

State of Hawaii
Department of Transportation – Airports Division
Standard Operating Procedures

Stormwater Requirements for Construction Plan Design and Review
For Designers

PURPOSE

This procedure establishes a standard for conducting environmental reviews of construction plans, specifications, and related documents for the State of Hawaii, Department of Transportation, Airports Division (DOTA) Projects and Tenant Improvements Project at all airports, Statewide. Furthermore, this procedure provides guidance for the Designers on compliance with applicable stormwater regulations including construction and post-construction best management practices (BMPs), training requirements, and permitting. All related construction documents and forms can be found on DOTA’s environmental website:

<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program/>

DEFINITIONS

<i>AIR-EE</i>	State of Hawaii, Department of Transportation, Airports Division, Environmental Section
<i>AST</i>	Aboveground Storage Tank
<i>BMP</i>	Best Management Practice – Devices or procedures that will be implemented to mitigate impacts to the environment from industrial and construction activities.
<i>CM</i>	DOTA Construction Manager or Tenant’s Construction Manager.
<i>DOH</i>	State of Hawaii, Department of Health – The State agency that administers the Clean Water Act, on behalf of the United States Environmental Protection Agency (EPA).
<i>DOTA</i>	State of Hawaii, Department of Transportation, Airports Division
<i>EID</i>	Environmental Identification Numbers
<i>EPA</i>	United States Environmental Protection Agency – The Federal agency that oversees the Clean Water Act.
<i>HAR</i>	Hawaii Administrative Rules – HAR Chapters 11-54 and 11-55 define water quality standards and provide details on the administration of National Pollutant Discharge Elimination System (NPDES) permits in Hawaii. Also, HAR 11-23 defines Underground Injection Controls (UIC).
<i>HNL</i>	Daniel K. Inouye International Airport, Island of Oahu.
<i>LID</i>	Low Impact Development – Stormwater management practices which seek to mimic predevelopment hydrology by minimizing disturbed areas and impervious cover, and infiltrating, storing, detaining, evaporating, and/or biotreating stormwater runoff close to its source.
<i>MS4</i>	Municipal Separate Storm Sewer System – A conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains.
<i>NOI</i>	Notice of Intent – NPDES Permit application with the State of Hawaii, Department of Health.
<i>NPDES</i>	National Pollutant Discharge Elimination System – This Clean Water Act program is administered in Hawaii by the State of Hawaii, Department of Health and is a permit program created to help address water pollution by regulating point sources that discharge pollutants to U.S. waters. Construction activities that disturb one (1) acre or more of total land area (project

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site plus staging areas) or activities that disturb less than one (1) acre of total land area that are part of a larger common plan of development are required to obtain an NPDES permit.

<i>OGG</i>	Kahului Airport, Island of Maui.
<i>PBMP</i>	Permanent Best Management Practices – Permanent devices, source control methods, or Low Impact Developments (LIDs) designed to improve water quality after construction is completed. PBMPs are implemented to mitigate impacts to the environment from industrial and construction activities and/or reduce stormwater volume.
<i>SIC Code</i>	Standard Industrial Classification Code – A U.S. Government system of classifying business establishments to identify the primary business of the establishment.
<i>SPCC</i>	Spill Prevention, Control, and Countermeasure
<i>SPM</i>	State Project Manager – DOTA’s Engineer assigned to administer the project on behalf of DOTA. For DOTA projects, this is the Division Engineer. For Tenant Improvement Projects (TIPs), this is the District Engineer.
<i>SSBMP Plan</i>	Site Specific Best Management Practices Plan – A site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at a construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from a construction site; and (3) identifies procedures the permittee will implement to comply with the terms and conditions of HAR, Chapter 11-55, Appendix C. It is also known as a Stormwater Pollution Prevention Plan (SWPPP).
<i>SWMPP</i>	Stormwater Management Program Plan – DOTA’s plan designed to address the requirements of the Municipal Separate Storm Sewer System (MS4) Permit and reduce, to the maximum extent possible, the discharge of pollutants to and from the MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act.
<i>SWPCP</i>	Stormwater Pollution Control Plan – A site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at an industrial facility and operation; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from an industrial facility and operation; and (3) identifies procedures the permittee will implement to comply with the terms and conditions of HAR, Chapter 11-55, Appendix B.
<i>SWPPP</i>	Stormwater Pollution Prevention Plan – A site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at a construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from a construction site; and (3) identifies procedures the permittee will implement to comply with the terms and conditions of HAR, Chapter 11-55, Appendix C. It is also known as an <i>SSBMP Plan</i> .
<i>TIP</i>	Tenant Improvement Project – Projects that are developed by tenants on airport property for facilities which the tenant operates.
<i>UIC</i>	Underground Injection Control
<i>UST</i>	Underground Storage Tank

