

Stormwater Management Plan

Discharges of Stormwater and Certain Non-Stormwater
Discharges from a Small MS4 (HAR §11-55, Appendix K)
Daniel K. Inouye International Airport (HNL), Oahu
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STATE OF HAWAII, DEPARTMENT OF
TRANSPORTATION, AIRPORTS
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819-1880



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List of Acronyms

AIR-E	Airports Engineering Branch
AIR-EE	Airports Engineering Branch, Environmental Section
AIR-I	Airports Information Technology Office
AIR-LS	Airports Certification, Security and Safety Specialist
AIR-O	Oahu District Airport Manager
AIR-PM	Airports Property Management
AOA	Airport Operations Area
ARFF	Aircraft Rescue and Firefighting
BMP	Best Management Practice
CDS	Continuous Deflective Separation
CFR	Code of Federal Regulations
CWA	Clean Water Act
DOH	State of Hawaii, Department of Health
DOH-CWB	State of Hawaii, Department of Health, Clean Water Branch
DOH-HEER	State of Hawaii, Department of Health, Hazard Evaluation and Emergency Response
DOT	State of Hawaii, Department of Transportation
DOTA	State of Hawaii, Department of Transportation, Airports
EID	Environmental Identification
EPA	U.S. Environmental Protection Agency
FOD	Foreign Object Debris
GIS	Geographic Information System
GPS	Global Positioning System
HAR	Hawaii Administrative Rules
HDS	Hydrodynamic Separator
HNL	Daniel K. Inouye International Airport
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OWS	Oil Water Separator
PBMP	Permanent or Post-Construction Best Management Practice
PSA	Public Service Announcement
SPM	State Project Manager
SSBMP	Site-Specific Best Management Practice
SWMP	Stormwater Management Plan
SWPCP	Stormwater Pollution Control Plan
SWPPP	Stormwater Pollution Prevention Plan
TIP	Tenant Improvement Project

1 Introduction and Program Management

1.1 BACKGROUND

Under the CWA NPDES program, the EPA regulates stormwater discharges from select MS4s.¹ An MS4 is defined by the EPA as a conveyance, or system of conveyances, designed to collect or move stormwater off the land. Components of an MS4 may include streets, runways, taxiways, catch basins, curbs, gutters, ditches, and storm drains. Stormwater, usually untreated, is transported through MS4s and discharged to local waterbodies.

HNL is categorized as a regulated “Non-Traditional Small MS4.” The boundary of the Small MS4 generally includes the entire HNL property (Figure 1).

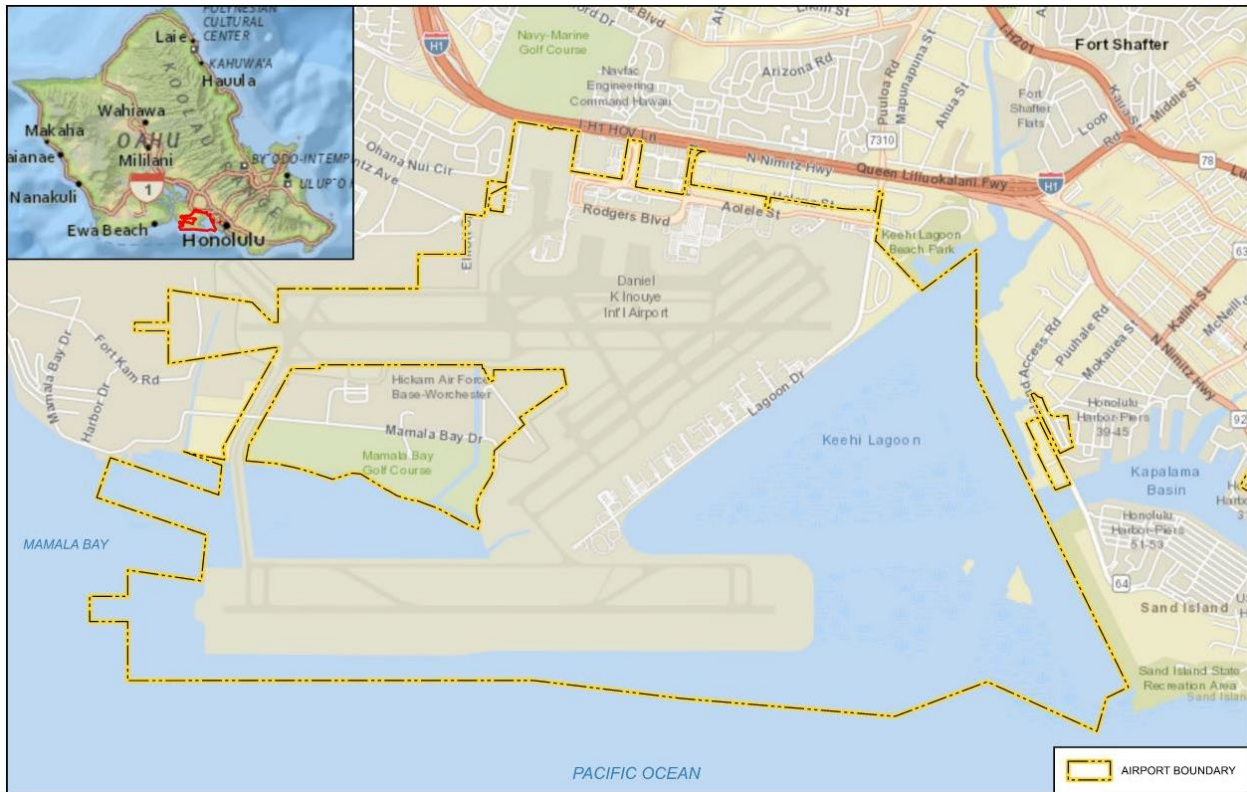


Figure 1: HNL Location Map.

DOTA owns HNL, which is operated within Oahu District. HNL consists of 4,520 acres of land on the southern portion of the island of Oahu. Hickam Air Force Base is west of HNL; Keehi Lagoon, Kalihi Kai, and Sand Island are to the east; Ualena Street and North Nimitz Highway are to the north; an industrial area off Lagoon Drive and Keehi Lagoon Beach Park are to the northeast; and Mamala Bay and the Pacific Ocean are to the south. Two State waters, Manuwa Canal generally running from north to south located east of the terminals, and Kaloaloha Stream (also known as Kaloaloha Canal) running along the northern edge of the HNL property, occur within the HNL property (Figure 2). Other waterbodies within

¹ <https://www.epa.gov/enforcement/water-enforcement>

the HNL property include the South Ramp Canal located north of the southernmost runway, a drainage canal west of Runway 4L-22R, and a drainage canal east of Terminal 2.

Activities at HNL are primarily aircraft operations, including air carrier, air taxi, general aviation, and military use. Multiple Federal Government agencies are located within the airport complex, including Joint Base Pearl Harbor Hickam (JBPHH). JBPHH and HNL operate as a joint use facility and share runways and taxiways. HNL is the busiest airport in the State of Hawaii and consists of four active runways and associated taxiways, seaplane landing area, three terminals, air carrier facilities, general aviation facilities, and two ARFF stations.



Figure 2: HNL Airport Boundary and Drainage Network.

In Hawaii, NPDES program management is delegated by the EPA to the DOH-CWB, which administers the program under HAR Chapter 11-55, Water Pollution Control. DOH’s HAR 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” (“MS4 Permit”), was renewed on January 15, 2022. Applicants for coverage under the MS4 Permit must meet the requirements of Appendices A and K of HAR 11-55.

This SWMP is in conjunction with DOTA’s NOI for coverage under the MS4 Permit for HNL. The SWMP is intended to reduce the discharge of pollutants from the regulated MS4 to the MEP to protect receiving water quality and satisfy the requirements of the CWA. The SWMP focuses on the implementation of measures to prevent pollution from entering the regulated MS4.

1.2 MS4 PERMIT REQUIREMENTS

This SWMP is intended as a guide for DOTA’s protection of stormwater quality through the reduction of pollutant discharge while balancing the different uses and demands of the airport. The MS4 Permit requires the SWMP to include the six MCMs identified in each section hereafter. DOTA has prepared many useful supporting documents, with many of these items, including more detailed program descriptions, guidance manuals, checklists, educational materials, and other stormwater-related information, available on the DOTA Environmental webpage.² These documents are updated by DOTA if warranted by facility or operational changes, or as new information becomes available.

1.3 MEASURABLE GOALS

For each of the six MCMs, this SWMP outlines measurable goals for the MS4 Permit program, and against which program compliance and effectiveness can be gauged. Measurable goals are selected to address the requirements and intent of the MCM to the MEP.

According to the EPA³, “MEP is a standard that establishes the level of pollutant reductions that MS4 operators must achieve through implementation of a stormwater management program.” The EPA allows that the strategies appropriate for each regulated MS4 will depend on unique local hydrologic, geologic, and water quality concerns. They recommend that permittees determine appropriate BMPs to satisfy each of the MCMs.

This SWMP contains a discussion of actions and BMPs proposed under each of the six MCMs. Following each section of the SWMP is a table with measurable goals and a proposed implementation schedule for each item.

