

CHAPTER 10

INDUSTRIAL AND COMMERCIAL ACTIVITIES DISCHARGE MANAGEMENT

Storm water flowing from industrial and commercial areas may be a significant source of pollutants that enter the Oahu MS4. Therefore, the Industrial and Commercial Discharge Management Program (Industrial Discharge Program) is designed to reduce, to the maximum extent practicable, the discharge of pollutants from industrial and commercial facilities and activities that discharge into the Oahu MS4.

This program is related to the Illicit Discharge Program (see Chapter Six) because industrial and commercial facilities activities are susceptible to causing illicit discharges. An element of the Industrial Discharge Program takes a proactive approach in reducing illicit discharges by identifying industrial and commercial areas that drain into the Oahu MS4 for priority inspections.

The Industrial Discharge Program consists of:

- Developing a comprehensive GIS database as part of the AMS to track industrial and commercial facilities and activities whose storm water runoff discharges directly or indirectly into the Oahu MS4;
- Conducting inspections or investigations of industrial and commercial facilities and parcels; and
- Supporting a training program so that those involved in this program have the necessary knowledge and skills to conduct investigations.

10.1 Database Inventories

To better track, gauge, and reduce the amount of pollutants from industrial and commercial facilities that discharge into the Oahu MS4, a GIS database is under development that will include industrial and commercial facilities indirectly discharging into the Oahu MS4 (see Section 3.3.6). As described in Chapter Three, the AMS will contain this database and production tools to produce maps to support the program.

The types of facilities and activities contained in the industrial database include:

- Municipal landfills (open and closed);
- Hazardous waste recovery, treatment, storage and disposal facilities;
- Facilities subject to Section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023;
- Facilities from follow-up investigations of the industrial facilities identified in the 2000 Questionnaire Survey;
- Facilities subject to General Industrial Storm Water permit coverage or any other applicable NPDES permit coverage which are adjacent to the DOT-Highways right-of-way or discharge to the Oahu MS4; and
- Any other industrial facility that either HDOT Highways or HDOH determines is contributing a substantial pollutant loading to the Oahu MS4.

The type of information collected for each industrial facility or activity in the database is provided in Section 3.3.6.1.

The types of facilities and activities contained in commercial database include:

- Retail gasoline outlets;
- Retail automotive services, including repair facilities;
- Restaurants; and
- Any other commercial facility that either HDOT Highways or HDOH determines is contributing pollutants to the Oahu MS4, which may cause or contribute to an exceedance of State water quality standards.

The type of information collected for each commercial facility or activity in the database is provided in Section 3.3.6.1.

The initial listing of the industrial and commercial inventory was generated using the following readily available sources:

- City's Land Use database;
- USEPA's Envirofacts Datawarehouse; and
- Oahu Yellow Pages.

The City's land use database has an exhaustive listing of parcels that contain industrial and commercial facilities. Each record contains information about the parcel's predominant activity ("activity code"), and the function of any physical facility on the property ("facility code"). A selection process was performed using each of these fields to determine whether certain parcels should be listed on the initial inventories. After removing duplicates, and obtaining TMK and ownership information, approximately 24,000 records were identified.

The USEPA Envirofacts Datawarehouse allows users to search multiple databases or systems at the same time, using various environmental criteria. The query search included the following types of sites:

- Reported hazardous waste activities;
- Listed on USEPA's Superfund;
- Considered large quantity generators of hazardous waste; and
- Hold permits to discharge into waters of the United States.

Each query was limited to Oahu's geographic boundaries. The queries produced addresses and other information used to locate and map the sites. A little over 2,000 records were identified.

Upon consultation with the State Department of Business Economic Development and Tourism, it was determined that the "Yellow Pages" has the most up to date listing of gas stations, automotive service stations, and restaurants on the island. Using keyword searches, such as "restaurants"; "gas stations"; and "automotive service stations", etc. within Oahu's geographic boundaries, a long list of businesses was obtained. To ensure that the search was comprehensive, large gas or automotive retailers and restaurants were verified from other sources, such as company websites and the "White Pages". Facility addresses were then used to locate and map the facilities.