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PROCEDURES

Step 1: Determine if the construction project is exempt from review

The following projects are exempt from the construction review process.

- Interior renovations, provided the staging area is less than one acre.
- Minor land disturbance activities (maximum ¼ acre disturbed) performed on a single lot (such as minor landscaping activities).
- Milling and replacement of pavement surfaces of runways, taxiways, or other paved (parking lots and driveway) areas that do not expose the underlying base course or subgrade material.
- Post or pole installation.
- Utility Repair Work.

However, it should be noted that these exempt projects are still required to implement BMPs and ensure that construction activities do not impact the storm drainage system or stormwater runoff. Additionally, these projects will still need to include DOTA Specifications 01561 Construction Site Runoff Control Program and 01562 Management of Contaminated Materials.

Step 2: Determine the total amount of disturbed land associated with the project.

The disturbed land total must include all construction support activities into the total (i.e. staging areas, equipment storage, stockpile storage areas, construction office trailer, etc.).

Step 3: Compile Construction Project Review Package

Project Designers will develop construction plans and specifications and complete all necessary paperwork. This will differ slightly depending on the project total acreage (1 acre and greater or less than one acre).

3A. Requirements for all projects regardless of size:

1. Construction Plans and Specifications

These documents shall be provided to AIR-EE for review at the 60% submittal package, but no later than at the 90% submittal package. They shall include, but are not limited to, the following (as applicable):

- a. Project Location Map, including (as applicable) project limits; areas for construction support activity areas (i.e., contractor's staging and storage yards; sediment, soil or other construction material stockpile areas; chemical storage; vehicle/equipment parking areas; temporary batch plant yards; etc.); access routes to the project site if using unpaved roadways or within the Air Operations Area (AOA); and nearby landmarks, roads, canals, and surface waters. The boundaries or limits for all construction support activities shall be identified in the construction plans.
- b. All Construction Notes, including, but not limited to, General Notes, Grading Notes, and Environmental Notes.
- c. All Civil, Demolition, Grading, and Drainage Plans and Details.

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- d. Erosion and Sediment Control Plans and Details with site-specific temporary BMP measures, including areas designated for construction support activities.
 - e. Plans and Details of PBMPs. Include a report that summarizes and describes each of the PBMPs (e.g., type, maintenance requirements from manufacturer, maintenance contracts prior to turnover to the State, etc.), indicating the corresponding project drawing sheets and specifications that refer to the individual PBMP.
 - f. Permanent Landscaping Plans, Details, and Specifications.
 - g. The Project Specifications, including the latest version of Section 01561 Construction Site Runoff Control Program (with Construction BMP Field Manual included) and Section 01562 Management of Contaminated Materials.
2. Stormwater Pollution Prevention Plan (SWPPP) or Site-Specific Best Management Practices Plan (SSBMP Plan).
- a. This document is required to be included within the NOI-C.
 - b. Please reference HAR Chapter 11-55, Appendix C, Section 7 for general requirements.
 - c. Please reference DOTA's Construction Activities BMP Field Manual for additional requirements and practices.
 - d. Include the flow pattern/paths for the area. Show all storm drains or other drainage structures present in the area and reference/label these structures with their Environmental Identification Numbers (EIDs).
 - e. Include Erosion and Sediment Control Plans and Details with site-specific temporary BMP measures, including areas for construction support activities.
 - f. Include a narrative description of the BMPs to be used during land-disturbing activities and pollution prevention control measures with their maintenance requirements.
 - g. Include Training Requirements and Compliance. All designers and contractors must watch the *Construction BMP Training Video* on DOTA's environmental website and complete the *Construction BMP Quiz* annually. Records of the completion of all training requirements must be included in the SWPPP.
 - h. Include the anticipated construction schedule.
 - i. For reference, EPA provides general guidelines for the development of a SWPPP, with a template on their website (<https://www.epa.gov/npdes/developing-stormwater-pollution-prevention-plan-swppp>). However, the information will need to be customized to be project-specific, and include DOH and/or DOTA requirements, which may be more comprehensive and stringent than EPA.
3. DOTA Permit to Discharge into the State Airport Drainage System Relating to Construction Projects.

