State of Hawaii, Department of Transportation
Highways Division, Oahu District

Storm Water Management Program Plan



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022

STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION, OAHU DISTRICT

STORM WATER MANAGEMENT PROGRAM PLAN

MS4 NPDES Permit No. HI S000001





State of Hawaii, Department of Transportation
Highways Division, Oahu District
727 Kakoi Street, Honolulu, Hawaii 96819

February 2022
Version: Final

RECORD OF REVISION

OAHU STORM WATER MANAGEMENT PROGRAM PLAN			
Revision No.	Revision Date	Description	Sections Affected
Original Document	February 2022	Original	N/A

TABLE OF CONTENTS

LIST OF APPENDICES vi

LIST OF FIGURES viii

LIST OF TABLES xiii

LIST OF ACRONYMS AND ABBREVIATIONS xiv

LIST OF DEFINITIONS xvii

EXECUTIVE SUMMARY xxvii

CHAPTER 1 OVERVIEW OF STORM WATER MANAGEMENT PROGRAM PLAN 1

1.0 Program Organization 3
1.1 Purpose and Structure of SWMPP 4
1.2 Storm Water Regulations and Legal Authority 5
1.3 Asset Management System 6

CHAPTER 2 PUBLIC EDUCATION AND OUTREACH PROGRAM 8

2.0 Program Organization 12
2.1 Public Education and Outreach Plan 13
2.2 Public Involvement and Participation 14
2.2.1 Public Service Program 14
2.2.2 Public Review and Comment 15
2.3 Monitoring Program Effectiveness 16

CHAPTER 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM 17

3.0 Program Organization 21
3.1 Connection Permits 22
3.1.1 Permitting New Connections 22
3.1.2 Permitting Existing Connections 23
3.2 Outfall Field Screening 25
3.3 Tracking Illegal Connections, Illicit Discharges, and Spills 27

3.4 Investigation of Illegal Connections and Illicit Discharges 28
3.5 Enforcement Policy 32
3.6 Spill Prevention and Response 33
3.7 Household Hazardous Waste Disposal 38
3.8 Training 40
3.9 Monitoring Program Effectiveness 41

CHAPTER 4 CONSTRUCTION SITE RUNOFF CONTROL PROGRAM 42
4.0 Program Organization 48
4.1 Construction BMP Implementation 49
4.2 Inventory of Construction Sites 51
4.3 Plan Review and Permitting 53
4.3.1 Project Plan Review and Approval 53
4.3.2 Permitting 54
4.3.3 Plan Review Checklists 54
4.4 Inspections 57
4.4.1 Initial Inspections 57
4.4.2 Independent Inspections 58
4.4.3 Corrective Actions and Reporting Procedures 59
4.4.4 Tracking Inspection Results 60
4.5 Enforcement 62
4.6 Training 64
4.7 Monitoring Program Effectiveness 65

CHAPTER 5 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT PROGRAM 66
5.0 Program Organization 70
5.1 Post-Construction BMP Design Standards 71
5.2 Review of Plans for Post-Construction BMPs 72
5.3 Post-Construction BMPs Inspection and Maintenance Database 74
5.4 Training 75
5.5 Monitoring Program Effectiveness 76

CHAPTER 6 POLLUTION PREVENTION/GOOD HOUSEKEEPING DEBRIS CONTROL BMPS PROGRAM 77
6.0 Program Organization 81
6.1 Asset Management System 82
6.2 Street Sweeping Inspection and Maintenance 84
6.3 Storm Drainage System Inspection and Maintenance 87
6.4 Storm Drain Placards 89
6.5 Action Plan for Retrofitting Structural BMPs 91
6.6 Trash Reduction Plan 93
6.7 Monitoring Program Effectiveness 94

CHAPTER 7 POLLUTION PREVENTION/GOOD HOUSEKEEPING CHEMICAL APPLICATIONS BMPS PROGRAM 95
7.0 Program Organization 98
7.1 Chemical Applications BMPs 99
7.2 Training 102
7.3 Monitoring Program Effectiveness 103

CHAPTER 8 POLLUTION PREVENTION/GOOD HOUSEKEEPING EROSION CONTROL BMPS PROGRAM 104
8.0 Program Organization 107
8.1 Permanent Erosion Control Improvements 108
8.2 Temporary Erosion Control Measures 111
8.3 Maintenance Plan for Vegetated Portions of the MS4 113
8.4 Action Plan to Address Erosional Outfalls 115
8.5 Identification of Significant Erosional Areas 116
8.6 Monitoring Program Effectiveness 117

CHAPTER 9 POLLUTION PREVENTION/GOOD HOUSEKEEPING MAINTENANCE ACTIVITIES BMPS PROGRAM 118
9.0 Program Organization 121
9.1 Maintenance Activities BMPs 121
9.2 Flood Control Project 124
9.3 Training 128

9.4 Monitoring Program Effectiveness 129

CHAPTER 10 INDUSTRIAL AND COMMERCIAL ACTIVITIES DISCHARGE MANAGEMENT PROGRAM 130

10.0 Program Organization 136
10.1 Connection and Discharge Permits 137
10.1.1 Permitting New Connections 137
10.1.2 Permitting Existing Connections 138
10.1.3 Permitting Discharge of Surface Runoff 139
10.2 Facility Inventory 140
10.2.1 Industrial and Commercial Database 141
10.2.2 Inventory and Map Deliverables 141
10.3 Prioritized Area Plan 144
10.4 Inspections 146
10.4.1 Inspection Procedures 146
10.4.2 Inspection Schedules 147
10.5 Commercial Facility Ranking 149
10.5.1 Facility Ranking Criteria 149
10.5.2 Facility Ranking Results 151
10.6 SWPPP Review 152
10.7 Enforcement 153
10.7.1 Addressing Deficiencies 154
10.7.2 Addressing Illicit Discharge Violations 155
10.8 Training 158
10.9 Monitoring Program Effectiveness 159

CHAPTER 11 BASEYARD FACILITIES PROGRAM 160

11.0 Program Organization 163
11.1 SWPCPs Implementation 164
11.2 Training 166
11.3 Baseyard Inspections 168
11.4 Monitoring Program Effectiveness 169

CHAPTER 12 MONITORING PROGRAM 170
12.0 Program Organization 174
12.1 Annual Monitoring Plan 175
12.2 Annual Monitoring Report 177
12.3 Monitoring Program Effectiveness 178

CHAPTER 13 TOTAL MAXIMUM DAILY LOAD PROGRAM 179
13.0 Program Organization 183
13.1 Implementation and Monitoring Plans 183
13.2 Schedules of Compliance 186
13.3 I&M Plans for Future TMDLs 187
13.4 Monitoring Program Effectiveness 188

CHAPTER 14 REPORTING PROGRAM 189
14.0 Program Organization 192
14.1 Addressing Requirements 192
14.2 Annual Report Content 194

LIST OF APPENDICES

Appendix	Title
A.1	DOT-HWYS National Pollutant Discharge Elimination System Permit No. HI S000001
A.2	Storm Water Management Program Organizational Chart
A.3	Program Effectiveness Strategy
A.4	Memorandum of Understanding with State of Hawaii, Department of Health
A.5	Memorandum of Understanding with City and County of Honolulu, Department of Environmental Services and Department of Facility Maintenance
B.1	Public Education and Outreach Plan
B.2	Storm Water Management Program Plan Informational Meeting Participant List
C.1	Application for a Private Storm Drain Connection and/or Discharge Permit to the State of Hawaii Highways Division Storm Drain System
C.2	Permit for Connection to the State Highways Drainage System
C.3	Outfall Field Screening Plan
C.4	IDDE Complaint MS4 Site Investigation Sheet
C.5	Spill Response Documentation Form
D.1	Construction Best Management Practices Field Manual
D.2	Storm Water Pollution Prevention Plan (SWPPP) Review Checklist
D.3	Site-Specific Best Management Practices (SSBMP) Plan/Storm Water Pollution Prevention Plan (SWPPP) Review Checklist
D.4	Permit to Perform Work Upon State Highways
D.5	Contractor's Certification of NPDES Compliance
D.6	Written Best Management Practices (BMP) Plan
D.7	Permit to Discharge into the State Highways Drainage System
D.8	Independent (Third Party) Inspection Checklist

D.9	Independent (Third Party) Inspection Checklist - Short Form
D.10	Site-Specific Best Management Practice/Storm Water Pollution Prevention Inspection and Maintenance Report
D.11	Enforcement Response Plan
E.1	Storm Water Post-Construction Best Management Practices Manual
F.1	Group A, B, C Street Sweeping Segments
F.2	Priority Schedules for Storm Drain Structure Inspections
F.3	Action Plan for Retrofitting Structural BMPs
F.4	Trash Reduction Plan
G.1	Chemical Applications Authorized Use List
G.2	Maintenance Baseyard Storm Water Training Topics
H.1	Implementation Schedule for Significant Erosional Areas
H.2	Action Plan to Address Erosional Outfalls
I.1	Maintenance Activities BMPs Field Manual
J.1	Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections
J.2	Industrial and Commercial MS4 Site Investigation Sheet
K.1	SWPCP Inspection Corrective Action Timeframes
L.1	Total Maximum Daily Load Implementation and Monitoring Plan Ala Wai Canal Watershed Waste Load Allocations
L.2	Total Maximum Daily Load Implementation and Monitoring Plan Kawa Stream Watershed Waste Load Allocations
L.3	Total Maximum Daily Load Implementation and Monitoring Plan Waimanalo Stream Watershed Waste Load Allocations
L.4	Total Maximum Daily Load Implementation and Monitoring Plan Kapaa Stream Watershed Waste Load Allocations
L.5	Total Maximum Daily Load Implementation and Monitoring Plan Kaneohe Stream Watershed Waste Load Allocations
L.6	Total Maximum Daily Load Implementation and Monitoring Plan Waikele Watershed Waste Load Allocations

LIST OF FIGURES

FIGURE	TITLE	PAGE
Figure 1-1	AMS Maximo Inputs and Outputs per Module	7
Figure 2-1	Public Education Program Organizational Chart.	12
Figure 2-2	Public Education Program Organizational Chart for Roles and Responsibilities Related to the *Public Education and Outreach Plan*	13
Figure 2-3	The Adopt-A-Highway Program Encompasses All Eligible State Highways Routes	14
Figure 2-4	Public Education Program Organizational Chart for Roles and Responsibilities Related to Public Involvement and Participation	16
Figure 3-1	IDDE Program Organizational Chart	21
Figure 3-2	IDDE Program Organizational Chart for Roles and Responsibilities Related to Connection Permits	24
Figure 3-3	AMS Maximo Outfall Module	25
Figure 3-4	IDDE Program Organizational Chart for Roles and Responsibilities Related to Outfall Field Screening	26
Figure 3-5	IDDE Program Organizational Chart for Roles and Responsibilities Related to Tracking Illegal Connections, Illicit Discharges, and Spills	27
Figure 3-6	IDDE Complaint Response Workflow	30
Figure 3-7	IDDE Program Organizational Chart for Roles and Responsibilities Related to the Investigation of Illegal Connections and Illicit Discharges	31
Figure 3-8	IDDE Program Organizational Chart for Roles and Responsibilities Related to Enforcement Policy	32
Figure 3-9	Spill Prevention and Response Workflow	33
Figure 3-10	IDDE Program Organizational Chart for Roles and Responsibilities Related to Spill Prevention and Response	37
Figure 3-11	IDDE Program Organizational Chart for Roles and Responsibilities Related to Household Hazardous Waste Disposal	39

Figure 3-12 IDDE Program Organizational Chart for Roles and Responsibilities Related to Training 41
Figure 4-1 Construction Program Organizational Chart 48
Figure 4-2 Construction Program Organizational Chart for Roles and Responsibilities Related to Construction BMP Implementation 50
Figure 4-3 Construction Program Organizational Chart for Roles and Responsibilities Related to Inventory of Construction Sites 52
Figure 4-4 Construction Program Organizational Chart for Roles and Responsibilities Related to Plan Review and Permitting 56
Figure 4-5 Construction Program Organizational Chart for Roles and Responsibilities Related to Inspections 61
Figure 4-6 Construction Program Organizational Chart for Roles and Responsibilities Related to Enforcement 63
Figure 4-7 Construction Program Organizational Chart for Roles and Responsibilities Related to Training 65
Figure 5-1 Post-Construction Program Organizational Chart 70
Figure 5-2 Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Post-Construction BMP Design Standards 72
Figure 5-3 Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Review of Plans for Post-Construction BMPs 73
Figure 5-4 Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Post-Construction BMPs Inspection and Maintenance Database 75
Figure 5-5 Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Training 76
Figure 6-1 Debris Control Program Organizational Chart 81
Figure 6-2 Debris Control Program Organizational Chart for Roles and Responsibilities Related to the AMS 83
Figure 6-3 Street Sweeping Module KPI 84
Figure 6-4 Street Sweeping by Status (Blue – Completed, Yellow – Scheduled) 85

Figure 6-5 Debris Control Program Organizational Chart for Roles and Responsibilities Related to Street Sweeping Inspection and Maintenance 86
Figure 6-6 Manhole and Inlet Inspection KPI 87
Figure 6-7 Debris Control Program Organizational Chart for Roles and Responsibilities Related to Storm Drain System Inspection and Maintenance 88
Figure 6-8 Storm Drain Placard Attribute Data 89
Figure 6-9 Debris Control Program Organizational Chart for Roles and Responsibilities Related to Storm Drain Placards 90
Figure 6-10 Debris Control Program Organizational Chart for Roles and Responsibilities Related to the *Action Plan for Retrofitting Structural BMPs* 92
Figure 6-11 Debris Control Program Organizational Chart for Roles and Responsibilities Related to the *Trash Reduction Plan* 94
Figure 7-1 Chemical Applications Program Organizational Chart 98
Figure 7-2 Chemical Applications Program Organizational Chart for Roles and Responsibilities Related to Chemical Applications BMPs 101
Figure 7-3 Chemical Applications Program Organizational Chart for Roles and Responsibilities Related to Chemical Applications Training 103
Figure 8-1 Erosion Control Program Organizational Chart 107
Figure 8-2 Criteria Used to Designate Sites with the Potential for Significant Water Quality Impact 109
Figure 8-3 Erosion Control Program Organizational Chart for Roles and Responsibilities Related to Permanent Erosion Control Improvements 110
Figure 8-4 Erosion Control Program Organizational Chart for Roles and Responsibilities Related to Temporary Erosion Control Measures 112
Figure 8-5 Erosion Control Program Organizational Chart for Roles and Responsibilities Related to the Maintenance Plan for Vegetated Portions of the MS4 114
Figure 8-6 Erosion Control Program Organizational Chart for Roles and Responsibilities Related to the *Action Plan to Address Erosional Outfalls* 115

Figure 8-7 Erosion Control Program Organizational Chart for Roles and Responsibilities Related to Identification of Significant Erosional Areas 117
Figure 9-1 Maintenance Activities Program Organizational Chart 121
Figure 9-2 Maintenance Activities Program Organizational Chart for Roles and Responsibilities Related to Maintenance Activities BMPs 124
Figure 9-3 Design Details of the Punahou Pump Station 125
Figure 9-4 Maintenance Activities Program Organizational Chart for Roles and Responsibilities Related to the Flood Control Project 127
Figure 9-5 Maintenance Activities Program Organizational Chart for Roles and Responsibilities Related to Training 129
Figure 10-1 Industrial and Commercial Program Organizational Chart 136
Figure 10-2 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Connection and Discharge Permits 140
Figure 10-3 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Facility Inventory 143
Figure 10-4 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to the Prioritized Area Plan 145
Figure 10-5 Industrial and Commercial Program Inspection Workflow 147
Figure 10-6 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Inspections 148
Figure 10-7 Six Variables to Consider in Determining a Facility's Score 150
Figure 10-8 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Commercial Facility Ranking 151
Figure 10-9 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to SWPPP Review 153
Figure 10-10 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Enforcement 157
Figure 10-11 Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Training 159
Figure 11-1 Locations of DOT-HWYS Baseyard Facilities Subject to the MS4 NPDES Permit Requirements 162

Figure 11-2 Baseyard Facilities Program Organizational Chart 163
Figure 11-3 Baseyard Facilities Program Organizational Chart for Roles and Responsibilities Related to SWPCPs Implementation 165
Figure 11-4 Baseyard Facilities Program Organizational Chart for Roles and Responsibilities Related to Training 167
Figure 11-5 Baseyard Facilities Program Organizational Chart for Roles and Responsibilities Related to Baseyard Inspections 169
Figure 12-1 Monitoring Program Organizational Chart 174
Figure 12-2 Monitoring Program Organizational Chart for Roles and Responsibilities Related to the Annual Monitoring Plan 176
Figure 12-3 Monitoring Program Organizational Chart for Roles and Responsibilities Related to the Annual Monitoring Report 178
Figure 13-1 TMDL Program Organizational Chart 183
Figure 13-2 TMDL Watersheds (in blue) with Waste Load Reductions Assigned to DOT-HWYS (in yellow) 185
Figure 13-3 TMDL Program Organizational Chart for Roles and Responsibilities Related to the Implementation and Monitoring Plans 186
Figure 13-4 TMDL Program Organizational Chart for Roles and Responsibilities Related to the Schedules of Compliance 187
Figure 13-5 TMDL Program Organizational Chart for Roles and Responsibilities Related to I&M Plans for Future TMDLs 188
Figure 14-1 Reporting Program Organizational Chart 192

LIST OF TABLES

TABLE	TITLE	PAGE
Table 2-1	MS4 NPDES Permit Requirements for the Public Education Program	12
Table 3-1	MS4 NPDES Permit Requirements for the IDDE Program	19
Table 3-2	Illicit Discharge and Spill Response Notification Procedures	35
Table 4-1	MS4 NPDES Permit Requirements for the Construction Program	44
Table 4-2	Appropriate BMP Plan and Review Process for Public and Private Construction Projects	53
Table 5-1	MS4 NPDES Permit Requirements for the Post-Construction Program	68
Table 6-1	MS4 NPDES Permit Requirements for the Debris Control Program	79
Table 7-1	MS4 NPDES Permit Requirements for the Chemical Applications Program	97
Table 8-1	MS4 NPDES Permit Requirements for the Erosion Control Program	106
Table 9-1	MS4 NPDES Permit Requirements for the Maintenance Activities Program	120
Table 10-1	MS4 NPDES Permit Requirements for the Industrial and Commercial Program	132
Table 11-1	MS4 NPDES Permit Requirements for the Baseyard Facilities Program	162
Table 12-1	MS4 NPDES Permit Requirements for the Monitoring Program	172
Table 13-1	MS4 NPDES Permit Requirements for the TMDL Program	181
Table 13-2	Comparison of 2013 and 2020 MS4 NPDES Permit Waste Load Reductions for Kaneohe and Kapaa Stream Watersheds	184
Table 14-1	MS4 NPDES Permit Requirements for the Reporting Program	191
Table 14-2	Additional MS4 NPDES Permit Reporting Requirements	193

LIST OF ACRONYMS AND ABBREVIATIONS

AMS	Asset Management System
BMP	Best Management Practice
CCH	City and County of Honolulu
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWB	State of Hawaii, Department of Health, Clean Water Branch
DMS	Document Management System
DOH	State of Hawaii, Department of Health
DOT-HWYS	State of Hawaii, Department of Transportation, Highways Division, Oahu District
ENV	City and County of Honolulu Department of Environmental Services
EPA	Environmental Protection Agency
FACS	Field Automated Communication Systems
GIS	Geographic Information System
GPS	Global Positioning System
HAR	Hawaii Administrative Rules
HEER	Hazard Evaluation and Emergency Response
HFD	City and County of Honolulu Fire Department
HRS	Hawaii Revised Statutes
HWY-O	State of Hawaii, Department of Transportation, Highways Division, Oahu District (For the purpose of this document, DOT-HWYS is used in lieu of HWY-O.)
HWY-OC	State of Hawaii, Department of Transportation, Highways Division, Oahu District, Construction Section

HWY-OM	State of Hawaii, Department of Transportation, Highways Division, Oahu District, Maintenance Section
HWY-OT	State of Hawaii, Department of Transportation, Highways Division, Oahu District, Tunnel Operations Section
HWY-OW	State of Hawaii, Department of Transportation, Highways Division, Oahu District, Environmental Management Section
IDDE	Illicit Discharge Detection and Elimination
I&M Plan	Implementation and Monitoring Plan
KPI	Key Performance Indicators
LID	Low Impact Development
MEP	Maximum Extent Practicable
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PID	Point Identification Number
ROW	Right-of-Way
SIC	Standard Industrial Classification
SIS	Site Investigation Sheet
SSBMP	Site-Specific Best Management Practice
SWMP	Storm Water Management Program
SWMPP	Storm Water Management Program Plan
SWPCP	Storm Water Pollution Control Plan
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load

TMK	Tax Map Key
TN	Total Nitrogen
TOB	Top of Bank
TOC	Tunnel Operations Center
TP	Total Phosphorous
TSS	Total Suspended Solids
USC	United States Code
WLA	Waste Load Allocation

LIST OF DEFINITIONS

Best Management Practice (BMP) — Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. [40 CFR § 122.2]

Clean Water Act (CWA) — Formerly referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972 Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law Public 96-483 and Public Law 97-117, 33 U.S.C. 1251 *et seq*. [40 CFR § 122.2]

Code of Federal Regulations (CFR) — The codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal Regulation. Title 40 of the CFR (referenced as 40 CFR) lists all environmental regulations.

Connection Permit — A permit issued by DOT-HWYS for a physical connection into the MS4.

Construction Activity — Any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in a land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

Critical Deficiencies (Baseyard Facility) — Deficiencies that pose an immediate threat for the discharge of pollutants from the drainage area(s) to the storm drain systems, surface waters, or state waters as described in the baseyard SWPCP. Critical deficiencies include, but are not limited to, the following examples:

1. Any observed discharge, or evidence of discharge, of potentially polluted storm water from the drainage area(s).
2. Presence of any spilled hazardous materials near to unprotected storm water discharge point(s) identified in the baseyard SWPCP.

Critical Deficiencies (Construction) — Those deficiencies that pose an immediate threat for the discharge of pollutants to the storm drain system, surface water, or state waters. Critical deficiencies include, but are not limited to, the following examples:

1. Any observed discharge, or evidence of discharge, of untreated storm water or non-storm water to the storm drain system, surface waters, or state waters generated by construction activity.
2. Absence of linear barriers and/or perimeter controls required by the BMP Plan.
3. There are identified storm drain inlets, surface waters, or state waters within or adjacent to the project site in close proximity to disturbed soil areas without control measures in place that pose an immediate threat of untreated storm water discharges.
4. Work in an active stream channel or other surface water body without proper implementation of required BMPs.
5. Presence of any spilled oil or hazardous materials near to unprotected storm drain inlet, surface waters, or state waters.

CWA Section 303(d) List — A state's list of impaired and threatened waters. States are required to submit their list for EPA approval every two years. For each water on the list, the state identifies the pollutant causing the impairment, when known. In addition, the state assigns a priority for development of TMDLs based on the severity of the pollution and the sensitivity of the uses to be made of the waters, among other factors.

Discharge — When used without qualification means the discharge of a pollutant.

Discharge of a Pollutant — Any addition of any pollutant or combination of pollutants to state waters from any point source. This definition includes additions of pollutants into state waters from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. [40 CFR § 122.2]

Discharge Permit — A permit issued by DOT-HWYS to discharge storm water runoff into the MS4.

Disturbance of Land — The penetration, turning, or moving of soil or resurfacing of pavement with exposure of the base course or the exposure of bare soil or ground surface; including the land surface exposed by construction roads, baseyards, staging areas, demolition, headquarters, and parking areas. It includes "grubbing" in its normal meaning of the use of equipment to knock down and push vegetation out of the way, typically uprooting vegetation and disturbing the ground surface.

Erosion Control — The stabilization of a disturbed or exposed surface area to prevent soil particles from being detached and causing sediment accumulation in nearby surface waters.

Fiscal Year — The 12-month period that begins on July 1st and ends on June 30th.

Good Housekeeping — A common practice related to the storage, use, or cleanup of materials performed in a manner that minimizes the discharge of pollutants.

Household Hazardous Waste — Excess products that are flammable, corrosive, and toxic.

Illegal Connection — Any connection to the MS4 that is not permitted by a connection permit from DOT-HWYS.

Illicit Discharge — Any discharge that is not composed entirely of storm water, with the exception of the following types of discharges (provided that they do not contain pollutants in amounts that will cause or contribute to a violation of an applicable water quality standard):

- Water line flushing;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined in 40 CFR § 35.2005[20]);
- Uncontaminated pumped ground water;
- Discharges from potable water sources and foundation drains;
- Air conditioning condensate;
- Sea water;
- Springs;
- Water from crawl space pumps (including discharge from buildings with basements, and crawl space pumps used by utility companies to dewater utility manholes and other maintenance and operations of substructure facilities) and footing drains;
- Lawn watering runoff; landscape irrigation, planter box runoff, and irrigation water, excluding runoff from commercial agriculture
- Water from individual residential car washing;
- Water from charity car washes;

- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Exterior building wash water (water only);
- Residual street wash water (water only), including wash water from sidewalks, plazas, and driveways, but excluding parking lots; and
- Discharges or flows from firefighting activities.

Independent Inspections — Site inspections conducted on private and public construction projects by an Independent Inspector.

Independent Inspector — A qualified construction inspector that is not involved in a construction projects' day-to-day planning, design, or implementation.

Low Impact Development (LID) — A comprehensive land planning and engineering design approach with a goal of mimicking or replicating the pre-development hydrologic regime of urban and developing watersheds.

Major Deficiencies (Baseyard Facility) — Deficiencies that are significant problems which could result in the discharge of pollutants from the drainage area(s) to the storm drain systems, surface waters, or state waters as described in the baseyard SWPCP. Major deficiencies include, but are not limited to, the following examples:

1. BMPs are implemented as required by the baseyard SWPCP pollutant control strategies, in areas tributary to storm water discharge point(s) identified in the baseyard SWPCP but are not functional.
2. Hazardous materials or waste is stored in areas tributary to storm water discharge point(s) identified in the baseyard SWPCP, and without containment or implementation of BMPs.
3. Hazardous material spills and/or stains covering more than one square yard and/or adjacent to protected discharge point(s) identified in the baseyard SWPCP.
4. BMPs are installed in accordance with the SWPCP but there is an area with insufficient BMPs down gradient to prevent the discharge of potentially polluted storm water to discharge point(s) identified in the baseyard SWPCP, in the event a rain event generates runoff.

Major Deficiencies (Construction) — Those deficiencies that are significant problems which could result in the discharge of pollutants to the storm drain system, surface waters, or state waters. Major deficiencies include, but are not limited to, the following examples:

1. No BMP Plan or NPDES permit (if required).

2. Linear barriers and/or perimeter controls in areas tributary to a water body or drain inlet are installed as required by the BMP Plan, but are not functional. This includes silt fences that are not anchored properly, have collapsed, been driven over or overwhelmed by accumulated sediment.
3. Hazardous materials or waste is stored within the project without containment or implementation of BMPs.
4. Oil, fuel, or brake or transmission fluid spills covering more than one square yard and/or adjacent to protected storm drain inlets, surface waters, or state waters.
5. Any discharge of sediment or other deleterious material resulting from dewatering operations conducted without implementation of required BMPs for dewatering.
6. Sediment tracking more than 50 feet from project ingress/egress location(s).
7. Expansion of the active disturbed soil area limit without written approval.
8. Soil stabilization and sediment controls are not installed in accordance with the applicable BMP Plan.
9. Sediment controls are installed in accordance with the BMP Plan, but there is a large unstabilized disturbed soil area with insufficient controls down gradient to prevent the discharge of untreated storm water to the MS4, surface waters, or state waters if a rain event generates runoff.
10. Dust from project site visibly blowing off the site and into storm drain conveyances or adjacent surface water bodies.

Major Alteration — As it relates to Permit Part D.3.b, major alterations made to the MS4 include MS4 alterations that result in the discharge into a new receiving state water.

Major Modification — As it relates to Permit Part D.3.a, major modifications to the SWMPP are those that imply a major reduction in the overall scope and/or level of effort of the SWMP.

Maximum Extent Practicable (MEP) — The minimum required performance standard for implementation of municipal storm water management programs to reduce pollutants in storm water. Maximum Extent Practicable is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible best management practices, ensuring that the most appropriate controls are implemented in the most effective manner.

Minor Deficiencies (Baseyard Facility) — Deficiencies that do not pose a threat for discharge but are not in conformance with the baseyard SWPCP pollutant control strategies. Minor deficiencies include, but are not limited to, the following examples:

1. The baseyard SWPCP does not reflect current operations and update(s) are recommended.
2. BMPs are not deficient but are not consistent with the baseyard SWPCP pollutant control strategies.
3. BMPs are implemented as required by the baseyard SWPCP but require minor maintenance.
4. Hazardous material spills and/or stains covering less than one square yard and not adjacent to discharge point(s) identified in the baseyard SWPCP.

Minor Deficiencies (Construction) — Those deficiencies that do not pose a threat for discharge of untreated storm water or pollutants to the storm drain system, surface waters, or state waters, but are not in strict conformance with the SWPPP or BMP Plan. Minor deficiencies include, but are not limited to, the following examples:

1. BMP Plan does not reflect current operations and an amendment is recommended.
2. BMPs are not deficient, but are not consistent with the BMP Plan.
3. Linear barriers and/or perimeter controls are installed as required by the BMP Plan but require minor maintenance. For example, a silt fence which is not anchored properly throughout the entire length of an inlet protection device with some accumulated silt.
4. Soil stabilization or sediment controls are installed as required by the BMP Plan, but not properly maintained.
5. Site inspections by project staff are not being conducted at the required frequencies.
6. Non-storm water or waste management BMPs improperly maintained.
7. Oil, fuel, or brake or transmission fluid spills covering less than one square yard and not adjacent to storm drain inlets, surface waters, or state waters.
8. Evidence of active wind erosion on unstabilized slopes/stock piles.
9. Minor tracking less than 50 feet from project ingress/egress locations.
10. Major deficiencies which are corrected prior to the inspector leaving the site.

MS4 NPDES Permit — Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System Permit No. HI S000001.

Municipal Separate Storm Sewer System (MS4) — A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a state, city, town, or other public body, that is designed or used for collecting or conveying storm water, that is not a combined sewer, and that is not part of a publicly owned treatment works [40 CFR122.26(b)(8)].

National Pollutant Discharge Elimination System (NPDES) — The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA. [40 CFR § 122.2]

New Development — Any construction of new impervious surface over existing pervious area.

Notice of Intent (NOI) — Form completed and signed by a construction site operator or an industrial facility operator notifying the DOH that the operator intends to be authorized to discharge pollutants to state waters under an applicable NPDES general permit.

Ongoing Deficiencies (Baseyard Facility) — Deficiencies that require more than just a single corrective action event to maintain conformance with the baseyard SWPCP pollutant control strategies. Ongoing deficiencies include, but are not limited to, the following examples:

1. Daily removal of rubbish and covering of rubbish disposal containers.
2. Weekly sweeping of baseyard areas and additionally as needed to remove accumulated sediment and debris.
3. Cleaning any parking area oil stains that produce a sheen when wet.
4. Replenishing spill kits when used, or as needed.
5. Utilizing spill containment materials whenever there is the potential for fluid leaks or spills.

Outcome Level — Reflects the relationship between an activity and its effect on water quality. Outcome levels are grouped into six levels and represent a gradation from activity-based to water-quality based outcomes.

Outfall — A point source where the MS4 discharges to state waters and does not include open conveyances connecting two MS4s, pipes, tunnels, or other conveyances which

connect segments of the same stream or state waters and are used to convey state waters [40 CFR § 122.26(b)(9)].

Pollutants — Refer to the waste material that contaminates air, soil, or water. In the context of storm water quality, pollutants often refer to the following:

- Nutrients - phosphorous and nitrogen;
- Suspended solids - sediment suspended in the water;
- Organic carbon and hydrocarbons;
- Bacteria;
- Trace metals;
- Pesticides; and
- Trash and debris.

Post-Construction BMP — A specific practice intended to reduce storm water volume and/or the pollution typically associated with storm water runoff. Such practices may include LID design features, source control methods, or manufactured devices designed to capture pollutants and is synonymous with the terms Permanent BMP and Permanent Post-construction BMP.

Private Construction Projects — Construction activity not under the authority (funding) of or administered by DOT-HWYS that is located within or adjacent to DOT-HWYS ROW and drains to the DOT-HWYS ROW. Private construction projects are required to obtain a *Permit to Perform Work Upon State Highways* prior to commencing construction activities.

Program Element — Individual programs that comprise the overall Storm Water Management Program (i.e., Public Education and Outreach Program, Construction Runoff Control Program, etc.) of DOT-HWYS.

Public Construction Project – A construction activity, which is funded by DOT-HWYS, designed either by personnel of DOT-HWYS or engineering consultant firms, and constructed by DOT-HWYS or a private contractor. Includes contract construction projects and maintenance construction projects.

Redevelopment Project — Any construction, reconstruction, alteration, or improvement performed on existing impervious area in which the underlying soil or pervious subgrade is exposed, penetrated, or replaced during construction. Cold planing (also known as "mill and fill" and some variations of pavement resurfacing) which removes a thin layer of

pavement without exposing the underlying pervious subgrade is not considered redevelopment. Redevelopment results in no net increase in impervious surface.

Routine Maintenance Projects — Scheduled or cyclical projects performed to preserve the life of a system; to restore the original function or delay the deterioration of an existing asset without substantially increasing its structural capacity; or to maintain the original line and grade, hydraulic capacity or original purpose of a facility, system or asset, in which maintenance activities does not go beyond the original footprint of the previous structure.

Sediment — Organic or inorganic material that is carried by or is suspended in water and that settles out to form deposits in the storm drain system or receiving waters.

Service Contractor — The contractor or contractors procured by DOT-HWYS to provide various services.

Significant Erosional Areas — Erosional areas with the potential for significant water quality impact where there is evidence of rilling, gullying, and/or other evidence of significant sediment transport, as well as erosional areas in close proximity to receiving waters listed as impaired by sediment, siltation, and/or turbidity.

Source Control BMP — Operational or structural measures that prevent or reduce pollutants from entering storm water. Examples of operational source control BMPs include good housekeeping practices, spill prevention, and employee training. Structural source control BMPs consist of enclosures or roofs for working areas where pollutants are present or installing devices that direct contaminated storm water to appropriate treatment control BMPs.

State Waters — As defined by section 342D-1, HRS, means all waters, fresh, brackish, or salt around and within the State, including, but not limited to, coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes; provided that drainage ditches, ponds, and reservoirs required as part of a water pollution control system are excluded. In accordance with HAR 11-54-1, this definition applies to all state waters, including wetlands, subject to the following exceptions: (1) This chapter [HAR 11-54-1] does not apply to groundwater, except the director may in the director's discretion take appropriate actions when the director believes that the discharge of pollutants to the ground or groundwater has adversely affected, is adversely affecting, or will adversely affect the quality of any state water other than groundwater. (2) This chapter does not apply to drainage ditches, flumes, ponds and reservoirs that are required as part of a water pollution control system. (3) This chapter does not apply to drainage ditches, flumes, ponds, and reservoirs that are used solely for irrigation and do not overflow into or

otherwise adversely affect the quality of any other state waters, unless such ditches, flumes, ponds, and reservoirs are waters of the United States as defined in 40 CFR § 122.2. The State of Hawaii has those boundaries stated in the Hawaii Constitution, Art. XV § l.

Storm Water — Storm water runoff, snow melt runoff, and surface runoff and drainage. [40 CFR § 122.26(b)(13)].

Storm Water Runoff — The portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes.

Top of Bank (TOB) — The break in slope between the bank and surrounding terrain. TOB is the point closest to the boundary of the active floodplain of a stream where a break in the slope of the land occurs.

Total Maximum Daily Load (TMDL) — A water quality assessment that determines the source or sources of pollutants of concern for a particular waterbody, considers the maximum amount of pollutants the waterbody can assimilate, and then allocates to each source a set level of pollutants that it is allowed to discharge (i.e., a waste load allocation).

Waste Load Allocation (WLA) — The portion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution.

Water Quality Standards — Provisions of state, territorial, authorized tribal or federal law approved by EPA that describe the desired condition of a waterbody and the means by which that condition will be protected or achieved. Water quality standards consist of three core components: designated uses, criteria, and antidegradation requirements.

Watershed — A drainage area or basin in which all water drains or flows toward a central collector such as a stream, river, or lake at a lower elevation.

Wet Weather Event — Any amount of rainfall that could result in an illicit discharge from the site.