1.4 REPORTING REQUIREMENTS

This SWMP outlines the activities to be performed and tracked during the MS4 Permit term. The MS4 Permit reporting requirements are as follows:

- The submittal of an annual report by the permittee shall be received by the DOH by the twenty-eighth day of January of the following year. The annual report shall cover each calendar year during the term of the MS4 Permit and include the following:
 - Status of compliance with the terms and conditions of the MS4 Permit;
 - Assessment of the effectiveness of each component of the SWMP, including the status of achieving the measurable goals for each BMP; and
 - Summary of the stormwater activities planned to be undertaken during the next calendar year.

1.5 SWMP MODIFICATIONS

The MS4 Permit states that any modifications to the BMPs and measurable goals will require submittal of a new NOI, unless clearly accounted for in the SWMP. DOTA conducted minor grammatical and

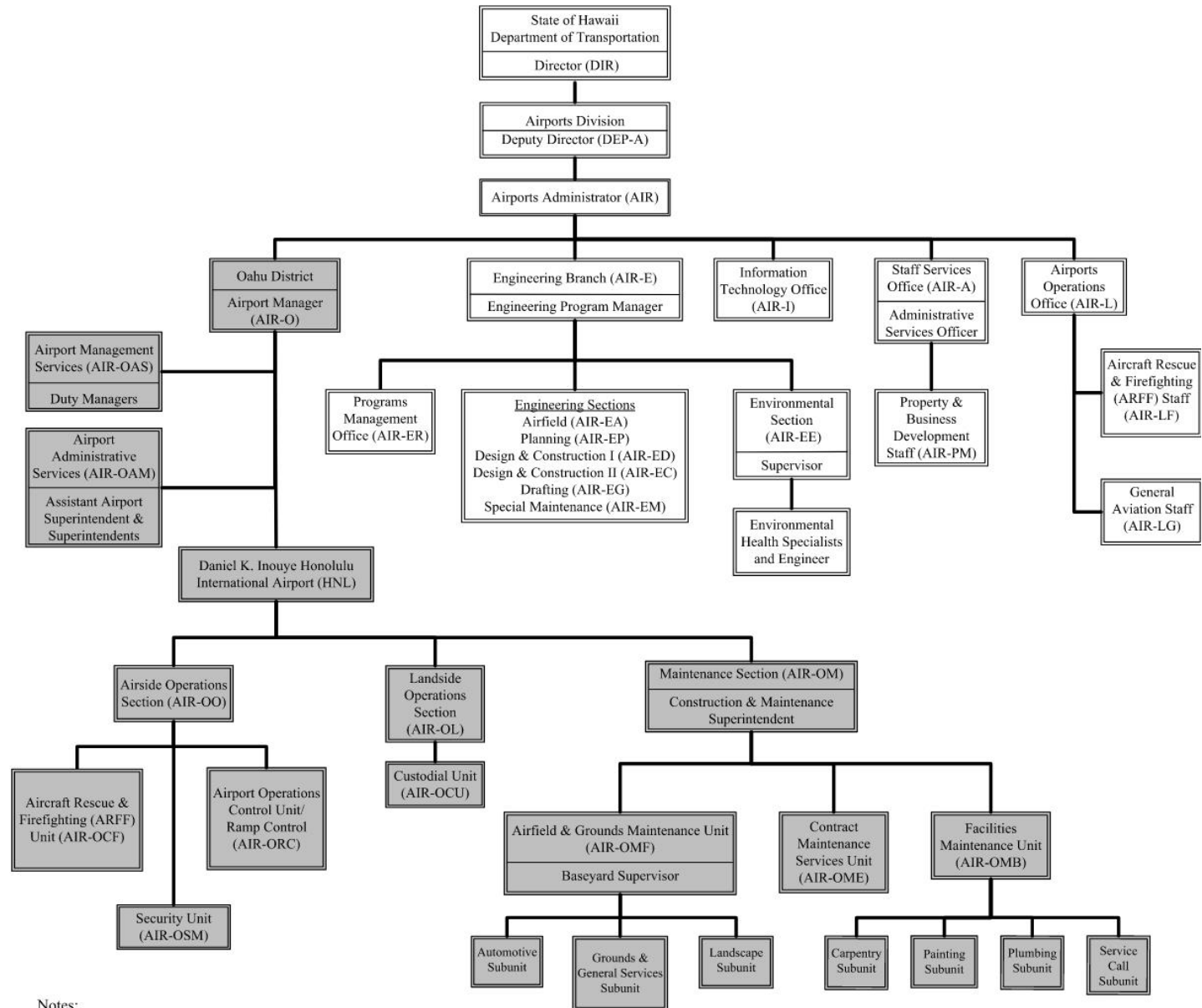
² <https://hidot.hawaii.gov/airports/doing-business/engineering/environmental/>

³ EPA. Measurable Goals Guidance for Phase II Small MS4s. Retrieved from <https://www3.epa.gov/npdes/pubs/measurablegoals.pdf>

clarification modifications to the SWMP in December 2023 and May 2024; the revisions did not include modifications to the BMPs or measurable goals.

1.6 ROLES AND RESPONSIBILITIES OF DOTA

DOTA is the designated applicant and is responsible for the preparation, coordination, and management of this SWMP. The implementation of the SWMP is administered by AIR-EE with the support of various parties from each program element (Figure 3). In general, DOTA is separated into operational groups and sections, which oversee activities at airports throughout the State of Hawaii. District offices oversee activities for airports only within their specific county (in this case, Oahu District). A comprehensive SWMP is possible only through the cooperative efforts of the DOTA's operational groups and sections with a potential stormwater impact.



Notes:
 "District" offices are shaded.
 This is not a full organizational chart.
 Offices were not included that do not have direct SWMP responsibilities.

Figure 3: DOTA Organization Chart.

The parties responsible for SWMP implementation and their respective responsibilities are described in Table 1.

Table 1: SWMP Compliance Responsibilities

Party	Responsibilities
DOT Director	<ul style="list-style-type: none"> • Authority on the HNL MS4 Permit. • Signatory certifying construction projects and environmental submittals on behalf of DOTA. • Supports enforcement actions. • Coordinates with DOH at Director level, if needed.
AIR-EE	<ul style="list-style-type: none"> • Manages the HNL Small MS4 NPDES permit, SWMP, HNL Industrial NPDES permit, and SWPPP. • Facilitates training and education for various program components. • Manages and updates tenant lists for environmental BMP inspections. • Conducts environmental BMP inspections at construction sites, tenant areas, and DOTA facilities. • Approves DOTA Tenant Agreement for Compliance with State Airport Drainage System. • Reviews and approves construction designs and related documents for BMPs and PBMPs. • Investigates illicit discharges and spill responses. • Coordinates and manages erosion control and trash reduction projects. • Provides contract oversight for HNL Small MS4 maintenance. • Inspects various HNL Small MS4 structures and tracks data. • Collects stormwater samples and analyzes results. • Tracks and creates EIDs for PBMPs and drainage structures. • Enters and tracks maintenance and other HNL Small MS4 related data into the database. • Executes enforcement actions. • Manages other environmental requirements at HNL. • Coordinates with various DOTA sections and District Office personnel.
Oahu District Airport Manager	<ul style="list-style-type: none"> • Coordinates with AIR-EE to support training, reporting, inspections, and enforcement. • Assists with distribution of Airport Notices. • Oversees and provides final approval for TIPs.
Oahu District Airport Maintenance Baseyard	<ul style="list-style-type: none"> • Facilitates maintenance baseyard compliance with pollution prevention measures. • Implements BMPs for maintenance, chemical application, and street sweeping. • Provides reporting data to AIR-EE. • Participates in training. • Oversees vegetated PBMP maintenance.
AIR-E and Oahu District Engineer	<ul style="list-style-type: none"> • Manages DOTA construction projects. • Reviews/approves construction related procedures and documents as related to HNL’s SWMP and supporting documents.

