



# Storm Water Management Program Plan

## Honolulu International Airport

### Section G: Hydrocarbon Removal and Remediation Plan



**PROTECT  
OUR WATER**  
MĀLAMA I KA WAI  
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

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## 1.0 INTRODUCTION

The Honolulu International Airport (HNL) area has been used for air transportation purposes for over eighty years. Therefore, it is probable that during that time minor and major petroleum spills may have affected soil and groundwater around the property. The areas of HNL that have hydrocarbon contamination must be managed properly to protect human health and the environment.

### 1.1 Roles and Responsibilities

Those parties with specific roles in regards to the hydrocarbon removal and remediation plan (hydrocarbon plan) are included in Table 1.

**TABLE 1: HYDROCARBON PLAN ROLES AND RESPONSIBILITIES**

Section	Title	Responsibilities
<b>AIR-EE</b>	Supervisor	<ul style="list-style-type: none"> <li>Provides Program Oversight</li> <li>Tracks and Analyzes Program Data</li> <li>Facilitates Training and Education</li> </ul>
<b>AIR-EE</b>	Environmental Engineer*	<ul style="list-style-type: none"> <li>Coordinates Contaminated Media Management with SPM for DOTA Construction Projects</li> <li>Ensures Compliance with DOH Requirements by SPM</li> <li>Maintains List of Areas with Contaminated Media</li> </ul>
<b>AIR-EE</b>	Environmental Health Specialists*	<ul style="list-style-type: none"> <li>Conducts Inspections to Verify Proper Contaminated Media Management</li> </ul>
<b>AIR-E</b>	Engineering Program Manager	<ul style="list-style-type: none"> <li>Approves Ground Disturbance / Dewatering from Contaminated Areas</li> </ul>
<b>AIR-E / AIR-OME</b>	State Project Managers (SPM)	<ul style="list-style-type: none"> <li>Facilitates Investigation to Identify Contaminated Media</li> <li>Facilitates Proper Management of Contaminated Media</li> </ul>
<b>Oahu District</b>	Airport Manager	<ul style="list-style-type: none"> <li>Requires Tenants to Monitor, Address, and/or Manage Contaminated Media</li> </ul>
	Tenant / DOTA Contractor	<ul style="list-style-type: none"> <li>Identifies and Properly Manages Contaminated Media</li> </ul>
	ASIG	<ul style="list-style-type: none"> <li>Operate Recovery System and Report to AIR-EE</li> </ul>

\*Note: Consultants may be used to fill roles where necessary.

## **2.0 CONTAMINATION MANAGEMENT**

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Areas of HNL that have been contaminated by hydrocarbons should be managed appropriately and in accordance with the Department of Health (DOH) regulations, including the *Hawaii Administrative Rules (HAR) Title 11-451 (State Contingency Plan)* and the *DOH Technical Guidance Manual*.

### **2.1 Identify Contaminated Areas**

AIR-EE maintains a list of areas at HNL that are known to have petroleum contamination. Additionally, construction activities at HNL may uncover a previously unknown area of hydrocarbon contamination. Prior to construction, research of the area should be conducted that focuses on past uses for the location and risks of previous releases. During excavation, petroleum contamination may be identified through discoloration, odors, or sheen on the groundwater. Visual and/or olfactory observations should be verified through sampling of the potentially affected media.

### **2.2 Reporting Requirements**

When petroleum contaminated media has been discovered and/or disturbed, reporting requirements must be initiated.

1. Notify the DOH, Clean Water Branch (808-586-4309) at least **90 days** prior to disturbing contaminated soil or dewatering from known areas of contamination.
2. Notify the SPM and AIR-EE when contaminated media is identified.
3. Make notifications in accordance with the State Contingency Plan, if it is a reportable quantity:
  - a. DOH, Hazard Evaluation and Emergency Response (HEER) Office (586-4249).
  - b. Local Emergency Planning Committee (LEPC) (723-8958).
  - c. National Response Center (800-424-8802).

### **2.3 Contaminated Media BMPs**

Following the verification of hydrocarbon contamination, best management practices (BMP) must be implemented that prevent any storm water runoff from contacting the contaminated soil or dewatering effluent. Examples of these BMPs include:

- Storing on and covering stockpiles with polyethylene sheeting.
- Contain the stockpiles with berms or other device.
- Locate stockpiles away from storm drains and waterways.
- Ensure that the final disposal location for contaminated soils is approved by the SPM and documented.
- Contain any dewatering effluent or wastewater generated during decontaminating of equipment and dispose properly.

### **2.3.1 Petroleum Recovery System**

One HNL tenant facilitates the operation of a petroleum recovery system for an area of known contamination. The system works by pumping groundwater through a skimmer to recover free product from the former release. The tenant provides AIR-EE with monthly reports as to status of the petroleum recovery.

### 3.0 EVALUATION METHODS

The hydrocarbon plan will be evaluated based on specific metrics included below to determine its effectiveness. Specifically, measurable standards, milestones, and monitoring parameters are included in Table 2 from the MS4 NPDES permit. All final tallies of progress on hydrocarbon plan metrics will be included in the annual report to the DOH and EPA.

**TABLE 2: HYDROCARBON PLAN MEASURABLE STANDARDS, MILESTONES, AND MONITORING**

SWMPP Reference	BMP / Task	Measurable Standard / Milestones	Monitoring Effectiveness	Timeframe
Section G, 2.3.1	Hydrocarbon Removal and Remediation Plan Status	Submit an update on the status of remediation activities for the area of known contamination on Aolele Street within 90 days of the effective date of the MS4 permit.	Confirmation: <ul style="list-style-type: none"> <li>Update submitted to DOH.</li> </ul>	7/13/14
Section G, 2.2	Notifications	Notify the DOH at least 90 calendar days prior to any construction which requires disturbing contaminated soil or dewatering contaminated effluent.	Confirmation: <ul style="list-style-type: none"> <li>DOH notified on construction plans.</li> </ul>	90 Days Prior
Section G, 2.3	Contaminated Media BMPs	Install and maintain BMPs to prevent contaminated media from impacting MS4 during construction. (Refer to SWMPP Section C for applicable standards and milestones.)	Confirmation: <ul style="list-style-type: none"> <li>BMPs installed and maintained.</li> </ul>	Annual

In Table 3, the DOTA has set goals for the hydrocarbon plan above the minimum control measures listed in Table 2. These goals provide a more complete evaluation of the effectiveness of program activities and will be used to make changes to the program where necessary. These goals will be reported separately in the annual report and may or may not be met depending upon several variables, including available manpower and funding for a particular year.

**TABLE 3: HYDROCARBON PLAN GOALS AND EVALUATION METHODS**

SWMPP Reference	Activity	Goals	Evaluation Method	Outcome Category	Timeframe
Section G, 2.3.1	Aolele Street Plume	Conduct remediation activities for the area of known contamination on Aolele Street. <ul style="list-style-type: none"> <li>Reduction in percentage of fuel recovered in the groundwater.</li> </ul>	Tabulation: <ul style="list-style-type: none"> <li>Gallons of fuel recovered.</li> </ul>	1, 4	Annual
			Tabulation: <ul style="list-style-type: none"> <li>% reduction in fuel recovered as compared to groundwater pumped.</li> </ul>	4	Annual
Section G, 2.3	Contaminated Media BMPs	Conduct construction inspections per SWMPP Section C to ensure all contaminated media are properly managed.	Tabulation: <ul style="list-style-type: none"> <li># of construction sites with contaminated media.</li> </ul>	1-2	Annual