10.2 Inspections of Industrial and Commercial Facilities

The major element of the Industrial Discharge Program is the inspection or investigation of industrial and commercial facilities to reduce the amount of illicit discharges coming from these sources to the maximum extent practicable. The inspections would be conducted at the following types of industrial and commercial facilities and parcels:

- Holding connection permits as described in Section 6.1, and
- Located in areas considered for priority inspections based on the potential for illicit discharges and impacts to water quality (e.g., location vis-à-vis 303(d) water bodies).

In general, investigations conducted as described in this section would be conducted in the same manner as the investigations under the Illicit Discharge Program (see Section 6.2).

10.2.1 Permitted Dischargers

All industrial and commercial facilities holding connection permits would be subject to inspections at least once every five years to check whether their Oahu MS4 connections are consistent with the terms of their permits. Residential connection permit holders would not be subject to these inspections.

The AMS will be used to schedule inspections of permit holder properties or facilities (see Section 3.3.2.1). The owner of the property from which the connection originates is generally considered the owner of the connection, and would, therefore, be the responsible party for any illegal connection or connection beyond the terms of the permit.

During the inspection, the inspector will check that permitted dischargers are in compliance with local ordinances and the terms of the permit, and if not, follow-up action as described in Section 6.2 will be taken.

10.2.2 Industrial and Commercial Areas

The AMS was used to identify and rank industrial and commercial facilities or dischargers according to the relative risk that the discharge may be contaminated with pollutants, and how this might affect the quality of storm water runoff entering the Oahu MS4. This process included the identification of gas stations, restaurants, facilities with previous storm water violations, handlers of hazardous waste, and other types of parcels or land uses that could affect water quality.

Based on the information collected and analyzed using the AMS, priority areas were identified for inspections, and included in the *Prioritized Areas for Industrial and Commercial Facility and Activity Inspections Plan* (see Appendix L.2). Prior to developing a prioritized list of parcels, the following types of sites or facilities were screened from the list:

- Owned by the federal, State and City governments;
- Listed in the 2000 Questionnaire Survey roster (see Section 6.2.1); and
- Not directly adjacent to HDOT Highways rights-of-way.

Following the screening, the remaining facilities or sites were sorted by which watersheds they are located. The sites located in watersheds with Waste Load Allocations (WLA) (see Section 11.2) were given the highest priority. The sites located in high priority watersheds (as defined in Appendix A of the Consent Decree) were given the second highest priority. The sites located in non-WLA or non-high priority watersheds were given the lowest priority. Watersheds within each priority level were then ranked based on their site or facility densities. Those watersheds that had the most sites or facilities were ranked or prioritized as first.

If approved by HDOH, the AMS will be used to schedule inspections of sites within the highest priority watersheds in accordance with quotas contained in the Oahu MS4 NPDES Permit, as provided in Table 10-1. Due to scheduling constraints, the inspections for Year 1 were initiated prior to submitting the official prioritization plan to HDOH.

**Table 10-1
Inspection Quota for the Industrial and Commercial
Discharge Management Program**

Oahu MS4 NPDES Permit Year	Minimum Number of Inspections
1	20
2	30
3	40
4	60
5	80

If an industrial or commercial facility or activity on the prioritized list does not require NPDES permit coverage, this facility or activity would be subject to inspection at least twice every five years. If an industrial facility has NPDES permit coverage, this facility would be subject to inspection at least once every five years. If an inspector finds an industrial or commercial facility does not have NPDES permit coverage, but would be required to have coverage under State law, the facility would be reported to HDOH.

Inspectors will be trained to identify deficiencies, assess potential impacts to receiving waters, and evaluate the appropriateness and effectiveness of deployed BMPs and SWPCPs, if applicable. During an inspection of an industrial or commercial facility or activity, the inspector shall record observations manually on paper inspection forms (see Appendix L.1). The inspectors shall also photograph site and BMP conditions.