Party	Responsibilities
	<ul style="list-style-type: none"> • Facilitates construction design review with AIR-EE. • Facilitates DOTA construction project conformance with SWMP/BMPs/Applicable Permits. • Facilitates proper notification and management of contaminated media. • Supports construction enforcement. • Supports construction enforcement for TIP. • Participates in training.
Construction Managers	<ul style="list-style-type: none"> • Oversees contractors and assists AIR-E with management of DOTA projects. • Conducts weekly inspections of DOTA projects. • Submits inspection reports to SPMs and AIR-EE. • Coordinates corrective actions identified during inspections. • Oversees the collection of GIS/CAD data for drainage structures installed during construction projects. • Oversees the installation of PBMPs. • Assists with construction enforcement. • Assists with compliance of other construction site environmental issues (i.e., contaminated media, etc.). • Participates in training.
AIR-PM	<ul style="list-style-type: none"> • Responsible for the execution and termination of lease agreements and revocable permits. • Manages the tenant database (Oracle Financial/Propworks). • Tracks leases, new lease agreements, and terminated leases. • Distributes information to new tenants.
AIR-LS	<ul style="list-style-type: none"> • Assists with inspection and enforcement related to spills and leaking equipment/vehicles in common use areas.
ARFF	<ul style="list-style-type: none"> • Assists with spill responses. • Participates in training.
AIR-I	<ul style="list-style-type: none"> • Updates website. • Manages DOTA GIS database. • Provides support for Veoci.
Veoci	<ul style="list-style-type: none"> • An electronic database system that assists with implementation and customization of software for efficiently tracking environmental assets, inspections, training, and other operational tasks.
DOH-CWB	<ul style="list-style-type: none"> • Regulatory agency for HNL MS4 permit. • Assists DOTA with enforcement activities when necessary.
DOH-HEER	<ul style="list-style-type: none"> • Regulatory agency for contaminated media. • Assists DOTA on guidance related to contaminated media identified at construction sites. • Reviews and approves construction documents relating to contaminated media.
Project Designers	<ul style="list-style-type: none"> • Prepares construction plans, and SWPPP/BMPs in conformance with HAR Chapter 11-55, HNL MS4 permit, SWMP, and DOTA BMP guidance. • Includes PBMPs in construction plans, where applicable.

Party	Responsibilities
	<ul style="list-style-type: none"> • Submits design documents for review by DOTA and addresses DOTA’s review comments. • Obtains applicable NPDES and other permits related to construction. • Participates in training.
AIR-EE Environmental Consultant	<ul style="list-style-type: none"> • Assists DOTA in meeting requirements of HNL’s Small MS4 and Industrial NPDES General Permit coverage and other environmental regulations.
Construction Contractors	<ul style="list-style-type: none"> • Implements SWPPP/BMPs in accordance with HAR Chapter 11-55, HNL MS4 permit, SWMP, and DOT BMP guidance. • Obtains applicable NPDES and other permits related to construction. • Updates SWPPP/BMPs as necessary. • Conducts self-inspections as required. • Ensures staff are trained on SSBMPs. • Maintains documentation (SWPPP, NPDES permits, Construction Connection, Discharge and Surface Runoff Permit, inspection reports, training records). • Ensures representatives are available during inspections. • Promptly addresses findings from DOTA inspections. • Stabilizes all exposed land in accordance with the approved plans upon project completion. • Implements PBMPs and provides PBMP information and O&M Plans. • Provides as-builts drawings for new and modified storm drain systems and PBMPs, including GPS coordinates for new or modified storm drain systems and PBMPs. • Manages environmental issues as they arise (i.e., contaminated media management and removal, asbestos, etc.). • Participates in training.
Drainage System Maintenance Contractor	<ul style="list-style-type: none"> • Provides inspection and cleaning of storm drains (i.e., drainage manholes, catch basins, inlets, box culverts, outfalls, head walls, and trench drain lines). • Provides cleaning and operational maintenance service to DOTA owned PBMPs (e.g., OWS, CDS/HDS units, and evaporation ponds). • Labels EIDs adjacent to storm drains. • Stencils storm drain inlets and catch basins. • Inspects and maintains canals.
Tank, Material Storage, Waste, and Chemical Management Contractor	<ul style="list-style-type: none"> • Provides waste materials, used oil, used batteries, and e-waste disposal services. • Provides aboveground storage tank, underground storage tank, and material storage inspections as well as maintenance/repairs.
Tenants	<ul style="list-style-type: none"> • Responsible for implementing BMPs at their location to reduce or eliminate potential pollutants associated with their operations. • Participates in training. • Applies for DOH Industrial NPDES regulatory permits and other Federal, State and local permits, if applicable.

Party	Responsibilities
	<ul style="list-style-type: none"> • Maintains applicable permit related documents. • Ensures representatives are available during inspections. • Promptly addresses findings from DOTA inspections.
Airport Security	<ul style="list-style-type: none"> • Provides airport security.
Duty Managers / Ramp Control	<ul style="list-style-type: none"> • Inspect ramp areas. • Responds to spill incidents. • Participates in training.

1.7 COORDINATION WITH OTHER PERMITTEES

Both DOT Harbors and Highways Divisions also have NPDES MS4 permit coverage for their facilities on the island of Oahu. As such, DOTA exchanges information with both Divisions to cultivate mutually beneficial relationships that drive the entire DOT toward meeting program objectives. City and County of Honolulu is the primary MS4 permittee on the island of Oahu, and their MS4 lies immediately north of and connects into HNL’s MS4 at numerous locations. DOTA has also established relationships with other permittees, as opportunities arise to benefit HNL and other programs.

2 Airport User Education and Outreach

2.1 MS4 PERMIT REQUIREMENT

The MS4 Permit requires an operator of a regulated small MS4 to develop and implement a public education program to distribute educational materials to users of the permittee’s small MS4 or to conduct equivalent outreach activities emphasizing the following:

- Impacts of stormwater discharges on water bodies;
- Hazards associated with illicit discharges; and
- Measures that users of the permittee’s small MS4 can take to reduce pollutants in stormwater runoff, including, but not limited to, minimizing pesticide and fertilizer application and practicing proper storage and disposal of chemicals and wastes.

2.2 EDUCATION AND OUTREACH PROGRAM OVERVIEW

HNL is a Non-Traditional Small MS4 with limited public access, providing minimal potential for the public to negatively impact stormwater quality in its MS4. Although DOTA provides outreach for public activities, such as trash and waste management conducted at the airport, its primary education focus is on activities conducted by “airport users,” (i.e., tenants, DOTA personnel, and contractors). Examples of activities conducted at the airport that have the potential to negatively affect stormwater quality include vehicle, equipment, and aircraft operation, maintenance, washing, and fueling; property maintenance; landscape maintenance; waste management; and construction activities.

DOTA recognizes that having informed and knowledgeable airport users is crucial to the success of a SWMP to provide:

- **Greater support** for the stormwater management program as airport users gain a greater understanding of the reasons why the program is necessary and important; and
- **Greater compliance** with the program as airport users develop changes in attitude, knowledge, and awareness of the responsibilities expected of them, including the individual **actions** they can take to protect or improve water quality.

DOTA’s Education and Outreach program includes campaigns that reach different airport users and are used as a platform for communicating good stormwater practices. DOTA’s Education and Outreach program focuses on two main goals:

- Educating airport users about stormwater and the causes and effects of stormwater pollution; and
- Changing airport users’ behaviors to result in better stormwater quality.

2.3 DOTA ENVIRONMENTAL WEBPAGE

DOTA manages a comprehensive, efficient, and effective Environmental webpage⁴ that serves as a platform to convey information on DOTA’s programs and services. DOTA also has a HNL Environmental

⁴ <https://hidot.hawaii.gov/airports/doing-business/engineering/environmental>

Compliance Program webpage⁵ that includes a copy of the MS4 Permit documents; airport-specific documents and educational materials available for airport users; airport maps; the Spill Reporting Form; and links to other agency’s websites.

2.4 PUBLIC SERVICE ANNOUNCEMENTS

DOTA has developed two PSAs that are hosted on DOTA’s Environmental webpage and YouTube for access by the traveling public and airport users. The PSAs are also shown during special events (e.g., when DOTA has a booth at environmental or stormwater events).

2.5 PROGRAM BRANDING

DOTA utilizes logo and branding messages to represent both the DOTA stormwater program, as well as its connection with the Department of Transportation, Highways and Harbors stormwater programs. The shared DOT logo includes the state fish, a humuhumunukunuuapuaa, in the form of a rain drop as a reminder that stormwater runoff ultimately impacts the ocean wildlife. The message, “Malama i ka wai” or “Protect Our Water,” is intended to remind individuals of their responsibility for water quality. This logo and branding messages are included in plans, training presentations, printed materials, and other items distributed to bring a greater awareness to the DOTA stormwater program.



2.6 EDUCATIONAL MATERIALS

DOTA regularly prepares fact sheets and brochures on activities that affect stormwater, and on ways that the public, tenants, DOTA personnel, and contractors can protect stormwater through their actions. Brochures and fact sheets are used in conjunction with other outreach activities and are included in Tenant Guidance Packets, shared with tenants during inspections, and provided to DOTA personnel and contractors. Print material topics include illicit discharge, pesticide and fertilizer application, green waste, hazardous waste, and custodial environmental practices, as well as appropriate BMPs. These materials are developed or updated as DOTA identifies a topic that would benefit from educational materials. Active and developed educational materials are described in the annual report prepared each January documenting stormwater program activities.

2.6.1 Pesticides and Fertilizer Application

Pesticides, herbicides, and fertilizers are utilized by DOTA Maintenance Baseyard personnel as a necessary component of airfield safety; therefore, DOTA’s educational program targets their activities. DOTA’s SWPPP includes BMPs on proper pesticide and fertilizer application and is included in DOTA’s annual training of Maintenance Baseyard personnel. Tenants are also provided information on pesticide management in the Tenant Guidance Packets, which are emailed to tenants when scheduling inspections. Tenants and DOTA staff can obtain additional information in DOTA’s “Landscaping Materials Guide” available on the DOTA Environmental webpage.

⁵ <https://hidot.hawaii.gov/airports/doing-business/engineering/environmental/hnl-environmental-compliance/>

2.6.2 Green Waste

The focus of educational efforts on green waste is to promote the proper disposal of grass clippings, leaves, and other green waste during landscape maintenance activities conducted at the airport. A green waste brochure is distributed to DOTA personnel and tenants that conduct activities with the potential to generate green waste and are made available on the DOTA Environmental webpage.

2.6.3 Hazardous Waste

The proper management of hazardous waste is vital to prevent pollution; therefore, DOTA developed training materials that include information on hazardous materials, methods for reducing the use of hazardous materials, hazardous waste definitions, and proper disposal practices. A brochure on hazardous waste is distributed to tenants in the Tenant Guidance Packets and is also available on the DOTA Environmental webpage. Hazardous waste BMPs are included in the annual mandatory on-line training for tenants. The Maintenance Baseyard training includes hazardous waste BMPs, which are further emphasized on a poster in the Baseyard work area.

2.6.4 Educational Signage and Posters

DOTA posts educational signage and posters at and around tenant facilities, common use areas, and DOTA facilities. Examples include signage that discusses the stormwater impacts of cigarette butts posted outside the terminals in areas where smoking may occur, signage that identifies the use of permeable pavement and bioswales situated on the outside of fenced parking lots, spill prevention awareness signage at fueling facilities in the Baseyard and ARFF, and spill control BMP signage at the triturator and wash racks used by aircraft service personnel. DOTA continues to highlight stormwater-friendly educational information at training events to educate airport users about stormwater pollution at HNL.

2.7 TRAINING

Training is vital to cultivate general awareness about environmental regulations, DOTA policies and plans such as this SWMP, the impact their activities may have on stormwater quality, and BMPs that can be implemented to reduce or eliminate that impact. DOTA provides training related to stormwater matters in a variety of forms, including classroom training, training videos, printed materials, and informal training. Informal training is usually conducted as the need arises, such as on-the-job training, providing information during site inspections, responding to a public inquiry, or as part of the response to an illicit discharge. Most training courses also include a survey to check participants' comprehension of the training provided.

2.7.1 Training Videos

DOTA training videos are available on the DOTA Environmental webpage and through a link to the Veoci stormwater training portal. DOTA has two mandatory training programs (one for tenants and airport users, and the other for construction contractors, design engineers, and construction managers). The training is available 24 hours a day, which is vital to reaching audiences that may not be available during normal working hours. Additionally, the on-demand availability of the training video allows for follow-up review and reference when questions arise. Individuals are required to complete and submit a survey after their training.

2.7.2 Tenant Environmental Compliance BMP Training

Industrial/commercial airport users conduct activities, such as vehicle, equipment, and aircraft operation, maintenance, washing, and fueling; property maintenance; general waste management; fats, oil, and grease storage and waste management; and landscape maintenance that have the potential to negatively impact stormwater quality. DOTA has classified tenants with respect to stormwater concerns as “exempt” or “non-exempt.” Tenants classified as “exempt” have operations with minimal potential to contribute pollutants to stormwater runoff, or result in non-stormwater discharges, and do not have other significant environmental risk factors. Exempt tenants could operate an office space, have an interior commercial/retail facility, or operate on the 2nd floor or higher with no outdoor activities.

DOTA requires “non-exempt” tenants to complete Environmental Compliance BMP training annually. The training is available on the DOTA Environmental webpage and includes information on DOTA’s environmental policy, potential pollutants, stormwater BMPs, spill response, IDDE program, construction program, and enforcement actions.

Tenant representatives must view the training video on the DOTA Environmental webpage, the Veoci stormwater training portal, or receive the training through another DOTA-approved method. The representative is responsible for ensuring that employees at their facilities are trained on applicable BMPs for their activities. Tenant representatives may choose to have their employees view the DOTA training materials or develop their own to meet the requirement. Documentation of the training is kept through completed surveys in Veoci and is confirmed during tenant inspections.

2.7.3 Construction and Post-Construction BMP Training

Construction runoff to the MS4 could be a source of silt discharge and other non-allowable discharges. DOTA requires parties involved with construction projects at the airport, including DOTA SPMs, designers, construction managers, and contractors, to complete construction and post-construction BMP training (two separate videos). Online training is available on the DOTA Environmental webpage and covers DOTA’s environmental policy, potential pollutants, construction and post-construction BMPs, plan review and inspection process, IDDE program, and enforcement actions. In lieu of the online training, AIR-EE allows attendance at the DOT’s annual Protect Our Waters conference to fulfill the training requirement. Construction contractors are required to take the online BMP training annually regardless of conference attendance.

For construction contractors, a supervisor must take the online training and is responsible for ensuring that their employees and sub-contractors are trained on the project’s BMPs and requirements. Documentation of the training is kept through completed surveys and/or sign-in sheets and is confirmed during construction BMP inspections.

2.7.4 DOTA Maintenance and Operations BMP Training

DOTA creates specific, annual training for workers in the HNL Maintenance Section and Operations, which includes the Maintenance Baseyard, Autoshop, Grounds Maintenance, Building Maintenance, ARFF, and Custodial Units. Annual training topics include DOTA’s environmental policy, potential pollutants, SWPPP, SPCC, BMPs, IDDE program, information on Veoci, and enforcement actions. Supervisors are responsible for having their personnel complete the required training. Documentation of the training is kept through sign-in sheets and/or completed surveys.

2.7.5 DOTA Inspector Training

DOTA inspectors consists of AIR-EE staff and its consultants. Inspectors attend annual training for Industrial/Commercial BMPs and the Construction and Post-Construction BMP program, as applicable to the type of inspections they conduct, and on-the-job training is provided initially by more experienced inspectors. Training is in accordance with applicable program documents and is documented in the form of sign-in sheets and/or completed surveys. Annual training materials are updated to reflect changes in the stormwater program or DOTA procedures.

2.8 STORM DRAIN STENCILING

Airport storm drain inlets in public and tenant areas are stenciled with the DOT fish logo and the message “Do Not Dump, Goes to Ocean” or similar educational design. The purpose of the stencils is to raise awareness about the direct connection of storm drains to the receiving waters and to ultimately increase awareness of preventing the discharge of potential pollutants.

2.9 MEASURABLE GOALS AND SCHEDULE

Measurable goals and a proposed schedule for DOTA’s education and outreach activities are presented in Table 2.

Table 2: Measurable Goals and Schedule – Education and Outreach

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
2-1	Publicize, monitor, and update the DOTA Environmental webpage.	<ul style="list-style-type: none"> • Convey updated information on the stormwater program through the DOTA Environmental webpage throughout the Permit term. • Maintain the DOTA Environmental webpage and make updates, as new information becomes available or the program is updated, throughout the Permit term.
2-2	Broadcast Public Service Announcements.	<ul style="list-style-type: none"> • Maintain the two online PSAs throughout the Permit term. • Broadcast PSAs during special public events, where the venue allows.
2-3	Promote program brand.	<ul style="list-style-type: none"> • Include DOT’s “Protect Our Waters” logo on all educational and training materials throughout the Permit term. • Include logo on all new DOTA materials to build awareness of the program brand throughout the Permit term.
2-4	Distribute educational materials.	<ul style="list-style-type: none"> • Develop/update and distribute educational materials on pesticide/fertilizer use, green waste management, hazardous waste management, IDDE, and other relevant environmental topics to at least 90% of tenants selected for tenant inspection each year. • Display educational signage and posters at high visibility locations in DOTA maintenance and fueling areas and at trainings and public outreach events throughout the Permit term.
2-5	Provide training to airport users.	<ul style="list-style-type: none"> • Update training materials to reflect new information, such as spill incidents or changes in the facility that may impact stormwater drainage, throughout the Permit term. • Require tenants and tenant inspectors to complete annual stormwater training and survey, with goal of at least 65% of tenants inspected having at least one person completing the training and survey. • Require at least 90% of construction contractors have a supervisor take the Construction/Post-Construction training prior to the start of construction activities. • Require 90% of DOTA maintenance and operations personnel be trained annually on stormwater BMPs.

3 Airport User Involvement and Participation

3.1 MS4 PERMIT REQUIREMENT

The MS4 Permit requires an operator of a regulated small MS4 to include users of the permittee's regulated small MS4 in developing, reviewing, and implementing the SWMP.

3.2 AIRPORT USER INVOLVEMENT AND PARTICIPATION PROGRAM OVERVIEW

Clean water is aided by stakeholder stewardship, greater program support, and shorter implementation schedules. DOTA recognizes that having active and involved airport users is important to the success of the SWMP, since those who participate in the development and decision-making process feel more responsible for the program and more likely to take part in its implementation.

Although the public has limited access to airport property, DOTA endeavors to provide opportunities for the employees, tenants, and public to be involved in the HNL stormwater program. Airport users can use the Spill Reporting Form or email to report discharges or conditions that could negatively affect stormwater and will have the opportunity to comment on the SWMP as posted on the DOTA Environmental webpage.