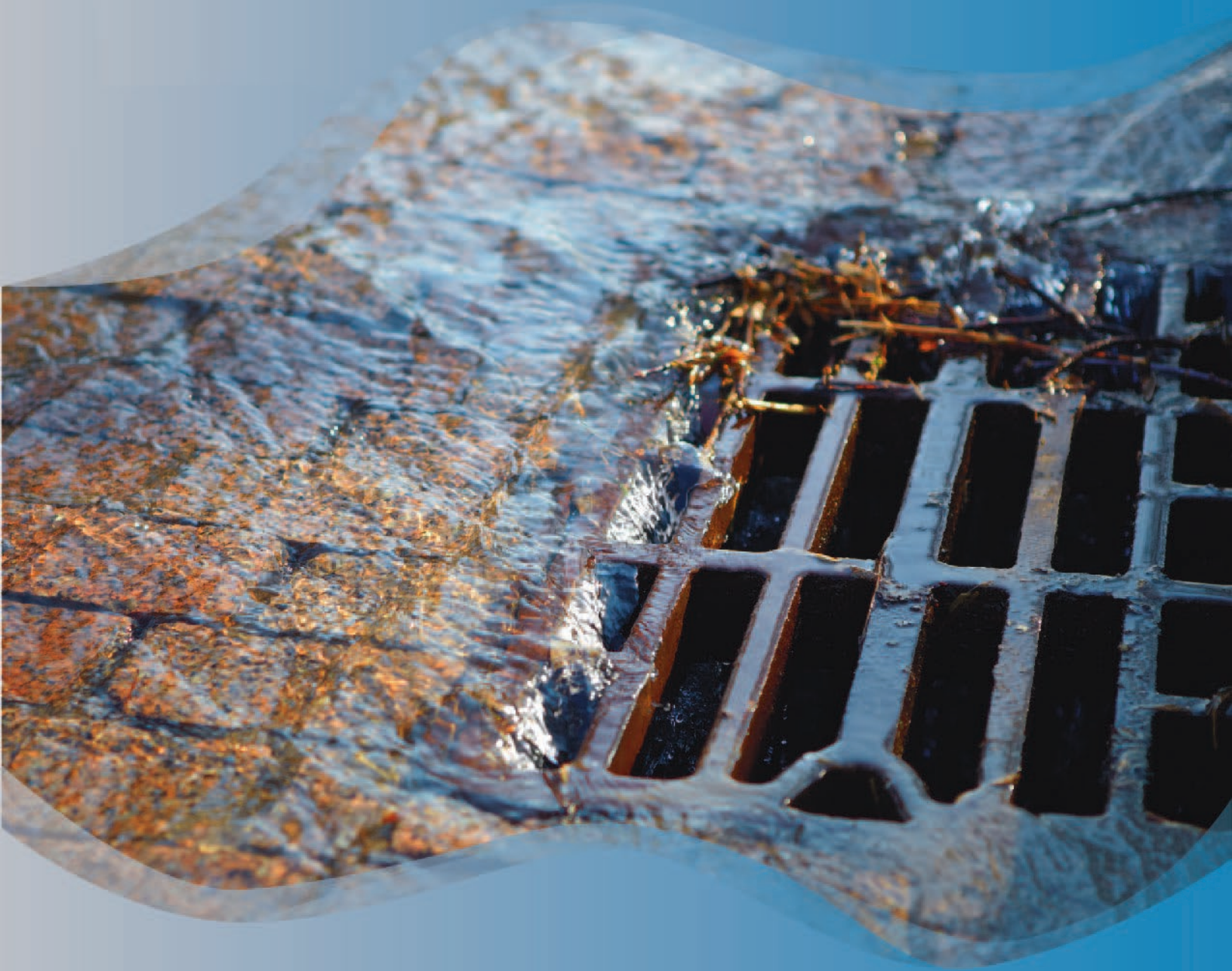
Executive Summary

The State of Hawaii, Department of Transportation, Highways Division, Oahu District (DOT-HWYS) prepared this *Storm Water Management Program Plan (SWMPP)* in compliance with the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System Permit No. HI S000001 (MS4 NPDES Permit), effective September 1, 2020. The MS4 NPDES Permit authorizes DOT-HWYS to discharge storm water runoff and certain non-storm water discharges from the DOT-HWYS MS4 and five baseyard facilities, into state waters in and around the island of Oahu, Hawaii. The *SWMPP* describes the policies and procedures that DOT-HWYS implements to reduce, to the Maximum Extent Practicable, the discharge of pollutants to and from the MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act.

The Storm Water Management Program has evolved with each MS4 NPDES Permit iteration to successfully achieve compliance. This *SWMPP* revision discusses notable progress in several programs. The Post-Construction Storm Water Management in New Development and Redevelopment Program updated the criteria for inclusion of post-construction best management practices, including low impact development, to make measurable water quality impacts on a watershed basis. The Monitoring Program refocused its efforts towards the water quality impact of storm water discharges from the DOT-HWYS MS4 on a watershed scale. The Illicit Discharge Detection and Elimination Program is making strides to refine its enforcement against illicit discharges by initiating amendments to the Memorandum of Understanding with the Department of Health. The Baseyard Facilities Program shifted from monitoring numeric effluent limitations to a best management practice based approach to control pollution from baseyard facilities.

DOT-HWYS presents this *SWMPP* as an opportunity to re-envision the Storm Water Management Program and with the continual progression documented in Annual Reports, demonstrate its commitment to Protect Our Water.

1 | Overview of Storm Water Management Program Plan



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



A drainage channel conveys storm water runoff on Pookela Street, Kaneohe, Hawaii.

The State of Hawaii, Department of Transportation, Highways Division, Oahu District (DOT-HWYS) owns and operates a municipal separate storm sewer system (MS4) on the Island of Oahu, Hawaii. The State of Hawaii, Department of Health (DOH) issued the MS4 National Pollutant Discharge Elimination System (NPDES) Permit No. HI S000001 (MS4 NPDES Permit) (Appendix A.1), that authorizes DOT-HWYS to discharge storm water runoff and certain non-storm water discharges from the MS4 and from five DOT-HWYS baseyard facilities into state waters in and around the island of Oahu. The MS4 NPDES Permit became effective on September 1, 2020, and will expire at midnight on August 31, 2025.

The *Storm Water Management Program Plan* (*SWMPP*) was further developed and improved to address the requirements of the MS4 NPDES Permit and reduce, to the maximum extent practicable (MEP), the discharge of pollutants to and from the MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act (CWA).

The overview of the *SWMPP* introduces the organizational structure of DOT-HWYS and provides information on the following topics:

1. Purpose and structure of the *SWMPP*.
2. Applicable storm water regulations and the legal authority of DOT-HWYS.
3. Overview of the Asset Management System (AMS).

1.0 Program Organization

The Storm Water Management Program (SWMP) is primarily administered by the DOT-HWYS Environmental Management Section (HWY-OW). However, numerous Highways Division branches and Oahu District sections support HWY-OW, which allows for timely adjustments to program needs, sufficient redundancy in tasks, succession planning, and facilitates intragovernmental communication and cooperation for SWMP implementation.

DOT-HWYS additionally administers the SWMP with the support of a master consultant to manage the activities of private consultants, engineering firms, and service contractors to ensure effective and efficient implementation. DOT-HWYS requires that the activities conducted by such entities are performed in accordance with the MS4 NPDES Permit and any other applicable federal and state storm water regulations.

The HWY-OW Engineer coordinates the SWMP Team implementation of activities among three Oahu District functional sections: Maintenance Section (HWY-OM), Construction Section (HWY-OC), and Tunnel Operations Section (HWY-OT). The organizational structure of DOT-HWYS (Appendix A.2) identifies the primary and ancillary support provided to the HWY-OW Engineer for the implementation and oversight of each program element. The Oahu District's Asset Management Section and Office Services provide support as needed.

HWY-OM is responsible to implement requirements of the Baseyard Facilities Program, Construction Site Runoff Control Program, Post-Construction Storm Water Management in New Development and Redevelopment Program, and the Pollution Prevention/Good Housekeeping subprograms: Debris Control BMPs Program, Chemical Applications BMPs Program, and Maintenance Activities BMPs Program.

HWY-OC is responsible for the requirements of the Construction Site Runoff Control Program, including implementing best management practices (BMPs) and standards to prevent erosion, controlling the transport of sediment from earth disturbances during construction activities, and executing the Enforcement Response Plan for public construction projects.

HWY-OT is responsible to contact the spill response Emergency Coordinator in the event of an illicit discharge or spill after work hours, and for Storm Water Pollution Control for Flood Control Projects which includes operation and maintenance of the Punahou Pump Station.

HWY-OW additionally coordinates SWMP implementation among the Highways Division Design Branch and Construction & Maintenance Branch to ensure that post-construction BMPs and low impact development (LID) practices are considered, in accordance with the criteria, from private and public construction projects implemented within or otherwise encroaching the DOT-HWYS rights-of-way (ROW).

HWY-OW facilitates SWMP implementation with the Highways Division Planning Branch, Right-of-Way Branch, Materials and Testing Branch, Traffic Branch, Project Coordination and Technical Services Office, Staff Services Office, Engineering Information Technology Office, and the Motor Vehicle Safety Office, as applicable.

1.1 Purpose and Structure of SWMPP

The purpose of the *SWMPP* is to describe the procedures, program activities, and BMPs that DOT-HWYS will implement during the effective term of the MS4 NPDES Permit in order to reduce, to the MEP, the discharge of pollutants to and from the MS4; protect water quality; comply with the MS4 NPDES Permit; and satisfy the appropriate water quality requirements of the CWA.

The *SWMPP* chapters are organized by program element, as follows.

1 | Overview of *Storm Water Management Program Plan*
2 | Public Education and Outreach Program
3 | Illicit Discharge Detection and Elimination Program
4 | Construction Site Runoff Control Program
5 | Post-Construction Storm Water Management in New Development and Redevelopment Program
6 | Pollution Prevention/Good Housekeeping – Debris Control BMPs Program
7 | Pollution Prevention/Good Housekeeping – Chemical Applications BMPs Program
8 | Pollution Prevention/Good Housekeeping – Erosion Control BMPs Program
9 | Pollution Prevention/Good Housekeeping – Maintenance Activities BMPs Program
10 | Industrial and Commercial Activities Discharge Management Program
11 | Baseyard Facilities Program
12 | Monitoring Program
13 | Total Maximum Daily Load Program
14 | Reporting Program

Each chapter opens with a brief introduction, followed by a list of the major BMPs or program activities implemented by the program element. Training requirements per MS4 NPDES Permit Part D.1.h are incorporated into the SWMPP chapters as applicable. The numbered list of BMPs corresponds to individual sections within the chapter. A table is provided outlining the MS4 NPDES Permit requirements that pertain to the program element and the associated section(s) in which each requirement is addressed.

The next section in each chapter shows the program element's overall organizational structure. At the end of each subsequent section, the organizational chart highlights the personnel responsible for the implementation of BMPs discussed to further identify roles and responsibilities.

The final section of each chapter, Measuring Program Effectiveness, identifies the relevant table in the *Program Effectiveness Strategy* (Appendix A.3) that documents the outcome level, data collection method, and assessment parameters for each program BMP. The purpose of this section is to establish metrics for specific BMPs and to address how DOT-HWYS monitors the effectiveness of BMP implementation.

Cumulatively, the BMPs and storm water management procedures implemented by each program element comprise the strategy for reducing to the MEP the discharge of pollutants to and from the MS4.

1.2 Storm Water Regulations and Legal Authority

DOT-HWYS is required to comply with the following state and federal storm water regulations in addition to the requirements established by the MS4 NPDES Permit:

- Clean Water Act, as amended, (33 U.S.C. §1251 et. seq.)
- Title 40 of the Code of Federal Regulations (CFR)
- Hawaii Revised Statutes (HRS) Chapter 342D
- Hawaii Administrative Rules (HAR) Chapters 11-54 and 11-55

On July 13, 1999, DOT-HWYS entered into a *Memorandum of Understanding Between Department of Transportation, State of Hawaii, and Department of Health, State of Hawaii* (Appendix A.4), for the purpose of assisting DOT-HWYS in controlling illicit discharges into the MS4 to the extent provided by law. Under HRS Chapter 342D, this Memorandum of Understanding (MOU) provides DOT-HWYS with the legal authority necessary to implement and enforce the policies and procedures described in the *SWMPP*.

On February 1, 2002, DOT-HWYS signed a *Memorandum of Understanding Between The Department of Transportation Highways Division, State of Hawaii and The Department of Environmental Services and The Department of Facility Maintenance City and County of Honolulu* (Appendix A.5). The City and County of Honolulu (CCH) owns and operates an MS4 and has been issued an MS4 NPDES permit by DOH. The CCH MS4 and the DOT-HWYS MS4 are interconnected in certain locations. The objectives of this MOU are to establish effective intergovernmental coordination between DOT-HWYS and CCH, delineate the roles and responsibilities of each agency, minimize duplication of efforts, and ensure accountability.

1.3 Asset Management System

DOT-HWYS inventories and monitors SWMP assets and activities through an integrated, multiplatform AMS. The foundation of the AMS is a georeferenced inventory of all known MS4 drainage structures and post-construction BMPs hosted on Esri's ArcGIS platform. All assets can be explored alongside reference information including hydrology, infrastructure, and cadastral datasets in an interactive, web-based map application (AMS Viewer).

The spatial inventory is directly linked to a relational database hosted on IBM's Maximo Asset Management platform (AMS Maximo). AMS Maximo connects each individual asset to an attribute dataset and inspection work orders. Inspectors enter data into AMS Maximo either directly through its web interface or through a mobile data collection app, such as ArcGIS Field Maps or Survey123.

The AMS is the principal management tool used by DOT-HWYS for short-term planning and long-term compliance monitoring. The AMS allows program managers to assess compliance with MS4 NPDES Permit requirements, measure effectiveness, and make modifications as necessary, by facilitating the visibility of resources and comprehensive data analysis.

To date, AMS Maximo supports the following individual modules, each of which is dedicated to a specific program activity (Figure 1-1).

Input	Module	Output
• Volunteer Organization Information • Volunteer Event Information • Supply Requests	• Adopt-A-Highway	• Adopt-A-Highway Report • No. of Volunteer Events • No. of Volunteers • No. of Trash Bags Removed
• Facility Information • Inspection Checklist • Complainant Information	• IC/IDDE • Complaints	• Facility Priority Ranking • Inspection Schedule • Inspection Report • Corrective Action Responses • Complaint Resolutions
• Permit Type • Permit Application Information • Permit Review Checklist	• Permits	• Approved Permit • Private Construction Projects Awaiting Inspection • Updated Industrial/Commercial Facility Information
• Project Information • Inspection Checklist • Corrective Action Responses • Project Enforcement	• Construction	• Inspection Frequency • Inspection Schedule • Inspection Report • Deficiency Summary Report • Inspection Summary Report

• Inspection Date
• Cubic Yards of Debris Removed
• Percent Trash/Sediment/ Organic/Other
• Illegal Connection/Illicit Discharge
	• Street Sweeping
	• Debris Control
	  • Manhole/Inlet
	  • Outfalls
	  • Open Channels
	  • Culverts/Pipes
	• Landscaping
	• Post-Construction BMPs
		• Asset Prioritization
		• Inspection Schedule
		• Inspection Variance
		• Inspection and Cleaning Summary Report
		• Email Notification of Illegal Connection/Illicit Discharge

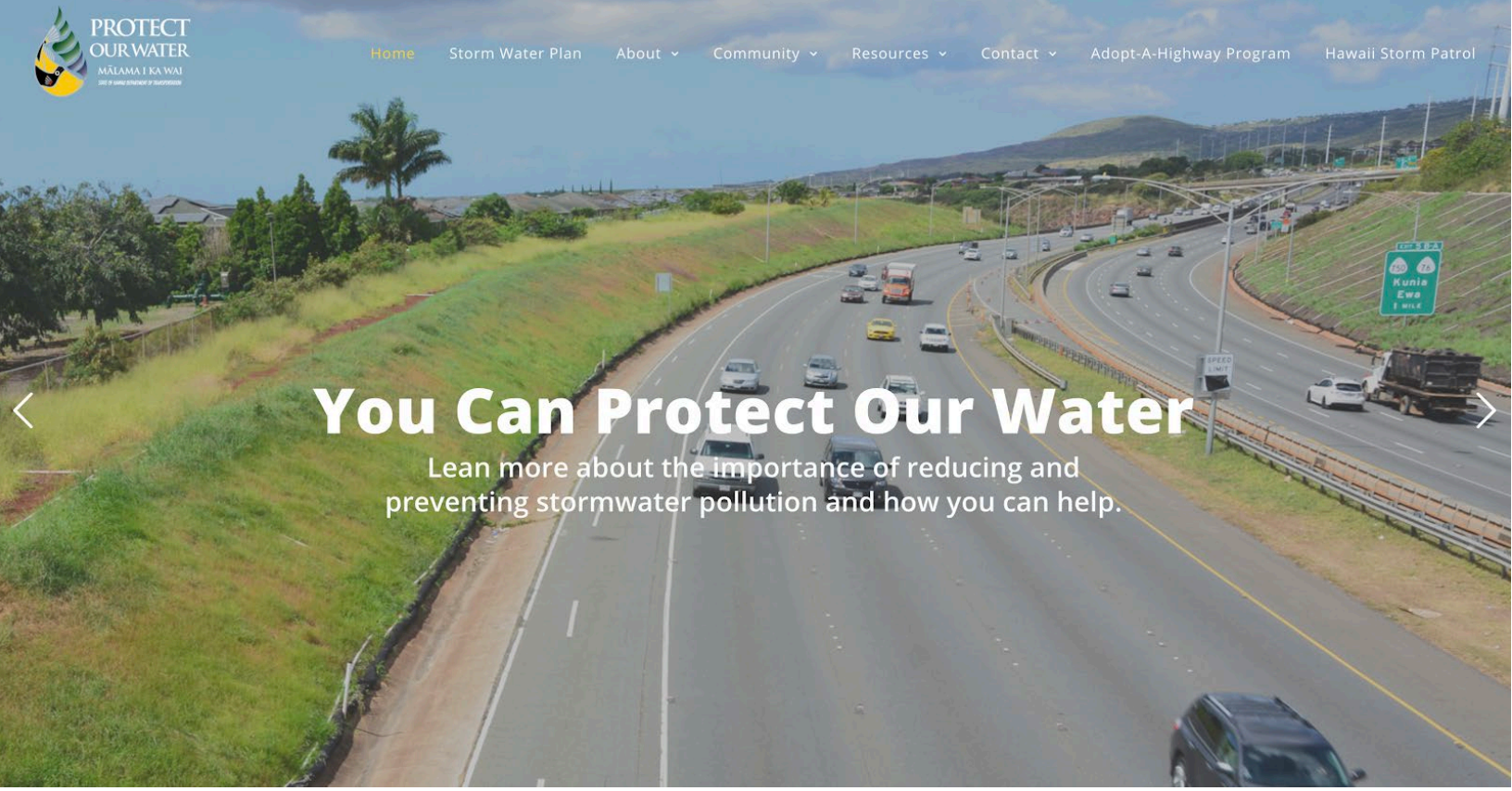
• RUSLE Factors • Inspection Date • Vegetation Information • Inspection Checklist	• Erosion Control	• Inspection Schedule • Inspection Variance • Inspection and Cleaning Summary Report
• Inspection Date • Inspection Checklist • Corrective Action Responses	• Baseyards	• Inspection Schedule • Inspection Report • Deficiency Summary Report
• Inputs from Various Modules	• TMDL	• WLA Compliance Status

Figure 1-1. AMS Maximo Inputs and Outputs per Module.

2 | Public Education and Outreach Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



The DOT-HWYS website, www.stormwaterhawaii.com, informs visitors about storm water news, resources, and programs.

The Public Education and Outreach Program (Public Education Program) is designed to promote changes in attitude, knowledge, and awareness; BMP implementation; pollutant load reduction; and changes in discharge and receiving water quality.

The Public Education Program includes the following control measures:

1. Develop and implement a *Public Education and Outreach Plan*.
2. Solicit public participation and involvement in the development, review, and implementation of the *SWMPP*.

The Public Education Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 2-1.

Table 2-1. MS4 NPDES Permit Requirements for the Public Education Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.a — The Permittee shall further develop and implement a comprehensive education and involvement program. The program should be designed to promote: changes in attitude, knowledge, and awareness; BMP implementation; pollutant load reduction; and changes in discharge and receiving water quality. The SWMP shall include a written public education plan for how the Permittee will reach all targeted audiences and implement the permit requirements described below. The Permittee may fulfill portions of this requirement by cooperating with the City and County of Honolulu's (City) storm water public education program.	Section 2.1
Part D.1.a.(1) Targeted Groups — The Permittee shall address the following targeted groups in the public education plan with appropriate messages, and shall describe outreach activities and anticipated frequencies that each activity will be conducted over the permit term: • Locations of illicit discharges • Homeowners, School Children, and the General Public • DOT-HWYS employees • DOT-HWYS consultants • Construction industry (e.g., project applicants, contractors, developers, property owners, and other responsible parties) • DOT-HWYS permit applicants • Industrial facilities covered by the NPDES permit program that initially discharge to the MS4 via surface runoff or permitted connection • Commercial businesses such as landscape service and maintenance (e.g., to prevent the use of leaf blowers from blowing material into the drainage structures), automobile detailing, automobile repair and maintenance, retail gasoline outlets, and restaurants, including those types of businesses highly ranked, according to relative risk of discharge of contaminated runoff to the MS4. Refer to Part D.1.g.(4). • Government agencies that discharge to the MS4 via surface runoff or permitted connection. • Any other source that the Permittee determines may contribute a significant pollutant load to the MS4.	Section 2.1
Part D.1.a.(2) General Public — The Permittee shall include in the public education plan the following activities, with anticipated frequencies that each activity will be conducted over the permit term: • Public Service Announcements (PSAs) • Adopt-A-Highway Program • School programs	Section 2.1

MS4 NPDES Permit Reference	SWMPP Section
• Distribution of brochures • Participation in special events (e.g., Clean-A-Reef) and exhibits • Web site • Pesticides (including herbicides) and fertilizer use program • Water conservation • Proper disposal of grass clippings, leaves, and other green waste • Proper disposal of household hazardous waste	
Part D.1.a.(3) Evaluation Methods — The Permittee shall evaluate the progress of the public education program based on the following: • An annual survey of Oahu residents to measure both behavior and knowledge relating to storm water. The surveys can be conducted in person at events, on the phone, or using Web-based survey tools. The results of the survey shall be compared to past surveys. • Number of brochures distributed • Participation in events • Volunteer hours • Any other methods that the Permittee determines to be effective The results of the evaluation shall be summarized in the Annual Report.	Section 2.1
Part D.1.b — The Permittee shall include the public in developing, reviewing, and implementing the SWMP, including providing a public review and comment period in accordance with Part A.6. of this permit. The draft and final SWMP shall be made available to the public on the DOT-HWYS website and at local offices. An informational meeting shall be scheduled and announced prior to finalizing the SWMP to solicit comments and answer questions from the public. Other activities to involve the public may include providing volunteer opportunities that improve water quality, organizing a citizen advisory group to solicit ongoing input from the public about changes to the SWMP and specific SWMP-related projects, or organizing clean-up events to educate the public about impacts of storm water.	Section 2.2
Part A.6 — The following plans shall be available on DOT-HWYS website for a minimum of 30 calendar days for public review and comment: • Revised SWMP • Total Maximum Daily Load (TMDL) and Implementation & Monitoring (I&M) Plans • Annual Monitoring Plan DOT-HWYS shall notify DOH at least five (5) calendar days prior to the plan(s) being available on their website by email at: cleanwaterbranch@doh.hawaii.gov. DOT-HWYS shall address all comments received during the 30-calendar-day public review period and provide both comments and responses to DOH with its submittal of the plan in accordance with the deadline as specified in Part H. All plans shall be implemented upon submittal regardless of DOH's review and acceptance. If any deficiencies are found by DOH after submittal, the Permittee shall correct the	Section 2.2

MS4 NPDES Permit Reference	SWMPP Section
deficiencies to DOH's satisfaction within 30 calendar days or such other time as agreed to in writing and resubmit the plan. In addition to the listed plans being available for public comment, the current/existing plans (i.e., the SWMP Plan, Enforcement Response Plan, Action Plan for Retrofitting Structural Best Management Practices [BMPs], Trash Reduction Plan, Action Plan to Address Erosion, TMDL and I&M Plans, Storm Water Pollution Control Plans, and Annual Monitoring Plan) shall also be available on DOT-HWYS website.	

2.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Public Education Program, the following organizational structure has been established, as shown in Figure 2-1.

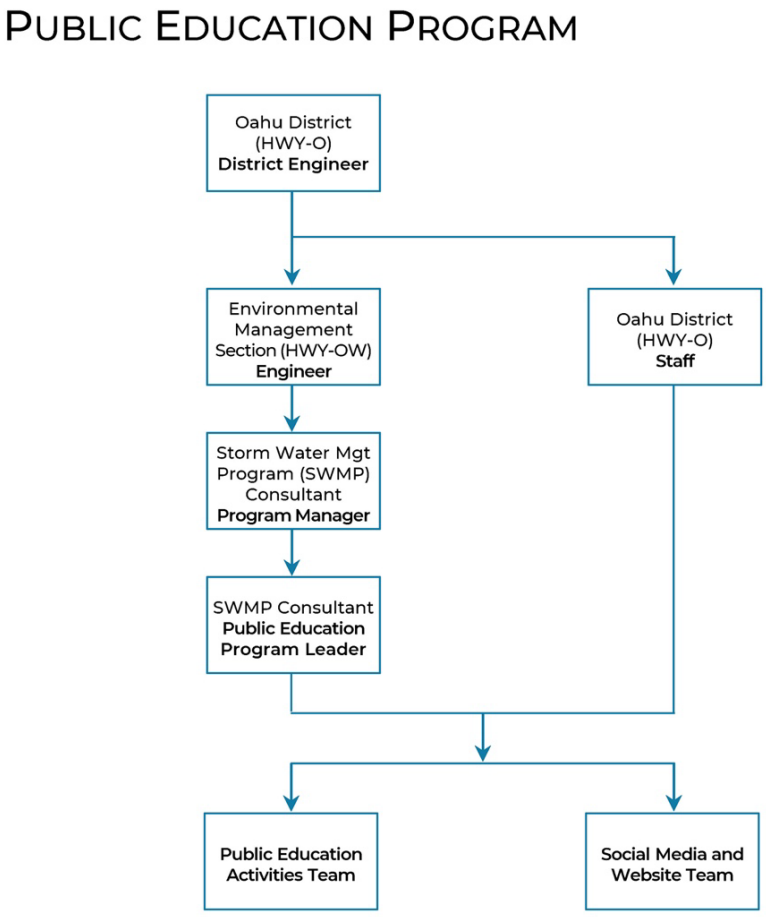


Figure 2-1. Public Education Program Organizational Chart.

2.1 **Public Education and Outreach Plan** | MS4 NPDES Permit Part D.1.a

The *Public Education and Outreach Plan* describes how target groups are addressed and outreach goals are achieved through BMPs. A road map establishes the outreach activities and anticipated frequencies for each year of the MS4 NPDES Permit term. *The Program Effectiveness Strategy* (Appendix A.3) describes how DOT-HWYS evaluates the progress of the Public Education Program, including conducting an annual survey of Oahu residents. The *Public Education and Outreach Plan* (Appendix B.1) provides detailed information regarding the strategy developed by DOT-HWYS to educate the public about the possible impacts of storm water and the actions that can be taken to reduce the discharge of pollutants to storm water runoff.

The individuals and teams highlighted in Figure 2-2 are responsible for implementing the control measures described in this section.

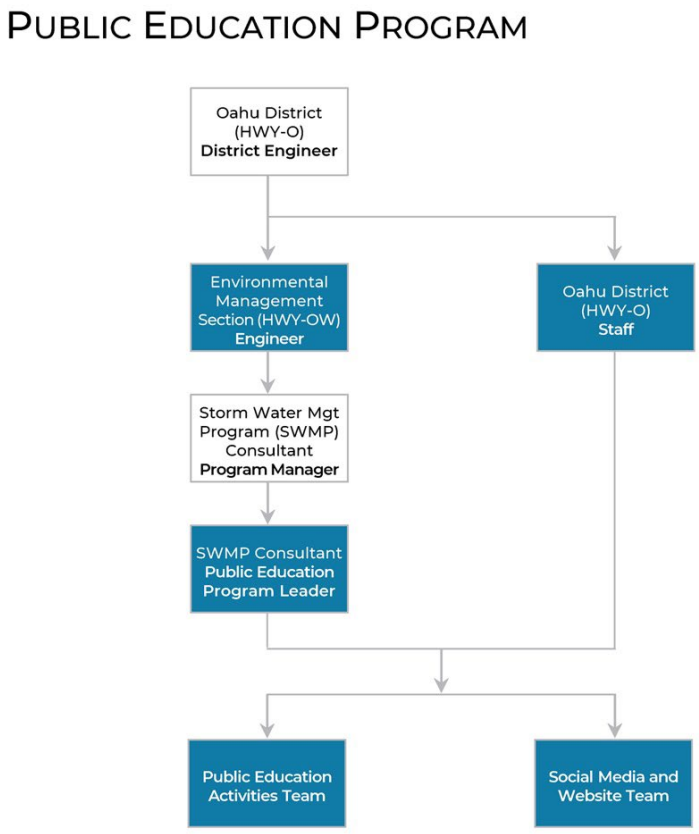


Figure 2-2. Public Education Program Organizational Chart for Roles and Responsibilities Related to the *Public Education and Outreach Plan.*

2.2 **Public Involvement and Participation** | MS4 NPDES Permit Parts D.1.b and Part A.6

DOT-HWYS fosters public involvement in the SWMP by administering public service programs and providing the public with the opportunity to review and comment on various plans, including the *SWMPP*.

2.2.1 Public Service Program

The primary public service campaign of DOT-HWYS is the Adopt-A-Highway Program in which participants commit to pick up litter along Oahu's state highways, as shown in Figure 2-3. As a result of this commitment, litter is prevented from reaching storm drains and ultimately discharging into the ocean. By including citizens in the comprehensive effort to reduce the amount of pollutants in storm water, the Adopt-A-Highway Program allows members of the community to take direct action as well as raise awareness within their respective communities. DOT-HWYS utilizes the AMS Maximo Adopt-A-Highway Module to track the number of routes adopted, the number of cleanup events each group holds, the number of volunteers per event, and the amount of cubic yards of trash removed by each group.

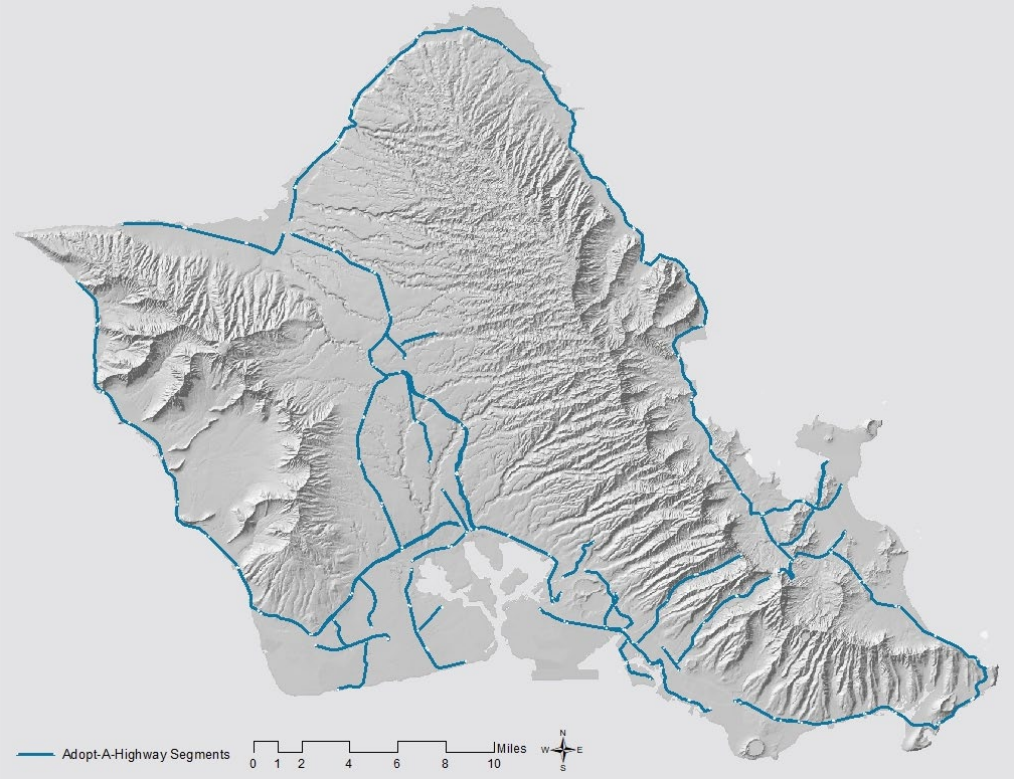


Figure 2-3. The Adopt-A-Highway Program Encompasses All Eligible State Highways Routes.

2.2.2 Public Review and Comment

DOT-HWYS provides the public with the opportunity to review and comment on various plans prior to their finalization. The draft plans are available on the DOT-HWYS website, www.stormwaterhawaii.com/resources/plans, for a minimum of 30 calendar days. During the 30-day period, the public may provide comments through the comment form on the Storm Water Hawaii website or via email at info@stormwaterhawaii.com. DOT-HWYS addresses all comments received within the specified timeframe and provides both comments and responses to DOH with its submittal of final plans.

DOT-HWYS provided the public with the opportunity to be involved in the development, review, and implementation of the *SWMPP*. The draft *SWMPP* was made available to the public for review on the DOT-HWYS website, www.stormwaterhawaii.com, and at the DOT-HWYS Oahu District Office, for a 30-day public comment period. The public was provided the opportunity to comment via the website comment form, email, and mail.

A community informational meeting was held virtually via Zoom on February 2, 2022, to solicit comments and answer questions from the public prior to the finalization of the *SWMPP*. A list of informational meeting participants is provided in Appendix B.2.

Efforts by DOT-HWYS to publicize the details of the *SWMPP* public review period and community informational meeting included the following:

- Purchased and ran a legal advertisement in the *Honolulu Star-Advertiser* on January 7, 2022;
- Notified 2,270 stakeholders via email newsletter;
- Promoted on the DOT-HWYS website, www.stormwaterhawaii.com, and on Storm Water Hawaii social media outlets Facebook, Instagram, and Twitter;
- Posted draft *SWMPP* and informational flyers at the DOT-HWYS Oahu District Office; and
- Posted informational flyers at the following Hawaii State Library branches: Kaneohe, Waimanalo, Kailua, Waianae, Kapolei, Wahiawa, and Hawaii State Library.

The final *SWMPP* is available to the public on the DOT-HWYS website, www.stormwaterhawaii.com, and at the DOT-HWYS Oahu District Office.

Hawaii Storm Patrol online learning modules teach keiki the important message to Protect Our Water.



The individuals and teams highlighted in Figure 2-4 are responsible for implementing the control measures described in this section.

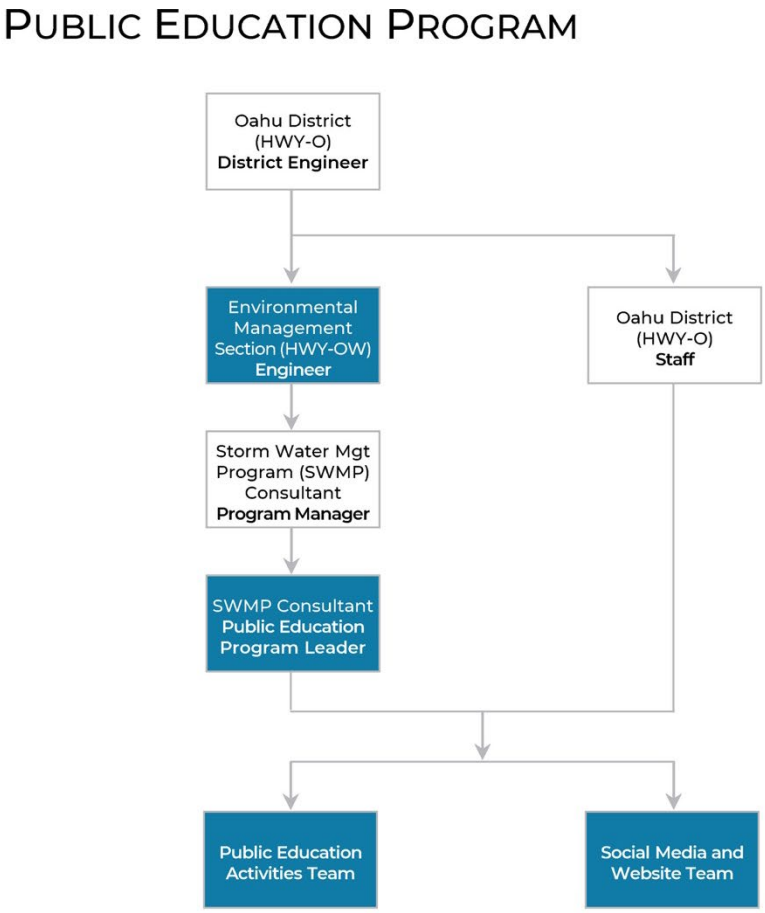


Figure 2-4. Public Education Program Organizational Chart for Roles and Responsibilities Related to Public Involvement and Participation.

2.3 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Tables 4 and 5) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

3 | Illicit Discharge Detection and Elimination Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



Inspectors monitor outfalls for illicit discharge and pollutants.

The Illicit Discharge Detection and Elimination Program (IDDE Program) is designed to detect and eliminate illegal connections and illicit discharges into the MS4 to the MEP. The IDDE Program is administered in conjunction with the Industrial and Commercial Activities Discharge Management Program (Industrial and Commercial Program), with which it shares common objectives, policies, and personnel.

The IDDE Program includes the following control measures:

1. Require, issue, and track permits for private drain connections.
2. Implement an *Outfall Field Screening Plan* to screen for illicit discharges.
3. Track illegal connections, illicit discharges, spills, and follow-up actions.
4. Investigate complaints of illicit discharges.
5. Pursue enforcement actions for illegal connections and illicit discharges to the MS4 to the MEP.
6. Prevent, respond to, contain, and clean up all wastewater and other spills that may enter into the MS4 to the MEP.
7. Facilitate the proper management and disposal or recycling of used oil and toxic material.
8. Train IDDE Program staff to identify and eliminate illegal connections, illicit discharges, and spills into the MS4.

The IDDE Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 3-1.