DOTA and TIP construction projects that include a utility connection (installation of new drainage structures or modifications/removals of existing drainage structures) to airport drainage systems, hydro-testing, or dewatering must obtain a *DOTA Permit to Discharge into the State Airport Drainage System Relating to Construction Projects*. Additionally, DOTA

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construction projects at OGG and HNL, and TIPs at all airports, that include stormwater discharges from sheet flow, must also obtain a *Permit to Discharge into the State Airport Drainage System Relating to Construction Projects*.

4. *DOTA Contaminated Soil and Groundwater Review Form*

All DOTA and TIP projects that include ground disturbing activities, which includes exposing base course, shall submit the *DOTA Contaminated Soil and Groundwater Review Form* (see Appendix B) to AIR-EE. The DOTA's environmental consultant will review the form and provide any comments back to AIR-EE and the Requestor.

5. *NPDES Notice of Intent (NOI), NPDES permit application, UIC Permits, or other permit applications, as applicable.*

- a. NOIs are required for the following activities:
 - i. Discharges of Hydro-Testing Waters (Appendix F).
 - ii. Discharges Associated with Construction Activity Dewatering (Appendix G).
- b. UIC Permit application, if applicable
 - i. Required for new UIC wells or modifications or demolishing current UIC wells.
 - ii. The permit application will need to include the current UIC Permit number for the subject airport.
 - iii. Contact information to allow AIR-EE to obtain more information, if necessary.
 - iv. Underground Storage Tank (UST) Proposals.

The installation of USTs shall not be allowed.

3B. Additional Requirements for Projects Equal or Greater Than One Acre:

1. *Design Review Checklist Form*

The Designer shall submit the *Design Review Checklist* at the 60% Submittal, and an updated *Design Review Checklist*, if applicable, at the 100% Submittal.

a. *PBMP Requirements (included in Design Review Checklist Form) for OGG and HNL*

- i. In order to streamline PBMP selection and maintenance considerations, DOTA has developed a list of preferred PBMPs that is periodically updated in the Storm Water Permanent BMP Manual which is available on DOTA's website.
- ii. DOTA has incorporated LID standards into the *Stormwater Permanent BMP Manual* as required by HNL's and OGG's Small MS4 NPDES Permits. As practical as possible, provide three basic design strategies to incorporate LID strategies in the construction plans and specifications. These strategies shall include:
 - a. Minimize Disturbed Areas;
 - b. Minimize Impervious Areas; and
 - c. Managing Stormwater Near the Source.
- iii. Operations and Maintenance of Permanent BMP Devices:
A cost analysis for the operation and maintenance for PBMP device design alternatives shall be included to aid in selecting the appropriate device.

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For DOTA projects, AIR-EE will require at minimum one (1) year, but not more than two (2) year warranty on the PBMP device, service, maintenance program, and training of DOTA maintenance personnel, where applicable.

For TIPs, the tenant will be responsible for operations and maintenance of the PBMPs on their leased spaces (e.g., vegetated swales, pervious pavement, etc.).

2. National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI), NPDES permit application for Discharges of Stormwater Associated with Construction Activities (Appendix C).
 - a. The NOI-Appendix C (NOI-C) shall include construction support activity areas, (e.g., construction staging and storage areas), used for the construction of the project. If the project area increases and/or additional construction support activity areas are determined during construction, a separate or amended NOI-C must be processed.
 - b. The NOI must first be reviewed and accepted by AIR-EE. Signed NOIs are then submitted to DOH. For DOTA projects, the NOI must be signed by the Director of the State of Hawaii, Department of Transportation or the authorized representative (Airport Deputy Director). For Tenant projects, the tenant can sign as the project owner.