3.3 STORMWATER DISCHARGE REPORTING

DOTA solicits reports of suspected spills and general environmental inquiries through a Spill Reporting Form or by calling/emailing the Environmental Health Specialist. The Spill Reporting Form and reporting email are featured prominently at the top of the HNL Environmental Compliance Program webpage and also included in all training materials. The Spill Reporting Form is tracked through Veoci and is immediately received by AIR-EE. Individuals, including the public, tenants, contractors, DOTA personnel, consultants, and/or regulatory agencies, may report their observations of potential stormwater concerns to DOTA through these reporting methods. A spill reporting fact sheet is available on the HNL Environmental Compliance Program webpage. Additionally, DOTA developed and printed illicit discharge and spill reporting badge cards for tenants and DOTA personnel.

3.4 PUBLIC COMMENT PERIOD AND MEETINGS

The MS4 Permit requires a public notice and comment period for the SWMP. DOTA makes the draft SWMP available on the DOTA Environmental webpage, with a method for providing comments, and reaches out to stakeholder groups to notify them that the document is available for review and public comment.

3.5 PARTNERSHIPS

To develop an effective stormwater program, DOTA recognizes a need to work in conjunction with a variety of parties toward the common goal of improved water quality. DOTA works with their commercial/industrial tenants at HNL to implement BMPs so tenant activities comply with their industrial NDPEs permits, and with DOTA policies applicable to all tenants that conduct activities that could negatively impact stormwater. Tenants include the Federal Aviation Administration and United States Department of Agriculture, who also works with DOTA to impose restrictions on BMPs necessitated by safety issues.

3.6 MEASURABLE GOALS AND SCHEDULE

Measurable goals and a proposed schedule for DOTA’s public involvement and participation activities are presented in Table 3.

Table 3: Measurable Goals and Schedule – Airport User Involvement and Participation

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
3-1	Maintain Spill Reporting Form and Contact Information for Complaints on the DOTA Environmental webpage.	<ul style="list-style-type: none"> Respond to and track spill reports, calls, and emails received, including conducting the initial investigation within 3 business days of receiving the report submitted directly online or via phone or email.
3-2	Provide public review opportunities for the SWMP.	<ul style="list-style-type: none"> Provide airport users and the public with opportunities to comment on the proposed SWMP by including an email link for comments on the DOTA Environmental webpage when the SWMP is submitted for public notice.
3-3	Continue partnerships and collaboration with airport users.	<ul style="list-style-type: none"> Foster partnerships and collaborate with airport users during the Permit term.

4 Illicit Discharge Detection and Elimination

4.1 MS4 PERMIT REQUIREMENT

The MS4 Permit requires an operator of a regulated small MS4 to develop, implement, and enforce an IDDE program that must include the following:

- Establishment of rules, ordinances, or other regulatory mechanisms, including enforcement procedures and actions, that prohibit non-stormwater discharges, except those listed in Section 4.2 that do not cause or contribute to any violations of water quality standards, into the permittee's regulated small MS4;
- Procedures to detect and eliminate illicit discharges (as defined in 40 CFR §122.26(b)(2)); and
- Compilation of a list of non-stormwater discharges or flows that are considered to be significant contributors of pollutants to the system and measures to be taken to prevent these discharges into the permittee's regulated small MS4, or reduce the amount of pollutants in these discharges.

4.2 AUTHORIZED NON-STORMWATER DISCHARGES

The MS4 Permit authorizes the following non-stormwater discharges, provided they do not cause or contribute to any violation of water quality standards:

1. Water line flushing;
2. Landscape irrigation;
3. Diverted stream flows;
4. Rising ground waters;
5. Uncontaminated ground water infiltration (as defined in 40 CFR §35.2005(20));
6. Uncontaminated pumped ground water;
7. Discharges from potable water sources and foundation drains;
8. Air conditioning condensate;
9. Irrigation water;
10. Springs;
11. Water from crawl space pumps and footing drains;
12. Lawn watering runoff;
13. Water from individual residential car washing;
14. Flows from riparian habitats and wetlands;
15. Dechlorinated swimming pool discharges;
16. Residual street wash water; and
17. Discharges or flows from firefighting activities.

In addition to the above, DOTA authorizes adding the following non-stormwater discharges that will not be addressed as illicit discharges, provided that any such discharge meets the requirements below and is not determined to be contributing pollutants to the regulated MS4:

- Fire hydrant flushing.
- Runoff from washing, including pressure washing, exterior building surfaces and sidewalks, provided that:
 - Visible oil or oil staining is not evident on surfaces;
 - Soaps and cleaners are not used if water could reach drainage systems or receiving waters; and
 - Inlets that could receive the water are protected using appropriate inlet protection methods (e.g., filter fabric, silt socks, gravel bags).
- Runoff from washing, including pressure washing, hydraulic loading bridges, provided that:
 - Soaps and cleaners are not used if water could reach drainage systems or receiving waters; and
 - Inlets that could receive the water are protected using oil-absorbing booms.

4.3 IDDE PROGRAM OVERVIEW

The goal of the IDDE program is to prevent or stop potential pollutants from impacting the MS4 and ultimately protect water quality in the receiving waters. IDDE is included in the majority of SWMP activities and personnel have been trained to be observant for signs of illicit discharge or illegal connection while conducting other activities under the SWMP.

Federal regulations define an illicit discharge as “any discharge to an MS4 that is not comprised entirely of stormwater,” except for certain non-stormwater discharges that are allowed under the MS4 Permit (Section 4.2). Illicit discharges can enter the MS4 through direct connections (e.g., wastewater piping connected to the storm drain system instead of the sanitary sewer system) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary sewer systems or spills collected by drain inlets). The result is untreated discharges that may contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waters. EPA studies have shown that pollutant levels from illicit discharges significantly degrade receiving water quality and may threaten aquatic, wildlife, and human health.

4.4 EXISTING REGULATIONS AND ENFORCEMENT

DOTA has established strict requirements for tenants and construction contractors related to stormwater pollution control. Although the State does not have ordinance authority, it is able to regulate and enforce their requirements through tenant lease agreements and construction documents, including plan and specification reviews, permits, and other requirements for working on airport property.

4.4.1 Tenant Agreement for Compliance

DOTA enforces stormwater related controls for HNL tenants through their Tenant Guidance Packet, available on the HNL Environmental Compliance Program webpage. Tenants are required to complete a *Tenant Agreement for Compliance with State Airport Drainage System* form, which is available on the DOTA Environmental webpage and lays out DOTA's expectations for tenant operations and prohibitions against discharging pollutants to the airport storm drainage system. Lease agreements also contain language that states that the tenants must follow all environmental rules and regulations.

4.4.2 Construction Connection, Discharge, and Surface Runoff Permits

DOTA requires that tenants or construction contractors apply for a Construction Connection, Discharge, and Surface Runoff Permit, available on the DOTA Environmental webpage, prior to establishing any new permanent physical connection to the MS4, adding any new MS4 structures, or conducting any construction activities that could discharge stormwater, hydrotesting effluent, or dewatering effluent to the DOTA's MS4. Permit applications are intended to clarify responsibilities, identify potential pollutants, and must include proof of an NPDES permit application, where applicable, and control measures that will be implemented to minimize pollutant discharge to the MS4. The applicant must also agree to several stormwater protections. All permits are issued/approved by AIR-EE and tracked in Veoci. DOTA construction bid documents include specification section 01561, Construction Site Runoff, that gives DOTA the ability to apply liquidated damages if violations occur.

4.5 STORM DRAINAGE SYSTEM MAPPING, ASSET MANAGEMENT, INSPECTION, AND MAINTENANCE

DOTA storm drainage structures are identified by EID number, location description, and GPS coordinates in an inventory that will be available in Veoci once the Stormwater Structures and PBMP module is developed. GIS maps visually represent the location of each of the storm drainage nodes and connecting drainage lines and canals (Figure 2). The map and database are maintained by AIR-EE and updated as necessary. Additionally, in conformance with the MS4 Permit, DOTA has created a GIS layer that includes each drain inlet, outfall, and PBMP.

The implementation of Veoci begins by entering airport stormwater assets into the database and continues through development of modules to allow for tenant, construction, and drainage system inspections. The workflow capabilities of Veoci allow for greater efficiency in the initial reporting of deficiencies and follow-up tracking by the responsible party.

DOTA inspects airport storm drainage features (i.e., catch basins, inlets, gutters, open ditches, trenches, swales, etc.) once per year to identify maintenance or cleaning needs. Maintenance is conducted if debris is noted during inspections. Storm drainage structures that visually appear to have accumulated more debris are inspected more frequently to keep the structure clean and functioning.

Variations to the inspection schedule may be necessary for drain inlets in the AOA movement area due to access restrictions. However, drainage structures in the movement area have historically not required maintenance cleaning since the only activities conducted in this area are aircraft taxiing, take-off, and landing, which generally do not create debris, as well as airport requirements to keep these areas free of debris for aircraft safety. At a minimum, drain inlets in the AOA movement area are inspected at least once per each permit cycle (five years).

In 2021, DOTA conducted a study of the canals to evaluate embankment erosion in sections that are not lined with concrete. The report recommended several areas that could benefit from stabilization, both to prevent the loss of embankment soils into the canal and to protect assets adjacent to the canals from failure. Recommendations were categorized by priority to assist DOTA with project programming and funding. DOTA will construct these projects in order of priority, with a goal of initiating the planning and design for the two identified high-priority projects during the permitting term.

4.6 IDDE FIELD INVESTIGATIONS

DOTA conducts various field activities and utilizes several resources, such as storm drainage system inspection and cleaning; site inspections; outfall screening; complaints made using the Spill Reporting Form or email; and day-to-day observations, to identify illicit discharges and illegal connections to the MS4. DOTA promptly takes action to stop, reduce, or modify discharges of pollutants that could cause a violation to State water quality goals. Signs of illicit discharge to the MS4 and/or receiving waters include turbidity, color, floating oil and grease, floating debris and scum, materials that settle, or any other substances that may be toxic to humans or other life. Specific activities include the following:

- DOTA conducts dry-weather field screening of the HNL MS4 outfalls in accordance with the Storm Drain Outfall Inspection & Field Screening Plan and utilizes a Site Investigation Sheet. Outfalls are inspected annually or earlier if a complaint is received.
- If a suspected illicit discharge is observed, inspectors promptly begin coordinating an upstream search for the source.
- If an illicit discharge source is identified, AIR-EE begins the enforcement process, as necessary.
- All identified illegal connections, illicit discharges, and spills are tracked by AIR-EE in Veoci. The information tracked includes the type of discharge, the responsible party, DOTA's response, and resolution of the issue.

4.7 TENANT INSPECTIONS

DOTA conducts tenant inspections to assess tenants' compliance with the DOTA's stormwater BMP program. The frequency at which tenants are inspected is determined by their risk ranking of Low, Medium, or High, based on their potential to pollute stormwater runoff or discharge pollutants to the HNL MS4. A log of tenant information, such as risk ranking, tenant inspections conducted, deficiencies identified, and follow-up actions, is maintained in Veoci.

4.8 SPILL PREVENTION AND RESPONSE

DOTA has included BMPs in the Tenant Inspection and Enforcement Manual and the SWPPP prepared for the coverage under the State's General NPDES Permit for discharge of industrial stormwater. Both documents contain measures to minimize or prevent environmental contamination from spills to the MEP and are available on the HNL Environmental Compliance Program webpage. Due to the nature of activities at HNL, petroleum spills have the highest illicit discharge potential. Wastewater spills may occur at HNL as the result of improper disposal of aircraft lavatory waste. The waste is transported from the aircraft to triturators, which grind up the waste before directing it to the sanitary sewer. DOTA has

installed BMP signs at the triturator reminding users of proper waste disposal and protection practices associated with ground servicing aircraft lavatory facilities.

Tenants, contractors, and DOTA Maintenance Baseyard personnel are responsible for maintaining equipment to prevent spills and responding to spills that occur at their facilities. All DOTA stormwater training programs include a component that provides guidance on preventing and responding to spills. Training and BMP materials include information about containing spills and preventing them from impacting the MS4 or receiving waters. Tenants with industrial NPDES permits are required to include BMPs for preventing and responding to spills in their SWPCPs/SWPPPs.

4.9 OWS AND HDS CLEANING

OWS and HDS owned by DOTA at HNL are inspected/maintained at least once per year. This prevents potential oil discharges to the MS4 from OWSs and HDSs that have reached capacity, need maintenance, and to prevent overflow of wastewater where OWS are part of wastewater systems. Tenants are responsible for inspecting/maintaining their OWS and HDS.

4.10 WASTE DISPOSAL

DOTA prevents potential illicit discharges through the proper management of wastes generated by tenants, the public, and DOTA personnel at HNL. Specific wastes targeted for proper management and disposal include used oil, hazardous waste, green waste, and trash. The program is strongly enhanced by the safety-related prohibition against FOD on the runways.

4.11 STORM DRAIN STENCILING AND EID LABELS

DOTA uses two different types of markings for MS4 assets depending on their location. Areas of the airport that are visible to the public (e.g., parking lots, curbs fronting the terminal) and to tenants (e.g., apron and facility areas) will be stenciled with the DOT stormwater logo and the message “Do Not Dump, Goes to Ocean” or similar educational design. The purpose of the stencils is to raise public awareness about the direct connection of storm drains to the receiving waters and to ultimately increase awareness of preventing the discharge of potential pollutants. Areas within the AOA movement and safety areas are not stenciled due to safety issues.

Additionally, DOTA labels storm drain inlets and manholes with the asset’s individual EID number to aid staff and contractors conducting SWMP activities, such as MS4 inspection and maintenance data tracking, IDDE investigation, construction inspections, and tenant inspections.

4.12 EDUCATION AND TRAINING

Training and other public education efforts, such as the DOTA Environmental webpage, serve to increase awareness about illicit discharges and illegal connections. Training on IDDE is included as a part of DOTA’s stormwater training programs. Specifically, DOTA inspectors and maintenance personnel attend annual stormwater training which includes information on identifying and eliminating illegal connections and illegal discharges, as well as spill prevention and response procedures. DOTA prepared an IDDE fact sheet, which is provided to tenants in the Tenant Guidance Package and is also available for viewing on DOTA’s Environmental webpage.

4.13 MEASURABLE GOALS AND SCHEDULE

Measurable goals and a proposed schedule for DOTA’s illicit discharge detection and elimination activities are presented in Table 4.

Table 4: Measurable Goals and Schedule – Illicit Discharge Detection and Elimination

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
4-1	Enforce Tenant Agreement for Compliance with State Airport Drainage System.	<ul style="list-style-type: none"> • Maintain a database of tenants in Veoci throughout the Permit term. • Require all non-exempt tenants to submit a signed Tenant Agreement for Compliance with State Airport Drainage System. • Track the Tenant Agreements through Veoci and conduct enforcement actions for violations, including potential lease terminations and legal action for cleanup recovery costs, throughout the Permit term.
4-2	Evaluate and update storm drainage system mapping and Veoci.	<ul style="list-style-type: none"> • Verify accuracy, identify data gaps, and update drainage system maps when conducting inspections or when additional information becomes available, with the goal of having new information entered within one year of a construction project being completed.
4-3	Storm drainage system inspections and maintenance.	<ul style="list-style-type: none"> • Inspect 90% of airport storm drainage features annually to identify necessary maintenance or cleaning. • Inspect 100% of outfalls annually. Conduct storm drainage feature maintenance, such as cleaning, within 3 months of identifying the maintenance need. For projects requiring construction of drainage system repairs, begin assessment within 3 months. • Initiate planning and design for the two identified high-priority canal erosion projects within the permit term.
4-4	IDDE field investigations.	<ul style="list-style-type: none"> • Conduct investigations of 95% of illicit discharges within 3 business days of a report or discovery.
4-5	Tenant Inspections.	<ul style="list-style-type: none"> • Inspect 90% of airport tenants at least every two years, with greater frequency based on risk ranking.
4-6	Spill prevention and response.	<ul style="list-style-type: none"> • Track spills that occur throughout the Permit term, including those that reach the MS4 and those prevented from entering the MS4. • Within 5 business days of a reported spill, review the spill report and determine if further action is needed.

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
4-7	OWS Maintenance.	<ul style="list-style-type: none"> • Inspect OWSs at least annually and track the amount removed throughout the Permit term.
4-8	Storm drain stenciling and EID labels.	<ul style="list-style-type: none"> • Throughout the Permit term, maintain existing storm drain stencils and EID labels so they are legible. • Add stencils and/or EID labels to new or reconstructed storm drainage features within 6 months of construction.
4-9	IDDE education and training	<ul style="list-style-type: none"> • Include IDDE awareness training during other training programs throughout the Permit term. • Provide the IDDE fact sheet to tenants in the Tenant Guidance Package and on the DOTA website throughout the Permit term.

5 Construction Site Runoff Control

5.1 MS4 PERMIT REQUIREMENT

The MS4 Permit requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants entering the permittee's regulated MS4 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. The program must, at a minimum, include the following:

- Establishment of rules, ordinances, or other regulatory mechanism, including enforcement procedures and actions, that require erosion and sediment controls;
- Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
- Requirements for construction site operators to control construction waste, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste, that may adversely affect water quality;
- Procedures for site plan review that incorporate considerations of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and
- Procedures for site inspection and enforcement of control measures.

5.2 CONSTRUCTION SITE RUNOFF CONTROL PROGRAM OVERVIEW

Excessive erosion and sedimentation results in the greatest construction-related water quality impacts. Studies have shown that, in a short period of time, construction sites can contribute more sediment to waterbodies than can be deposited naturally over several decades.⁶ Other construction-related impacts are associated with discharge of pollutants, such as solid and sanitary wastes, fertilizers, pesticides, oil and grease, concrete truck washout, soil additives, construction chemicals, and construction debris.