Table 3-1. MS4 NPDES Permit Requirements for the IDDE Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.c – The Permittee shall implement the ongoing SWMP to detect and eliminate illegal connections and illicit discharges into the MS4 and shall include an improved program in the revised SWMP Plan. The program shall include:	
Part D.1.c.(1) Connection Permits for private drain connections – The Permittee shall continue to implement its requirements for issuing connection permits and require obtaining the permit prior to allowing the drain connections. A database shall be maintained of all permitted connections to the MS4. Prior to issuing a connection permit, including for projects in construction, the Permittee shall ensure the following are met: • the project has provided proof of filing a Notice of Intent (NOI) or NPDES application, if applicable; and • control measures comply with its requirements to minimize pollutant discharge into the MS4.	Section 3.1
Part D.1.c.(2) Field Screening – The Permittee shall implement its Outfall Field Screening Plan for observing major and minor outfalls to screen for illicit discharges. The plan shall designate priority areas for screening, specify the frequency for screening, and identify the procedures to be followed if an illicit discharge is observed. At a minimum, outfalls in priority areas shall be screened once per permit term.	Section 3.2
Part D.1.c.(3) Tracking – The Permittee shall maintain a database of illegal connections, illicit discharges, and spills that tracks the type of discharge, responsible party, DOT-HWYS response, follow-up activities, and resolution of the discharge to the MS4. The illicit discharge activities shall be identified by Tax Map Key (TMK), as applicable.	Section 3.3
Part D.1.c.(4) Investigate complaints – The Permittee shall promptly investigate observed, suspected, or reported illicit flows and pursue enforcement actions, as appropriate. Complaints made to the CWB, which discharge to the MS4 will be forwarded to the Permittee for their action. The Permittee shall:	Section 3.4
Part D.1.c.(4)(i) – Implement a program to facilitate public reporting of illicit discharges (i.e., environmental hotline and/or website for reporting), including providing at least one contact that the public can reach (including phone number and/or email address) be clearly posted on its website; and	Section 3.4
Part D.1.c.(4)(ii) – Continue to implement, and update as necessary, a response plan for the investigation of illicit discharges to be consistent with the requirements of this permit.	Section 3.4

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.c.(5) Enforcement – Pursue enforcement actions in accordance with established policies against property owners in non-compliance with its requirements, those with illegal drain connections, and persons without direct connections whom illicitly discharge pollutants to the MS4.	Section 3.5
Part D.1.c.(6) Prevent and Respond to Spills to the MS4 – The Permittee shall implement its ongoing SWMP to prevent, respond to, contain, and clean up all wastewater and other spills that may enter into the MS4 from any source (including private laterals and failing cesspools). Spill response teams, which may consist of local, state, and/or federal agencies, shall prevent entry of spills into the MS4 and contamination of surface water, ground water, and soil to the MEP. The Permittee shall coordinate spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies to ensure maximum water quality protection at all times. The Permittee shall notify DOH of all wastewater spills or overflows from private laterals and failing septic systems into the MS4. The Permittee shall implement its ongoing SWMP to prevent, respond to, contain, and clean up wastewater from any such notification.	Section 3.6
Part D.1.c.(7) Facilitate Disposal of Used Oil and Toxic Materials – The Permittee shall implement its ongoing SWMP to facilitate the proper management and disposal or recycling of used oil, vehicle fluids, toxic materials, and other household hazardous wastes. Such a program shall include educational activities, public information activities, and identification of collection sites or methods.	Section 3.7
Part D.1.h.(1) Illicit Discharge Detection and Elimination – The Permittee shall provide annual training to all DOT-HWYS staff responsible for illicit discharge detection and elimination inspections on identifying and eliminating illegal connections, illicit discharges, and spills to the MS4. This training shall be specific to DOT-HWYS activities, policies, rules, and procedures.	Section 3.8

3.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the IDDE Program, the following organizational structure has been established, as shown in Figure 3-1.

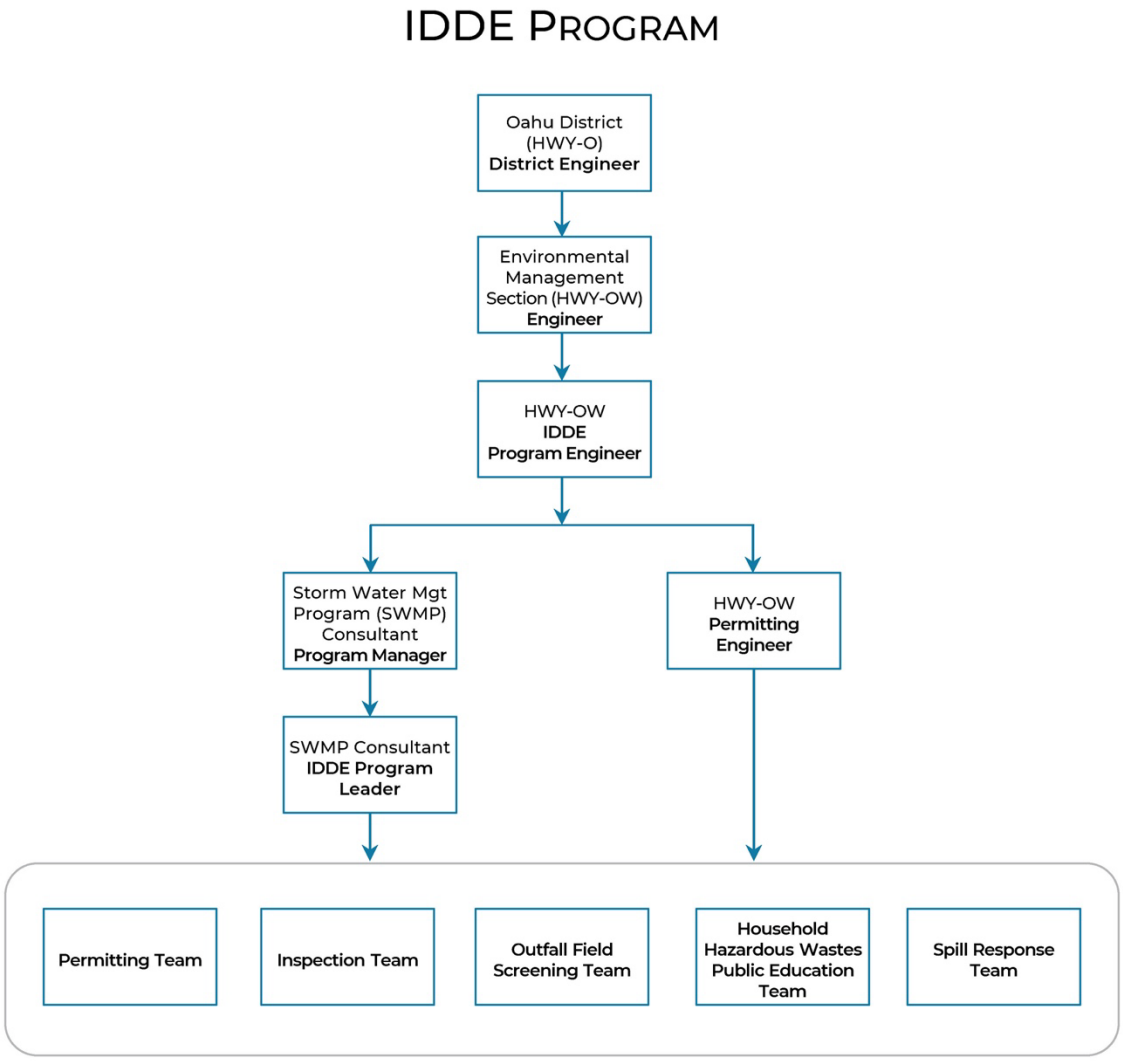


Figure 3-1. IDDE Program Organizational Chart.

3.1 Connection Permits | MS4 NPDES Permit Part D.1.c.(1)

DOT-HWYS administers a permitting program for any facility that establishes a private connection to the MS4. The AMS Maximo Permit Module contains the database of all permitted connections to the MS4.

3.1.1 Permitting New Connections

A permit must be obtained prior to constructing a physical drain connection to the MS4. A connection permit for the establishment of a new, private drain connection will not be issued until:

- The applicant has provided proof of filing a Notice of Intent (NOI) or an Industrial NPDES Permit application with the DOH, as applicable.
- The applicant has control measures that comply with the requirements of DOT-HWYS to minimize pollutant discharge into the MS4.

A request for a connection permit is made by submitting two separate forms. The first form that must be completed is the *Application for a Private Storm Drain Connection and/or Discharge Permit to the State of Hawaii Highways Division Storm Drain System* (Appendix C.1). In this form, the applicant is instructed to submit information on the property's location, tax map key (TMK), and bordering state route. The applicant must include a brief description of each connection, including the size, type of discharge, and flow rate, along with a facility drainage report. In addition, the applicant is required to indicate whether their facility or activities generate storm water associated with "industrial activity", as defined by 40 CFR Part 122.26(b)(14), and whether their facility requires NPDES Permit coverage.

The second form that must be completed and submitted to DOT-HWYS is the *Permit for Connection to the State Highways Drainage System* (connection permit) (Appendix C.2), which states that the applicant agrees to the terms and conditions of the connection permit.

3.1.2 Permitting Existing Connections

Existing connections to the MS4 are considered illegal if they have not been permitted by DOT-HWYS. When an illegal connection is identified, DOT-HWYS first determines if the connection is from an allowable source. If the connection is not from an allowable source or is conveying an illicit discharge, the case is treated as an illicit discharge violation and is subject to enforcement actions (Section 10.7.2) in accordance with the Enforcement Policy.

If the connection is from an allowable source and there is no evidence of an illicit discharge, the case is treated as a deficiency and the appropriate corrective action is to apply for a connection permit. Written documentation, which includes an inspection report, the connection permit forms described in Section 3.1.1, an Allowable Non-Storm Water Discharge Letter, and a Letter of Warning, is emailed to the property owner or facility representative within 30 calendar days of the inspection date. The property owner or facility representative has 30 days from the date of the Letter of Warning to submit the completed connection permit forms to DOT-HWYS. The illegal connection is considered resolved upon approval by DOT-HWYS of the completed connection permit forms. If the property owner does not submit the completed connection permit forms within the allotted 30-day timeframe, DOT-HWYS pursues enforcement actions (Section 10.7.1) in accordance with the Enforcement Policy.



A dye test verifies the connectivity of a private drainage structure to the DOT-HWYS MS4.

DOT-HWYS has an existing Memorandum of Understanding with the CCH (Appendix A.5) that establishes that interconnections between the DOT-HWYS MS4 and the CCH MS4 are not considered private drain connections, and therefore do not require private drain connection permits. DOT-HWYS extends this determination to other facilities which have MS4 NPDES Permit coverage. Therefore, the requirement to apply for and obtain a connection permit does not apply to those facilities which have MS4 NPDES Permit coverage.

The individual and teams highlighted in Figure 3-2 are responsible for implementing the control measures described in this section.

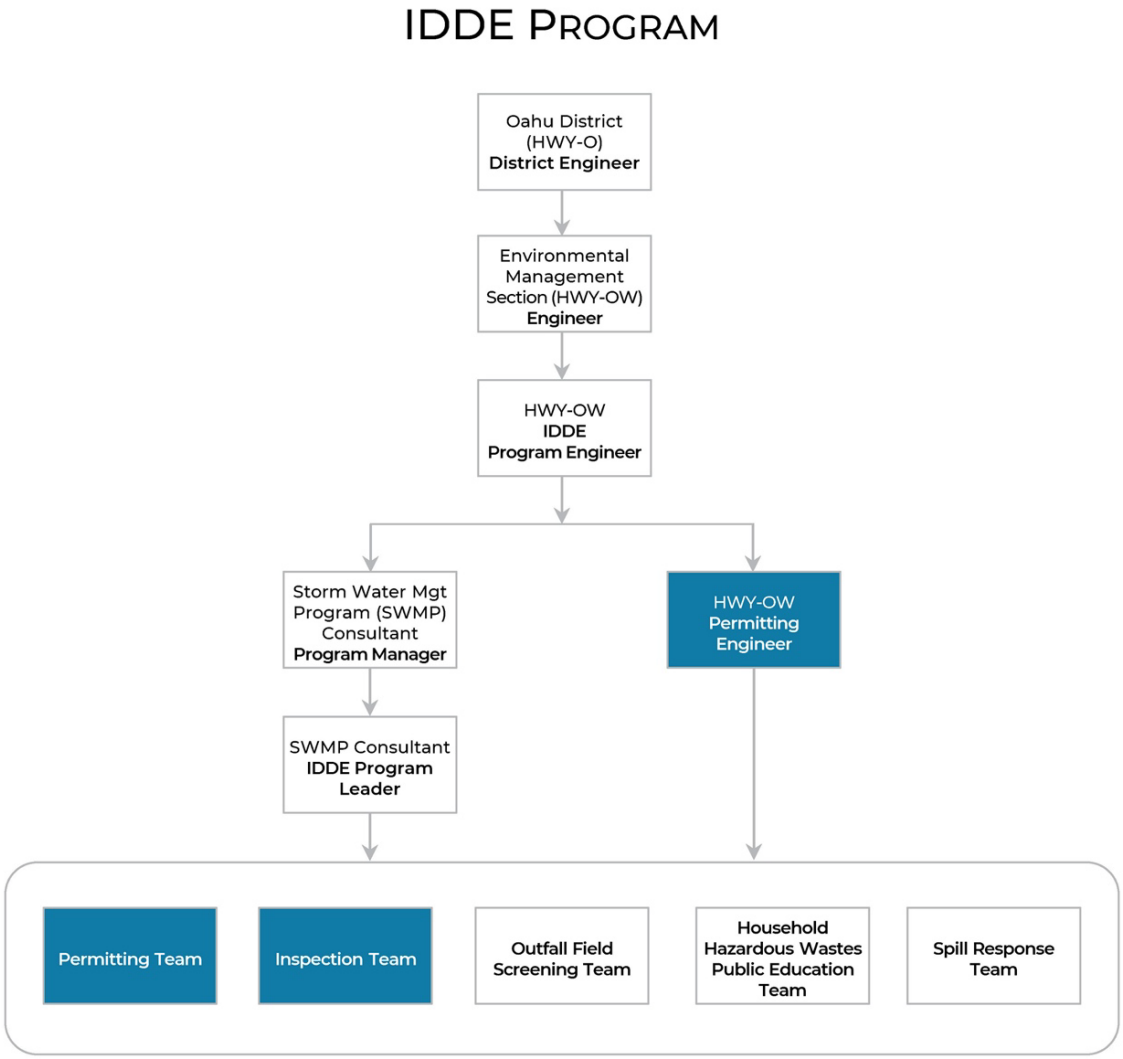


Figure 3-2. IDDE Program Organizational Chart for Roles and Responsibilities Related to Connection Permits.

3.2 Outfall Field Screening | MS4 NPDES Permit Part D.1.c.(2)

DOT-HWYS screens major and minor outfalls for the purpose of detecting and eliminating illicit discharges. Priority areas for inspection and corresponding screening frequencies are designated in the *Outfall Field Screening Plan* (Appendix C.3). At a minimum, outfalls in priority areas shall be screened once per permit term. In addition to conducting screening in accordance with the *Outfall Field Screening Plan*, DOT-HWYS also investigates observed, suspected, or reported illicit discharges at outfalls. The *Outfall Field Screening Plan* describes the response procedures for observed or suspected illicit discharges.

The AMS Maximo Outfall Module, as shown in Figure 3-3, captures outfall inspection information, including weather conditions, cleaning requirements, and the observation of any illicit discharge. The notification function within the module emails the Inspection Team if a potential illicit discharge is observed at an outfall. Inspection records in the AMS Maximo Outfall Module integrate with its corresponding work order in the AMS Maximo IC/IDDE Module to document the resolution of the suspected illicit discharge.

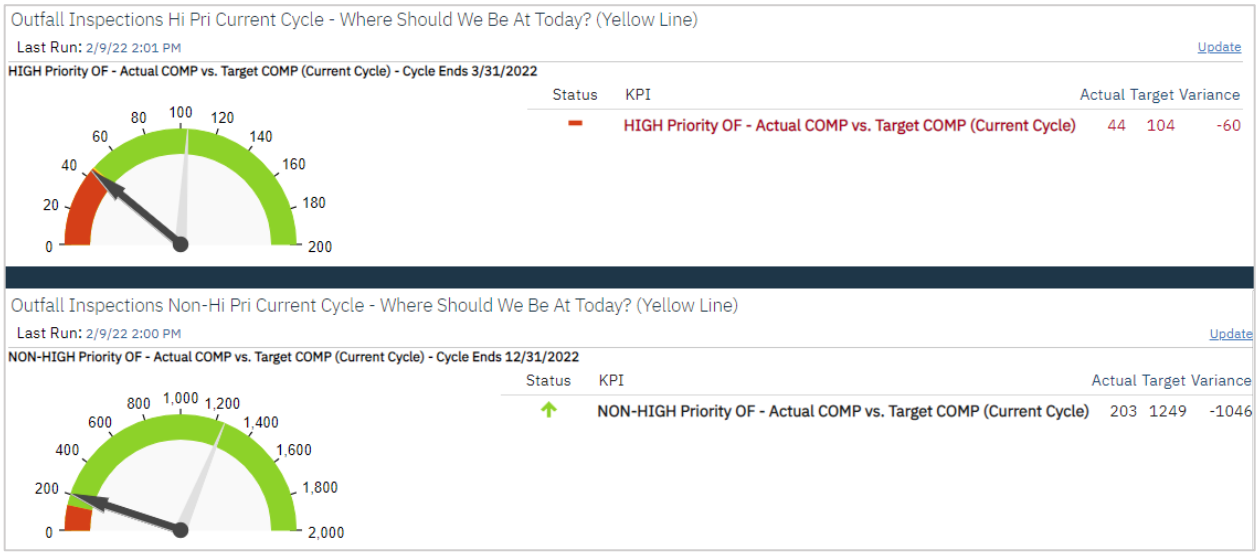


Figure 3-3. AMS Maximo Outfall Module.

The individual and team highlighted in Figure 3-4 are responsible for implementing the control measures described in this section.

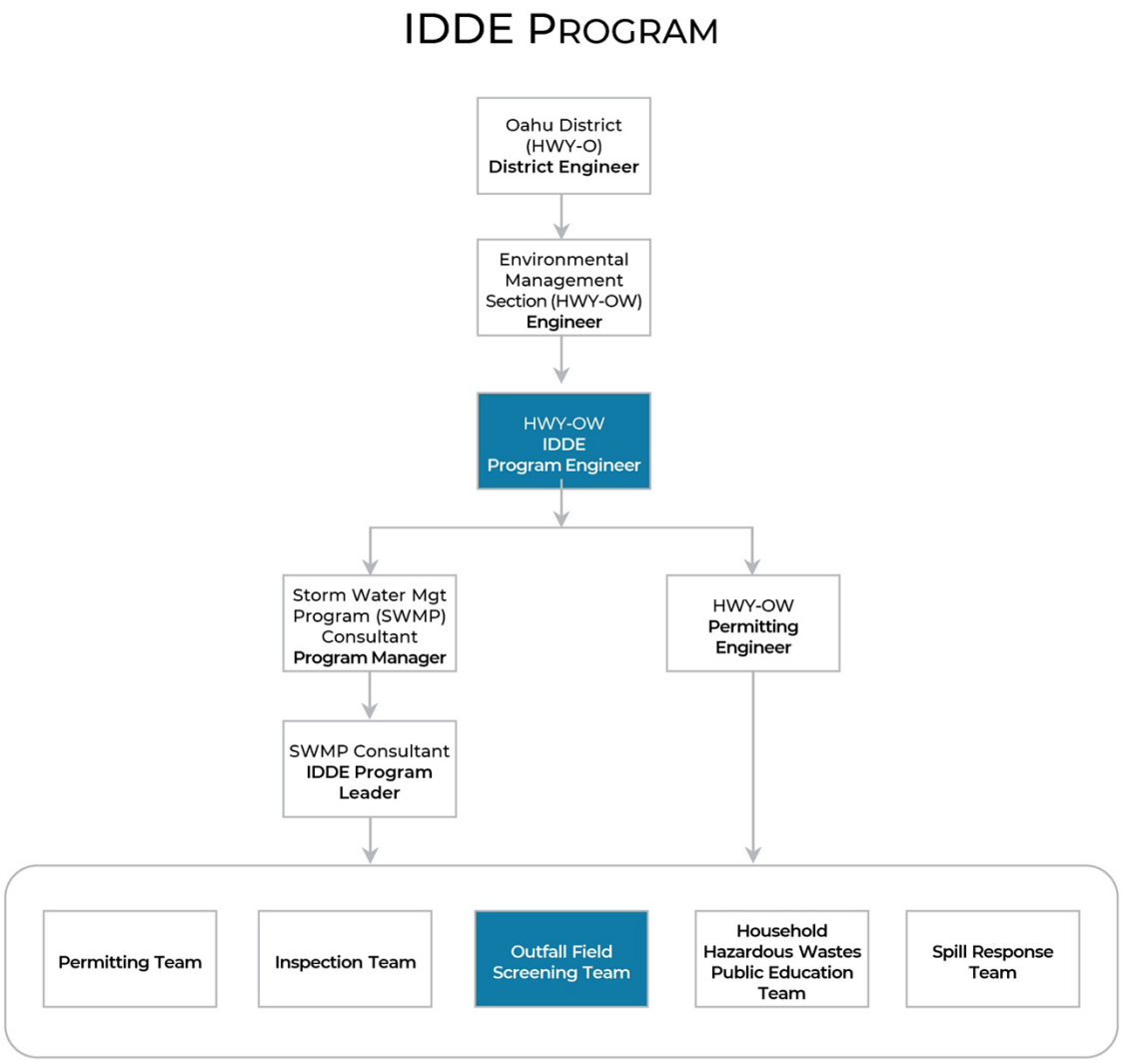


Figure 3-4. IDDE Program Organizational Chart for Roles and Responsibilities Related to Outfall Field Screening.

3.3 Tracking Illegal Connections, Illicit Discharges, and Spills | MS4 NPDES Permit Part D.1.c.(3)

The AMS Maximo IC/IDDE Module is used to document information about illegal connections, illicit discharges, and spills to the MS4. For each case, the database tracks the type of discharge, the responsible party, the DOT-HWYS response and follow-up activities, and the resolution. Illegal connections and illicit discharge activities can be queried by TMK, as applicable.

The individuals and teams highlighted in Figure 3-5 are responsible for implementing the control measures described in this section.

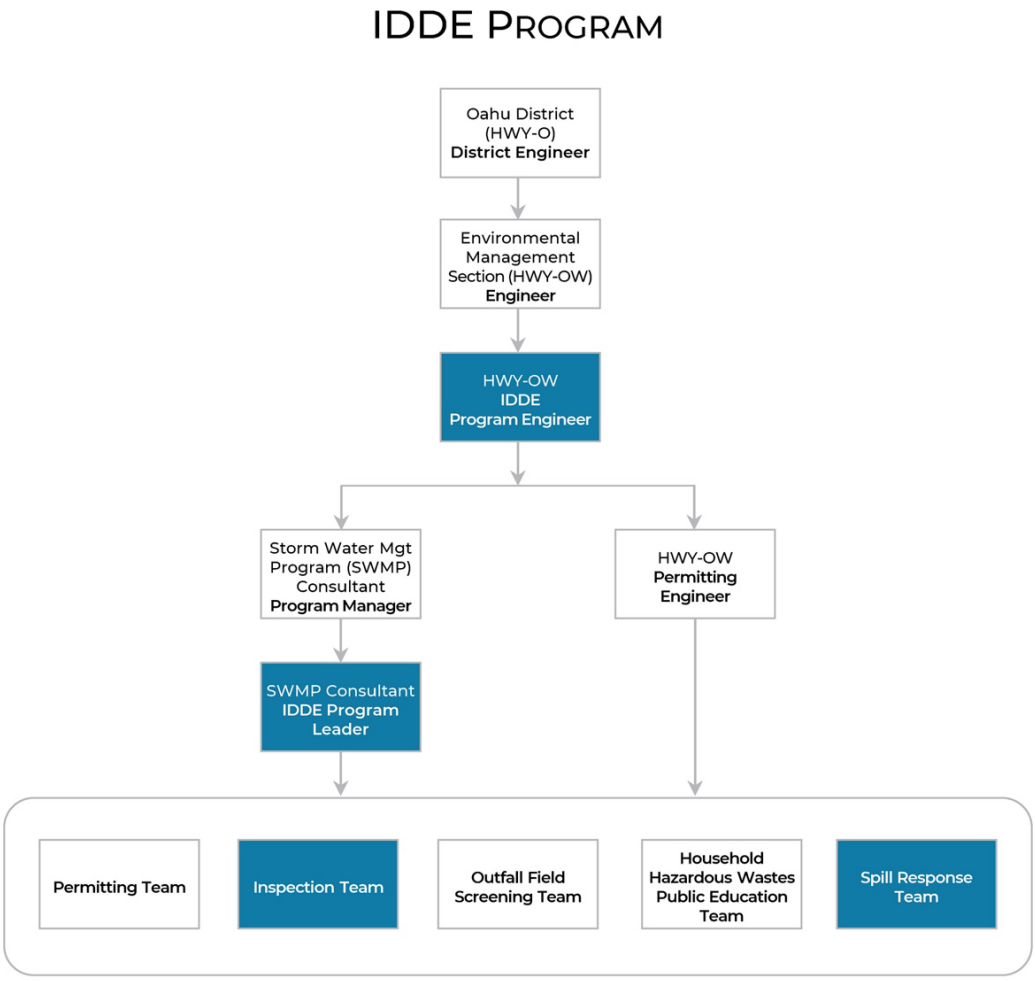


Figure 3-5. IDDE Program Organizational Chart for Roles and Responsibilities Related to Tracking Illegal Connections, Illicit Discharges, and Spills.

3.4 Investigation of Illegal Connections and Illicit Discharges | MS4 NPDES Permit Part D.1.c.(4)

Potential illegal connections and illicit discharges to the MS4 are typically detected through the following methods:

- Scheduled inspections of industrial and commercial facilities and activities conducted as part of the Industrial and Commercial Program (Chapter 10)
- Water quality monitoring (Chapter 12)
- Storm drain inspections and cleaning (Chapter 6)
- Outfall field screening (Section 3.2)
- Public complaints
- Complaints received from the DOH and other MS4 permittees

Public complaints about suspected illicit discharges are a valuable source of information because they magnify the oversight capacity of the IDDE Program. The public is encouraged to report suspected illicit discharges by filling out online reporting forms on the DOT-HWYS website, www.stormwaterhawaii.com, or by calling the Oahu reporting hotline at (808) 831-6714.

The IDDE Program, in conjunction with the Public Education Program, facilitates public reporting of illicit discharges through educational media and outreach activities. The reporting hotline phone number and online reporting form are advertised on informational magnets, stickers, and educational brochures that are distributed at storm water public outreach events and provided to industrial and commercial facility representatives during routine inspections.

The IDDE Program's complaint response plan for investigating observed, suspected, or reported illegal connections and illicit discharges is initiated within 24 hours of the next business day from receipt of the complaint report. DOT-HWYS initiates investigation of a complaint response with information gathering and, as applicable, conducts subsequent investigative actions. A complaint response may involve information gathering, basic site research, and/or field investigation, as shown in Figure 3-6.

Field sampling is conducted as necessary to identify the source of a potential illicit discharge.



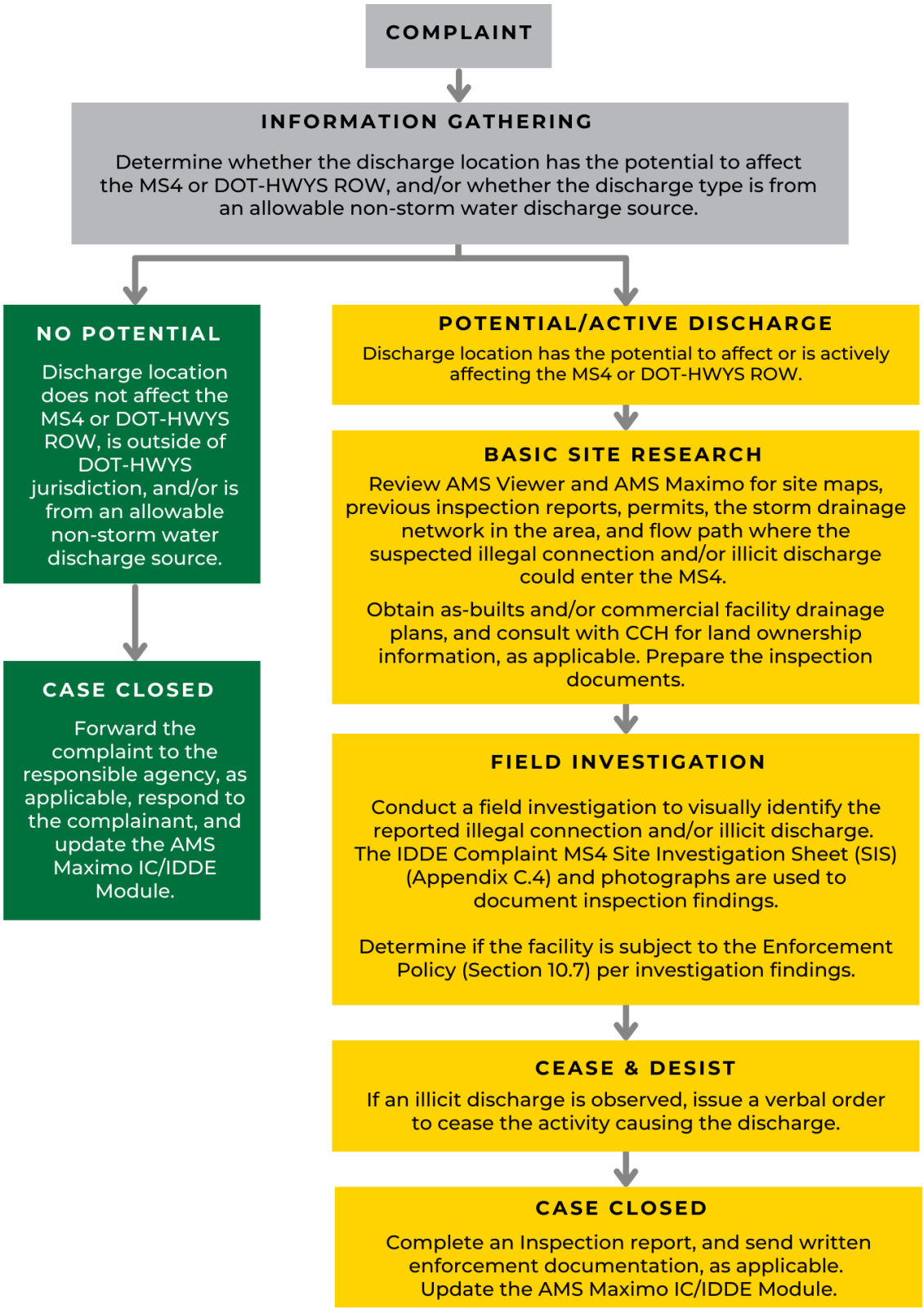


Figure 3-6. IDDE Complaint Response Workflow.

The individual and teams highlighted in Figure 3-7 are responsible for implementing the control measures described in this section.

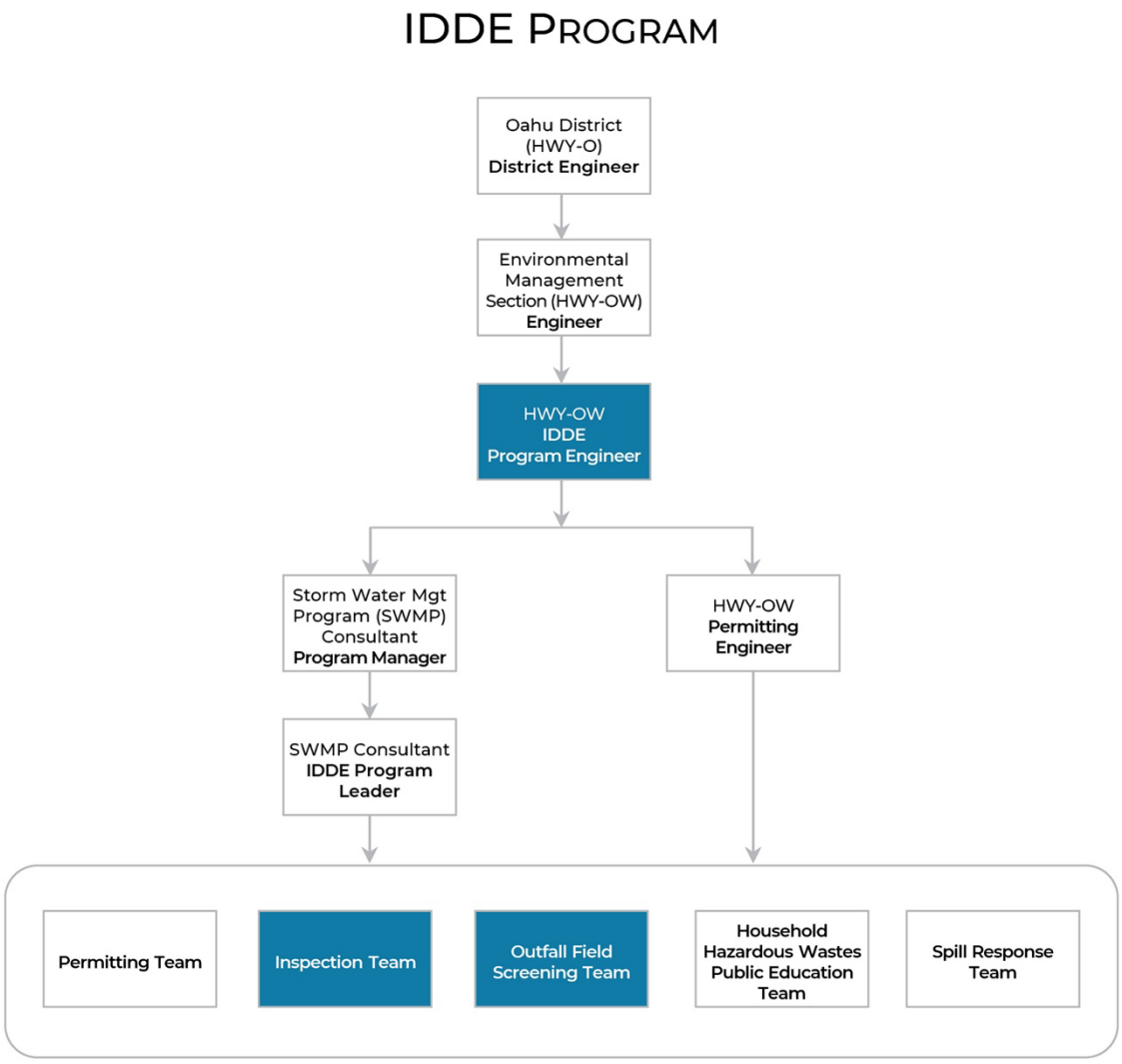


Figure 3-7. IDDE Program Organizational Chart for Roles and Responsibilities Related to the Investigation of Illegal Connections and Illicit Discharges.

3.5 Enforcement Policy | MS4 NPDES Permit Part D.1.c.(5)

DOT-HWYS pursues enforcement actions in accordance with established policies against property owners in noncompliance with its requirements, those with illegal drain connections, and persons without direct connections whom illicitly discharge pollutants to the MS4. The Enforcement Policy for illegal connections and illicit discharges into the MS4 is administered by the Industrial and Commercial Program and described in Section 10.7.

The individuals and team highlighted in Figure 3-8 are responsible for implementing the control measures described in this section.

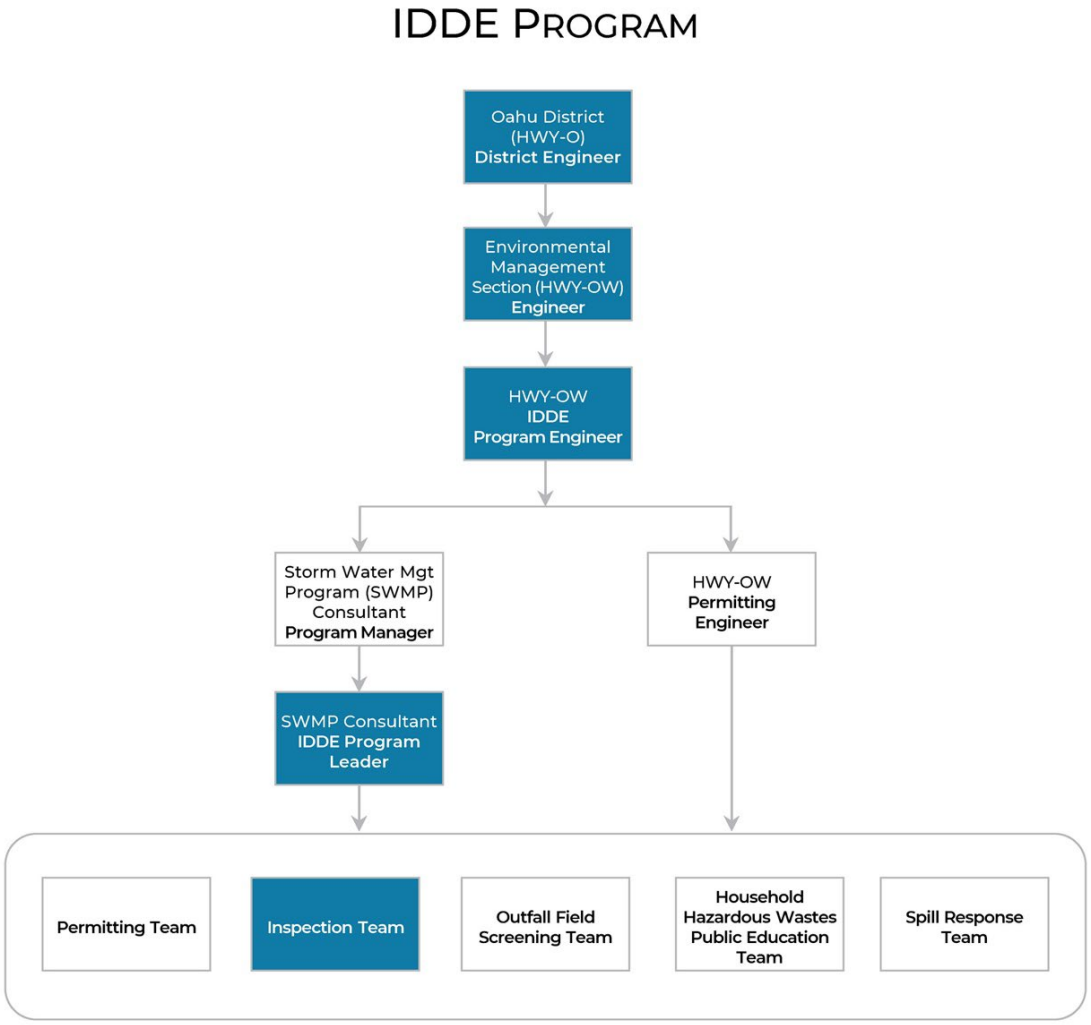


Figure 3-8. IDDE Program Organizational Chart for Roles and Responsibilities Related to Enforcement Policy.

3.6 Spill Prevention and Response | MS4 NPDES Permit Part D.1.c.(6)

DOT-HWYS prevents, responds to, contains, and cleans up all wastewater and other spills that may enter the MS4. Figure 3-9 illustrates the spill prevention and response workflow to prevent the entry of spills into the MS4 and contamination of surface water, ground water, and soil to the MEP.