3C. Additional Requirements for Projects Less Than One Acre:

1. *Notification Form for Sites Disturbing Less Than One Acre*

Notes:

If, at any time, the combined total disturbed area of the project area including the construction support activity areas equals to or exceeds one (1) acre, then, go back to **3B**, and follow steps for Projects equal to or greater than one acre (see above).

If the combined total disturbed area of the project area with the construction support activity areas is less than one acre, but is part of a larger common plan of development that will ultimately disturb one acre or more of total land, then go back to **3B**, and follow steps for Projects equal to or greater than one acre (see above).

Step 4: Pre-Design or Design Meetings

A meeting/discussion between the Designers, Tenant (if applicable), SPMs, and AIR-EE may be scheduled at any time to ensure that all applicable environmental requirements are addressed and designs have considered the inclusion of PBMPs or storm drain retrofits, where feasible. Additional information pertaining to HNL's and OGG's Stormwater Management Program Plans (SWMPPs) can also be found at <http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/>

Step 5: Submit the Construction Project Review Package

The Designers or Tenant shall complete the appropriate document checklist for Construction Project Review Package. See Attachment A.

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The Designers or Tenant shall route the *Construction Project Review Package*, with the appropriate document checklist form, to their SPM. For DOTA projects, the SPM is the Division Engineer. For TIPs, the SPM is the District Engineer.

Note: The review of the Construction Project Review Package is performed for the exclusive benefit of the State. The review does not relieve the Designer and Contractor of obligations to fulfill the contract as prescribed and in compliance with local, State, and Federal Rules, Regulations, and Laws.

Step 6: Airports Division Review

AIR-EE will review the Construction Project Review Package for compliance with DOTA’s Environmental Programs. All comments, errors, omissions, discrepancies, and data that are discovered during the review process will be listed onto the *Airports Division Review Comments* sheet.

The *Airports Division Review Comments* sheet will be routed back to the Designer or Tenant of the *Construction Project Review Package*, who shall properly revise, correct, and/or edit the project documents.

The Designer or Tenant shall complete the “Response” column on the *Airports Division Review Comments* sheet, noting whether the comment has been addressed or why the comment has not been addressed. The updated *Airports Division Review Comments* sheet, along with the revised *Construction Project Review Package*, shall be submitted to the SPM for additional review by AIR-EE.

This process will be repeated, as needed.

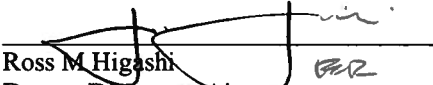
After all comments on the *Airports Division Review Comments* sheet have been properly addressed, the Reviewer will close the review and sign the *Airports Division Review Comments*.

Step 7: Plan Review

The review of the project plan and specifications shall be considered completed when all the following are achieved.

1. Complete *Construction Project Review Package* with the signed *Airports Division Comment Review* sheet.
2. The *Design Review Checklist* for Projects Disturbing One Acre or More, or the *Notification Form for Sites Disturbing Less Than One Acre* for Projects Disturbing Less Than One Acre, whichever is applicable, is signed by AIR-EE.
3. *Permit to Discharge into the State Airport Drainage System Relating to Construction Projects*, if applicable, is signed by AIR-EE.
4. NOI Application(s) are reviewed by AIR-EE and signed by the Director of the State of Hawaii, Department of Transportation.

STEP 8: STANDARD OPERATING PROCEDURES APPROVAL


Ross M Higashi
Deputy Director – Airports
State of Hawaii, Department of Transportation

5.12.19
Date

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Attachment A

**Document Checklists
For
Construction Project Review Package**

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Attachment B

**DOTA Contaminated Soil and Groundwater
Review Form**

**Construction Project Review Package
For
PROJECTS EQUAL TO OR GREATER THAN ONE ACRE**

Project No. & Title:	
Designer/Tenant:	
Designer/Tenant Email:	
DOTA Project Manager:	
Date:	

This checklist is to be completed by the Project Designer or Tenant and submitted to the DOTA Project Manager with the items indicated on the list, below.

A full description of each item may be found on DOTA’s Construction Site Runoff Control Program Webpage (<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program/>) in the *Standard Operating Procedures for Construction Plan Design and Review* document.