5.3 ENFORCEMENT RESPONSE PLAN

The specifications for DOTA projects include a requirement for compliance with the SWMP. The specifications also include a description of enforcement actions that can be taken for non-compliance with DOTA's environmental programs, including withholding payment, issuing stop work orders, and levying liquidated damages. The specifications also contain a statement that indicates that any environmental fines levied against the State by the DOH or EPA will be passed on to the offending party.

The lease agreements and revocable permits made with tenants on Airport property include a clause that requires compliance with environmental laws. Tenants are expected to comply with this SWMP when conducting construction activities. They must also complete permit applications as described in

⁶ EPA 833-F-00-008 (Fact Sheet 2.6), US EPA Office of Water, September 2018

Section 4.4. Failure to do so may result in enforcement actions which may include termination of the lease agreement.

When a deficiency is identified on a construction site, enforcement is applied on an escalating scale, as described below, until compliance is achieved. Data on enforcement for each project is retained within Veoci. An exception to the escalating enforcement scale may be applied if the deficiency is an illicit discharge or if the deficiency is a repeated deficiency. In these cases, enforcement may commence by withholding payment and/or issuing a stop work order. The DOTA may also levy liquidated damages up to \$25,000 per deficiency per day, as described in the Project Specifications.

5.4 CONSTRUCTION BMP GUIDANCE DOCUMENTS

DOTA developed a Construction Site Runoff Control Program to provide guidance on BMP selection, installation, and maintenance procedures for construction activities. This program is intended for use by DOTA staff, consultants, and contractors involved in projects that require construction work within DOTA properties. The program includes a Construction Activities BMP Field Manual that is available on DOTA's Construction Site Runoff Control Program webpage⁷. This manual does not constitute an exhaustive list of all BMPs available for use, but focuses on the areas of erosion control, sediment control, tracking control, potential pollutant control, and materials and waste management control. Designers and contractors may use other BMPs provided they are approved by DOTA.

Additionally, DOTA developed a SWPPP Template for projects disturbing one acre or more and a SSBMP Plan Template for non-exempt projects disturbing less than one acre. Both templates are available on DOTA's Construction Site Runoff Control Program webpage and are intended to provide consistency in the use of BMPs approved by DOTA.

5.5 CONSTRUCTION BMP DESIGN REVIEW

During the design phase of a TIP or DOTA project, the designers of the project must consider the requirements of this Construction Program, PBMP Program, applicable chapters of the HAR, and all applicable permits. The designer (or tenant) must consolidate and submit all required design documents, including applicable forms and applications, to DOTA for review. DOTA reviews these documents to verify that applicable requirements are met in accordance with DOTA's Environmental Program and HNL's MS4 Permit.

No construction activities on DOTA property can commence without AIR-EE's approval of the design documents, including plans, specifications, applicable forms and applications, and a copy of the NGPC or Individual Permit coverage under HAR 11-55, Appendix C (for projects resulting in one acre or more of land disturbance). Copies of NGPCs for dewatering or hydrotesting activities must also be provided to AIR-EE prior to starting these activities. Designers are required to coordinate with AIR-EE early and throughout the design process.

The Construction module in Veoci is used to streamline AIR-EE's review designer and contractor submittals and to provide clear direction for compliance with DOTA construction BMP requirements.

⁷ [Airports | Construction Site Runoff Control Program \(hawaii.gov\)](https://www.hawaii.gov/airports/construction-site-runoff-control-program/)

5.6 CONSTRUCTION SITE INSPECTIONS

A critical part of the construction BMP oversight process is the requirement for site inspections. Several types of inspections are performed as part of the Construction Program: Pre-construction Inspections, Routine Inspections, Final Inspections, and contractor self-inspections. Additionally, larger projects may have Construction Managers conduct weekly inspections. Construction inspection checklists, available on DOTA's Construction Site Runoff Control Program webpage, are completed for the Pre-construction, Routine, and Final Inspections, and include photographs supporting the inspector's findings. These checklists are stored in Veoci.

Frequency of inspections is laid out by the Construction Site Runoff Control Program and varies by the nature of the project (e.g., less than one acre, needing an NPDES permit, etc.). In general, routine inspections are conducted monthly for new sites one acre or more. The frequency of inspections can be altered by the inspector as follows:

- Increase inspection frequency if deemed necessary due to recurring deficiencies;
- Suspend monthly inspections if there are no construction activities on the site for 30 calendar days or more, and the disturbed soil has been stabilized; and
- Decrease frequency to quarterly if there is a consistent lack of critical or major deficiencies, and the conditions described in the Construction Site Runoff Control Program document are met. Anytime the conditions are not met, inspections shall return to monthly.

Construction contractors are required to respond to deficiency notices based on deficiency type as noted in the Construction Site Runoff Control Program.

The Construction module in Veoci will be used for Pre-construction, Routine, and Final Inspection Reports and to track associated deficiencies and corrective actions.

5.7 MEASURABLE GOALS AND SCHEDULE

Measurable goals and a proposed schedule for DOTA's construction site runoff control activities are presented in Table 5.

Table 5: Measurable Goals and Schedule – Construction Site Runoff Control

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
5-1	Construction plan review and approval.	<ul style="list-style-type: none"> • Review 95% of construction project design submittals for compliance with DOTA construction BMP requirements, throughout the Permit term.
5-2	Construction BMP inspections and enforcement.	<ul style="list-style-type: none"> • Conduct inspections and enforcement of 95% of active construction projects in accordance with the frequency identified in the Construction Site Runoff Control Program to verify that construction projects comply with DOTA requirements. • Require construction contractors to respond to deficiency notices based on deficiency type as noted in the Construction Site Runoff Control Program. • Evaluate and modify inspection forms, as necessary, as the new Construction module within Veoci is developed.
5-3	Construction module development in Veoci.	<ul style="list-style-type: none"> • DOTA will develop a Construction module in Veoci to facilitate AIR-EE design review and construction inspections by the end of 2023.

6 Post-Construction Runoff Control

6.1 MS4 PERMIT REQUIREMENT

The MS4 Permit requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants entering the permittee's regulated MS4 from new development and redevelopment projects that disturb 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:

- Establish rules, ordinances, or other regulatory mechanism, including enforcement procedures and actions, that address post-construction runoff from new development and redevelopment projects;
- Require structural and/or non-structural BMPs to minimize water quality impacts and attempt to maintain pre-development runoff conditions; and
- Develop procedures for long-term operation and maintenance of BMPs.

6.2 POST-CONSTRUCTION RUNOFF CONTROL PROGRAM OVERVIEW

Post-construction stormwater management in areas undergoing new development or redevelopment is required by EPA because runoff from these areas has been shown to significantly affect receiving waterbodies.⁸ There are generally two forms of substantial negative impacts of post-construction runoff:

- An increase in the type and quantity of pollutants in stormwater runoff. As runoff flows over areas altered by development, it can pick up harmful sediment and chemicals, such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus).
- An increase in the quantity of water delivered to receiving waters during storms. Increased impervious surfaces (e.g., parking lots, driveways, and rooftops) interrupt the natural cycle of gradual percolation of water. Instead, water is collected from hard surfaces and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving waters.

PBMPs are considered for construction projects associated with both new development, as well as redevelopment, that meet one or more of the following criteria:

- Construction activities that result in land disturbance of one acre or more.
- Construction projects of less than one acre that result in the installation of one or more of the following:
 - Steep earthen slopes (i.e., grade of 20 percent or more);
 - Modifying, replacing, or installing new drainage structures, as appropriate;
 - Parking lots and buildings adding 5,000 square feet or more of impervious area;
 - Aircraft, vehicle, or equipment washing areas; or
 - Aircraft, vehicle, or equipment fueling areas or container and material storage areas.

⁸ EPA 833-F-00-008 (Fact Sheet 2.7), US EPA Office of Water, January 2000 (revised December 2005)

6.3 ENFORCEMENT AND RESPONSE PLAN

For DOTA-owned PBMPs, AIR-EE personnel verifies that inspections and maintenance of PBMPs are performed. AIR-EE or a maintenance contractor performs inspections and maintenance of Treatment PBMPs (i.e., OWS, CDS/HDS, drain inlet inserts, etc.). The Maintenance Baseyard conducts landscape maintenance of PBMPs that include vegetation. AIR-EE coordinates with the Maintenance Baseyard to collect the inspection and maintenance data. Depending on the type of PBMP and the type and frequency of maintenance needed, maintenance is either conducted on a regular schedule or through Work Orders issued by DOTA personnel to the Maintenance Baseyard. Additionally, maintenance Work Orders are generated when complaints are received by DOTA on PBMP maintenance or landscaping issues.

When tenant PBMP inspections reveal a lack of maintenance or if the PBMPs are not performing as intended, DOTA undertakes appropriate enforcement actions. The levels of enforcement and associated penalties are typically issued at the discretion of DOTA, with consideration of relevant circumstances regarding the violation. This may include verbal warnings and written notifications to the tenant in accordance with the Tenant Inspection and Enforcement Manual.