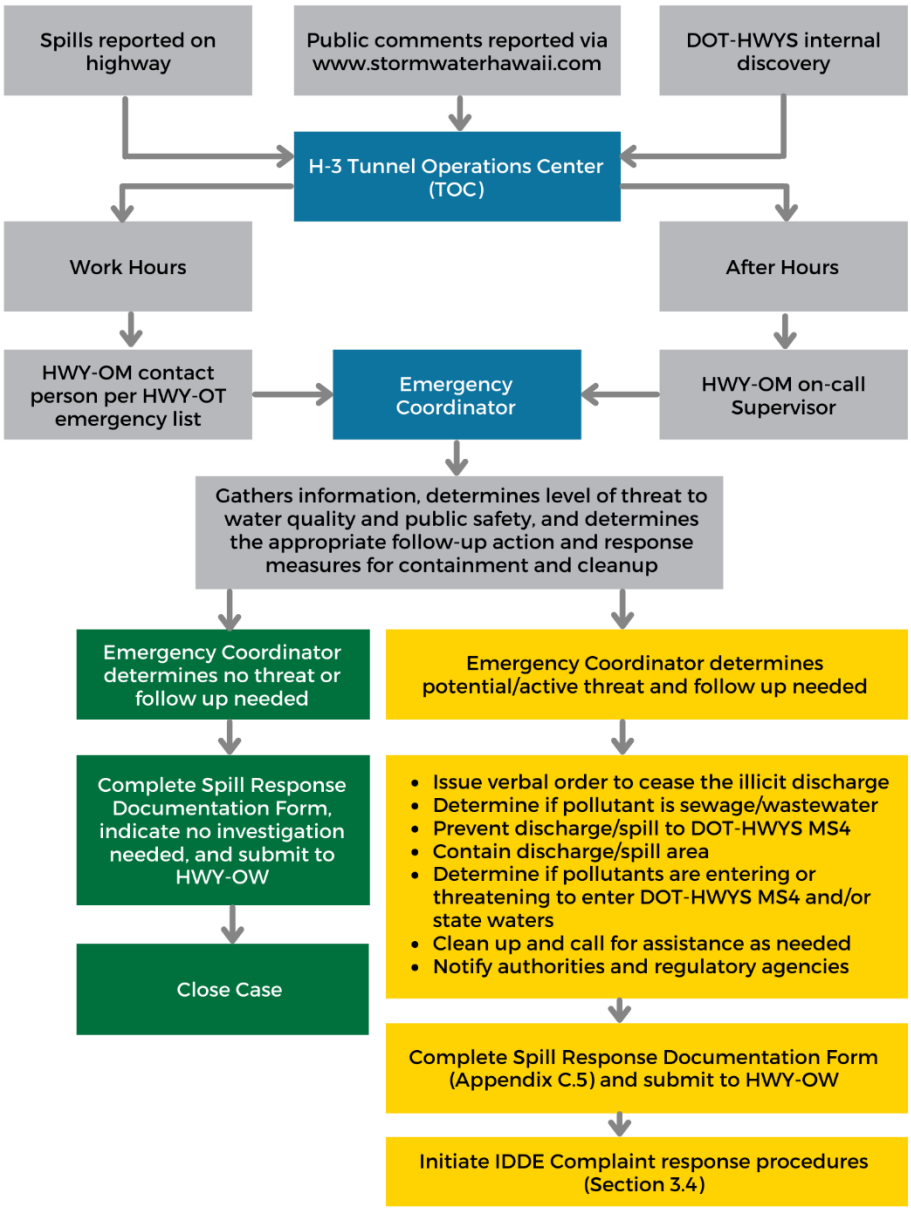


Figure 3-9. Spill Prevention and Response Workflow.

The Emergency Coordinator utilizes a "tool box" of HWY-OM resources to coordinate spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies to ensure maximum water quality protection.

The HWY-OM tool box includes HWY-OM personnel, materials, equipment, and service contractors.

HWY-OM Personnel: HWY-OM is comprised of crews and baseyards located throughout Oahu. As determined by the Emergency Coordinator, crews and subunits may be requested to provide support and resources for the spill response process.

- The Special Services Subunit can provide sweepers and vacuum trucks to clean up nonhazardous spills/discharges and labor to support cleanup efforts and protect drainage structures.
- The Structures Subunit can respond to a spill/discharge incident occurring on a bridge and can perform preventative measures on storm drains, including repairs for catch basins, plugging drain pipes, and installing BMPs around drain and inlets.
- The Landscape Subunit can respond to major spills in their work areas and can provide labor to support cleanup efforts and protect drainage structures.

Materials and Equipment: Warehouse inventory is maintained with the necessary materials for containment and cleanup of oil, solvent, coolants, water, and hazardous/chemical spills. Vehicles and baseyards are equipped with spill kits and spill equipment.

Service Contractors: A Spill Response Contractor is available for response to hazardous/chemical spills. The contractor is available 24/7 to provide spill response services for cleanup and removal of accumulated product resulting from the release.

The illicit discharge and spill response notification procedures and contact information are provided in Table 3-2.

Table 3-2. Illicit Discharge and Spill Response Notification Procedures.

Illicit Discharge and Spill Response Notification and Contact Information	Telephone Number
H-3 Tunnel Operations Center (TOC) 24/7 The H-3 TOC should be notified immediately about illicit discharges and spills so they can contact the Emergency Coordinator who will initiate the illicit discharge and spill response procedures.	**(808) 485-6200**
Honolulu Fire Department (HFD) or Honolulu Police Department If there is an emergency or life-threatening situation, 911 should be called first. The HFD is normally the lead agency for emergency response to spills on all non-military lands of Oahu. If requested, DOT-HWYS will assist the HFD with spill response for spills within the DOT-HWYS ROW.	**911**
City and County of Honolulu, Department of Environmental Services (ENV) In the event of a spill or overflow from a municipal wastewater facility, DOT-HWYS will immediately notify ENV of any reported wastewater discharges into the MS4.	**(808) 768-7272** **or** **(808) 768-3300**
State of Hawaii, Department of Transportation, Highways Division, Oahu District, Environmental Management Section (HWY-OW) The Emergency Coordinator should notify the HWY-OW Engineer of any illicit discharges/spills entering into the MS4.	**(808) 483-2543** **or** **(808) 489-0917**
Spill Response Contractor 24/7 The spill response contractor should be notified for assistance when a spill is beyond the Emergency Coordinator's capacity for removal or to dispose of spent absorbents. (Current contractor is Pacific Commercial Services, Inc.)	**(808) 206-9989**

Illicit Discharge and Spill Response Notification and Contact Information	Telephone Number
Department of Health (DOH), Clean Water Branch (CWB) The Emergency Coordinator should immediately notify the DOH CWB of pollutants entering or threatening to enter state waters. The Emergency Coordinator should immediately notify DOH CWB of any municipal wastewater spills or overflows from private laterals and failing septic systems that discharges into the MS4. The Emergency Coordinator should immediately notify the DOH CWB of any spills of any chemical of a reportable quantity; and a written notification must also be submitted no later than 30 days after the initial release. The reportable quantity for oil and fuel products is a spill of 25 gallons or more, a spill not cleaned within 72 hours, or a spill that threatens ground or surface waters.	**(808) 586-4309**
Department of Health (DOH), Hazard Evaluation and Emergency Response (HEER) Office The Emergency Coordinator should notify the DOH HEER Office of any discharge/spill that enters state waters after work hours. The Emergency Coordinator should notify the DOH HEER Office of any chemical spill of a reportable quantity, and a written notification must also be submitted no later than 30 days after the initial release. The reportable quantity for oil and fuel products is a spill of 25 gallons or more, a spill not cleaned within 72 hours, or a spill that threatens ground or surface waters.	**(808) 586-4249** **or** **(808) 236-8200** ***After hours***
U.S. Coast Guard, District 14, Oahu The U.S. Coast Guard should be notified of any quantity spill that reaches the ocean.	**(808) 842-2600** **or** **1-800-331-6176**

The individual and team highlighted in Figure 3-10 are responsible for implementing the control measures described in this section.

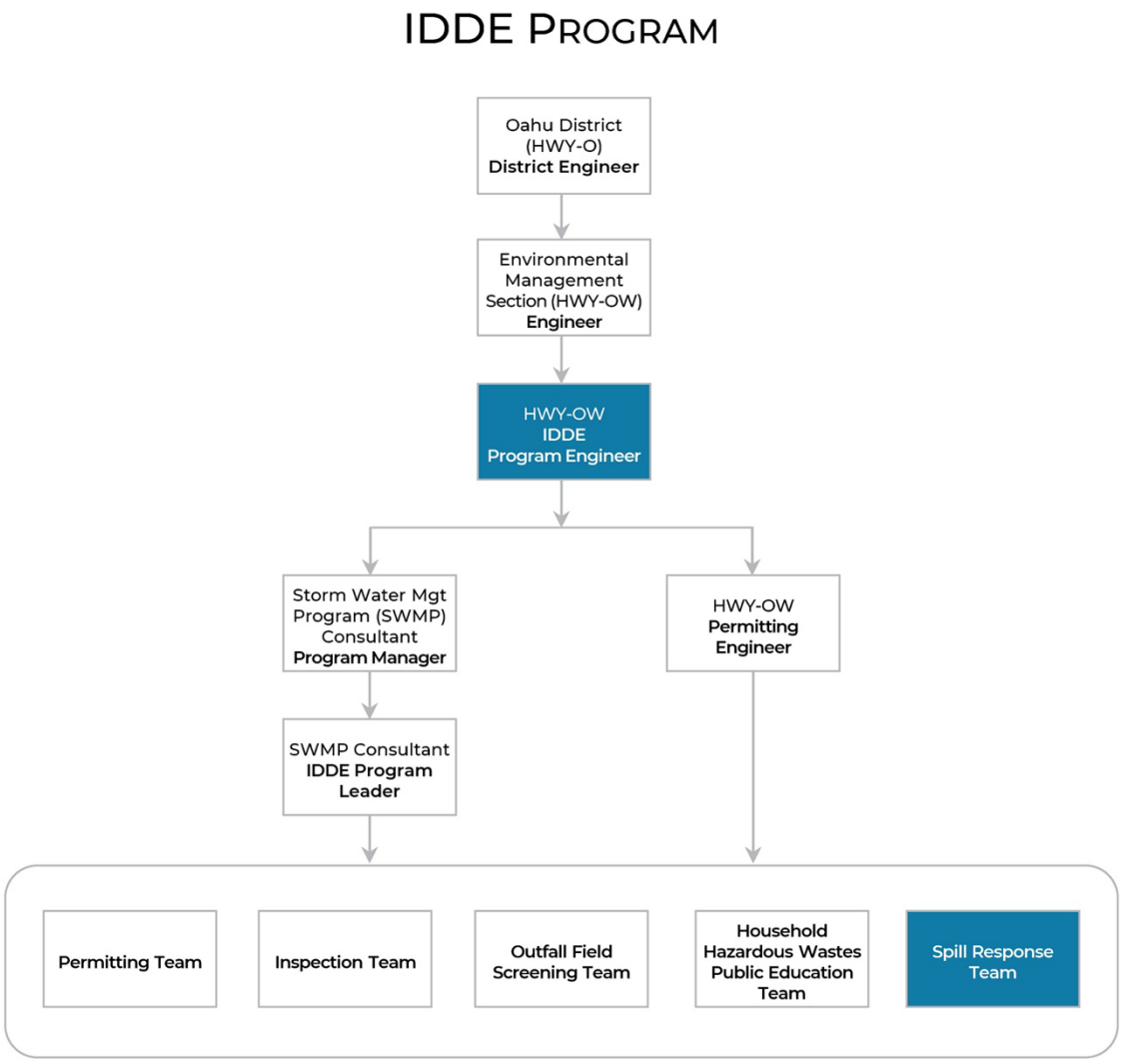


Figure 3-10. IDDE Program Organizational Chart for Roles and Responsibilities Related to Spill Prevention and Response.

3.7 **Household Hazardous Waste Disposal** | MS4 NPDES Permit Part D.1.c.(7)

DOT-HWYS facilitates the proper management and disposal or recycling of toxic materials and household hazardous wastes by advertising information about the CCH collection program.

The CCH provides a collection service for household hazardous waste products that require special handling. Oahu residents who want to drop off household hazardous wastes can call the CCH at (808) 768-3201 to make an appointment during a scheduled collection event. Further information about household hazardous wastes, including waste prevention tips, is provided at www.honolulu.gov/opala/quick-links/hhw.html.

The following information is available on the DOT-HWYS website, www.stormwaterhawaii.com, and provided in the household hazardous waste informational brochures:

- A list of materials that require special handling and should be disposed of at a household hazardous waste collection event
- Dates of household hazardous waste collection events
- CCH contact information to schedule appointments
- CCH website address for further information about household hazardous waste

Certain materials, such as used oil and vehicle fluids, can be disposed of in the trash at home. DOT-HWYS facilitates the proper disposal of used oil and vehicle fluids by distributing educational brochures at applicable public outreach events.

The individual and team highlighted in Figure 3-11 are responsible for implementing the control measures described in this section.

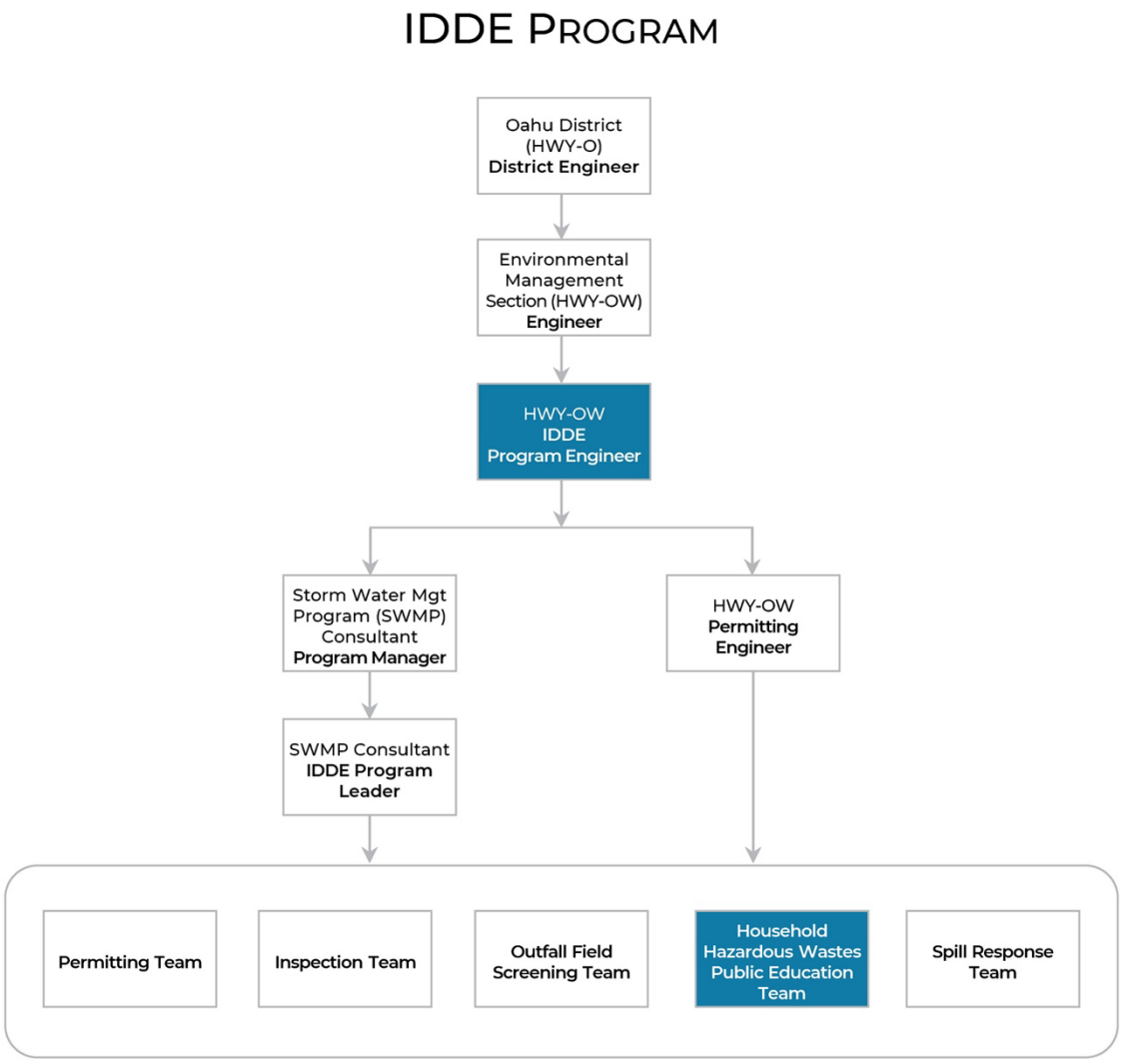


Figure 3-11. IDDE Program Organizational Chart for Roles and Responsibilities Related to Household Hazardous Waste Disposal.

3.8 **Training** | MS4 NPDES Permit Part D.1.h.(1)

Training on how to identify and eliminate illegal connections, illicit discharges, and spills to the MS4 is provided to staff in the IDDE Program annually or more frequently, as needed. The IDDE Program Training is conducted in conjunction with the Industrial and Commercial Program Training (Section 10.8) and is provided to any DOT-HWYS staff whose responsibilities include detecting, investigating, eliminating, and reporting illegal connections and illicit discharges. Training content is specific to the IDDE Program's policies, rules, procedures, and activities.

Periodic "on-the-job" training instructs field inspectors on the methods to detect, investigate, eliminate, and report illegal connections and illicit discharges.



The individuals highlighted in Figure 3-12 are responsible for implementing the control measures described in this section.

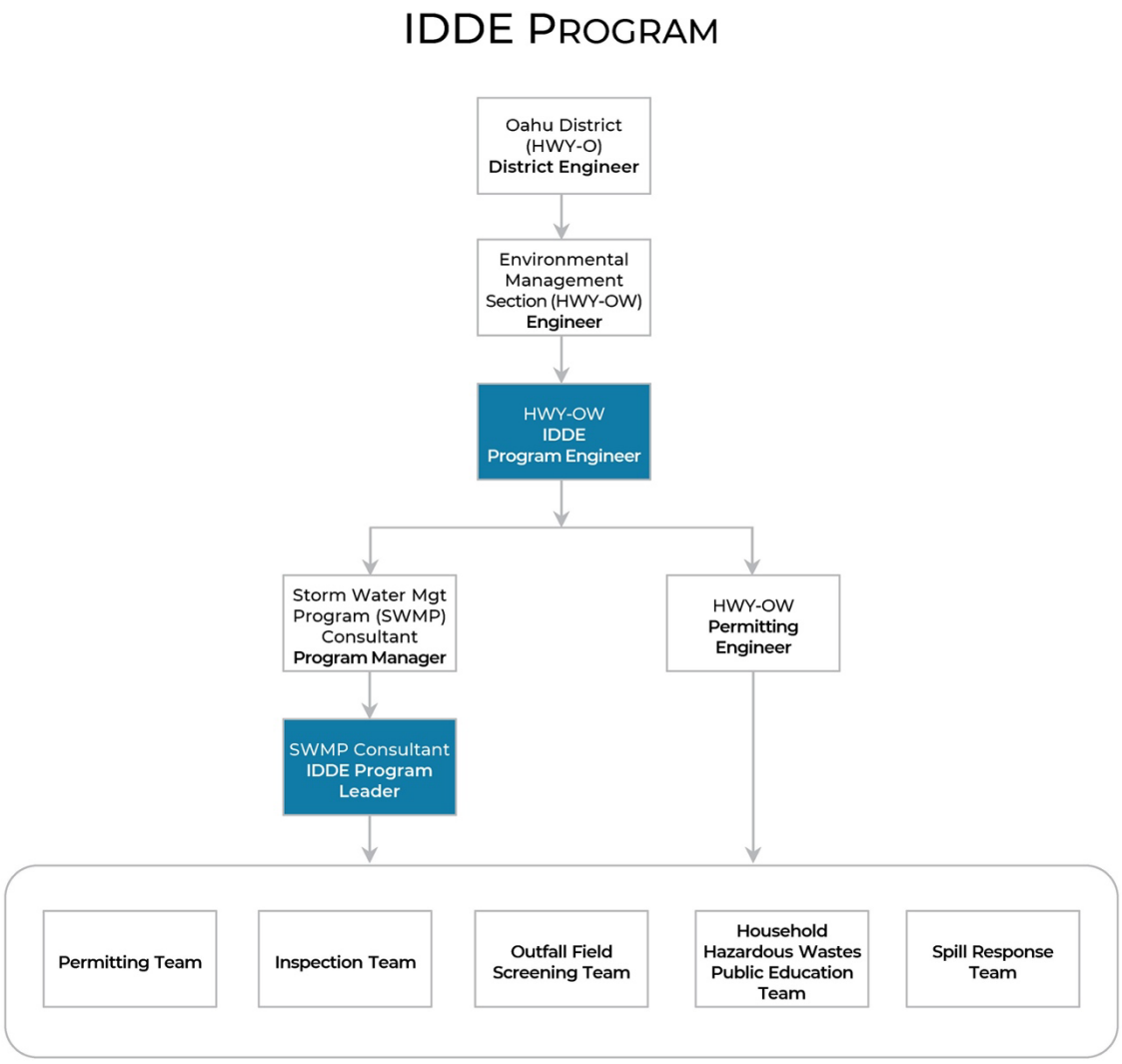


Figure 3-12. IDDE Program Organizational Chart for Roles and Responsibilities Related to Training.

3.9 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 6) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

4 | Construction Site Runoff Control Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



Construction BMPs are implemented on the Kapolei Interchange Complex construction project.

The Construction Site Runoff Control Program (Construction Program) is designed to reduce to the MEP the discharge of pollutants from both private (encroachment) and public (contract and maintenance) construction projects.

The Construction Program includes the following control measures:

1. Require proposed construction projects to implement BMPs and standards in accordance with established policies.
2. Implement a system to track both private and public construction projects.
3. Review the appropriate Storm Water Pollution Prevention Plan (SWPPP) and other pollution prevention measures to verify that the appropriate BMPs included meet the standards and require approval of permits.
4. Conduct inspections using standard inspection forms and track inspections in databases.
5. Implement policies for enforcement and penalties for non-compliance with standards and project-specific requirements and permits.
6. Provide annual training on the Construction BMPs Program Plan to DOT-HWYS staff with construction storm water responsibilities.

The Construction Program is administered in accordance with the MS4 NPDES Permit referenced in Table 4-1.

Table 4-1. MS4 NPDES Permit Requirements for the Construction Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.d – The Permittee shall implement a construction site management program to reduce to the MEP the discharge of pollutants from both private and public construction projects (i.e., contract, maintenance, and encroachment). The construction site management program shall include the following minimum elements:	
Part D.1.d.(1) Requirement to implement BMPs – The Permittee shall require proposed construction projects to implement BMPs and standards in accordance with established policies and described in the following: • Hawaii Standard Specifications for Road and Bridge Construction and/or Special Provisions • Construction Best Management Practices Field Manual • Maintenance Activities Best Management Practices Field Manual • Storm Water Permanent Best Management Practices Manual These standards shall be annually reviewed and, as necessary, revised to include descriptions of new, modified, or revised BMPs, including permanent BMPs and LID practices. Any revisions shall be discussed within its Annual Report and the documents included within its SWMP Plan. All documents shall be made available to DOT-HWYS staff, contractors, and consultants, as appropriate.	Section 4.1
Part D.1.d.(2) Inventory of construction sites – The Permittee shall continue to implement a system to track both private and public construction projects (i.e., contract, maintenance, and encroachment). This system shall track information on the project (including permit or file number, if available), status of plan review and approval, inspection dates, and if applicable, enforcement actions and whether the project has applied for coverage under HAR Chapter 11-55, Appendix C, NPDES General Permit Authorizing the Discharge of Storm Water Associated with Construction Activity (a.k.a. General Construction Activity Storm Water permit) (unless the project will disturb less than one acre of land) and satisfied any other applicable requirements of the NPDES permit program (i.e., an individual NPDES permit).	Section 4.2
Part D.1.d.(3)(i) – Prior to the commencement of construction activity on construction projects (i.e., contract, maintenance, and encroachment), DOT-HWYS shall review the appropriate Storm Water Pollution Prevention Plan (SWPPP) and other pollution prevention measures (e.g. Erosion and Sediment Control Plan, Grading Plan, Post-construction BMPs and Landscaping Plans, Dewatering Plan, Hydrotesting Plan, and Water Pollution and Erosion Control Notes) or similar plan(s)/document(s) to verify that the appropriate BMPs included meets the following requirements: • DOT-HWYS' Standard Specifications and Special Provisions;	Section 4.3

MS4 NPDES Permit Reference	SWMPP Section
• DOT-HWYS' Construction BMP Field Manual; • DOT-HWYS' Storm Water Permanent Best Management Practices Field Manual; • DOT-HWYS' Maintenance Activities Best Management Practices Field Manual; • HAR Chapter 11-55, Appendix C, and any other requirements under the NPDES permit program, as applicable; and • Implementation of measures to ensure that the discharge of pollutants from the site will be reduced to the MEP and will not cause or contribute to an exceedance of water quality standards.	
Part D.1.d.(3)(ii) – Require a permit or written equivalent approval for drainage connections to the MS4, discharge of surface storm water runoff associated with construction (i.e., from both private and public projects), or other discharges (i.e., hydrotesting and dewatering effluent or other non-storm water, except those allowed under this permit) into the MS4 and maintain a database of the permits/approvals. Prior to issuing a drainage connection, discharge of surface runoff permit/approval, discharge permit, or Permit to Perform Work Upon State Highways, the Permittee shall ensure that the following are met: • The project owner has provided proof of filing an NOI Form C or NPDES application for the discharge of storm water associated with construction activities that disturb one (1) acre or more, if applicable; • The project owner has provided proof of filing a NOI Form F and/or G or NPDES application for the discharge, if applicable; and • A Site-Specific BMP Plan or other documents (e.g., Erosion and Sediment Control Plan, Grading Plan, Post-construction BMPs and Landscaping Plans, Dewatering Plan, and Hydrotesting Plan) relating to pollution prevention or similar document(s) have been reviewed and accepted by DOT-HWYS.	Section 4.3
Part D.1.d.(3)(iii) – Not allow construction to commence on any private or public construction project (i.e., contract, maintenance, and encroachment) unless and until it has verified that the project has received from DOH a Notice of General Permit Coverage (NGPC) under HAR Chapter 11-55, Appendix C, NPDES General Permit Authorizing the Discharge of Storm Water Associated with Construction Activity (General Construction Activity Storm Water permit) (unless the project will disturb less than one (1) acre of land) and satisfied any other applicable requirements of the NPDES permit program (i.e., an individual NPDES permit);	Section 4.3
Part D.1.d.(3)(iv) – The Permittee shall continue to implement, and update as needed, a checklist that its reviewers shall use in evaluating the plans and BMPs or other similar document(s) which have been implemented pursuant to this Part (i.e., Part D.1.d.). Copies of this plan review checklist shall be provided to applicants for connection and discharge permits and permits to perform work upon State Highways; and to consultants and contractors for their use in developing the Plans or other similar document(s) for DOT-HWYS-contracted construction projects. The	Section 4.3

MS4 NPDES Permit Reference	SWMPP Section
plan review checklist shall include, at a minimum, but not be limited to comments on any deficiencies and the date when comments were addressed to the satisfaction of DOT-HWYS. A system shall be implemented to ensure all comments, identified during the review process has been properly addressed.	
Part D.1.d.(4)(i) – Prior to the initiation of ground-disturbing activities at any site, except for activities associated with the installation of BMPs at a site, an engineer or qualified inspector employed or retained by the Permittee who reviews and becomes familiar with the project's site-specific BMP Plan and/or other equivalent document(s), shall inspect the site to verify BMPs as required by the BMP Plan and/or other documents have been installed correctly and in the correct locations prior to the commencement of ground-disturbing activity. Inspections shall include a review of site Erosion and Sediment Controls, good housekeeping practices, and compliance with DOT-HWYS-accepted erosion and sediment control plans, construction BMPs Plans, or other similar documents and DOT-HWYS approved permits. The Permittee shall also identify and remedy any site conditions having the potential for erosion and sediment runoff, including other pollutant discharges which may occur as a result of the project's construction activities.	Section 4.4
Part D.1.d.(4)(ii) – In addition to inspections required by the NPDES permit program, all contract and maintenance construction projects shall be inspected at least monthly by a qualified construction inspector who is independent (i.e., not involved in the day-to-day planning, design, or implementation) of the construction projects to be inspected. The Permittee may use more than one (1) qualified construction inspector for these inspections. Upon three (3) successive monthly inspections that indicate, in total, no critical or major deficiencies, as defined in the SWMP, or less than six (6) minor deficiencies, as defined in the SWMP, with no more than three (3) minor deficiencies in one (1) month in a project's BMPs or other storm water management activities, the Permittee may decrease the inspection frequency for such project to quarterly. However, if while under a quarterly inspection frequency, an inspection of a project conducted pursuant to this paragraph indicates at least one critical or major deficiency or a total of three (3) or more minor deficiencies in the project's BMPs or other storm water management activities, the inspections frequency shall immediately return to no less than monthly. This reduced inspection frequencies option is contingent upon the Permittee having defined each type (i.e., critical, major, or minor) of deficiency. The Permittee shall continue to implement written procedures for appropriate corrective actions and follow-up inspections when deficiencies had been identified at an inspected project. The corrective action procedures shall be described in the SWMP.	Section 4.4
Part D.1.d.(4)(iii) – All construction projects with a Permit to Perform Work Upon State Highways, connection permit, or discharge of surface runoff permit/approval shall be inspected at least once annually or once during the life of the project, whichever comes first, by a qualified construction inspector who is independent (i.e., not involved in the day-to-day planning, design, or implementation) of the construction projects to be inspected. The Permittee may use more than one (1) qualified construction inspector for these inspections. If the project has a site-specific BMP Plan or other equivalent document(s), the inspection shall also verify that the BMPs were properly installed and at the locations specified in the Plan.	Section 4.4

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.d.(4)(iv) – The Permittee shall continue to implement a standard inspection form(s) and reporting and corrective procedures for inspections, including use of an inspection checklist, or equivalent, and the Permittee shall track inspection results in a database or equivalent system. The inspection checklist shall, include at a minimum, but not be limited to identifying any deficiencies and the date of the corrective actions. Photos shall accompany the inspection checklist to document the deficiencies. The reporting procedures shall include, at a minimum, notification of any critical deficiencies to the DOH. Any revisions to the inspection form(s), inspection checklist, reporting and corrective procedures shall be noted in the Annual Report.	Section 4.4
Part D.1.d.(5)(i) – Implement policies for enforcement and penalties for those in non-compliance with Part D.1.d.(1) requiring the implementation of standards, and	Section 4.5
Part D.1.d.(5)(ii) – Implement an Enforcement Response Plan to include written procedures for appropriate corrective and enforcement actions, and follow-up inspections when an inspected project is not in full compliance with its requirements, other DOT-HWYS permits, and any other applicable requirements under the NPDES permit program.	Section 4.5
Part D.1.d.(6) Process to refer non-compliance and non-filers to DOH – In the event the Permittee has exhausted its use of sanctions and cannot bring a construction site or construction operator into compliance with its policies, standards, or this permit, or otherwise deems the site to pose an immediate and significant threat to water quality, the Permittee shall provide e-mail notification to cleanwaterbranch@doh.hawaii.gov, Attn: Enforcement Section Supervisor within one (1) week of such determination. E-mail notification shall be followed by written notification in accordance with Part A.7. and include a copy of all inspection checklists, notes, and related correspondence in pdf format (300 minimum dpi) within two (2) weeks of the determination. In instances where an inspector identifies a site that has not applied for permit coverage under the NPDES permit program, the Permittee shall provide written notification in accordance with Part A.7. to DOH within two (2) weeks of the discovery.	Section 4.5
Part D.1.h.(2) Construction Site Runoff Control – The Permittee shall provide annual training on the Construction BMPs Program Plan to all DOT-HWYS staff with construction storm water responsibilities, including construction engineers, construction and maintenance inspectors, and plan reviewers. This training shall be specific to DOT-HWYS activities (including the proper installation and maintenance of accepted BMPs), policies, rules and procedures.	Section 4.6

4.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Construction Program, the following organizational structure has been established, as shown in Figure 4-1.

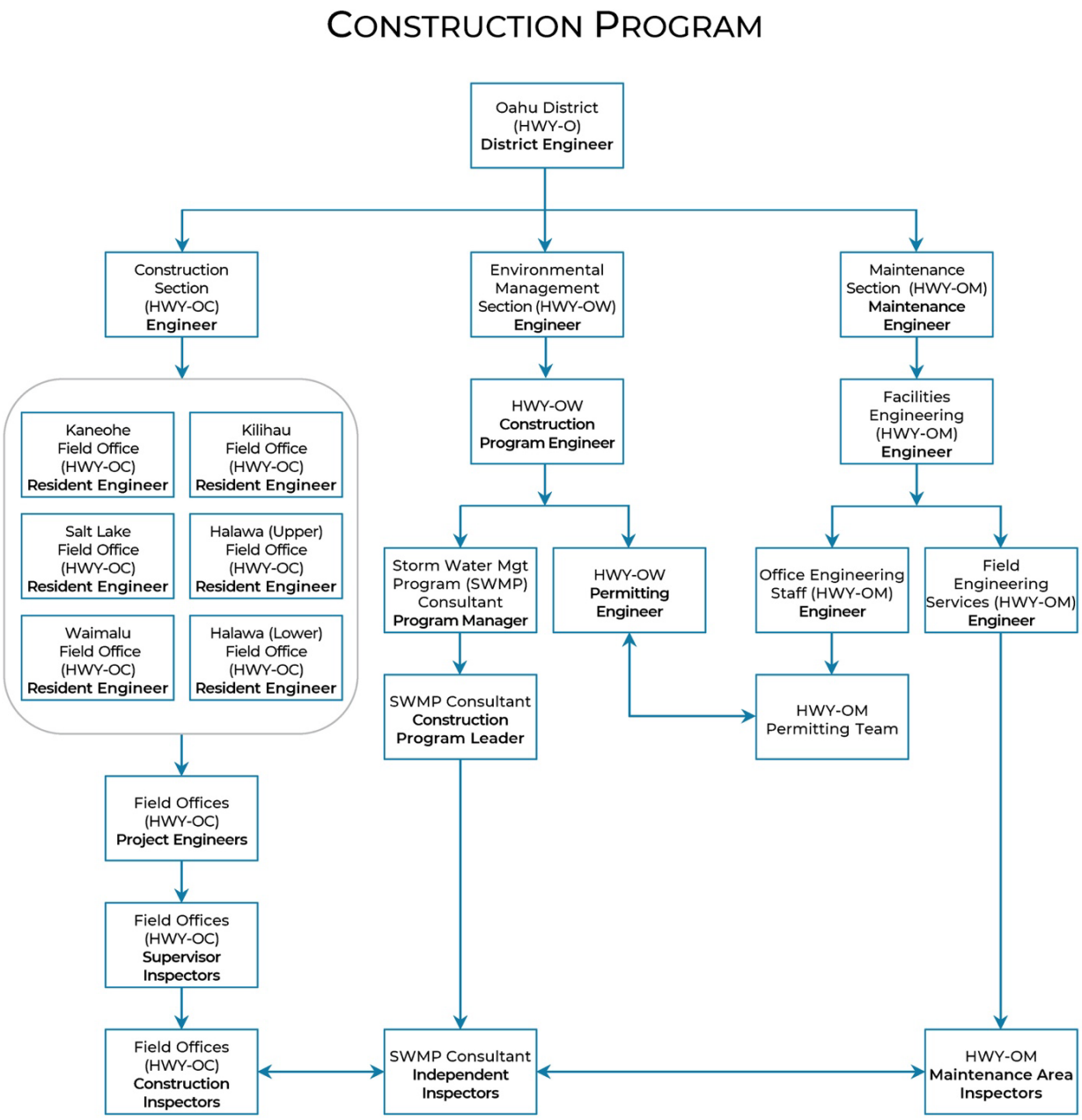


Figure 4-1. Construction Program Organizational Chart.

4.1 Construction BMP Implementation | MS4 NPDES Permit Part D.1.d.(1)

DOT-HWYS requires proposed construction projects to implement BMPs and standards in accordance with established policies and described in the following:

- *Hawaii Standard Specifications for Road and Bridge Construction and/or Special Provisions*
- *Construction Best Management Practices Field Manual* (Appendix D.1)
- *Maintenance Activities Best Management Practices Field Manual* (Appendix I.1)
- *Storm Water Post-Construction Best Management Practices Manual* (Appendix E.1)

These standard documents are available on the websites listed below.

The *Hawaii Standard Specifications for Road and Bridge Construction and/or Special Provisions* is available on the DOT-HWYS website, www.hidot.hawaii.gov/highways/s2005-standard-specifications/2005-standard-specifications/.

The *Construction Best Management Practices Field Manual*, *Maintenance Activities Best Management Practices Field Manual*, and *Storm Water Post-Construction Best Management Practices Manual* are available on the DOT-HWYS website, www.stormwaterhawaii.com, and as Appendices D.1, I.1, and E.1 respectively, to this *SWMPP*.

The standards are annually reviewed and revisions to these documents are provided in the Annual Report.

The individuals highlighted in Figure 4-2 are responsible for implementing the control measures described in this section.

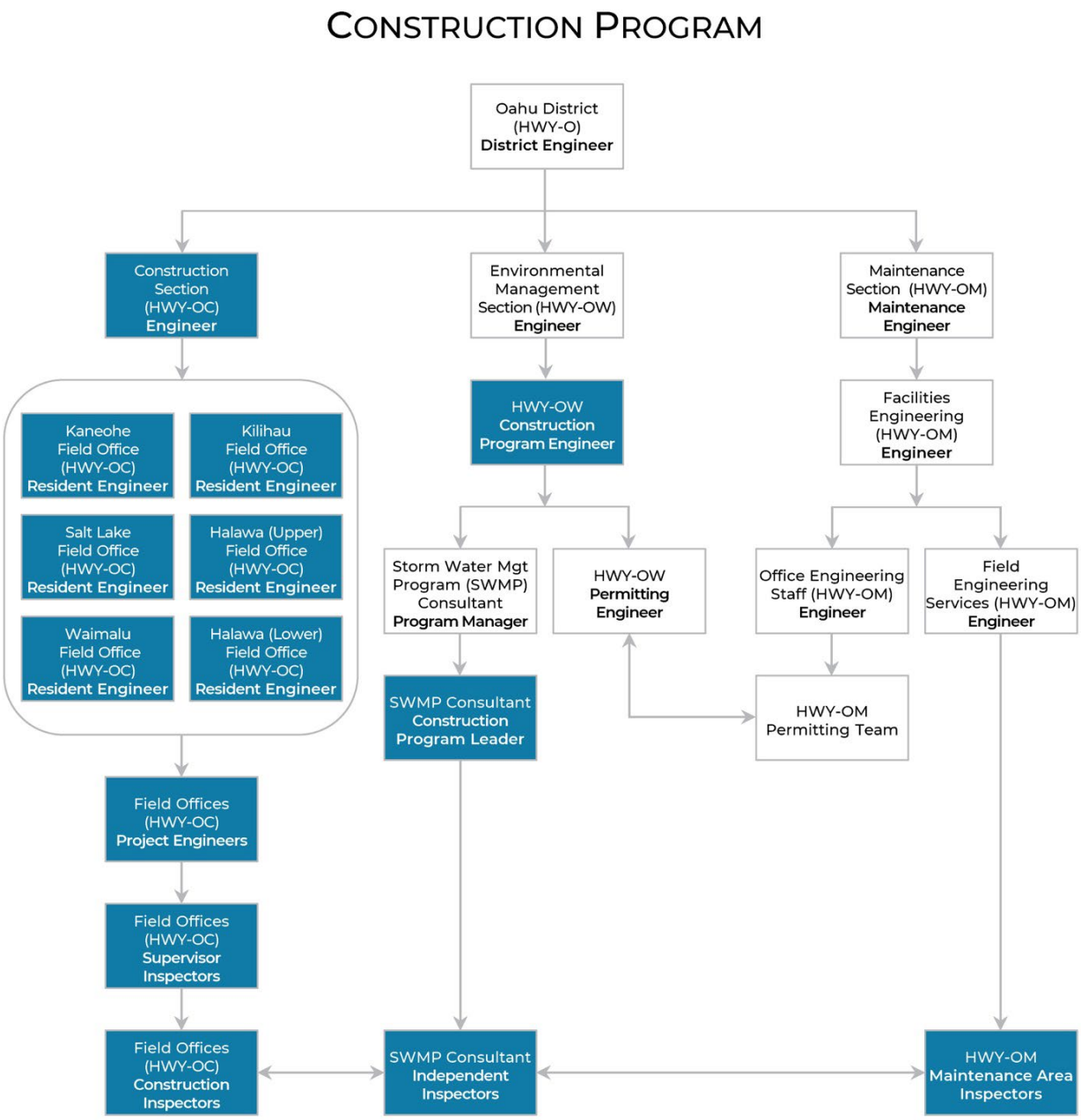


Figure 4-2. Construction Program Organizational Chart for Roles and Responsibilities Related to Construction BMP Implementation.

4.2 **Inventory of Construction Sites** | MS4 NPDES Permit Part D.1.d.(2)

DOT-HWYS utilizes AMS Maximo, Field Automated Communication Systems (FACS) construction management software, and other databases to track private and public construction projects. The project information tracked includes the project title, project number, status of plan review and approval, inspection dates and reports, and as applicable, permit number(s) and enforcement actions.

AMS Maximo and FACS track information on public and private construction projects to ensure construction activities comply with the required standards and permits.



The individuals and team highlighted in Figure 4-3 are responsible for implementing the control measures described in this section.

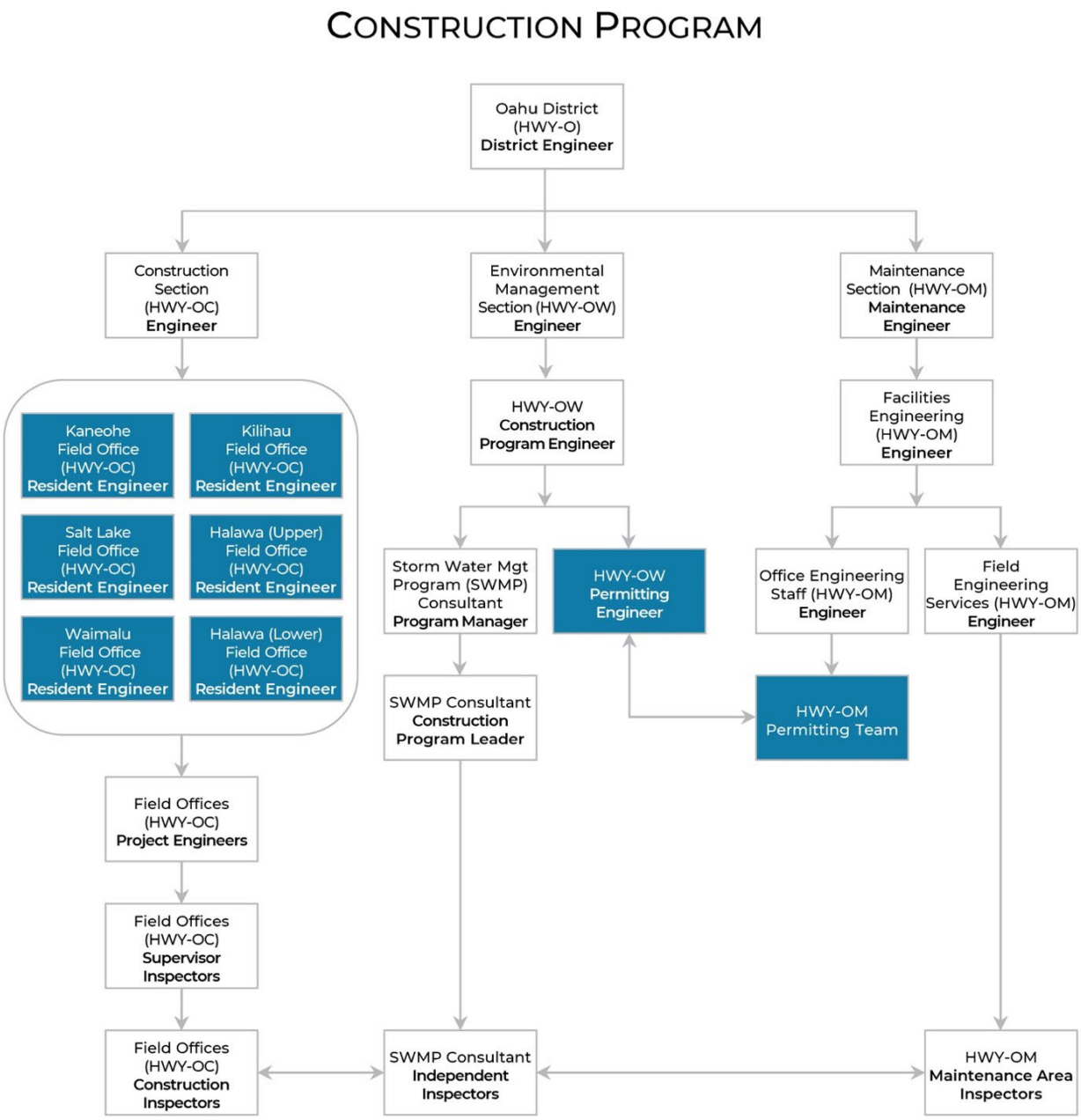


Figure 4-3. Construction Program Organizational Chart for Roles and Responsibilities Related to Inventory of Construction Sites.

4.3 Plan Review and Permitting

DOT-HWYS implements a plan review and approval process to ensure that prior to the commencement of construction activities, appropriate SWPPPs or BMP Plans are reviewed to verify that the appropriate BMPs included meet the standards, and permits are obtained. As indicated in Table 4-2, all private and public construction projects are required to develop a SWPPP, Written Best Management Practices (BMP) Plan and/or other equivalent document, and have that BMP Plan undergo a review and approval process.

Table 4-2. Appropriate BMP Plan and Review Process for Public and Private Construction Projects.

Type of Project	BMP Plan	Submit To Reviewers	Checklist Used	Appendix
Public Construction Projects	Storm Water Pollution Prevention Plan (SWPPP)	HWY-OC Project Engineer	SWPPP Review Checklist	Appendix D.2
Private Construction Project	Written Best Management Practices (BMP) Plan	HWY-OW Permitting Engineer	SSBMP Plan/SWPPP Review Checklist	Appendix D.3

4.3.1 **Project Plan Review and Approval** | MS4 NPDES Permit Parts D.1.d.(3)(i) and D.1.d.(3)(iii)

DOT-HWYS reviews a construction project's appropriate BMP Plan, and/or other pollution prevention measures (e.g., Erosion and Sediment Control Plan, Grading Plan, Post-construction BMPs and Landscaping Plans, Dewatering Plan, Hydrotesting Plan, and Water Pollution and Erosion Control Notes) to verify the plans meet the standards described in Section 4.1.

Additionally, DOT-HWYS does not allow construction to commence on any private or public construction project until it has verified that the project has received from DOH a Notice of General Permit Coverage (NGPC) under HAR Chapter 11-55, Appendix C, NPDES General Permit Authorizing the Discharge of Storm Water Associated with Construction Activity and satisfied any other applicable requirements of the NPDES permit program.

4.3.2 **Permitting** | MS4 NPDES Permit Part D.1.d.(3)(ii)

Private construction projects that propose to construct a connection to the DOT-HWYS MS4 are required to obtain a connection permit. Private construction projects that request to discharge surface storm water runoff associated with construction, hydrotesting, dewatering effluent, or other non-storm water discharges to the DOT-HWYS MS4, must obtain a discharge permit. To complete the application process for a connection and/or discharge permit, applicants must submit to DOT-HWYS the *Application for a Private Storm Drain Connection and/or Discharge Permit to the State of Hawaii Highways Division Storm Drain System* (Appendix C.1). Furthermore, private construction projects must obtain a *Permit to Perform Work Upon State Highways* (Appendix D.4) before commencement of any construction activities within the DOT-HWYS ROW.

Prior to issuance of a connection permit, discharge permit, or *Permit to Perform Work Upon State Highways*, DOT-HWYS ensures that the following are met:

- The project owner has provided proof of filing a NOI Form C or NPDES application for the discharge of storm water associated with construction activities that disturb one acre or more, as applicable;
- The project owner has provided proof of filing a NOI Form F and/or G or NPDES application for the discharge, as applicable; and
- A Written Best Management Practices Plan or other documents (e.g., Erosion and Sediment Control, Grading, Post-construction BMP and Landscaping Plans, Dewatering Plan, and Hydrotesting Plan) related to pollution prevention have been reviewed and accepted by DOT-HWYS.

4.3.3 **Plan Review Checklists** | MS4 NPDES Permit Part D.1.d.(3)(iv)

DOT-HWYS has developed plan review checklists to help reviewers evaluate the appropriate BMP Plan and/or other similar documents. The plan review checklists are updated as needed and updates are provided in the Annual Report.

Public Construction Projects

Prior to commencement of construction activity on public construction projects, DOT-HWYS utilizes the SWPPP Review Checklist to evaluate plans and BMPs, comment on any deficiencies, track the dates the comments were addressed, and verify the appropriate BMP Plan or similar plans and documents meet the standards described in Section 4.1.

DOT-HWYS provides contractors and consultants with the SWPPP Review Checklist to assist in the development of BMP Plans. Contractors are required to provide the project's Resident Engineer with the applicable BMP Plan, and the completed plan review checklist. The BMP Plan must be approved by DOT-HWYS prior to commencement of ground-disturbing activities.

Private Construction Projects

DOT-HWYS provides a copy of the Contractor BMP Plan Application, which includes the Contractor's Certification of NPDES Compliance (Appendix D.5), Written Best Management Practice (BMP) Plan (Appendix D.6), and Site-Specific Best Management Practices (SSBMP) Plan/Storm Water Pollution Prevention Plan (SWPPP) Review Checklist to applicants for *Permit for Connection to the State Highways Drainage System* (Appendix C.2), *Permit to Discharge into the State Highways Drainage System* (discharge permit) (Appendix D.7), and *Permit to Perform Work Upon State Highways*.

When a project owner applies for a *Permit to Perform Work on State Highways*, DOT-HWYS provides the owner with the Contractor BMP Plan Application that must be completed by the owner and the Written Best Management Practices (BMP) Plan must be approved by HWY-OW before the *Permit to Perform Work on State Highways* is issued.

Prior to commencement of construction activities for a private construction project, DOT-HWYS reviews the Contractor BMP Plan Application and uses the Site-Specific Best Management Practices (SSBMP) Plan/Storm Water Pollution Prevention Plan (SWPPP) Review Checklist to verify that the project plans meet the standards described in Section 4.1.

The individuals and team highlighted in Figure 4-4 are responsible for implementing the control measures described in this section.

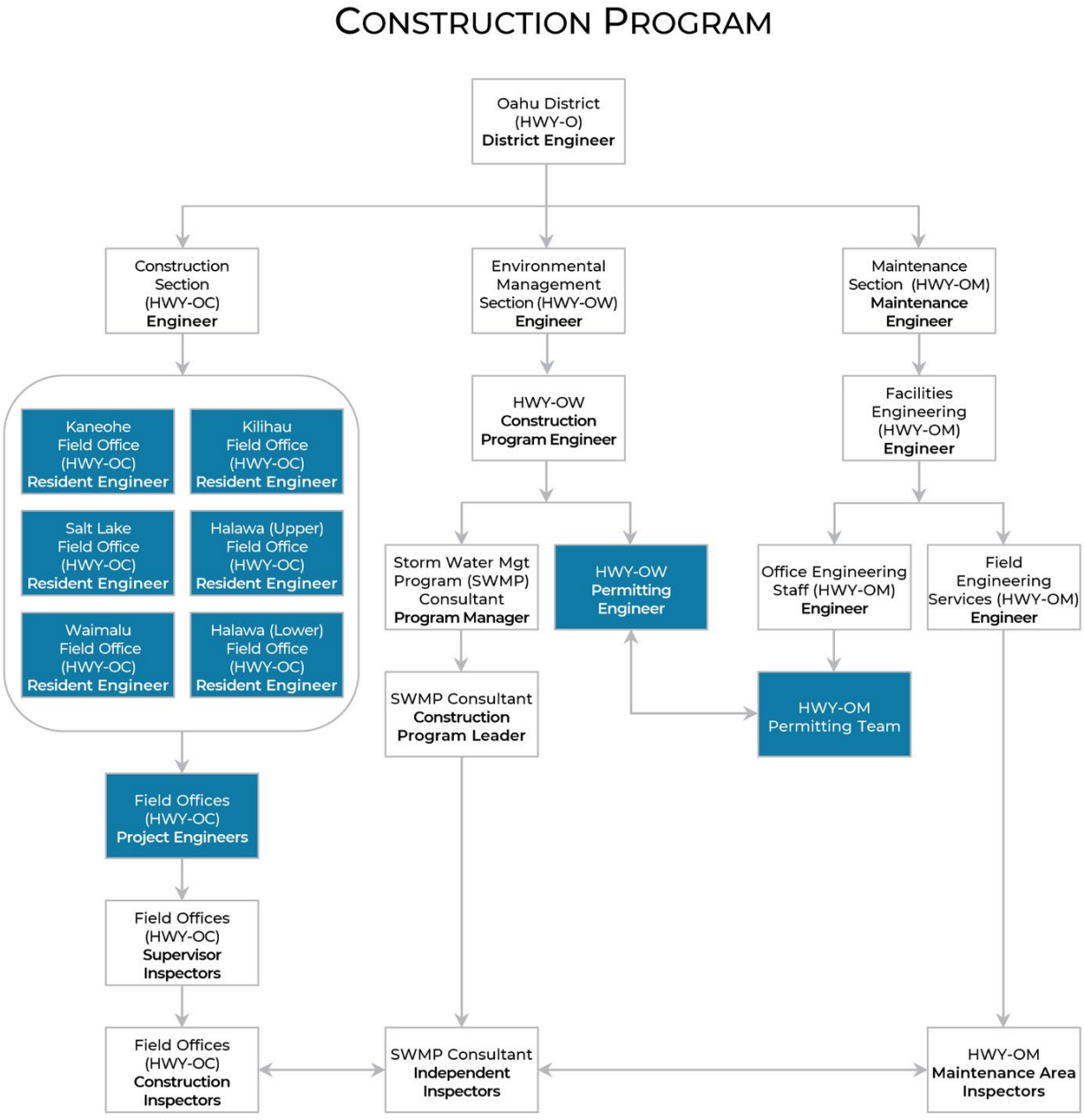


Figure 4-4. Construction Program Organizational Chart for Roles and Responsibilities Related to Plan Review and Permitting.

4.4 Inspections

DOT-HWYS conducts initial and independent inspections of construction projects and has developed corrective actions and reporting procedures.

4.4.1 Initial Inspections | MS4 NPDES Permit Part D.1.d.(4)(i)

Public Construction Project

Prior to the initiation of ground-disturbing activities at any site, except for activities associated with the installation of BMPs at a site, DOT-HWYS inspects the public construction project site to verify BMPs are correctly installed and at the correct locations required by the project's BMP Plan and/or other documents.

Inspections include a review of site erosion and sediment controls, good housekeeping practices, and compliance with the accepted erosion and sediment control plans, BMP Plan, or other similar documents and permits. If DOT-HWYS identifies any site conditions that have the potential for erosion and sediment runoff, including other pollutant discharges which may occur as a result of the project's construction activities, construction will not be allowed to commence until the deficiency is remedied.

Private Construction Project

Prior to the initiation of ground-disturbing activities at any site, except for activities associated with the installation of BMPs at a site, the contractor must obtain a *Permit to Perform Work Upon State Highways*. Upon issuance of the *Permit to Perform Work Upon State Highways*, DOT-HWYS coordinates with the permit applicant to schedule an initial inspection to verify BMPs are correctly installed and at the correct locations required by the project's BMP Plan and/or other documents.

During the inspection, DOT-HWYS verifies that erosion and sediment controls are installed according to manufacturer's specifications and the approved Written Best Management Practices (BMP) Plan. If DOT-HWYS identifies any site conditions not complying with the Written Best Management Practices (BMP) Plan or that have the potential to discharge pollutants into the DOT-HWYS MS4, construction will not be allowed to commence until the deficiency is remedied.

4.4.2 **Independent Inspections** | MS4 NPDES Permit Parts D.1.d.(4)(ii) and D.1.d.(4)(iii)

Public Construction Project

In addition to inspections required by HAR Chapter 11-55, Appendix C, NPDES General Permit Authorizing the Discharge of Storm Water Associated with Construction Activity, public construction projects are inspected by a qualified construction inspector who is independent (i.e., not involved in the day-to-day planning, design, or implementation) of the construction project to be inspected. DOT-HWYS conducts independent inspections on all public construction projects at least monthly and implements the standard inspection form, Independent (Third Party) Inspection Checklist (Appendix D.8).

The inspection frequency for a specific project may be decreased to quarterly if, upon three successive monthly inspections, the following criteria are met:

- No critical or major deficiencies
- Less than six minor deficiencies
- No more than three minor deficiencies in one month in a project's BMPs or other storm water management activities

However, if while under a quarterly inspection frequency, DOT-HWYS identifies at least one critical or major deficiency, or a total of three or more minor deficiencies in the project's BMPs or other storm water management activities, the inspection frequency of the public construction project will immediately return to no less than monthly.

Private Construction Project

All private construction projects with a connection permit, discharge permit, and/or *Permit to Perform Work Upon State Highways* are inspected at least once annually or once during the life of the project, whichever comes first, by a qualified construction inspector who is independent of the construction project to be inspected. During the independent inspection, DOT-HWYS verifies that BMPs are properly installed and at the locations specified in the applicable BMP Plan or other equivalent document(s) and/or plan(s). Inspections for private construction projects are limited to the construction area impacting the DOT-HWYS ROW and are documented on a standard inspection form, Independent (Third Party) Inspection Checklist - Short Form (Appendix D.9).

4.4.3 Corrective Actions and Reporting Procedures | MS4 NPDES Permit Parts D.1.d.(4)(ii) and D.1.d.(4)(iv)

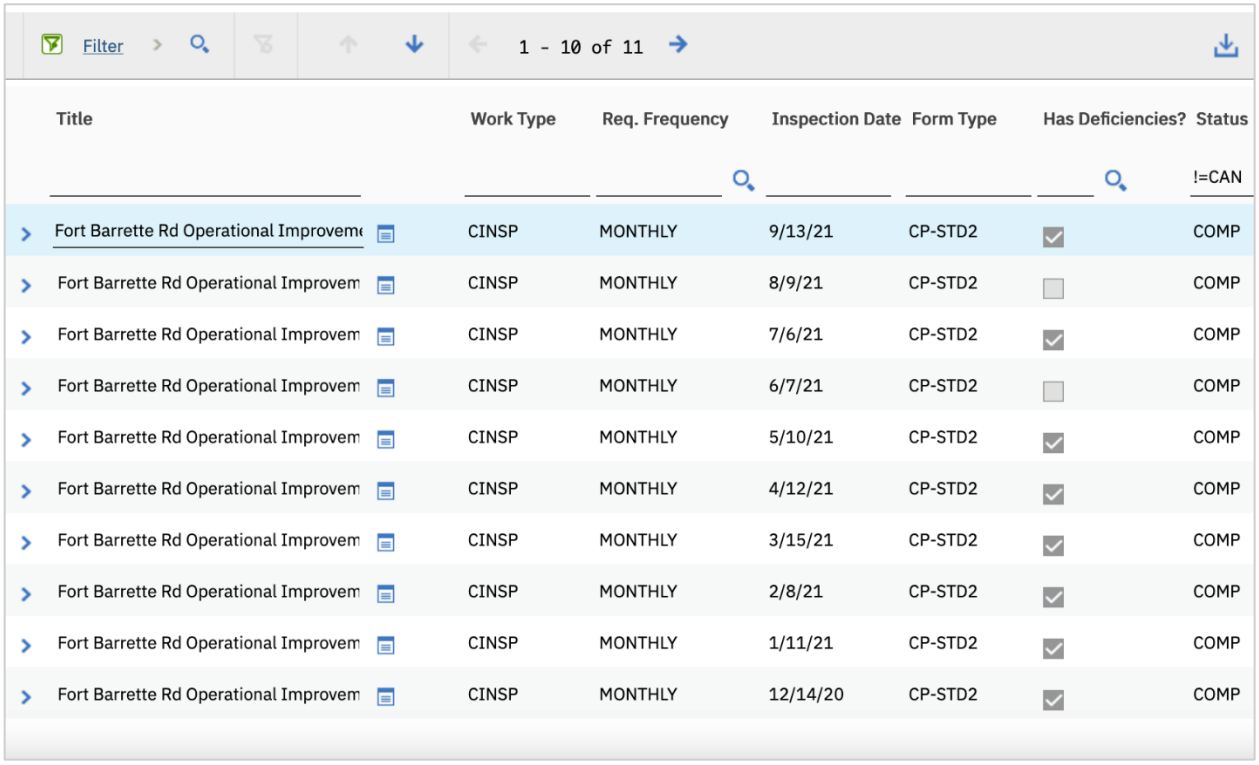
DOT-HWYS implements procedures for appropriate corrective actions, follow-up inspections, and reporting when deficiencies are identified during inspections, as follows:

1. Conduct independent inspections of BMPs on public and private construction projects.
    a. If the inspector identifies a critical deficiency during the site visit, the deficiency will be corrected or addressed before the close of business on the day of the inspection when the deficiency is identified. DOT-HWYS notifies DOH of the critical deficiency, which includes a copy of the inspection report and photo documentation.
    b. For a public construction project, if a major or minor deficiency is identified during the site visit, the deficiency will be corrected or addressed as soon as possible, but in no event later than five calendar days after the inspection at which the deficiency is identified or before the next forecasted precipitation, whichever is sooner.
    c. For a private construction project, if a major or minor deficiency is identified during the site visit, the deficiency will be corrected or addressed as soon as possible, but in no event later than 24 hours after the inspection at which the deficiency is identified.
2. The inspector provides a post-inspection briefing to construction project personnel (e.g., DOT-HWYS Project Engineer, DOT-HWYS Construction Inspector, Construction Manager, or Contractor's Representative) to summarize the BMP deficiencies identified.
3. The inspector completes the Independent (Third Party) Inspection Checklist or Independent (Third Party) Inspection Checklist - Short Form and submits the checklist with accompanying photographs to DOT-HWYS staff.
4. DOT-HWYS staff notifies the contractor of any deficiencies identified by the inspector and the corrective action timeframes for each deficiency.
5. DOT-HWYS staff verifies that the deficiencies have been addressed and documents the date of corrective actions for the deficiencies.
6. DOT-HWYS staff follows the procedures for enforcement and follow-up actions outlined in the *Enforcement Response Plan* (Section 4.5) if the contractor does not correct all deficiencies within the specified timeframe.

4.4.4 Tracking Inspection Results | MS4 NPDES Permit Part D.1.d.(4)(iv)

Initial inspections of public construction projects are documented on the Site-Specific Best Management Practice/Storm Water Pollution Prevention Inspection and Maintenance Report (Appendix D.10) and tracked in FACS. Independent inspections of public construction projects are documented on the Independent (Third Party) Inspection Checklist and tracked in the AMS Maximo Construction Projects Module. Initial and independent inspections of private construction projects utilize the Independent (Third Party) Inspection Checklist - Short Form and are tracked in the AMS Maximo Construction Projects Module.

The AMS Maximo Construction Projects Module tracks independent inspections of private and public construction projects..



Filter | 1 - 10 of 11

Title	Work Type	Req. Frequency	Inspection Date	Form Type	Has Deficiencies?	Status
						!=CAN
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	9/13/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	8/9/21	CP-STD2	☐	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	7/6/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	6/7/21	CP-STD2	☐	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	5/10/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	4/12/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	3/15/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	2/8/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	1/11/21	CP-STD2	☑	COMP
Fort Barrette Rd Operational Improvem	CINSP	MONTHLY	12/14/20	CP-STD2	☑	COMP

The individuals highlighted in Figure 4-5 are responsible for implementing the control measures described in this section.

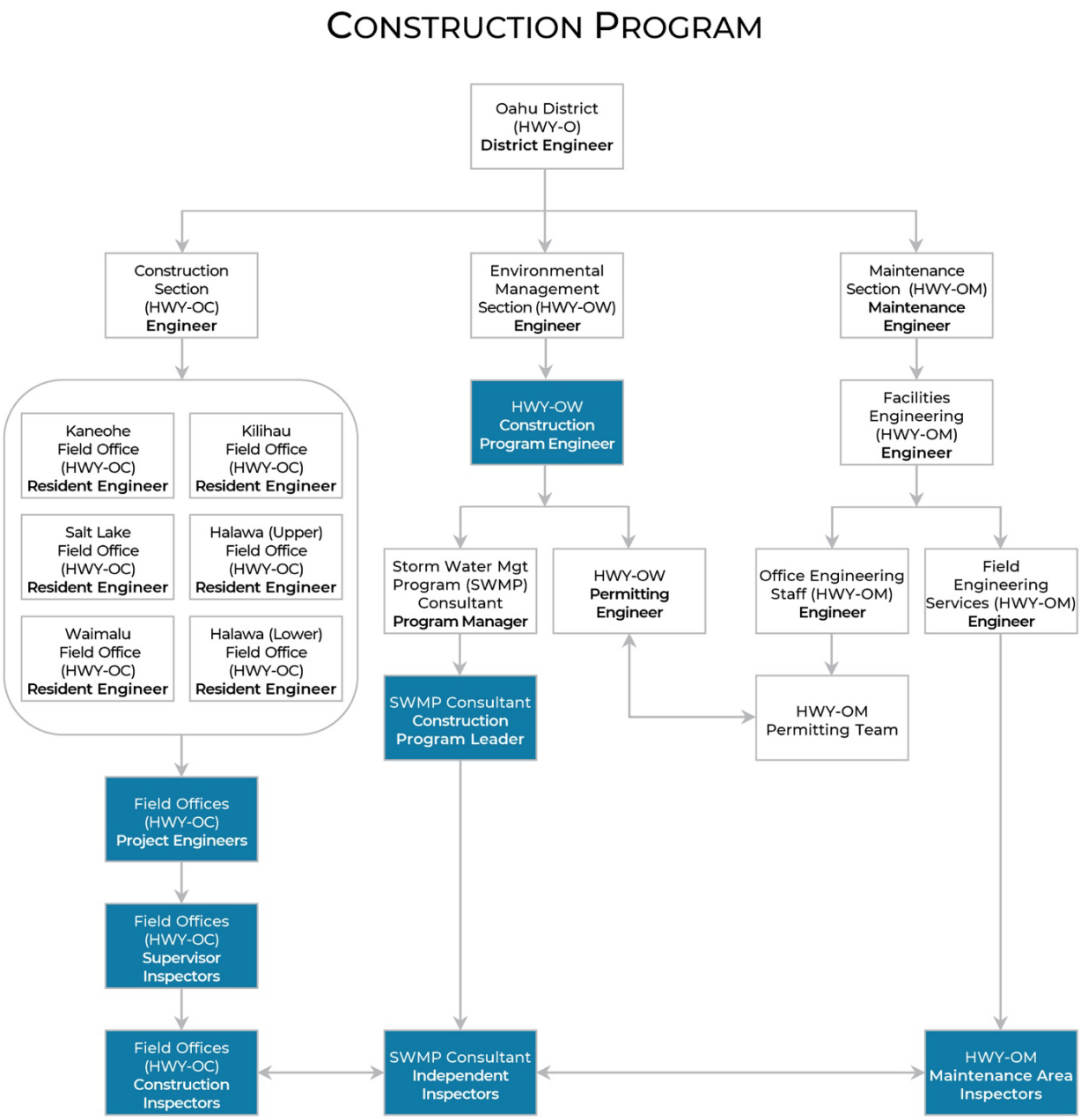


Figure 4-5. Construction Program Organizational Chart for Roles and Responsibilities Related to Inspections.

4.5 **Enforcement** | MS4 NPDES Permit Parts D.1.d.(5) and D.1.d.(6)

DOT-HWYS implements the *Enforcement Response Plan* (Appendix D.11), which provides the procedures for appropriate corrective and enforcement actions, and follow-up inspections when an inspected project is not in full compliance with the MS4 NPDES Permit, policies, standards, requirements, and/or applicable permits. Implementation of the *Enforcement Response Plan* ensures a consistent response by DOT-HWYS for compliance with the MS4 NPDES Permit and provides the framework for DOT-HWYS to enforce on construction projects if necessary. Specifically, the *Enforcement Response Plan* outlines the ability for DOT-HWYS to assess liquidated damages or revoke permits as necessary.

In the event that DOT-HWYS has exhausted its use of sanctions and cannot bring a construction site or construction operator into compliance with its policies, standards, or the MS4 NPDES Permit, or otherwise deems the site to pose an immediate and significant threat to water quality, DOT-HWYS will provide email notification to cleanwaterbranch@doh.hawaii.gov within one week of such determination. Email notification is followed by written notification within two weeks of the determination and includes a copy of all inspection checklists, notes, and related correspondence. In instances where an inspector identifies a site that has not applied for permit coverage under the NPDES permit program, DOT-HWYS provides written notification to DOH within two weeks of the discovery.

The Enforcement Response Plan ensures a consistent response when a construction project is non-compliant.



The individuals highlighted in Figure 4-6 are responsible for implementing the control measures described in this section.

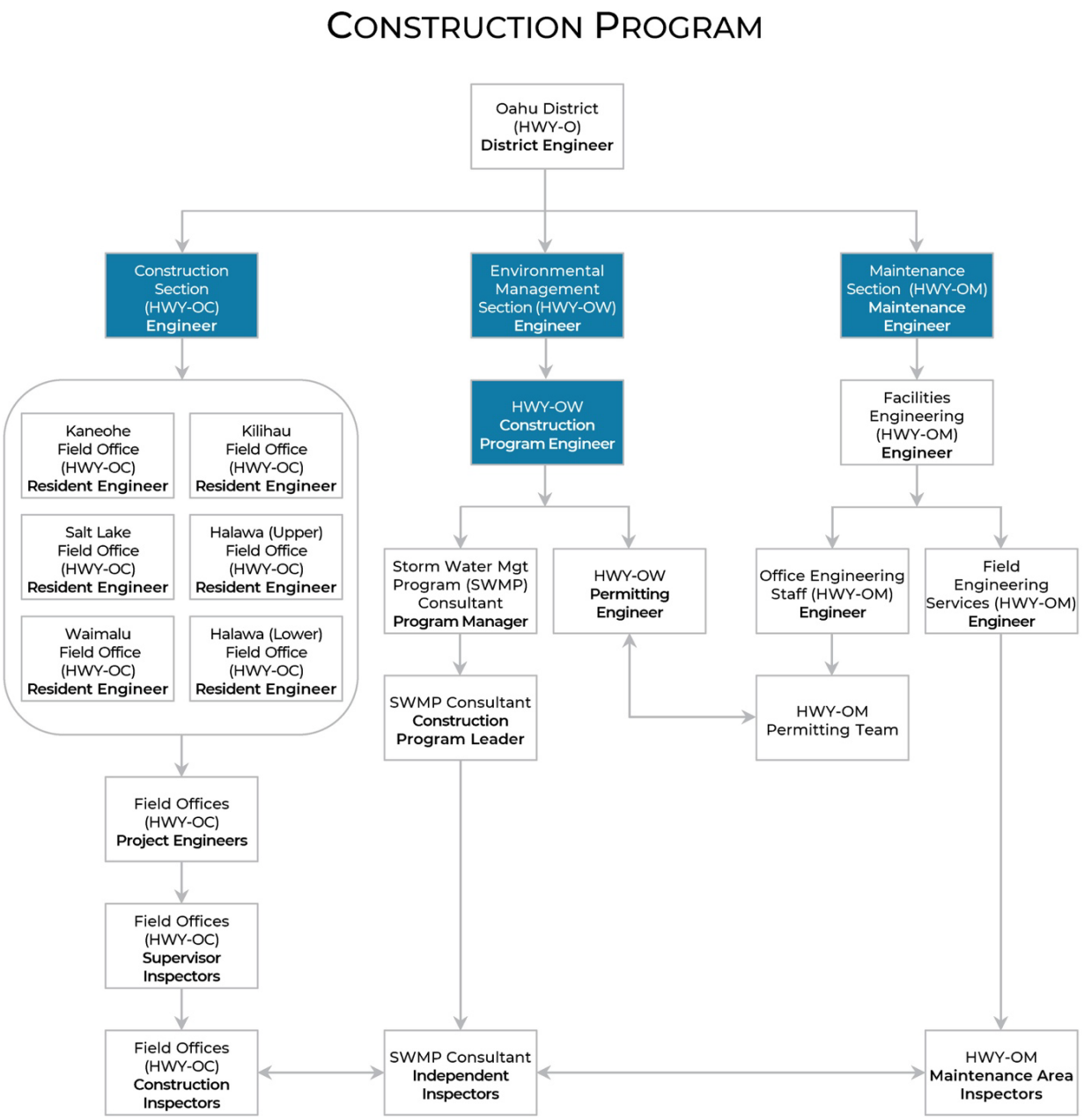


Figure 4-6. Construction Program Organizational Chart for Roles and Responsibilities Related to Enforcement.

4.6 **Training** | MS4 NPDES Permit Part D.1.h.(2)

DOT-HWYS provides annual Construction BMP Training to all DOT-HWYS staff with construction storm water responsibilities, including construction engineers, construction and maintenance inspectors, and plan reviewers. Past topics of the Construction BMP Training include a review of SWPPP development; proper installation, maintenance, and inspection of construction BMPs; as well as a review of policies, rules, and procedures.

In addition to the Construction BMP Training, DOT-HWYS provides educational material on construction BMP implementation to project applicants, contractors, developers, property owners, and other responsible parties to ensure compliance with applicable storm water requirements.

Annual Construction BMP Training is provided to all DOT-HWYS staff with construction storm water responsibilities.



The individuals highlighted in Figure 4-7 are responsible for implementing the control measures described in this section.