Item	SUBMITTED?			Comments (Is this a revision?)
	YES	NO	N/A	
1. Design Review Checklist Form	<input type="checkbox"/>	<input type="checkbox"/>		
2. DOTA Contaminated Soil & Groundwater Review Form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Construction Plans and Specifications	<input type="checkbox"/>	<input type="checkbox"/>		
4. National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI), NPDES permit application, or other permit applications under HAR 11-55.				
a. Appendix C, Discharges of Stormwater Associated with Construction Activities.	<input type="checkbox"/>	<input type="checkbox"/>		
b. Appendix F, Discharges of Hydro-Testing Waters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Appendix G, Discharges Associated with Construction Activity Dewatering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Other Permits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Stormwater Pollution Prevention Plan (SWPPP) or Site-Specific Best Management Practices Plan (SSBMP Plan).	<input type="checkbox"/>	<input type="checkbox"/>		

**Construction Project Review Package
For
PROJECTS EQUAL TO OR GREATER THAN ONE ACRE**

Item	SUBMITTED			Comments (Is this a revision?)
	YES	NO	N/A	
6. DOTA Permit to Discharge into the State Airport Drainage System Relating to Construction Projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Underground injection control (UIC) permit application(s), if applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Anticipated Schedule	<input type="checkbox"/>	<input type="checkbox"/>		
9. Other Information and Documents	<input type="checkbox"/>	<input type="checkbox"/>		

ADDITIONAL NOTES:

**Construction Project Review Package
For
PROJECTS LESS THAN ONE ACRE**

Project No. & Title:	
Designer/Tenant:	
Designer/Tenant Email:	
DOTA Project Manager:	
Date:	

This checklist is to be completed by the Project Designer or Tenant and submitted to the DOTA Project Manager with the items indicated on the list, below.

A full description of each item may be found on DOTA’s Construction Site Runoff Control Program Webpage (<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program/>) in the Standard Operating Procedures for Construction Plan Design and Review document.

Item	SUBMITTED?			Comments (Is this a revision?)
	YES	NO	N/A	
1. Notification Form for Sites Disturbing Less Than One Acre.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. DOTA Contaminated Soil & Groundwater Review Form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Construction Plans and Specifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI), NPDES permit application, or other permit applications under HAR 11-55.				
a. Appendix F, Discharges of Hydro-Testing Waters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Appendix G, Discharges Associated with Construction Activity Dewatering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Other Permits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Stormwater Pollution Prevention Plan (SWPPP) or Site-Specific Best Management Practices Plan (SSBMP Plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Construction Project Review Package
For
PROJECTS LESS THAN ONE ACRE**

Item	SUBMITTED			Comments (Is this a revision?)
	YES	NO	N/A	
6. DOTA Permit to Discharge into the State Airport Drainage System Relating to Construction Projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Underground injection control (UIC) permit application(s), if applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Anticipated Schedule	<input type="checkbox"/>	<input type="checkbox"/>		
9. Other Information and Documents	<input type="checkbox"/>	<input type="checkbox"/>		

ADDITIONAL NOTES:



Request No.: _____

State of Hawaii Department of Transportation – Airports Division Contaminated Soil and Groundwater Review Form

Instructions:

1. Requestor (e.g., HDOT-AIR Project Engineer) will complete Section 1 of the Contaminated Soil and Groundwater Review Form and submit to Airports Division Environmental section (AIR-EE).
2. AIR-EE will forward request to Consultant at Environmental@esciencei.com.
3. Environmental Consultant will review the HDOT-AIR Environmental Database and complete Section 2 of the Contaminated Soil and Groundwater Review Form.

If you have any questions, contact the Environmental Consultant by email: Environmental@esciencei.com, or Phone: (808) 261-0740 and request HDOT-AIR Environmental Consultant.

SECTION 1. To Be Completed By Requestor

Requestor: _____ Date: _____

Project Engineer: _____

Email: _____ Phone: _____

Department: _____

Title: _____

Project No: _____

Project Name: _____

Brief Description of Project and Location (provide coordinates, address, or attach site plans):

SECTION 2. To Be Completed By Environmental Consultant

ESI Reviewer: _____ Date: _____

Email: _____ Phone: _____

Contaminated Soil or Groundwater Documented in Project Area (Yes/No): _____

Comments:

Attached Documents: