls

Post-Construction Storm Water Management starts early on in the design process! Tools like Low-Impact Development and Green Design can be used to create a cost effective system for managing runoff from your sites.



Create a Hydrologically Functional Site!!!



## Post-Construction Controls

Considering water quality impacts early in the design process can provide long-term water quality benefits.

- Low-Impact Development
- Green Design
- Site Specific/Innovative BMPs
- Infiltration
- Filtration
- Retention/Detention
- Isolation/Separation of Runoff from Processes

Options you can use to manage your site:

Eliminating Curbs and Gutters  
Green Parking  
Green Roofs  
Protection of Natural Features  
Urban Forestry  
Grassed Swales  
Infiltration Basin/Trench  
Permeable Pavement  
Porous Asphalt Pavement  
Sand and Organic Filters  
Vegetated Filter Strip  
Dry Detention Ponds  
In-Line Storage  
Storm Water Wetland

## Post-Construction Controls



Drainage Swales



Storm Water Retention Ponds

Green Roofs

## EMS Manual as a Tool for Enforcement



- Appendix G: Inspection and Enforcement Manual
  - Section 6.0 Enforcement Procedures
- Appendix H: Construction Program
  - Inspection and Maintenance Report Form
  - Plan Amendment Review Form

## Enforcement Actions

Construction  
Site Runoff  
Control Plan:

Plan Review

Site Inspections

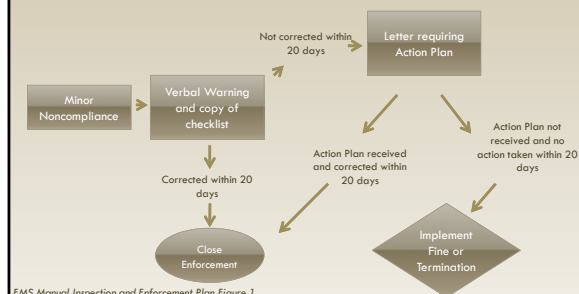
Enforcement Actions

Reporting

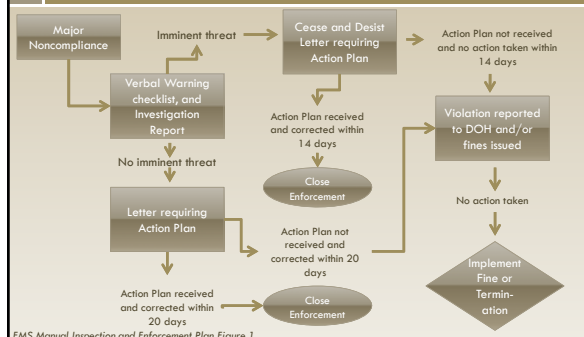
Educational  
Outreach

- EMS Manual Appendix G Inspection and Enforcement Plan Section 6.0 directs tenant enforcement
- Contract language directs construction operator enforcement

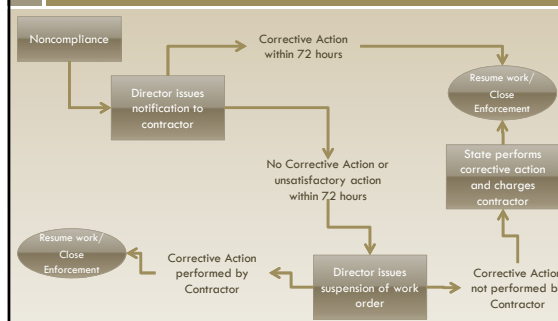
### Minor Enforcement Actions for Tenants



### Major Enforcement Actions for Tenants



### Example Construction Enforcement Actions from Pier 29



### Enforcement Actions

Construction Site Runoff Control Plan:  
Plan Review  
Site Inspections  
Enforcement Actions  
Reporting  
Educational Outreach

- Recommended enforcement actions can be noted on the Inspection and Maintenance Report Form

File: Site Specific BMP Inspection and Maintenance Report Page 1 of 1

- Letter of Action will be submitted by Harbor Administrator or Director

### Enforcement Actions

#### Regulatory Mechanisms

- Hawaii Administrative Rules (HAR)
- Hawaii Revised Statutes (HRS)
- Tenant Leases/Revocable Permits / Construction contracts
- 40 CFR - Clean Water Act & NPDES
- Other Applicable State & Federal Regulations

#### Penalties for Lack of Compliance (dependant on severity of violation)

- Verbal Warnings
- Written Notices
- Citation with Monetary Fines
- Stop Work Orders
- Abatement by Harbors Division with Reimbursement by the Responsible Party
- Lease Termination
- Referral to HDOH or Other Appropriate Regulatory Agency