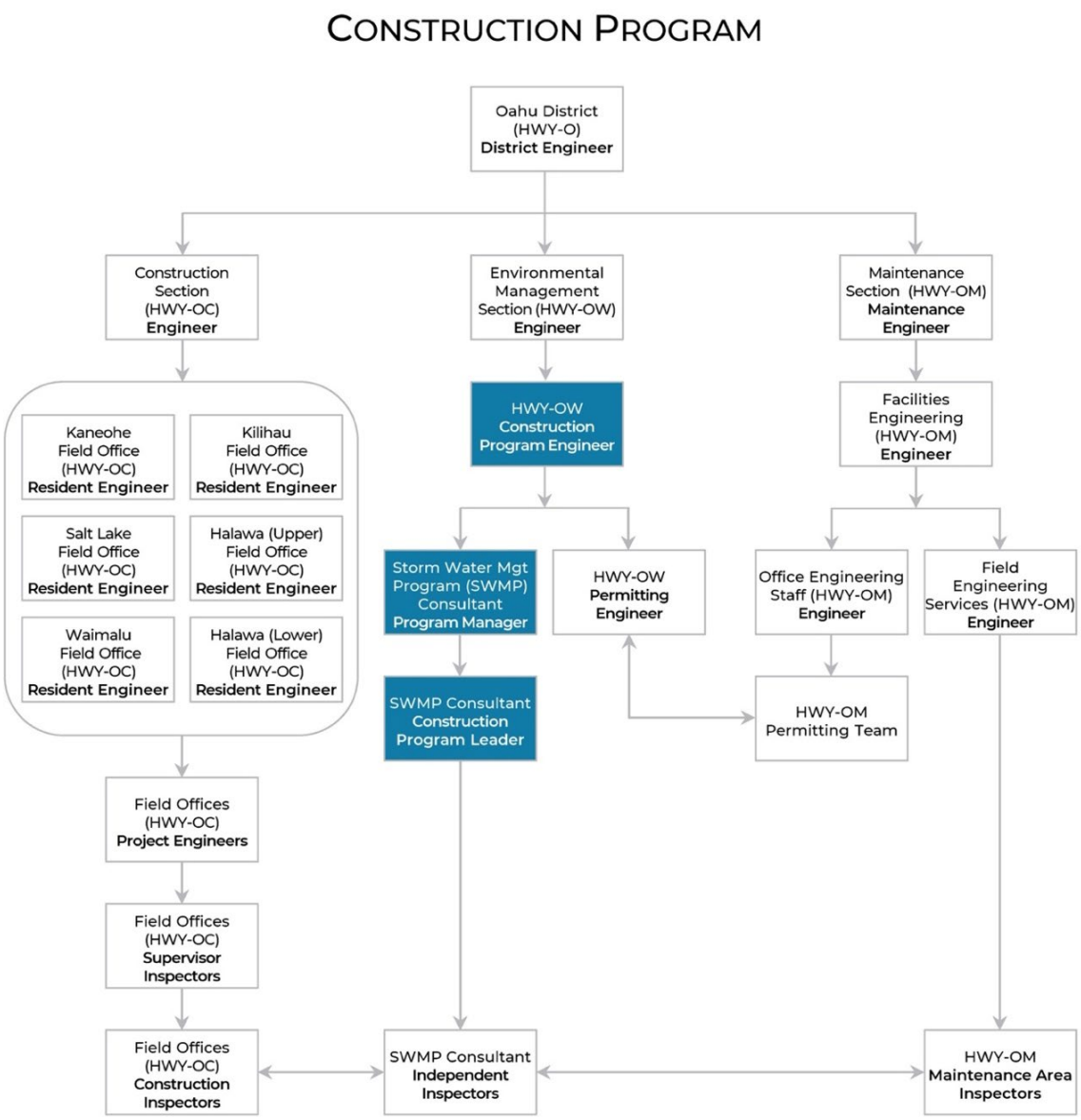


Figure 4-7. Construction Program Organizational Chart for Roles and Responsibilities Related to Training.

4.7 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 7) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

5 | Post-Construction Storm Water Management in New Development and Redevelopment Program





A downspout filter box captures pollutants under the H-1 Viaduct in the Waimalu Watershed.

The Post-Construction Storm Water Management in New Development and Redevelopment Program (Post-Construction Program) is designed to ensure that all private and public projects are reviewed for consistency with the criteria that requires the inclusion of post-construction BMPs to prevent or minimize water quality impacts to the MEP.

The Post-Construction Program includes the following control measures:

1. Implement the *Storm Water Post-Construction Best Management Practices Manual* to address post-construction BMPs, prioritizing low impact development (LID) BMPs to the MEP.
2. Review and accept project design plans to ensure that appropriate post-construction BMPs have been included in the project design and bid package.
3. Implement the AMS to track the frequency of inspections and maintenance of post-construction BMPs.
4. Provide annual training on inspecting post-construction BMPs and LID practices.

The Post-Construction Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 5-1.

Table 5-1. MS4 NPDES Permit Requirements for the Post-Construction Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.e — The Permittee shall further develop, implement, and enforce a program to address storm water runoff from all (i.e., both private and public) new development and redevelopment projects that result in a land disturbance of one (1) acre or more and smaller projects that have the potential to discharge pollutants to the MS4. The Permittee's program must ensure that permanent controls are in place to prevent or minimize water quality impacts to the MEP. Review and update as necessary the criteria defining when and the types of permanent post-construction BMPs, including among other Low Impact Development (LID) techniques, must be included in a project design to address storm water impacts and pollutants of concern. For State waters on the State CWA Section 303(d) list or State established and EPA approved TMDLs, the pollutants of concern to be targeted shall include the parameters causing impairment. Consideration shall also be provided for trash reduction techniques as to comply with its short and long term plans as required in Section D.1.(f)(1)(v). The program shall include, at a minimum, the following elements:	
Part D.1.e.(1) Standards Revision — The Permittee shall continue implementing its revision to its standards for addressing post-construction BMPs, including LID requirements. LID refers to storm water management practices which seek to mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating storm water runoff close to its source. The standards shall ensure that the management practices are prioritized to favor infiltration, evapotranspiration, or harvesting/reuse of stormwater followed by other practices that treat and release stormwater. The standards shall be applicable to all construction projects disturbing at least one (1) acre and smaller projects that have the potential to discharge pollutants to the MS4. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats storm water as a resource, rather than a waste product. LID treatment measures include harvesting and use, infiltration, evapotranspiration, or biotreatment. The plan for the implementation of LID provisions in the DOT-HWYS' standards shall include, at a minimum, the following: • Criteria for requiring implementation. • Investigation into the development of quantitative criteria for a specific design storm to be managed by LID techniques. Examples of design storm requirements include: 24-hour, 85% storm through infiltration; on-site management of the first inch of rainfall within a 24-hour period; retention of the 100-year, 2-hour storm; or on-site management of the 24-hour, 95% storm. • Feasibility criteria for circumstances in which a waiver could be granted for the LID requirements.	Section 5.1

MS4 NPDES Permit Reference	SWMPP Section
• When a LID waiver is granted, alternatives such as offsite mitigation and/or non-LID treatment control BMPs could be required.	
Part D.1.e.(2) Review of Plans for Post-Construction BMPs — For design-bid-build projects, the Permittee shall not advertise any construction project nor award any construction contract until the project design has been reviewed and accepted to ensure that appropriate post-construction BMPs, which include LID practices, have been included in the project design and are included in the bid package to ensure compliance with this part of the permit. For design-build projects, the Permittee shall review and approve the project design the same as for design-bid-build projects prior to implementation. No project shall proceed without the inclusion of appropriate post-construction BMPs unless a waiver is granted by DOT-HWYS based on specific documentation demonstrating that such post-construction BMPs are not feasible. Project documents for projects that will include installation of post-construction BMPs shall also include appropriate requirements for their future continued maintenance.	Section 5.2
Part D.1.e.(3) BMP, Operation and Maintenance, and Inspection Database — The Permittee shall implement its Asset Management System to track the frequency of inspections and maintenance of the post-construction BMPs. In addition to the standard information collected for all projects (e.g., project name, owner, location, start/end date, etc.), the database shall also include, at a minimum: • Type and number of LID practices • Type and number of Source Control BMPs • Type and number of Treatment Control BMPs • Latitude/Longitude coordinates of controls using Global Positioning Systems (GPS) and NAD83 or other Datum as long as the datum remains consistent • Photographs of controls • Operation and maintenance requirements • Frequency of inspections • Frequency of maintenance All DOT-HWYS post-construction and LID BMPs shall be inspected at least once a year for proper operation; maintenance shall be performed as necessary to ensure proper operation.	Section 5.3
Part D.1.h.(3) Post-Construction Storm Water Management in New Development and Redevelopment — The Permittee shall provide annual training on inspecting post-construction BMPs and LID practices to all DOT-HWYS staff and those contractors under DOT-HWYS contract responsible for post-construction inspections.	Section 5.4

5.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Post-Construction Program, the following organizational structure has been established, as shown in Figure 5-1.

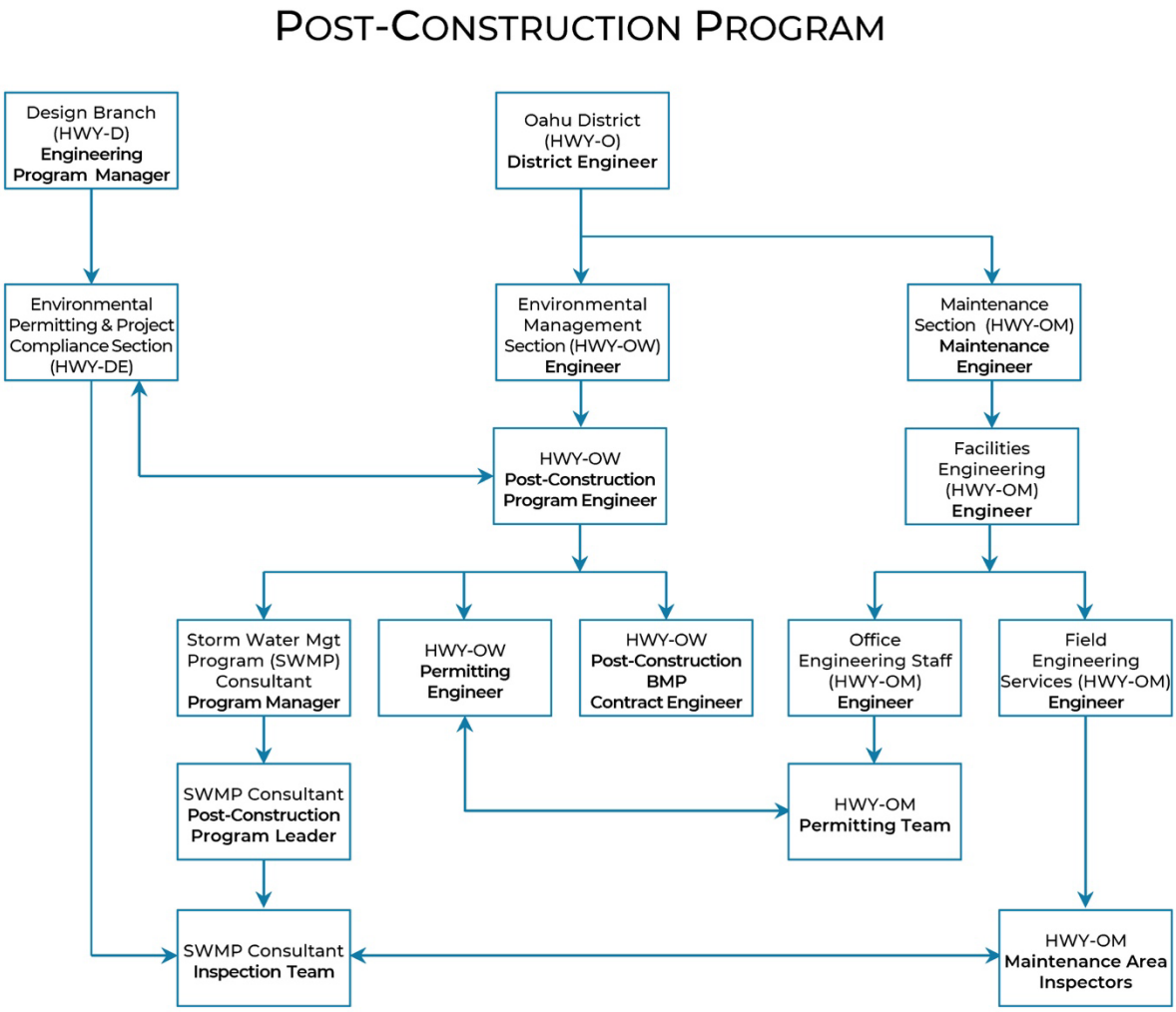


Figure 5-1. Post-Construction Program Organizational Chart.

5.1 **Post-Construction BMP Design Standards** | MS4 NPDES Permit Part D.1.e.(1)

DOT-HWYS has further developed standards to address post-construction BMPs, prioritizing LID BMPs. LID refers to storm water management practices which seek to mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover. The post-construction BMP requirements and design standards are provided in the *Storm Water Post-Construction Best Management Practices Manual* (Appendix E.1). Significant revisions to the manual were completed in December 2021, with an effective date of July 1, 2022.

Key components of the *Storm Water Post-Construction Best Management Practices Manual* revision include:

- General organizational changes to the structure of the manual to increase clarity and improve usability.
- Separate post-construction BMP criteria for areas covered under an MS4 NPDES Permit and rural areas not covered under a permit.
- Revised criteria for MS4 NPDES Permit areas to increase the implementation of post-construction BMPs, prioritizing LID BMPs.
- Revised evaluation process to determine whether a project qualifies for a variance from LID BMP requirements or an exemption from post-construction BMPs.
- An Alternative Compliance process for projects in which the full required treatment area cannot be addressed by post-construction BMPs on-site.

The individuals and section highlighted in Figure 5-2 are responsible for implementing the control measures described in this section.

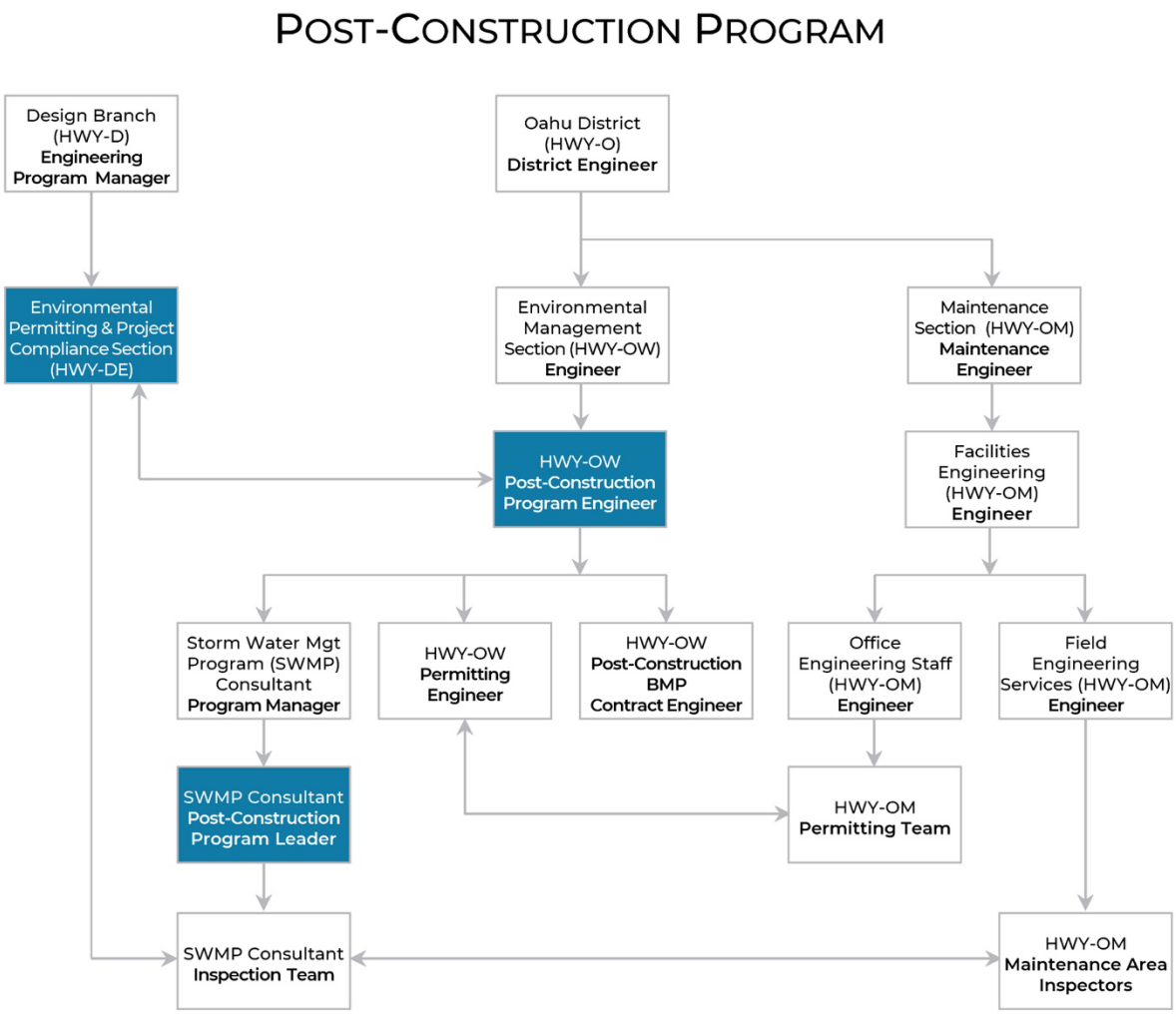


Figure 5-2. Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Post-Construction BMP Design Standards.

5.2 Review of Plans for Post-Construction BMPs | MS4 NPDES Permit Part D.1.e.(2)

DOT-HWYS utilizes the Storm Water Post-Construction BMP Design Checklist to review all public and private construction project plans to ensure compliance with the post-construction BMP criteria. DOT-HWYS does not advertise or award any public construction project, nor award any construction contract, until the project plans have been reviewed

and accepted to ensure the appropriate post-construction BMPs, prioritizing LID BMPs, have been included in the project design and bid package in accordance with the standards and criteria set forth in the *Storm Water Post-Construction Best Management Practices Manual*. Projects that include post-construction BMPs must also include appropriate requirements for future maintenance activities. DOT-HWYS reviews and updates the criteria that defines when and what types of post-construction BMPs must be included in project designs, as necessary.

The individual and section highlighted in Figure 5-3 are responsible for implementing the control measures described in this section.

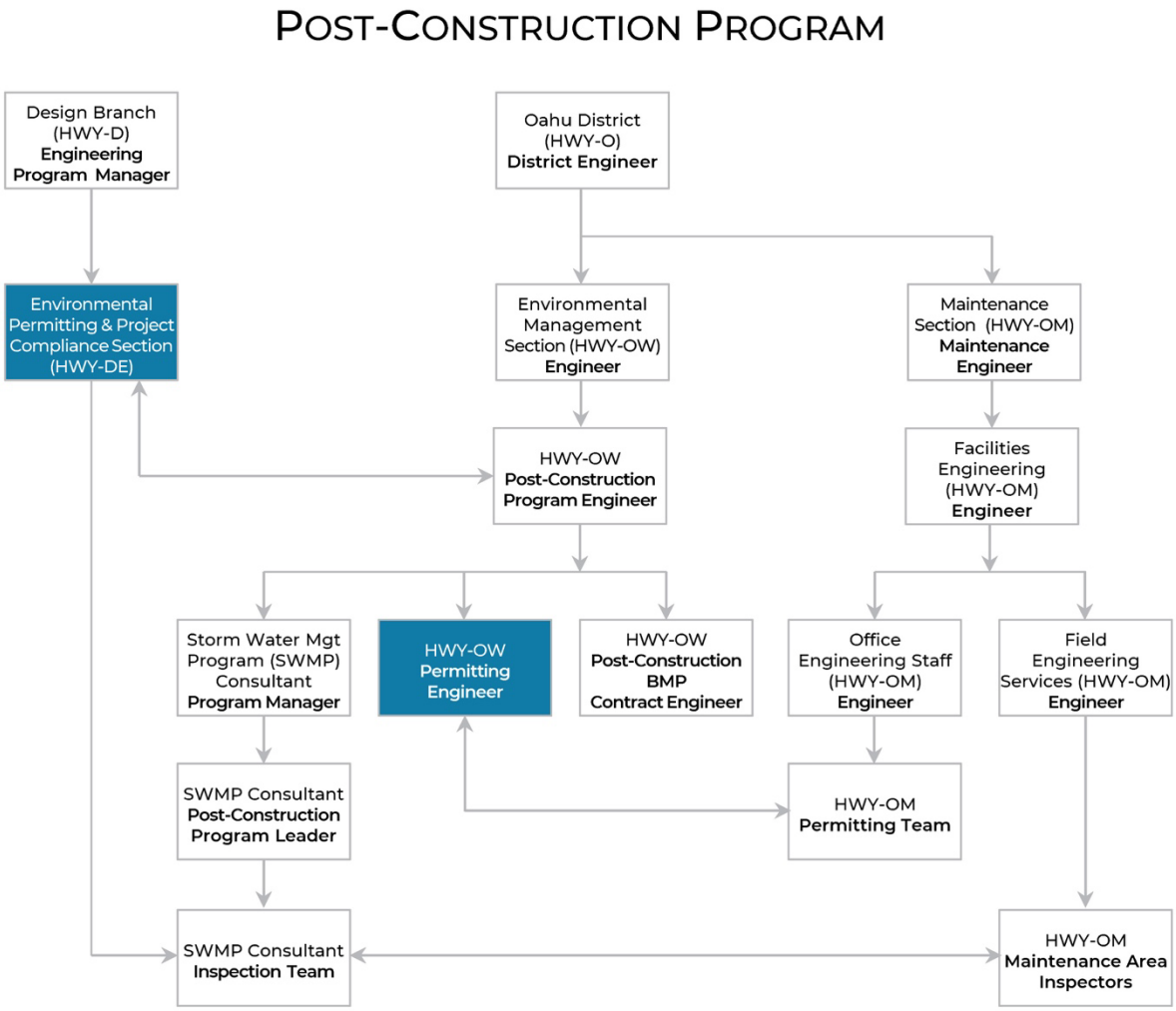


Figure 5-3. Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Review of Plans for Post-Construction BMPs.

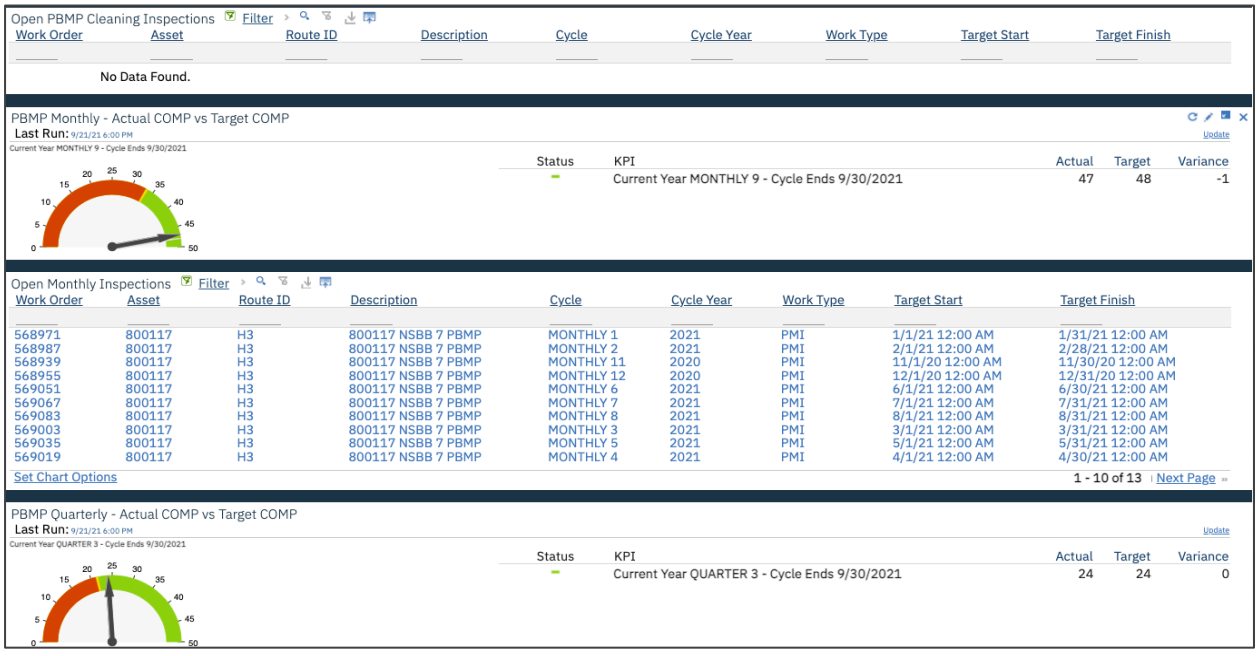
5.3 Post-Construction BMPs Inspection and Maintenance Database | MS4 NPDES Permit Part D.1.e.(3)

DOT-HWYS utilizes the AMS Maximo Post-Construction BMPs Module to track information for projects with post-construction BMPs, as follows:

- Project information (e.g., project name, owner, location, start/end date, etc.)
- Type and number of LID practices
- Type and number of source control BMPs
- Type and number of treatment control BMPs
- Latitude/longitude coordinates using Global Positioning System (GPS)
- Photographs of controls
- Operation and maintenance requirements
- Frequency of post-construction BMP inspections
- Frequency of post-construction BMP maintenance

All post-construction BMPs maintained by DOT-HWYS are inspected at least once a year for proper operation. Maintenance is performed as necessary to ensure proper operation.

The AMS Maximo Post-Construction Module dashboard displays open cleaning requests and KPIs for inspection frequency.



Open PBMP Cleaning Inspections Filter

Work Order	Asset	Route ID	Description	Cycle	Cycle Year	Work Type	Target Start	Target Finish
No Data Found.								

PBMP Monthly - Actual COMP vs Target COMP

Last Run: 9/21/21 6:00 PM — Update

Current Year MONTHLY 9 - Cycle Ends 9/30/2021

Status	KPI	Actual	Target	Variance
-	Current Year MONTHLY 9 - Cycle Ends 9/30/2021	47	48	-1

Open Monthly Inspections Filter

Work Order	Asset	Route ID	Description	Cycle	Cycle Year	Work Type	Target Start	Target Finish
568971	800117	H3	800117 NSBB 7 PBMP	MONTHLY 1	2021	PMI	1/1/21 12:00 AM	1/31/21 12:00 AM
568987	800117	H3	800117 NSBB 7 PBMP	MONTHLY 2	2021	PMI	2/1/21 12:00 AM	2/28/21 12:00 AM
568939	800117	H3	800117 NSBB 7 PBMP	MONTHLY 11	2020	PMI	11/1/20 12:00 AM	11/30/20 12:00 AM
568955	800117	H3	800117 NSBB 7 PBMP	MONTHLY 12	2020	PMI	12/1/20 12:00 AM	12/31/20 12:00 AM
569051	800117	H3	800117 NSBB 7 PBMP	MONTHLY 6	2021	PMI	6/1/21 12:00 AM	6/30/21 12:00 AM
569067	800117	H3	800117 NSBB 7 PBMP	MONTHLY 7	2021	PMI	7/1/21 12:00 AM	7/31/21 12:00 AM
569083	800117	H3	800117 NSBB 7 PBMP	MONTHLY 8	2021	PMI	8/1/21 12:00 AM	8/31/21 12:00 AM
569003	800117	H3	800117 NSBB 7 PBMP	MONTHLY 3	2021	PMI	3/1/21 12:00 AM	3/31/21 12:00 AM
569035	800117	H3	800117 NSBB 7 PBMP	MONTHLY 5	2021	PMI	5/1/21 12:00 AM	5/31/21 12:00 AM
569019	800117	H3	800117 NSBB 7 PBMP	MONTHLY 4	2021	PMI	4/1/21 12:00 AM	4/30/21 12:00 AM

Set Chart Options — 1 - 10 of 13 | Next Page »

PBMP Quarterly - Actual COMP vs Target COMP

Last Run: 9/21/21 6:00 PM — Update

Current Year QUARTER 3 - Cycle Ends 9/30/2021

Status	KPI	Actual	Target	Variance
-	Current Year QUARTER 3 - Cycle Ends 9/30/2021	24	24	0

The individuals and team highlighted in Figure 5-4 are responsible for implementing the control measures described in this section.

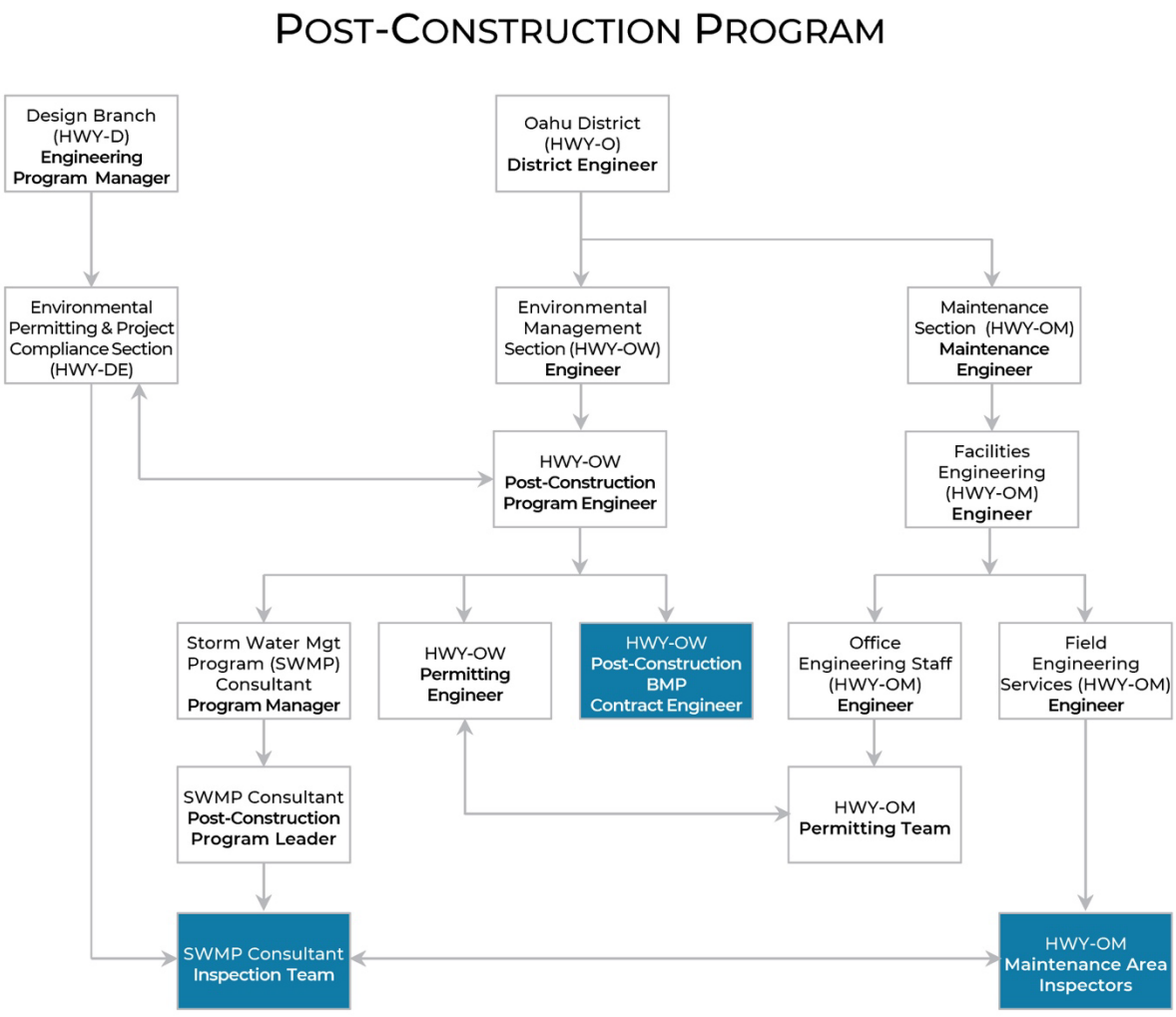


Figure 5-4. Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Post-Construction BMPs Inspection and Maintenance Database.

5.4 Training | MS4 NPDES Permit Part D.1.h.(3)

DOT-HWYS provides annual training to all DOT-HWYS staff and contractors responsible for inspecting post-construction BMPs. The training covers inspection and maintenance procedures and provides feedback that DOT-HWYS uses to refine and improve the post-construction BMP operations and maintenance program.

The individuals highlighted in Figure 5-5 are responsible for implementing the control measures described in this section.

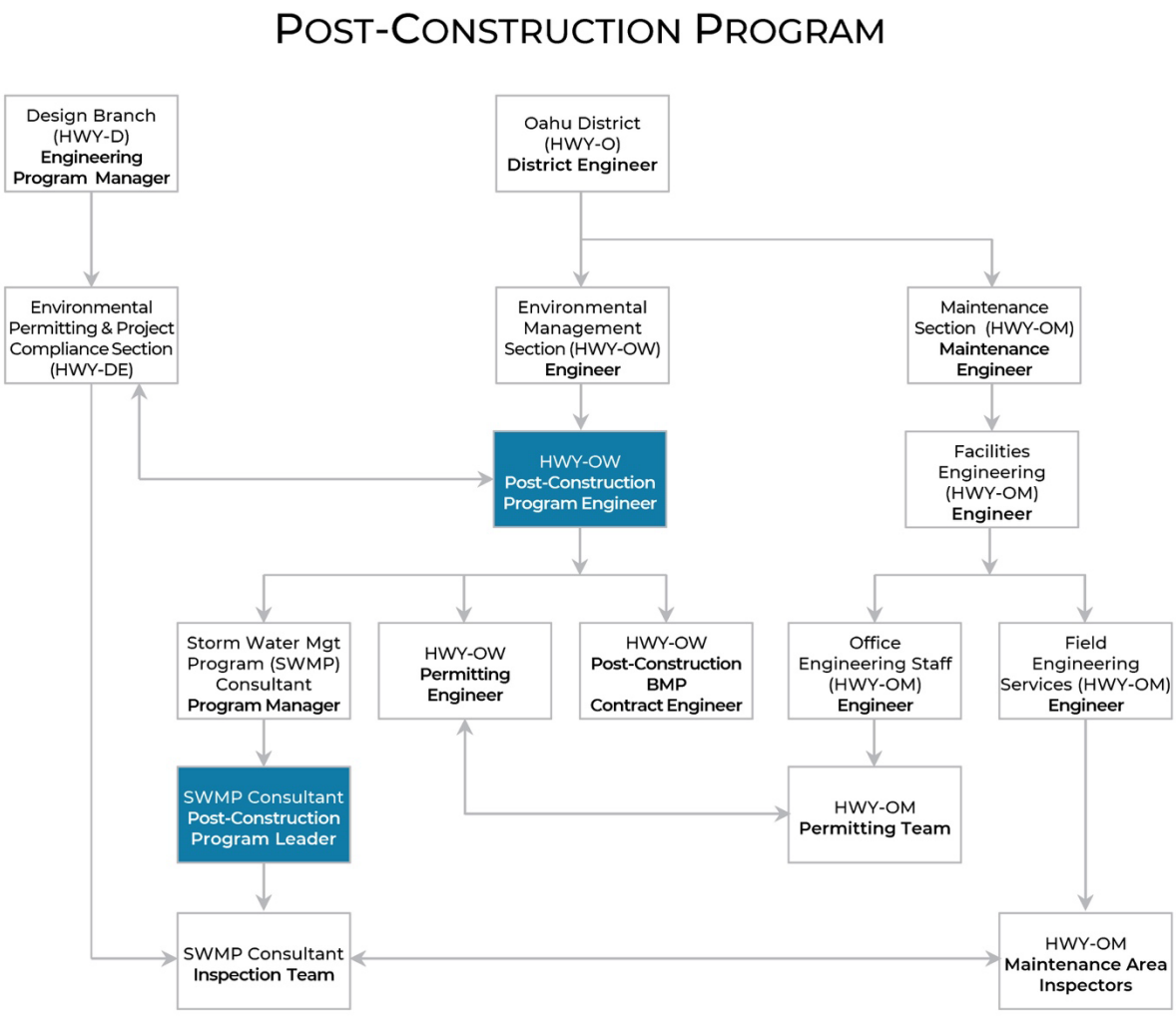


Figure 5-5. Post-Construction Program Organizational Chart for Roles and Responsibilities Related to Training.

5.5 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 8) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter

6 | Pollution Prevention/Good Housekeeping Debris Control BMPs Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



Service contractors are utilized to perform maintenance activities, including routine pipe cleaning.

The Pollution Prevention/Good Housekeeping (PP/GH) Program is designed to develop and maintain a system maintenance program to reduce to the MEP the discharge of pollutants from facilities, roads, parking lots, baseyards, maintenance facilities, and the MS4.

The PP/GH Debris Control BMPs Program (Debris Control Program) is designed to reduce to the MEP the discharge of pollutants from roadways, shoulders, medians, catch basins, gutters and open ditches, and trenches to and from the MS4.

The Debris Control Program includes the following control measures:

1. Maintain a comprehensive AMS to establish priorities and to schedule and track debris removal activities.
2. Implement street sweeping with priority-based schedules.
3. Implement storm drain system inspection and maintenance with priority-based schedules.
4. Install and maintain storm drain placards at storm drain inlets for the purpose of educating the public.
5. Continue to update the *Action Plan for Retrofitting Structural BMPs*.
6. Continue to implement the *Trash Reduction Plan*.

The Debris Control Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 6-1.

Table 6-1. MS4 NPDES Permit Requirements for the Debris Control Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.f —The Permittee shall further develop and maintain a system maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, baseyards, maintenance facilities, and the MS4. The program shall include:	
Part D.1.f.(1)(i) Asset Management System and Mapping — The Permittee shall maintain its comprehensive Asset Management System and map of the MS4, including structural and vegetative BMPs, to ensure appropriate debris removal and system maintenance. The asset management system shall, at a minimum, assign an identification number for each drain inlet, outfall, and BMPs, and map their location on the Geographic Information System (GIS). The Permittee shall use this asset management system to establish priorities and to schedule and track efforts of appropriate system maintenance and debris removal program activities such as street sweeping, catch basin cleaning, and green waste and accumulated soil removal. The asset management system shall include justification of its priorities on the basis of potential impacts to water quality.	Section 6.1 Section 6.2 Section 6.3
Part D.1.f.(1)(ii) Inspection/Maintenance Schedule — The Permittee shall include in its SWMP procedures and a schedule for inspections of: a) All state highways on Oahu to identify if sweeping of roadways, shoulders, and/or medians is needed; and b) All state highway storm drainage system catch basins, gutters and open ditches, trenches, and Permanent BMPs on Oahu to identify if maintenance/cleaning of such structures are needed. In both cases, the need for sweeping and/or maintenance/cleaning shall, at a minimum, be determined based upon material accumulation rates and/or potential threat of discharge to State waters that may affect water quality. The schedule shall provide that each highway mile, storm drainage feature, and Permanent BMP is inspected at least once during the term of this permit (maintenance/cleaning may be conducted in lieu of inspections to satisfy this requirement). The adopted procedures shall provide for the identification of highway segments and their associated storm drainage features and Permanent BMPs that may require more frequent sweeping and/or structure cleaning based upon material accumulation rates and potential threat of discharge to State waters that may affect water quality. The procedures shall establish debris accumulation thresholds above which sweeping and/or structure cleaning must occur. The priority-based schedule shall be annually reviewed; updated as necessary; and the changes, along with explanations of the changes submitted within the Annual Report.	Section 6.2 Section 6.3

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.f.(1)(iii) Storm Drain Placards — The Permittee shall evaluate the effectiveness of its placards and revise it as necessary to meet its purpose. The purpose of the placards shall be discussed within the SWMP. A minimum of 75 new placards shall be installed per year. If DOT-HWYS has installed placards on all of the prioritized MS4 structures and the total placards installed that year is less than 75, DOT-HWYS shall consider its annual commitment fulfilled. Priority shall be given to the Permittee's highways in industrial and commercial areas and areas with pedestrian traffic. The Permittee shall implement its system to track placement of placards and procedures for inspection, and if necessary, replacement of placards.	Section 6.4
Part D.1.f.(1)(iv) Action Plan for Retrofitting Structural BMPs — The Permittee shall continue to update the Action Plan for Retrofitting Structural BMPs yearly to include additional retrofit projects with water quality protection measures. The annual updates to the implementation schedule shall be included in the Annual Report with a description of the project's status. The Action Plan may include, but not be limited to projects in compliance with any TMDL implementation and monitoring plan.	Section 6.5
Part D.1.f.(1)(v) Trash Reduction Plan — The Permittee shall continue to implement its Trash Reduction Plan, dated October 2016, or any revisions to the Plan. The Trash Reduction Plan will be included in the SWMP and any revisions will be noted in the Annual Report.	Section 6.6

6.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Debris Control Program, the following organizational structure has been established, as shown in Figure 6-1.