As noted above, investigations of industrial and commercial properties in high priority areas will be conducted in the same manner described in Section 6.2. However, because some of the inspected facilities or activities have an NPDES permit or require NPDES permitting, the inspectors would follow the applicable portions of the *NPDES Compliance Inspection Manual* (USEPA 305-X-04-001) during the inspections. An important aspect of the investigations is to determine whether or not the facility or activity is in compliance with applicable State regulations, and if appropriate, the terms of the Oahu MS4 NPDES Permit. The inspections shall also assess whether or not the facility or activity contains potential sources of pollutants

that threaten contamination of storm water and receiving waters. If such sources are identified, the inspector will check whether or not the facility or activity has implemented BMPs that are in compliance with State regulations, and if appropriate, the terms of the Oahu MS4 NPDES Permit.

Inspection reports shall be submitted to HDOH within two months of the inspection date, and records of all inspections shall be maintained for a minimum of five years.

10.3 Enforcement

As noted in Section 2.4, industrial and commercial facilities subject to inspections under the Industrial Discharge Program shall also be subject to the enforcement policy if storm water deficiencies are uncovered during inspections.

10.4 Training

As indicated in the *Industrial and Commercial Facilities Inspection Training Plan* (see Appendix L.3), the training program will be implemented as the program progresses. Training under the Industrial Discharge Program is similar to the training under the Illicit Discharge Program because both programs require inspections of parcels that contribute to the storm water runoff entering the Oahu MS4. Both programs' training elements focus on detecting and eliminating illicit discharges. The details of the Industrial Discharge Program training regimen are as follows:

Training Recipients

Training will be required of current or new inspector responsible for carrying out any element of the Industrial Discharge Program, including additional inspectors contracted by the State or through the master consultant contract.

Training Method

Training shall be conducted through a formalized "on-the-job" method. Applicable sections of the NPDES Compliance Inspection Manual – EPA 300-B-94-014 dated September 1994 will be used as the basis for training.

Trainer Qualifications

The managers and supervisors conducting the training will have the following qualifications:

- Awareness of HDOT Highways activities, policies and procedures;
- Understanding of federal and State laws pertaining to industrial and commercial storm water discharges; and
- Knowledgeable in identifying and eliminating illegal connection, illicit discharges and spills to the Oahu MS4.
- Understanding of applicable sections of the EPA NPDES Compliance Training Inspection Manual

Topics

The following topics of the training will include:

- Information and awareness of the Oahu MS4 NPDES Permit, and the overall Oahu SWMP;
- Informing staff that they serve an important role in protecting the water quality in the State;
- Identifying and eliminating illegal discharges that may flow into the Oahu MS4;
- Types of facilities covered by the NPDES general permit for industrial storm water, and other applicable NPDES permit;
- BMPs and other control measures for industrial and commercial facilities to control storm water pollution; and
- Inspection and enforcement techniques.
- Understanding of the use of applicable sections of the EPA NPDES Compliance Inspection Manual

Training Schedule and Reporting

Training will be held on as-needed basis (i.e., when new inspectors are hired or contracted). Refresher courses will be held at a minimum once per year for inspection staff involved in the program.