### Enforcement Actions

Construction Site Runoff Control Plan:  
Plan Review  
Site Inspections  
Enforcement Actions  
Reporting  
Educational Outreach

- Corrective actions regarding inadequate BMPs must be rectified and reflected in an amended BMP Plan
- Changes to BMP Plan must be logged in the Plan Amendment Review Form
- Form must be included in tenant file

## Reporting

Construction  
Site Runoff  
Control Plan:  
Plan Review  
Site  
Inspections  
Enforcement  
Actions  
Reporting  
Educational  
Outreach

- Construction Program Site Specific Compliance, BMP, Pollution Prevention Plan
  - ▣ Review Checklist,
  - ▣ Inspection and Maintenance Report Form, and
  - ▣ Plan Amendment Review Form
- Must be filed in for tracking and record-keeping purposes
- Specific tracking procedures to be developed

## Educational Outreach

Construction  
Site Runoff  
Control Plan:  
Plan Review  
Site  
Inspections  
Enforcement  
Actions  
Reporting  
Educational  
Outreach

- Training workshops for plan reviewers
- Harbors develops annual educational materials
- Educational Materials will be available on Harbors website

## Outreach to Contractors

Construction  
Site Runoff  
Control Plan:  
Plan Review  
Site  
Inspections  
Enforcement  
Actions  
Reporting  
Educational  
Outreach

- Resources for specific BMP procedures
  - ▣ Best Management Practices Manual for Construction Sites in Honolulu (DES, GCA)
  - ▣ Rules Relating to Soil Erosion Standards and Guidelines (DPP)
  - ▣ USEPA Website: Menu of BMPs  
<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>
  - ▣ 40 CFR 450 -- Effluent Limitation Guidelines and Standards for the Construction and Development Point Source Category

## Storm Water Contacts

### First Call Harbors Hotline


- Harbors Hotline @ (808) 587-1962
- Construction Engineer @ (808) 587-1866

### Discharges

- Marine Traffic Control Unit @ (808) 587-2076

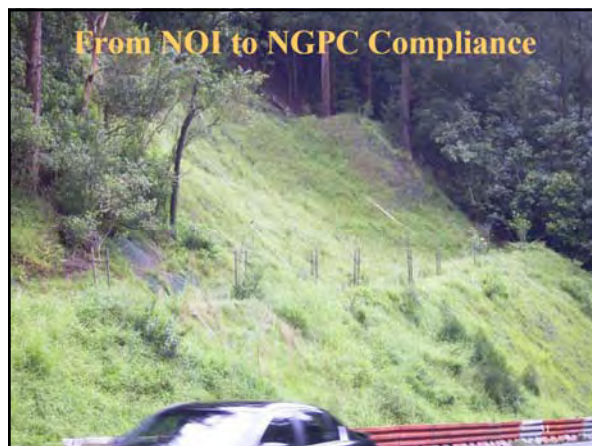
### Serious Offenses

- Hawaii Department of Health, Clean Water Branch @ (808) 586-4309
- U.S. Coast Guard @ (800) 424-8802
- USEPA @ (808) 541-2721



**REMOVE! CONTAIN! TREAT!**  
**KEEP OUR WATERS CLEAN.....**

- Questions?
- Comments?



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Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

**HDOT HARBORS**  
**STORMWATER MANAGEMENT**  
**EMPLOYEE TRAINING (ENGIN. BR.)**  
**JUNE 28, 2011**

[illegible]

## VOLUNTEER FOR CLEAN-UP?

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

**HDOT HARBORS**  
**STORMWATER MANAGEMENT**  
**EMPLOYEE TRAINING (ENGINEERING BR.)**  
**JUNE 28, 2011**



## SIGN-IN SHEET

**VOLUNTEER FOR  
CLEAN-UP?**

[illegible]

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**APPENDIX R**  
**PRESSURE WASHING MEMO**

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**REFERENCE NO.: EP-001**

**TITLE: Procedures for Pressure Washing the Sidewalk and Walls at PIER 2  
Cruise Terminal Building (Washing Takes Place as Necessary)**

**1.0 Purpose**

This procedure describes the steps to be taken when the walls and sidewalks of the Pier 2 Cruise Terminal are in need of washing due to accumulation of dust and bird droppings.

**2.0 Definitions**

None.

**3.0 Procedures**

1. Secure the three (3) drain inlets with booms  
NOTE: DRAIN INLETS ARE AT LEAST 120 FEET AWAY FROM WHERE THE PRESSURE WASHING IS TO TAKE PLACE.
2. Pre trip pressure washer at Base yard and top off with fuel before going to Pier 2.
3. Hook up pressure washer to the water hose at Pier 2 Mauka end on the Diamond Head side of the building.
4. Have the street sweeper and operator stand by to pick up wash water and any debris while pressure washing.
5. Have employees standing by with squeegees to push and direct the wash water and any debris away from the sidewalk/walls that is being cleaned and into the open area parking lot for the street sweeper to pick up.
6. Start pressure washer and start pressure washing the walls and then the sidewalk from the Mauka end and work towards the Makai end. NOTE: The operator cannot regulate the pressure washer's psi, but the operator is able to control the pressure washer's water flow with the washer wand's on/off trigger. This allows the pressure washer operator to instantly shut off the water flow should the street sweeper not be able to keep up with the operation.
7. While pressure washing the sidewalk, the operator of the pressure washer is directing the wash water and any debris into the path of the street sweeper. Other employees with squeegees are also pushing and guiding the wash water into the path of the street sweeper.
8. While the employees are pressure washing, the street sweeper is continuously making passes with its conveyor belt running, main and side brooms down and in continuous operation. This allows the street sweeper to pick up any debris and wash water from the pressure washing operation.  
NOTE: The street sweeper's sweeping path is 12 feet wide.
9. After pressure washing this area, the operator secures the water hose and the pressure washer, and loads it into the state pickup truck.
10. The other employees with squeegees continue pushing and directing the wash water into the path of the street sweeper until all water and debris have been

May 24, 2011

picked up by the street sweeper. If necessary, the street sweeper will make a second pass to pick up anything missed during the first pass.

11. Remove the three (3) drain inlet protection booms.
12. The street sweeper is driven back to the Harbors Division Sand Island Base yard, where the wash water and any debris are dumped into the State's wash rack.
13. The wash rack's recycled water is pumped out, as need, by a contractor who is responsible to dispose of the water in compliance with EPA standards.
14. The solid waste from the wash rack is removed and disposed at H-POWER by Harbors employees.

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**APPENDIX S**

**APPROVAL LETTERS FOR EQUIPMENT AND VEHICLE WASHING**

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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION  
79 S. NIMITZ HIGHWAY  
HONOLULU, HAWAII 96813

GLENN M. OKIMOTO  
DIRECTOR

Deputy Directors  
JADE T. BUTAY  
FORD N. FUCHIGAMI  
RANDY GRUNE  
JADINE URASAKI

IN REPLY REFER TO:  
RS 12.0364  
HAR-E  
1715.12

December 7, 2011

Mr. Greg Hamilton  
Windward Moving and Storage Company, Inc.  
5 Sand Island Access Road, B929-E  
Honolulu, Hawaii 96819

SUBJECT: Vehicle Washing Conditional Approval  
Revocable Permit H-11-2699

Dear Mr. Hamilton:

We have reviewed your request, dated October 31, 2011, to wash company vehicles onsite at the KMR facility associated with the subject Revocable Permit. The Storm Water Pollution Prevention Plan (SWP3) Mobile Wash BMPs by J/R Environmental Co., dated October 27, 2011, and additional information furnished, dated November 23, 2011, have been reviewed.

Based on the information provided, we hereby grant approval of your washing activities for a period starting from the date of this letter and expiring at midnight on December 31, 2012, subject to the following conditions:

Condition 1 – All washing activities are to be performed as described in the tenant submittals referenced above.

Condition 2 – All activities must comply with Hawaii Revised Statutes § 342D-50(a), specifically, *"No person, including any public body, shall discharge any water pollutant into State waters, or cause or allow any water pollutant to enter state waters..."*.

Condition 3 – All activities must adhere to the Environmental Protection Agency (EPA) Stormwater BMP relating to Municipal Vehicle and Equipment Washing.

Condition 4 – Any enforcement actions and/or monetary fines resulting from non-compliance with the Hawaii Revised Statutes or EPA Stormwater BMPs will be the sole responsibility of the tenant initiating the rinsing activities and not the Harbors Division.

Condition 5 – This approval only applies to Windward Moving and Storage Company vehicles and only applies to the facilities at KMR Building 929-E as specified in the submitted map.

Mr. Greg Hamilton  
December 7, 2011  
Page 2


HAR-E  
1715.12

Condition 6 – Wash and disposal records referenced in your request must be provided for the first month of approved washing. All subsequent documentation must be available for review onsite during your regular scheduled tenant inspection.

Condition 7 – This approval may be revoked at any time at the discretion of the Harbors Division.

If you have any questions, please contact Mr. Randal Leong of the Harbors Division Engineering Environmental Section at (808) 587-1962.

Very truly yours,



Carter W. S. Luke, P.E.  
Engineering Program Manager

bc: DEP-P, DEP-H, HAR-PM, HAR-O

RL:jmo

DEC - 7 2011

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**APPENDIX T**

**APPROVAL LETTERS FOR DRY WELLS OR INFILTRATION SINKS**

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