6.4 POST-CONSTRUCTION BMP GUIDANCE MANUAL

In November 2021, DOTA prepared a PBMP Manual to guide site developers, project designers, and DOTA staff in incorporating appropriate PBMPs in project designs. The Manual includes DOTA requirements, including the applicability and technical feasibility of implementing LID, source control, and treatment control PBMPs. This Manual has been developed to prioritize and promote LID PBMPs, where feasible, that favor infiltration, biofiltration, evapotranspiration, or harvesting/reuse of stormwater, followed by other practices that treat and release stormwater. The Manual guides the selection, installation, inspection, and maintenance of these PBMPs and may be found on DOTA's Construction Site Runoff Control Program webpage.

6.5 POST-CONSTRUCTION BMP DESIGN REVIEW

As a part of the plan review process, DOTA verifies that construction projects that meet the criteria identified in Section 6.2 have included PBMPs in their designs, where feasible. If PBMPs are not feasible, specific documentation that demonstrates this fact must be submitted for approval to AIR-EE. Plans are considered approved when all comments from AIR-EE have been addressed. In addition to standard engineering design practices, project designers must conduct an evaluation of the project site conditions and planned future use to determine which PBMPs would be the most effective. The Construction Module in Veoci provides clear direction for compliance with PBMP requirements and facilitates PBMP tracking.

6.6 POST-CONSTRUCTION RUNOFF CONTROLS TRACKING

All inspection and maintenance of DOTA-owned and -operated PBMPs, including photographs, are tracked and stored in DOTA's internal storage database and will be available in Veoci once the Stormwater Structures and PBMP module is developed. The operation and maintenance requirements for each type of accepted PBMP are described in the PBMP Manual. PBMP Inspections are conducted annually by AIR-EE or the maintenance contractor.

6.7 POST-CONSTRUCTION BMP INSPECTIONS

LID and Treatment PBMPs are inspected annually to check they are functioning, and necessary maintenance is performed in a timely manner. These inspections verify proper operation in accordance with the project's O&M Plan and/or the PBMP Manual. DOTA conducts inspections and maintenance of PBMPs owned and operated by DOTA. Tenants are responsible for conducting inspections and maintenance of the PBMPs in their leased spaces.

6.8 RETROFIT ACTION PLAN

DOTA has developed a Retrofit Action Plan⁹ to address the planning, installation, and long-term maintenance of PBMPs at priority sites at HNL. This Plan was initially developed in 2015 and DOTA provides a summary with updates on status for each project within the annual reports.

6.9 MEASURABLE GOALS AND SCHEDULE

Measurable goals and a proposed schedule for DOTA's post-construction site runoff control activities are presented in Table 6.

⁹ http://hidot.hawaii.gov/airports/files/2013/01/DOTA_Retrofit_Action_Plan_20150210.pdf

Table 6: Measurable Goals and Schedule – Post-Construction Site Runoff Control

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
6-1	Implement Tenant Inspection and Enforcement Manual.	<ul style="list-style-type: none"> • Implement enforcement procedures against tenants when PBMPs are not operating/being maintained as designed. Require correction of maintenance issues within 30 days of notification. • Throughout the Permit term, track enforcement actions from tenant inspections conducted per the Tenant Inspection and Enforcement Manual.
6-2	Conduct Post-Construction BMP design reviews.	<ul style="list-style-type: none"> • Throughout the Permit term, review and document design plan submittals for compliance with DOTA PBMP requirements, including identifying long-term maintenance concerns. • 90% of applicable projects annually include the consideration of PBMPs.
6-3	Track and maintain inventory for PBMPs at HNL.	<ul style="list-style-type: none"> • Gather GPS coordinates for new PBMPs at HNL and include them in Veoci within one year of project completion once the Stormwater Structures and PBMP module is developed.
6-4	Conduct PBMP inspections.	<ul style="list-style-type: none"> • Inspect 95% of DOTA-maintained PBMPs annually for compliance with the project’s O&M Plan and the PBMP Manual, and perform maintenance as necessary to facilitate proper operation. • Track inspections and maintenance of PBMPs annually and include a summary in annual reports. • 95% of PBMPs installed through a DOTA construction project to have appropriate O&M guidance documentation provided to DOTA by end of the project.
6-5	Implement Retrofit Action Plan.	<ul style="list-style-type: none"> • Implement the Retrofit Action Plan and provide status updates on progress in annual reports.

7 Pollution Prevention and Good Housekeeping

7.1 MS4 PERMIT REQUIREMENT

The MS4 Permit requires an operator of a regulated small MS4 to develop, implement, and enforce an operation and maintenance program to prevent and reduce pollutants from municipal activities, such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and infrastructure maintenance. The program must, at a minimum, include the following:

- Good housekeeping and other control measures; and
- Employee and contractor training on good housekeeping practices to ensure that good housekeeping measures and BMPs are implemented at DOTA facilities.

7.2 POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAM OVERVIEW

Daily airport operational activities require operations and maintenance activities and the use of materials and products that could be potential pollutants if entrained in stormwater. Pollution prevention and good housekeeping practices laid out in this plan are intended to maintain a clean, safe, and orderly working environment and to minimize discharges of pollutants. Implementing appropriate BMPs reduces the chances of unallowed non-stormwater discharges, and the possibility of accidental spills caused by improper storage practices. The goals are to examine and alter actions, as necessary, to reduce stormwater discharges of potential pollutants that collect on streets, parking lots, open spaces, and storage and vehicle maintenance areas or result from poor maintenance of MS4 infrastructure.

7.3 POLLUTION PREVENTION MEASURES

As the permittee, DOTA has a responsibility to conduct activities and manage its own facilities in a manner that minimizes, to the MEP, the discharge of pollutants to the MS4 and surface waters. DOTA has prepared a Best Management Practice Field Manual for Operations at State of Hawaii Airports, available on the DOTA Environmental webpage, to provide environmental guidance for operational activities at HNL. The Manual provides practical BMPs for a range of common activities at HNL, such as vehicle and equipment maintenance and repair, pesticide and fertilizer storage and application, solid waste storage, and fuel operations, that could result in pollution of stormwater if BMPs are not followed.

7.4 FACILITY INSPECTIONS

AIR-EE conducts inspections of DOTA facilities, receiving state waters, outfalls, and control measures/BMPs, as detailed in Sections 4.5, 4.6, and 4.7 of this SWMP, to identify conditions that may be a source of polluted stormwater runoff. Facility inspections assess compliance with the DOTA's stormwater BMP program, evaluate activities and product storage, and respond to personnel questions concerning BMPs. Records of inspections conducted, corrective actions, and facility responses is maintained in Veoci and checked in future inspections.

7.5 STREET SWEEPING

Street and runway/taxiway sweeping is performed to remove litter, debris, and other pollutants from surface vehicle and aircraft travel ways to prevent them from being discharged to the MS4.

Additionally, FOD can be hazardous to aircraft, and it is every person's responsibility within the AOA to pick up FOD. Maintenance staff conducts sweeping operations at runways, taxiways, ramps, roadways, and public parking lots at least twice a month, and more frequently if:

- An airport user complaint is received;
- Air Operations Control requests the cleaning of an area due to FOD concerns; and/or
- AIR-EE inspectors request that an area be swept where there is a potential threat of discharge to State waters.

A Street Sweeping and Inspection Log, or similar form, is filled out by the sweeper operator for each area swept. Data recorded in the log includes:

- Date;
- Description of area swept;
- Type and estimated volume of debris (e.g., trash categories);
- Disposal location; and
- Washout location.

Sweeping debris is stored in designated bins, dump truck beds, or in another contained area at the Maintenance Baseyard. When capacity is reached, the sweeping debris is taken to the landfill for proper disposal. Sweeper washout occurs in a confined area, such as the wash rack or a designated bermed area where water can evaporate, and solids are regularly removed for disposal. Sweeper logs are provided to AIR-EE for entry in Veoci.

7.6 TRASH BOOM INSPECTION AND MAINTENANCE

DOTA has three types of booms installed in Kaloaloe Canal, Manuwai Canal, and South Ramp Canal: (1) sorbent booms that absorb petroleum and capture floating trash and debris, (2) trash intercept booms that capture floatables and non-floatables, and (3) non-sorbent booms that capture floatables. The booms are regularly inspected and cleaned through DOTA's long term maintenance contracts.

7.7 MEASURABLE GOALS AND SCHEDULE

Measurable goals and a proposed schedule for DOTA's pollution prevention and good housekeeping activities are presented in Table 7.

Table 7: Measurable Goals and Schedule – Pollution Prevention and Good Housekeeping

Item No.	Proposed Activity or BMP	Measurable Goals and Schedule
7-1	Conduct DOTA facility inspections.	<ul style="list-style-type: none"> • Inspect DOTA facilities at least annually.
7-2	Conduct and evaluate effectiveness of street sweeping.	<ul style="list-style-type: none"> • Sweep designated runways, taxiways, streets, and parking lots in industrial and commercial areas on DOTA property twice per month. • Review the sweeping schedule annually. • Track the amount (total cubic feet) of debris removed by sweeping.
7-3	Inspect and maintain trash booms.	<ul style="list-style-type: none"> • Inspect and maintain trash booms in Kaloaloa Canal, Manuwai Canal, and South Ramp Canal.