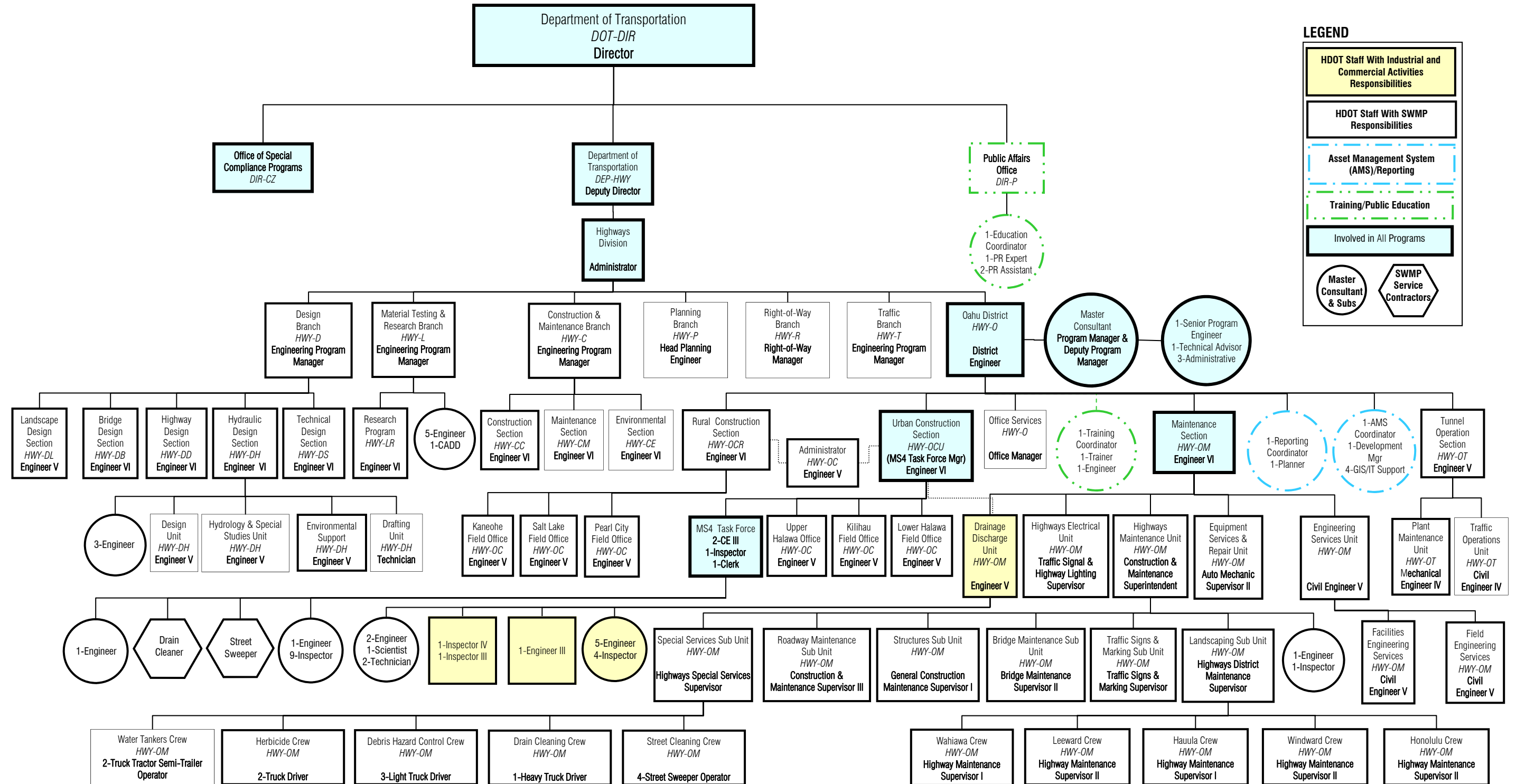
Each “on-the-job” training session will be recorded and entered into this program’s training database. The trainer and training recipient will be recorded in the database. The mid-year and end-of-year reports will contain information on the number and dates of training sessions, types of training, and recipients of the training as described in Chapter Thirteen.

10.5 Organizational Structure

As shown in Figure 10-1, the Industrial Discharge Program is overseen by the MS4 Task Force/DDU. The head of the DDU, an Engineer V, is the main point of contact for this program, and is assisted by an Engineer III and Inspector IV who would provide inspection assistance to the master consultant.

The master consultant provides services to conduct the industrial and commercial inspections and investigations; data management and collection; and preparing procedures and methods to conduct the investigations. The program execution engineer (see Section 2.2.2) conducts independent reviews and quality checks of each investigative case prior to submission to DDU.

Highways Division Storm Water Management Program Organizational Structure - Industrial and Commercial Activities Discharge Management Program 2006-2009



LEGEND

- HDOT Staff With Industrial and Commercial Activities Responsibilities
- HDOT Staff With SWMP Responsibilities
- Asset Management System (AMS)/Reporting
- Training/Public Education
- Involved in All Programs
- Master Consultant & Subs
- SWMP Service Contractors