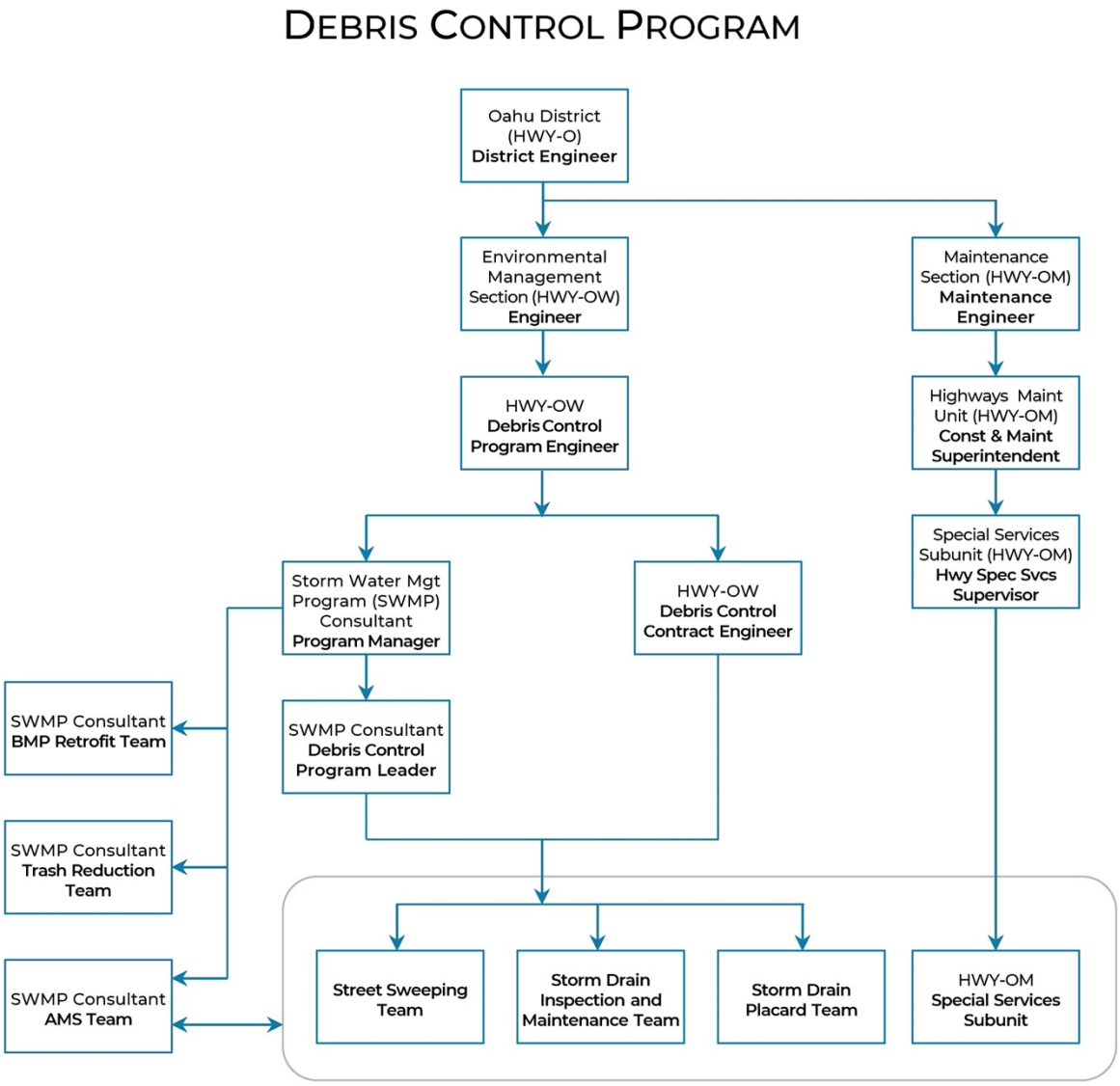
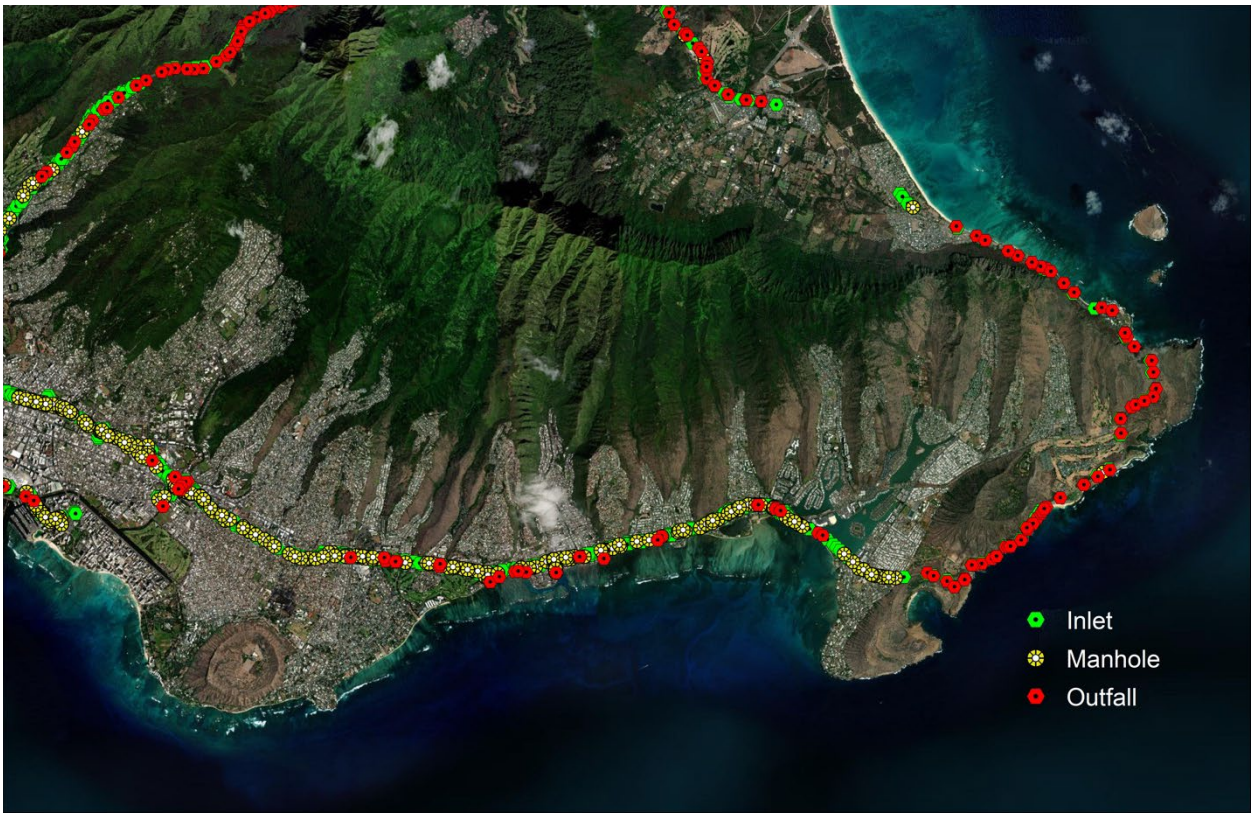


Figure 6-1. Debris Control Program Organizational Chart.

6.1 **Asset Management System** | MS4 NPDES Permit Part D.1.f.(1)(i)

Utilizing the AMS, DOT-HWYS establishes priority-based schedules and tracks system maintenance activities. The AMS provides a comprehensive Geographic Information System (GIS) map and relational database that inventories and documents debris removal activities for MS4 drainage structures, roadways, and post-construction BMPs (structural and vegetative), which allow the Debris Control Program to spatially analyze material accumulation rates and potential impacts to water quality. This information is utilized to justify the priority-based schedules further discussed in Sections 6.2 and 6.3. A unique point identification (PID) number is assigned to each MS4 drainage structure (e.g., drain inlet, outfall, post-construction BMP, etc.) to facilitate data inventory and tracking. Inspection priority schedules and service contract information are captured for each MS4 drainage structure and highway segment to allow for real-time inspection compliance tracking and contract management support.

The AMS provides a spatial inventory of MS4 drainage structures and other assets.



Central to the function of the AMS is the incorporation of key performance indicators (KPIs), commonly depicted as gauges, charts, or tables. A KPI is the critical indicator of progress towards a targeted result, thereby providing a focus for strategic and operational improvement and an analytic basis for decision making. For the Debris Control Program, the AMS utilizes KPIs to track the progress of scheduled debris control activities, such as street sweeping and MS4 drainage structure inspections and maintenance, against the target end date for a given cycle. With the use of KPIs, inspectors and managers can quickly assess whether they are on target to complete scheduled debris removal activities on time.

The individuals and teams highlighted in Figure 6-2 are responsible for implementing the control measures described in this section.

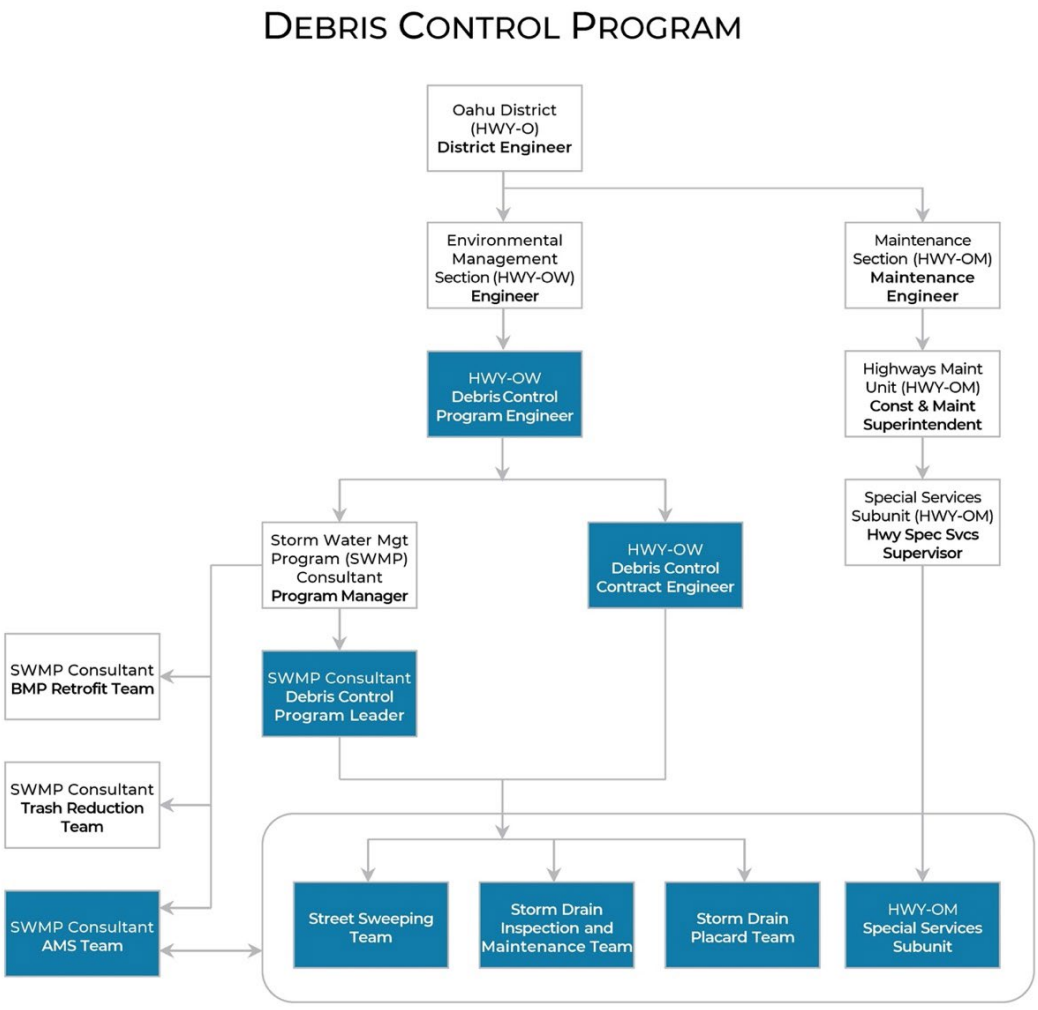


Figure 6-2. Debris Control Program Organizational Chart for Roles and Responsibilities Related to the AMS.

6.2 Street Sweeping Inspection and Maintenance | MS4 NPDES Permit Parts D.1.f.(1)(i) and D.1.f.(1)(ii)

DOT-HWYS is required to inspect each roadway mile at least once during the permit term to identify whether sweeping of roadways, shoulder, and/or medians is needed. Sweeping is conducted in lieu of inspections to satisfy this requirement.

The DOT-HWYS routes are divided into highway segments and are categorized into three groups (A, B, and C).

- Group "A" segments are swept quarterly.
- Group "B" segments are swept monthly.
- Group "C" segments are swept semimonthly.

The priority-based schedules are annually reviewed and adjusted as necessary. Any changes made to the sweeping schedule, along with explanations of the changes, are provided in the Annual Report. The Group A, B, C Street Sweeping Segments (Appendix F.1) list the group assignments for each highway segment.

Street sweeping results, including total curb miles swept and volume of debris collected, are captured in the AMS Maximo Street Sweeping Module. Additionally, the module utilizes KPIs to independently track the progress of group "A", "B", and "C" segments. An example KPI for group "A" segments is shown in Figure 6-3. The light grey needle specifies the target, or total number of street sweeping segments that are scheduled for sweeping during the given cycle. The dark grey arrow indicates the actual number of segments that have been swept since the beginning of the cycle. The yellow bar is dynamic and moves as time progresses, reflecting the number of segments that should be swept to date on average to complete the total target number of segments on schedule.

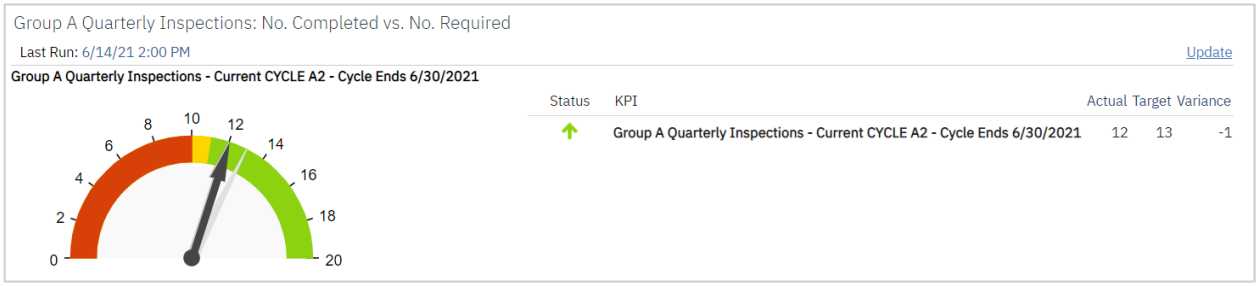


Figure 6-3. Street Sweeping Module KPI.

The AMS Maximo Street Sweeping Module integrates GIS to provide additional visual representation of the status for each highway segment, as shown in Figure 6-4.

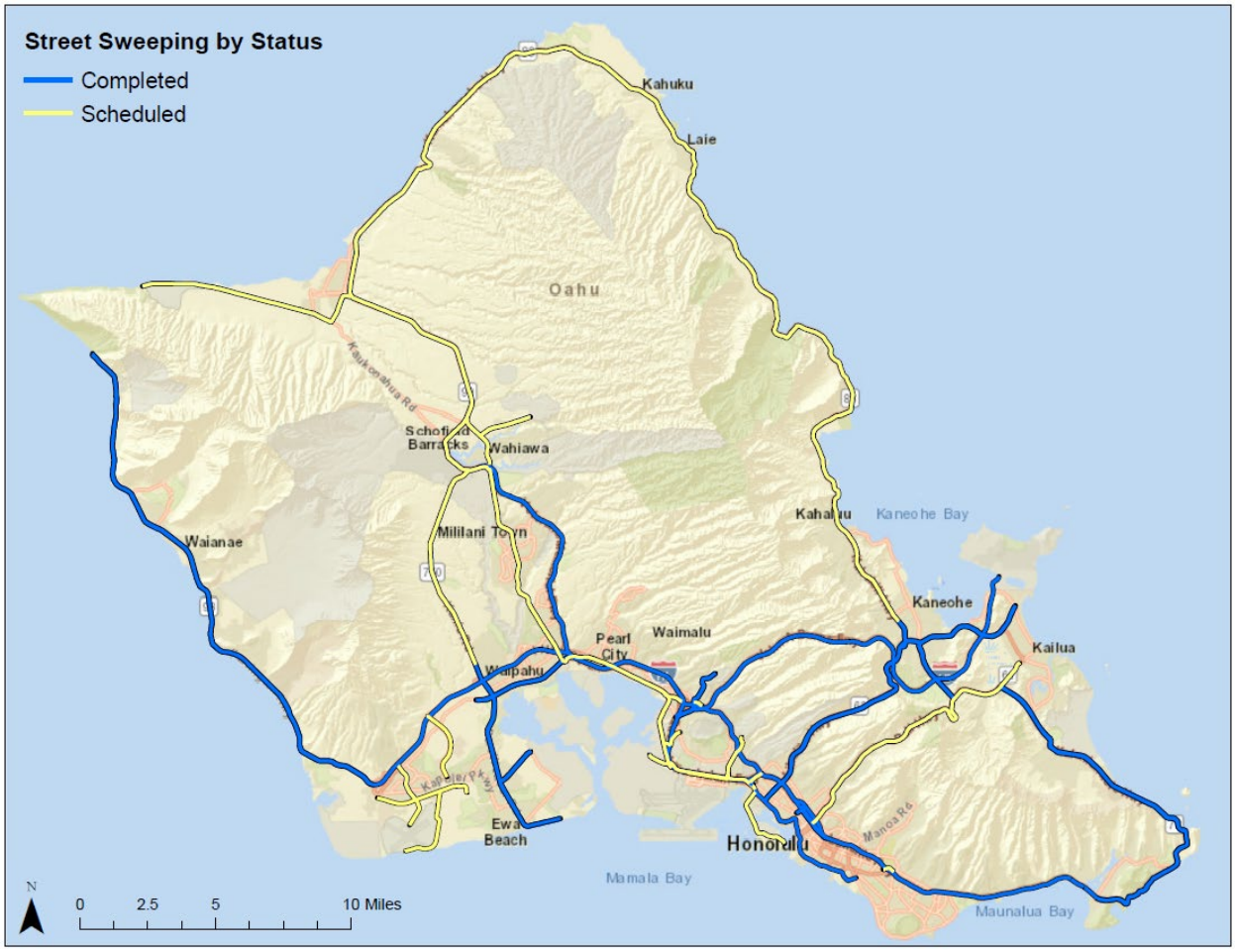


Figure 6-4. Street Sweeping by Status (Blue – Completed, Yellow – Scheduled).

The individuals and teams highlighted in Figure 6-5 are responsible for implementing the control measures described in this section.

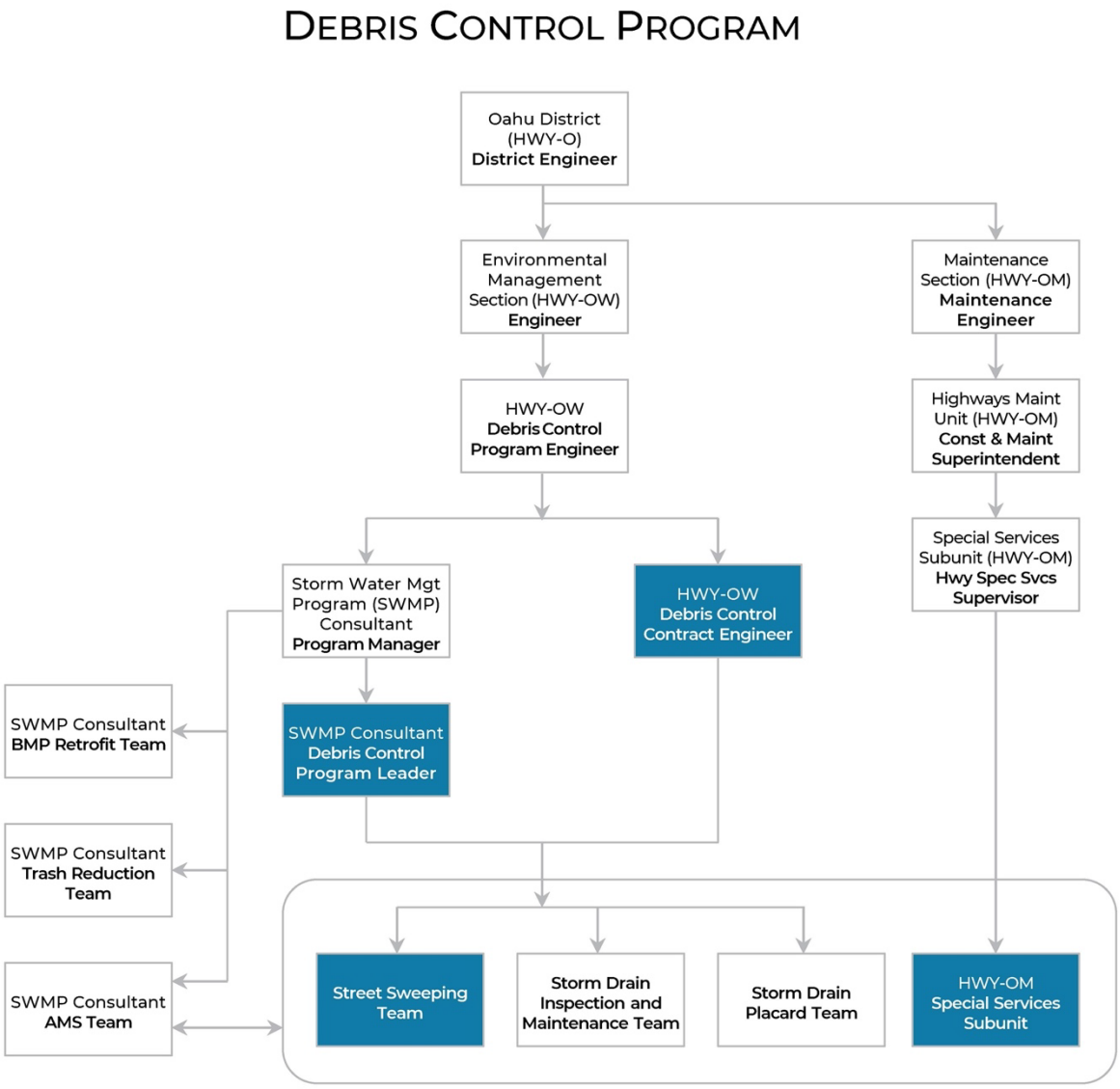


Figure 6-5. Debris Control Program Organizational Chart for Roles and Responsibilities Related to Street Sweeping Inspection and Maintenance.

6.3 Storm Drainage System Inspection and Maintenance | MS4 NPDES Permit Parts D.1.f.(1)(i) and D.1.f.(1)(ii)

DOT-HWYS inspects each MS4 drainage structure (e.g., catch basins, open ditches, trenches, and post-construction BMPs) to identify if maintenance of such structures is needed. The inspection and maintenance activities for post-construction BMPs are discussed in Section 5.3.

Inspection and maintenance frequencies are based on the assessment of material accumulation rates and/or potential threat of discharge to state waters that may affect water quality. Non-high priority MS4 drainage structures are inspected annually and high priority MS4 drainage structures are inspected biannually. The priority-based schedules are reviewed annually and updated as necessary. Any changes made to the inspection and maintenance schedules, along with an explanation of the changes, are provided in the Annual Report. The Priority Schedules for Storm Drain Structure Inspections (Appendix F.2) list the priority-based schedules for storm drain inspections.

MS4 drainage structures require cleaning when the accumulation of sediment and debris reaches at least one-third the depth from the invert of the structure to the invert of the lowest pipe or opening into or out of the structure. Linear features are cleaned at the discretion of DOT-HWYS.

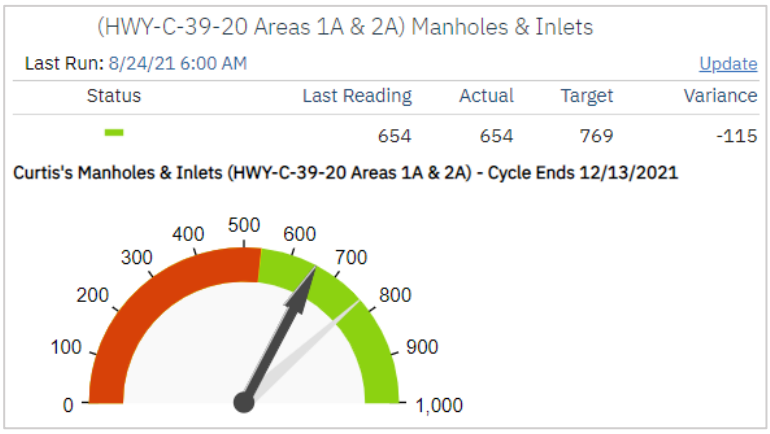


Figure 6-6. Manhole and Inlet Inspection KPI.

The AMS Maximo Debris Control Module documents the inspection and maintenance data and KPIs are used to monitor the progress of MS4 drainage structure inspections and maintenance. An example KPI for an inspection area is shown in Figure 6-6. The light grey needle specifies the target, or total number of inspections that are scheduled for the given cycle. The dark grey arrow indicates the actual number of inspections that have been completed since the beginning of the cycle.

The individuals and teams highlighted in Figure 6-7 are responsible for implementing the control measures described in this section.

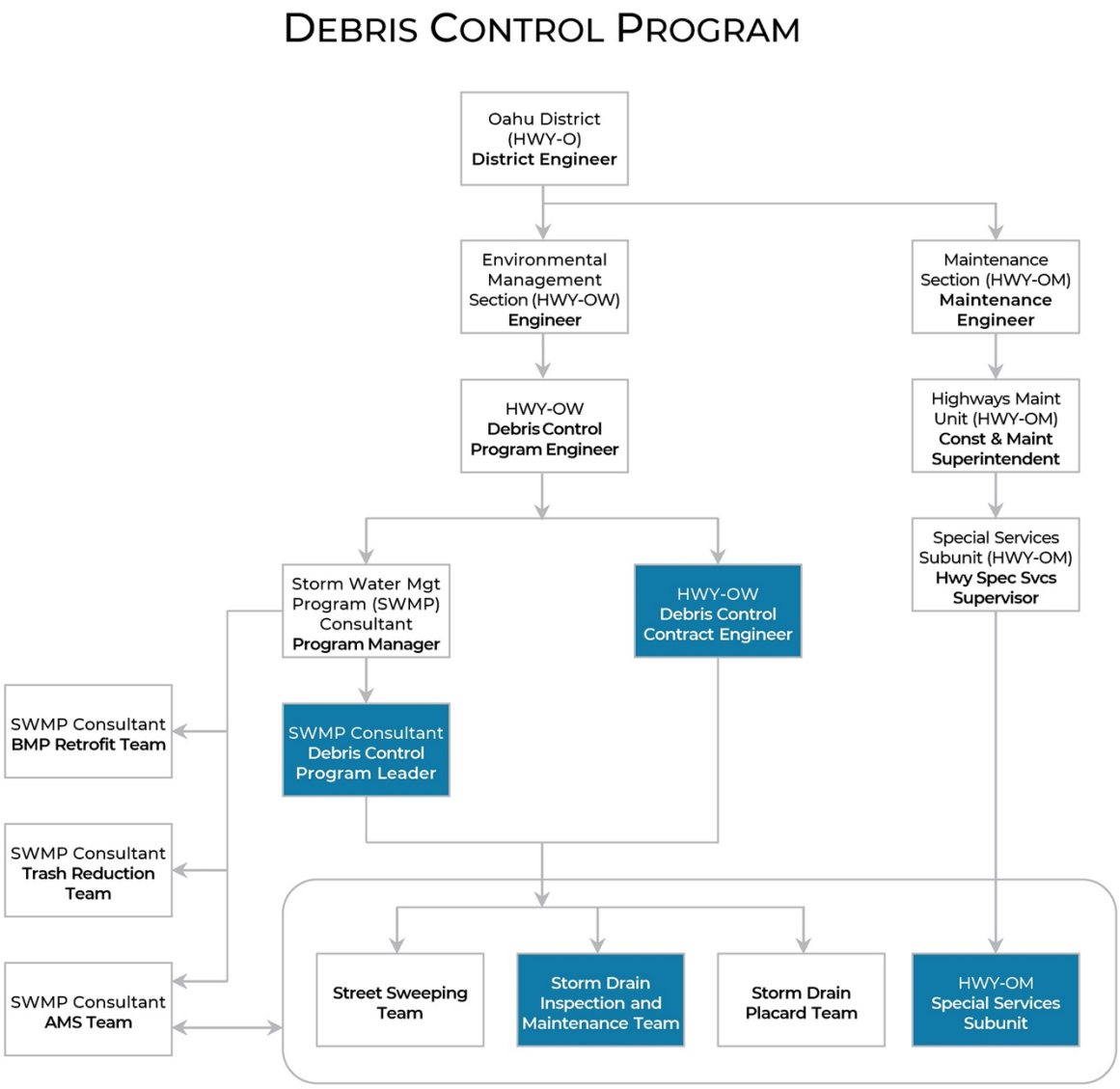


Figure 6-7. Debris Control Program Organizational Chart for Roles and Responsibilities Related to Storm Drainage System Inspection and Maintenance.

6.4 Storm Drain Placards | MS4 NPDES Permit Part D.1.f.(1)(iii)

DOT-HWYS installs a minimum of 75 new storm drain placards every year, primarily in high priority areas with heavy pedestrian traffic or a high concentration of commercial and industrial facilities. After placards are installed in all high priority areas within the DOT-HWYS ROW, DOT-HWYS will focus efforts on placard inspection, repair, and maintenance, in lieu of continued installation.



Placards inform the public that storm drains lead directly to the ocean.

The AMS Maximo Debris Control Module tracks the placement of storm drain placards by placard number, related storm drain PID number, and GPS location, as shown in Figure 6-8. Storm drain placard maintenance or replacement needs are assessed during routine inspections of storm drains, at the frequency established in Section 6.3.

The purpose of the storm drain placards is to increase public knowledge and awareness about the direct connection from storm drain to ocean. DOT-HWYS uses the public awareness survey to evaluate the effectiveness and recognition of storm drain placards. In the survey, participants are asked whether they are familiar with the "No dumping, drains to ocean" placards at storm drains. Awareness of the storm drain placards are annually evaluated as a part of the *Storm Water Awareness Survey Report*.

Inspection: 448209	Manhole/Inlet Inspections - High Priority	Work Type: PMI	Attachments
Watershed: KALIHI	KALIHI Watershed	Priority: 1	Status: COMP
Asset: 113316	Inlet 113316	* Inspection Date: 9/17/20	Status Change Date: 9/17/20 7:38 PM
Track #: 120		Cycle: CYCLE 2	Changed By: MXINTADM
Structure Type: INLET		Cycle Year: 2020	Has Placard? ☑
Parent Inspect.: 447848		Route ID: 0064	Placard ID: 000261

Figure 6-8. Storm Drain Placard Attribute Data.

The team highlighted in Figure 6-9 is responsible for implementing the control measures described in this section.

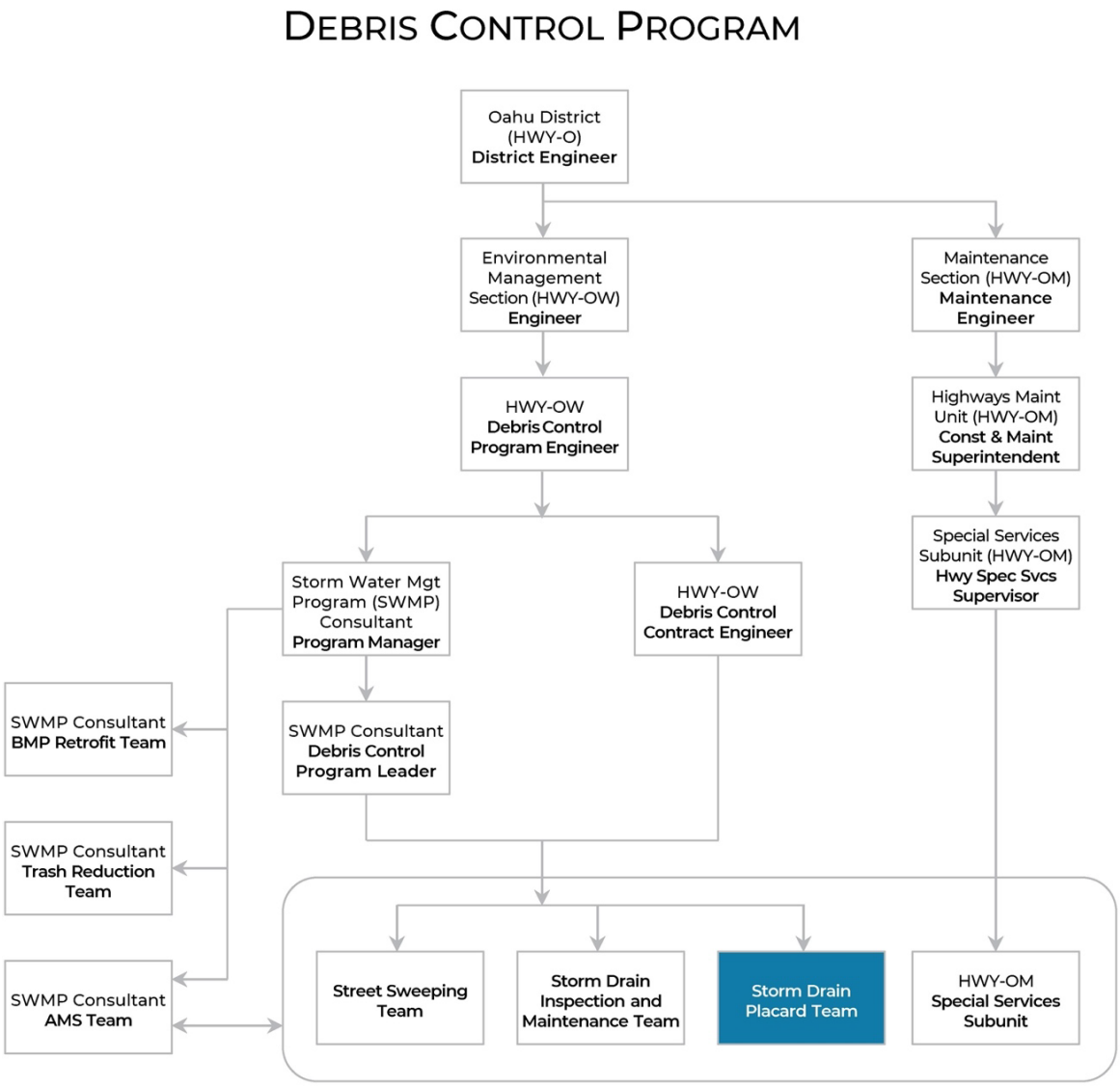


Figure 6-9. Debris Control Program Organizational Chart for Roles and Responsibilities Related to Storm Drain Placards.

6.5 Action Plan for Retrofitting Structural BMPs | MS4 NPDES Permit Part D.1.f.(1)(iv)

DOT-HWYS has developed an *Action Plan for Retrofitting Structural BMPs* (Appendix F.3) which identifies retrofits to be implemented, an explanation on the basis for their selection, and an implementation schedule. DOT-HWYS continues to annually update the *Action Plan for Retrofitting Structural BMPs* to include additional retrofit projects with water quality benefits and a description of project status. The annual updates to the implementation schedule are included in the Annual Report.

A retractable screen guard retrofit installed at an existing curb inlet prevents debris from entering the storm drain along Kaneohe Bay Drive in Kaneohe, Hawaii.



The individual and team highlighted in Figure 6-10 are responsible for implementing the control measures described in this section.

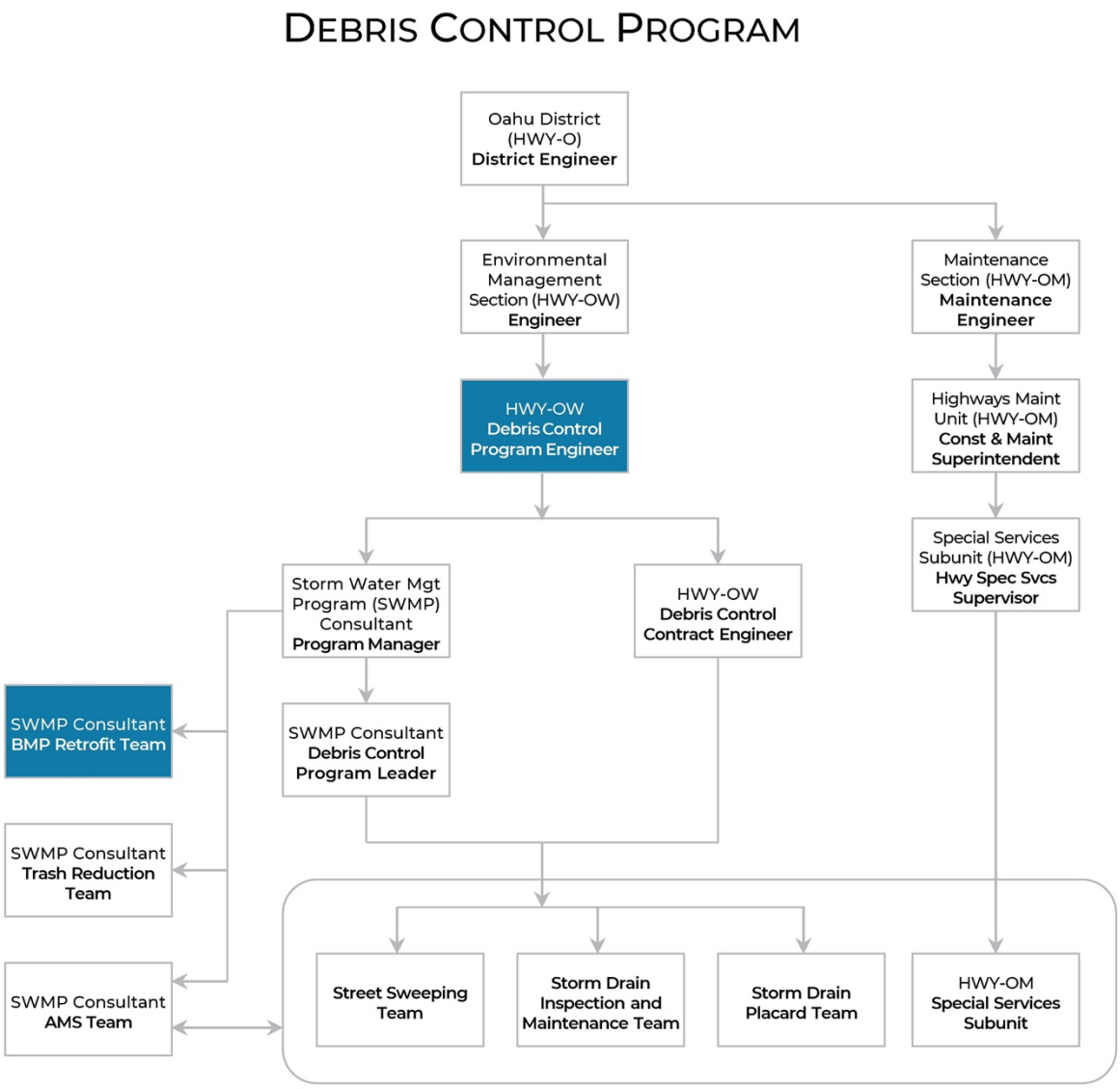


Figure 6-10. Debris Control Program Organizational Chart for Roles and Responsibilities Related to the *Action Plan for Retrofitting Structural BMPs.*

6.6 Trash Reduction Plan | MS4 NPDES Permit Part D.1.f.(1)(v)

DOT-HWYS will continue to implement the *Trash Reduction Plan* (Appendix F.4) which identifies control measures and establishes a process to monitor these activities to reduce trash loads from the MS4 to the MEP.

The *Trash Reduction Plan* includes the following six elements:

- Quantification of the trash baseline load.
- Description of existing trash reduction control measures.
- Presentation of trash load reduction calculation method.
- Delineation of trash management areas and identification of key geographical targets for future enhanced control measures.
- Presentation of an Implementation Schedule, which includes a Short-Term Plan and Long-Term Plan, to reduce trash load from the MS4 by 50% and 100% from the baseline, respectively.
- Description of a monitoring plan to quantify trash load reductions.

The baseline load was quantified using trash loading rates for eight key land use types and derived from a literature review and a trash characterization study. This information yielded a trash baseline load of 297 cubic yards per year. Trash load reduction targets are set at 50% by 2023 and at 100% by 2036. Progress towards the trash load reduction goals, along with any revisions to the *Trash Reduction Plan*, are included in the Annual Report.

The individuals and team highlighted in Figure 6-11 are responsible for implementing the control measures described in this section.

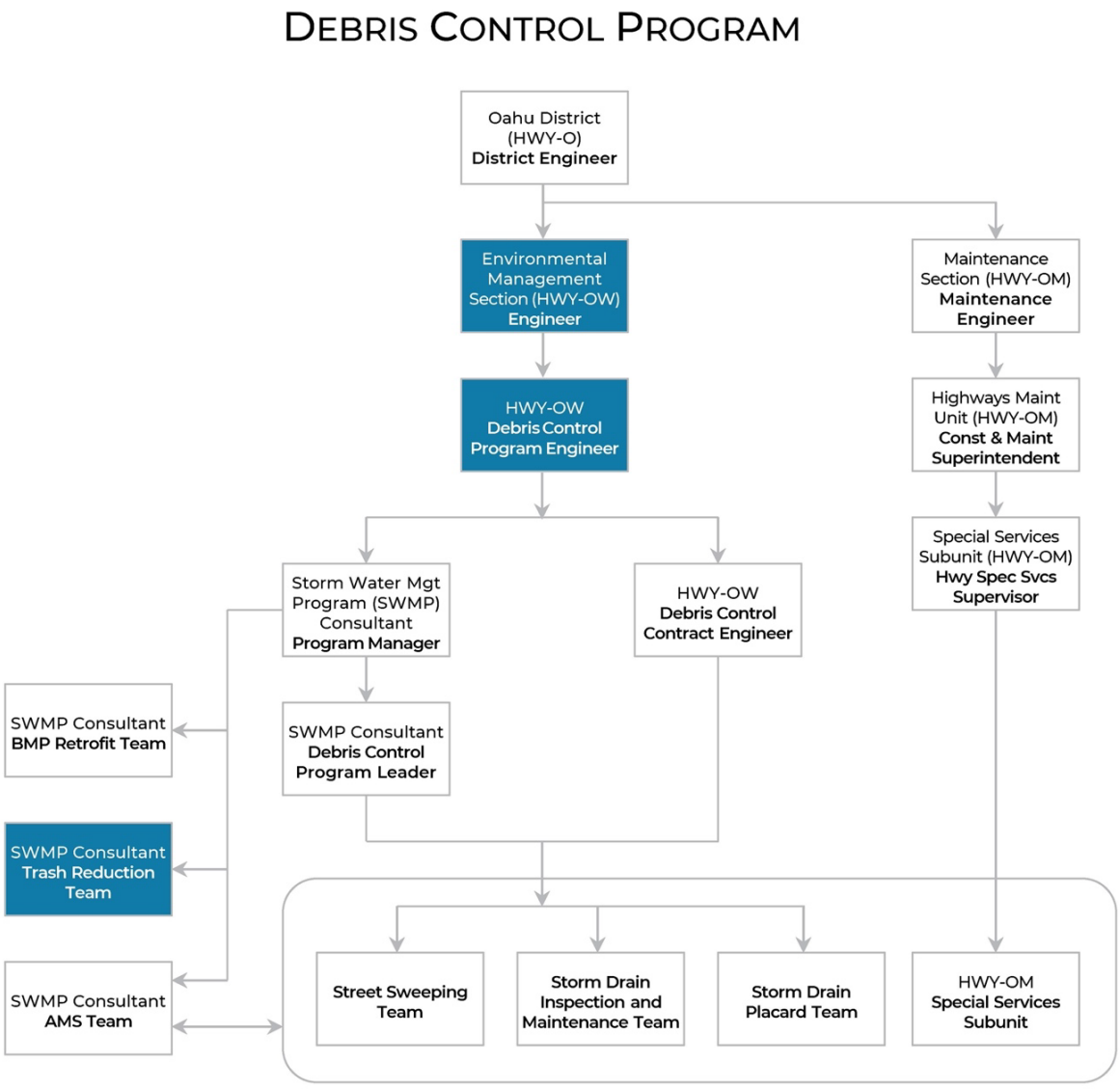


Figure 6-11. Debris Control Program Organizational Chart for Roles and Responsibilities Related to the *Trash Reduction Plan*.

6.7 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 9) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

7 | Pollution Prevention/Good Housekeeping Chemical Applications BMPs Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



Staff from the Special Services Subunit demonstrates proper herbicide mixing technique.

The Pollution Prevention/Good Housekeeping (PP/GH) Program is designed to develop and maintain a system maintenance program to reduce, to the MEP, the discharge of pollutants from facilities, roads, parking lots, baseyards, and maintenance facilities, and the MS4.

The PP/GH Chemical Applications BMPs Program (Chemical Applications Program) is designed to reduce, to the MEP, the contribution of pollutants associated with the application, storage, and disposal of pesticides (including herbicides) and fertilizers from municipal areas and activities to the MS4.

The Chemical Applications Program includes the following control measures:

1. Implement BMPs for the application, storage, and disposal of pesticides (including herbicides) and fertilizers.
2. Update the Authorized Use List of the pesticides (including herbicides) and fertilizers DOT-HWYS uses and implement a specific training program for all potential appliers on the proper application of these chemicals.

The Chemical Applications Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 7-1.

Table 7-1. MS4 NPDES Permit Requirements for the Chemical Applications Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.f —The Permittee shall further develop and maintain a system maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, baseyards, maintenance facilities, and the MS4. The program shall include:	
Part D.1.f.(2)(i) Implement appropriate requirements for pesticide (including herbicide) and fertilizer applications — The Permittee shall implement BMPs to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides (including herbicides) and fertilizers from municipal areas and activities to the MS4. Municipal areas and activities include, at a minimum, municipal facilities, public right-of-ways, and landscaped areas. Such BMPs shall include, at a minimum: (1) educational activities, permits, certifications and other measures for municipal applicators; (2) integrated pest management measures that rely on non-chemical solutions; (3) the use of native vegetation; (4) chemical application, as needed; and (5) the collection and proper disposal of unused pesticides (including herbicides) and fertilizers. The Permittee shall ensure that their employees or contractors or employees of contractors applying registered pesticides (including herbicides) and fertilizers shall follow the pesticide label, and comply with any other State, City, or government regulations for pesticides and fertilizers.	Section 7.1
Part D.1.h.(4) Chemical Applications BMPs Program Plan — The Permittee shall update its Authorized Use List of the chemicals DOT-HWYS uses and implement a specific training program for all potential appliers (bulk and hand-held) of the chemicals (e.g., fertilizers and pesticides including herbicides) in its proper application as it pertains to storm water pollution prevention. All Permittee employees or contractors applying fertilizers or pesticides shall receive training on the BMPs annually. The Permittee shall not permit the application of fertilizers or pesticides (including herbicides) unless the applier has first received this training.	Section 7.2

7.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Chemical Applications Program, the following organizational structure has been established, as shown in Figure 7-1.

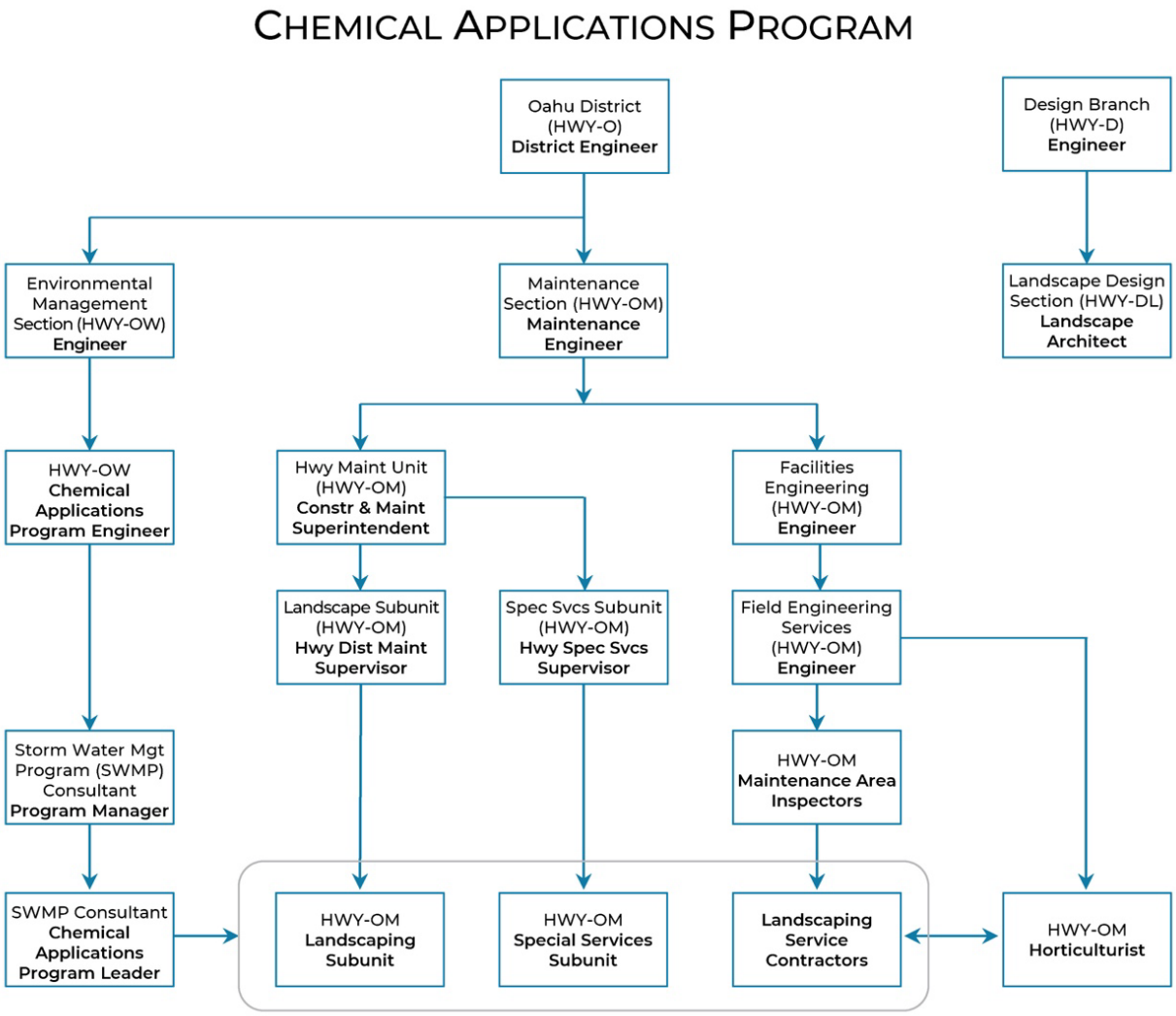


Figure 7-1. Chemical Applications Program Organizational Chart.

7.1 **Chemical Applications BMPs** | MS4 NPDES Permit Part D.1.f.(2)(i)

DOT-HWYS utilizes the *Highway Manual for Sustainable Landscape Maintenance* to establish chemical application BMPs and educate potential appliers on BMP implementation. The *Highway Manual for Sustainable Landscape Maintenance* was published to encourage a culture of sustainable landscape maintenance practices, such as planting native vegetation, utilizing integrated pest management practices, and reducing the impacts of herbicide application through other sustainable practices. The DOT-HWYS Design Branch, Landscape Design Section provides periodic training on the *Highway Manual for Sustainable Landscape Maintenance* to DOT-HWYS staff and service contractors.

The *Highway Manual for Sustainable Landscape Maintenance* is available on the DOT-HWYS website, www.hidot.hawaii.gov/highways/landscape-architecture-program/.

Native Carex grass is planted for erosion control along Kalanianaole Highway near Kailua.



Content from the *Highway Manual for Sustainable Landscape Maintenance* is incorporated into the Chemical Applications Training, and attendees are encouraged to access additional resources on the DOT-HWYS website, www.stormwaterhawaii.com.

HWY-OM staff is instructed to only mix chemicals in sufficient quantities for the task, store unmixed chemicals per the manufacturer's label, and reuse rinse water.

To protect the quality of state waters, DOT-HWYS has established the following policies for the application of chemicals by HWY-OM personnel and service contractors. These policies are included in the Chemical Applications Training:

- DOT-HWYS shall not apply chemicals to any areas below and/or downstream of the top of bank (TOB). TOB is defined as the break in slope between the bank and surrounding terrain. TOB is the point closest to the boundary of the active floodplain of a stream where a break in the slope of the land occurs.
- DOT-HWYS shall not apply chemicals to any areas over state waters or over the area enclosed by the top of the bank. This includes flat areas, overhanging trees, or foliage. State waters include streams, rivers, oceans, coastal waters, wetlands, ponds, reservoirs, canals, ground water, and lakes.
- DOT-HWYS shall not apply pesticides to wetlands. Wetland is an area that is saturated with water either permanently or seasonally, consisting of wet soils, and supports wetland vegetation.
- DOT-HWYS shall ensure that chemical application to bridges with scuppers and/or deck drains shall not affect the state waters and/or the TOB.
- DOT-HWYS shall not apply pesticides to any areas with standing or flowing waters. Examples of such areas include ditches with flowing waters, medians with open state waters, etc.
- DOT-HWYS shall not spray roadside ditches that are naturally occurring and/or conveying state waters.

In addition to the above-mentioned constraints, DOT-HWYS shall comply with the pesticide label, and comply with city, state, and federal regulations.

The individuals and teams highlighted in Figure 7-2 are responsible for implementing the control measures described in this section.

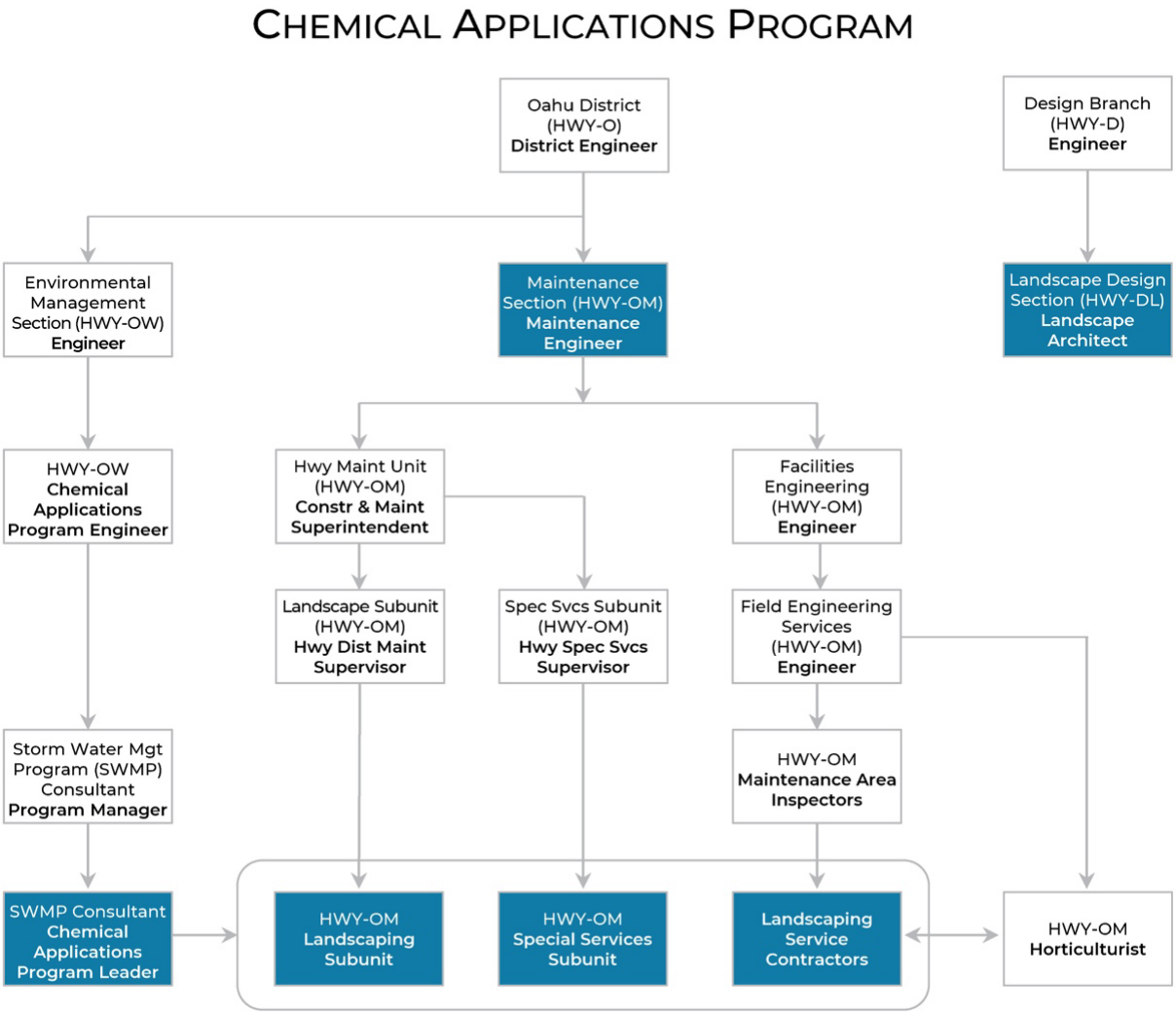


Figure 7-2. Chemical Applications Program Organizational Chart for Roles and Responsibilities Related to Chemical Applications BMPs.

7.2 Training | MS4 NPDES Permit Part D.1.h.(4)

DOT-HWYS has updated its Chemical Applications Authorized Use List (Appendix G.1), identifying the chemicals used by DOT-HWYS that have the potential to impact the MS4. The Chemical Applications Authorized Use List is reviewed and updated, as necessary, when contracts for purchasing chemicals are prepared, or on an annual basis. Any updates to the Chemical Applications Authorized Use List are provided in the Annual Report.



The bulk application tank is labeled with General Pesticide Use Guidelines.

DOT-HWYS provides annual Chemical Applications Training to DOT-HWYS staff and service contractors. The training covers chemical applications BMPs (Section 7.1) that reduce the amount of pollutants in storm water, information about the Pesticide General Permit, appropriate conditions for chemical applications, record keeping of chemical applications, and general storm water awareness. Topics and BMPs discussed can be found in the Chemical Applications Training section of Appendix G.2.

Potential appliers of chemicals (bulk and hand-held) are required to attend the Chemical Applications Training prior to applying chemicals (e.g., fertilizers and pesticides including herbicides) within the DOT-HWYS ROW or at DOT-HWYS baseyard facilities.

The individuals highlighted in Figure 7-3 are responsible for implementing the control measures described in this section.

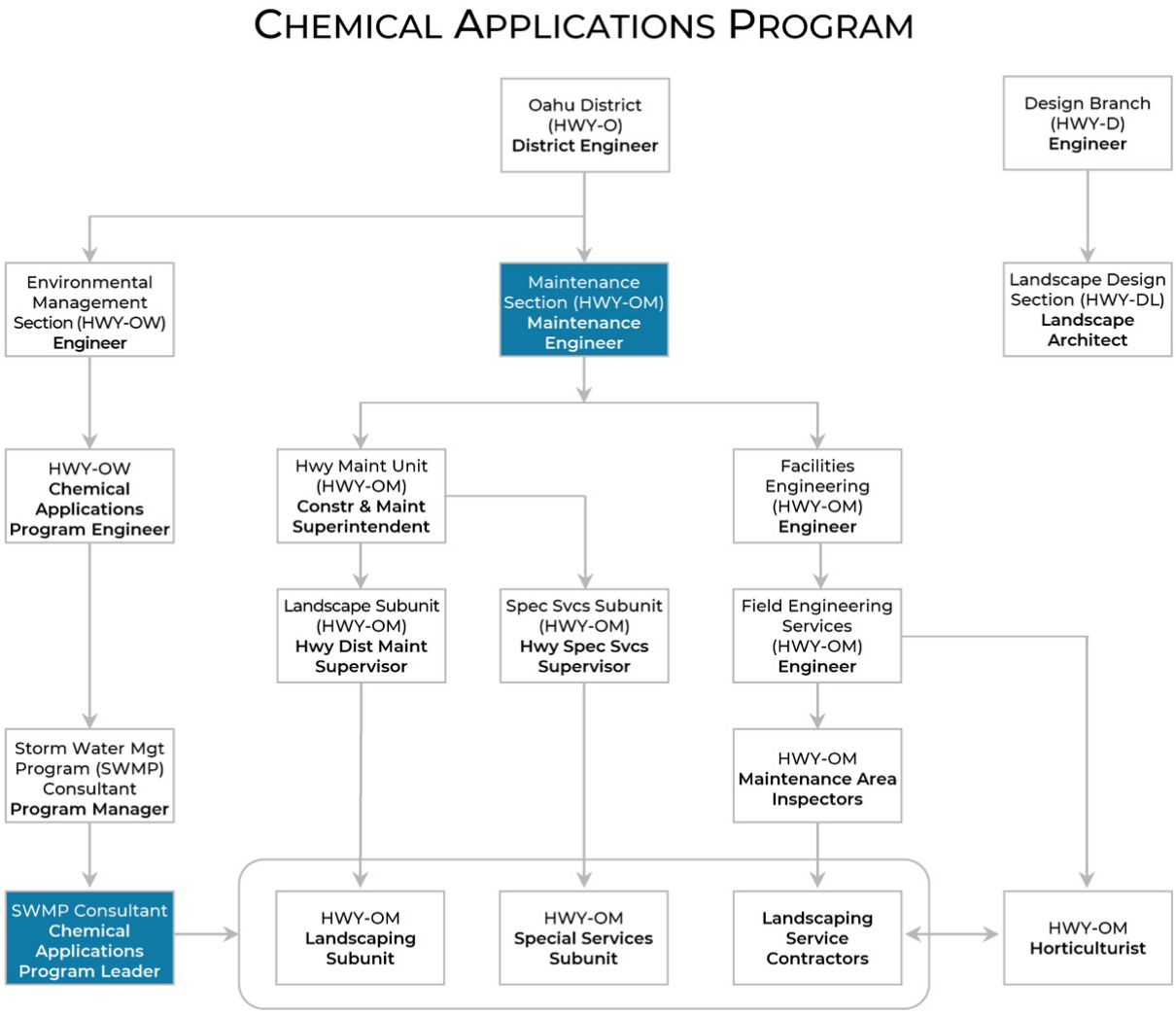


Figure 7-3. Chemical Applications Program Organizational Chart for Roles and Responsibilities Related to Training.

7.3 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 10) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

8 | Pollution Prevention/Good Housekeeping Erosion Control BMPs Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



High performance erosion control mulch is used to stabilize significant erosional areas along Kalanianaole Highway, Kailua.

The Pollution Prevention/Good Housekeeping (PP/GH) Program is designed to develop and maintain a system maintenance program to reduce, to the MEP, the discharge of pollutants from facilities, roads, parking lots, baseyards, and maintenance facilities, and the MS4.

The PP/GH Erosion Control BMPs Program (Erosion Control Program) is designed to ensure that erosional areas with the potential for significant water quality impact are addressed through permanent and/or temporary erosion control improvements.

Erosional areas with the potential for significant water quality impacts (hereinafter significant erosional areas) are identified by evidence of rilling, gullying, and/or other evidence of significant sediment transport, as well as erosional areas in close proximity to receiving waters listed as impaired for total suspended solids (TSS) and/or turbidity.

The Erosion Control Program includes the following control measures:

1. Implement permanent erosion control improvements at significant erosional areas located within the DOT-HWYS ROW.
2. Install temporary erosion control measures at significant erosional areas within the DOT-HWYS ROW, if a permanent solution is not immediately possible.
3. Implement the maintenance plan for vegetated portions of the drainage system used for erosion and sediment control, and LID features.
4. Annually update the *Action Plan to Address Erosional Outfalls*.
5. Update the list of significant erosional areas and implementation schedule for permanent erosion control improvements.

The Erosion Control Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 8-1.

Table 8-1. MS4 NPDES Permit Requirements for the Erosion Control Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.f — The Permittee shall further develop and maintain a system maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, baseyards, maintenance facilities, and the MS4. The program shall include:	
Part D.1.f.(3)(i) — Implement permanent erosion control improvements, ensuring that erosional areas with the potential for significant water quality impact, but with limited public safety concerns, are also considered a high priority for remediation. Identification of erosional areas with the potential for significant water quality impact shall include areas where there is evidence of rilling, gullying, and/or other evidence of significant sediment transport, and areas close to receiving waters listed as impaired by either sediment, siltation and/or turbidity. The Permittee shall include procedures to identify and implement erosion control projects based on water quality concerns while continuing to address high profile public safety projects.	Section 8.1
Part D.1.f.(3)(ii) — As erosional areas within DOT-HWYS right-of-ways with the potential for significant water quality impact are identified, require the implementation of temporary erosion control measures (e.g., erosion control blankets and/or fabrics, gravel bag placement and silt fencing/fiber rolls) if a permanent solution is not immediately possible.	Section 8.2
Part D.1.f.(3)(iii) — Continue implementing its maintenance plan for vegetated portions of the drainage system used for erosion and sediment control, and LID features, including controlling any excessive clearing/removal, cutting of vegetation, and application of herbicide which affects its usefulness.	Section 8.3
Part D.1.f.(3)(iv) — Continue to update the Action Plan to Address Erosional Outfalls yearly to include additional outfalls with significant potential for water quality impacts. The annual updates to the implementation schedule shall be included in the Annual Report with a description of the project's status.	Section 8.4
Part D.1.f.(3)(v) — As erosional areas within DOT-HWYS right-of-ways with the potential for significant water quality impact are identified, add the project to the implementation schedule for permanent erosion control improvements as described in Part D.1.f.(3)(i) of this permit. The annual updates to the implementation schedule shall be included in the Annual Report with a description of the project's status.	Section 8.5

8.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Erosion Control Program, the following organizational structure has been established, as shown in Figure 8-1.

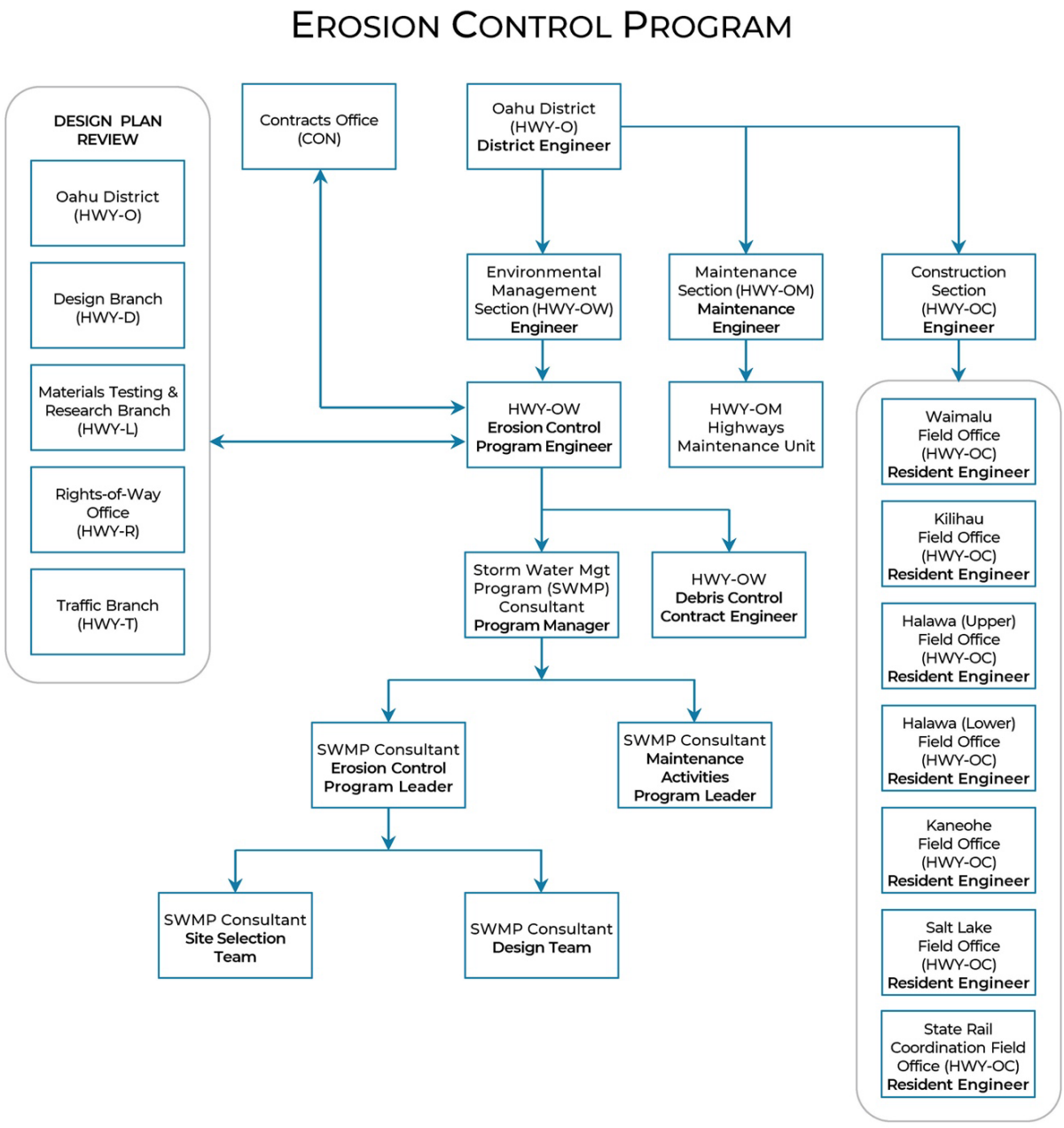


Figure 8-1. Erosion Control Program Organizational Chart.

8.1 **Permanent Erosion Control Improvements** | MS4 NPDES Permit Part D.1.f.(3)(i)

In addition to remediating erosional areas related to public safety concerns, DOT-HWYS implements permanent erosion control improvements at significant erosional areas. The CWA Section 303(d) list and Total Maximum Daily Load (TMDL) waterbodies with WLA reductions assigned to DOT-HWYS are used to determine the inventory of waterbodies listed as impaired for total suspended solids (TSS) and/or turbidity when evaluating whether a site meets the criteria of a significant erosional area.

Following the determination of being in close proximity of an impaired receiving waterbody, erosional areas are then evaluated to determine if they have an effective vegetated buffer to mitigate potential sediment transport to the nearest receiving waterbody. Vegetated buffers slow the velocity of storm water runoff, allowing sediment and other pollutants to settle out. DOT-HWYS has developed criteria for evaluating the effectiveness of vegetative buffers based on typical construction and post-construction BMP design standards. If it is determined that there is not an effective vegetative buffer between an erosional area and the nearest receiving waterbody, it will be classified as a significant erosional area and added to the list of permanent erosion control projects.

Geotextile and earth anchors are installed for permanent erosion control in the Kawainui Watershed.



Figure 8.2 shows the criteria used to define significant erosional areas.

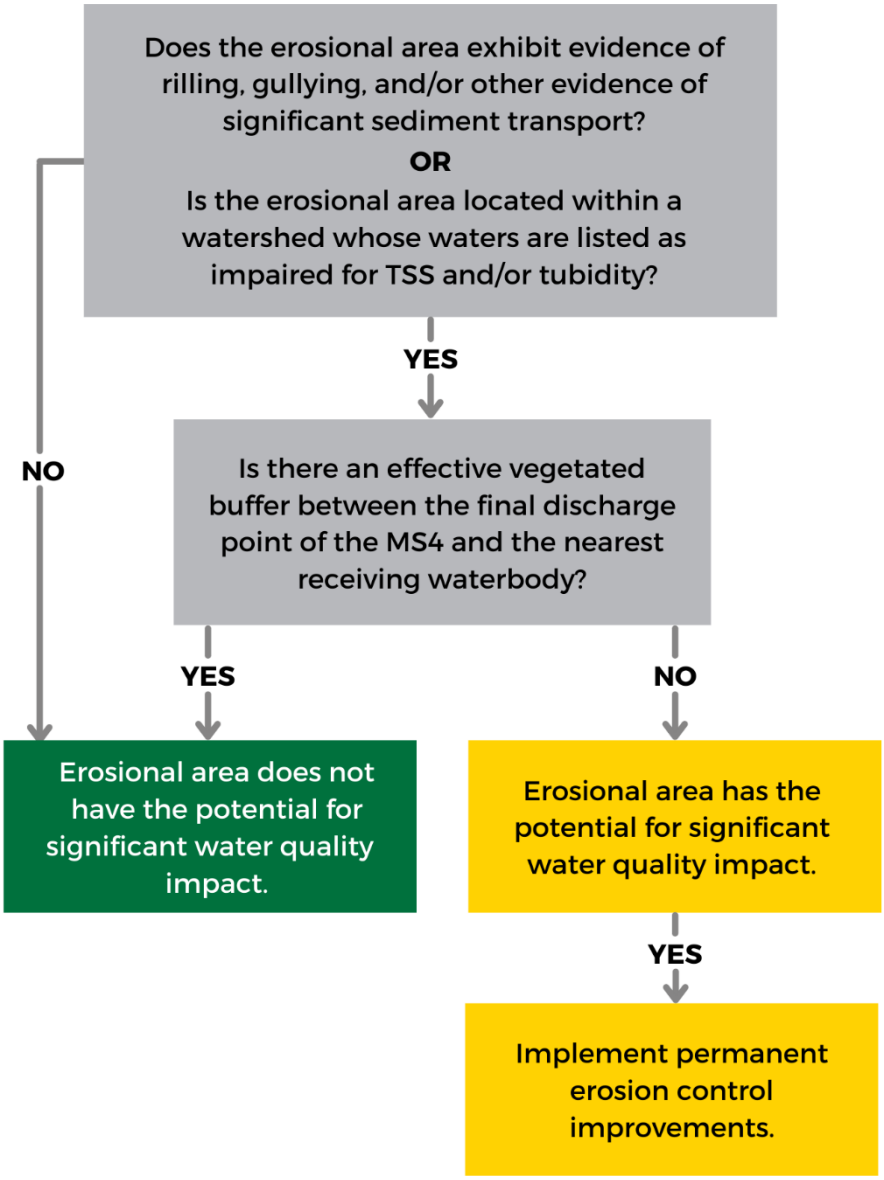


Figure 8-2. Criteria Used to Designate Sites with the Potential for Significant Water Quality Impact.

The list of permanent erosion control projects and the implementation schedule for the current permit term are included in the Implementation Schedule for Significant Erosional Areas (Appendix H.1). The list initially consists of 10 sites, 2 of which have been completed since permit issuance. Erosional areas within the DOT-HWYS ROW are evaluated and the implementation schedule is updated annually as described in Section 8.5.

The individuals and teams highlighted in Figure 8-3 are responsible for implementing the control measures described in this section.

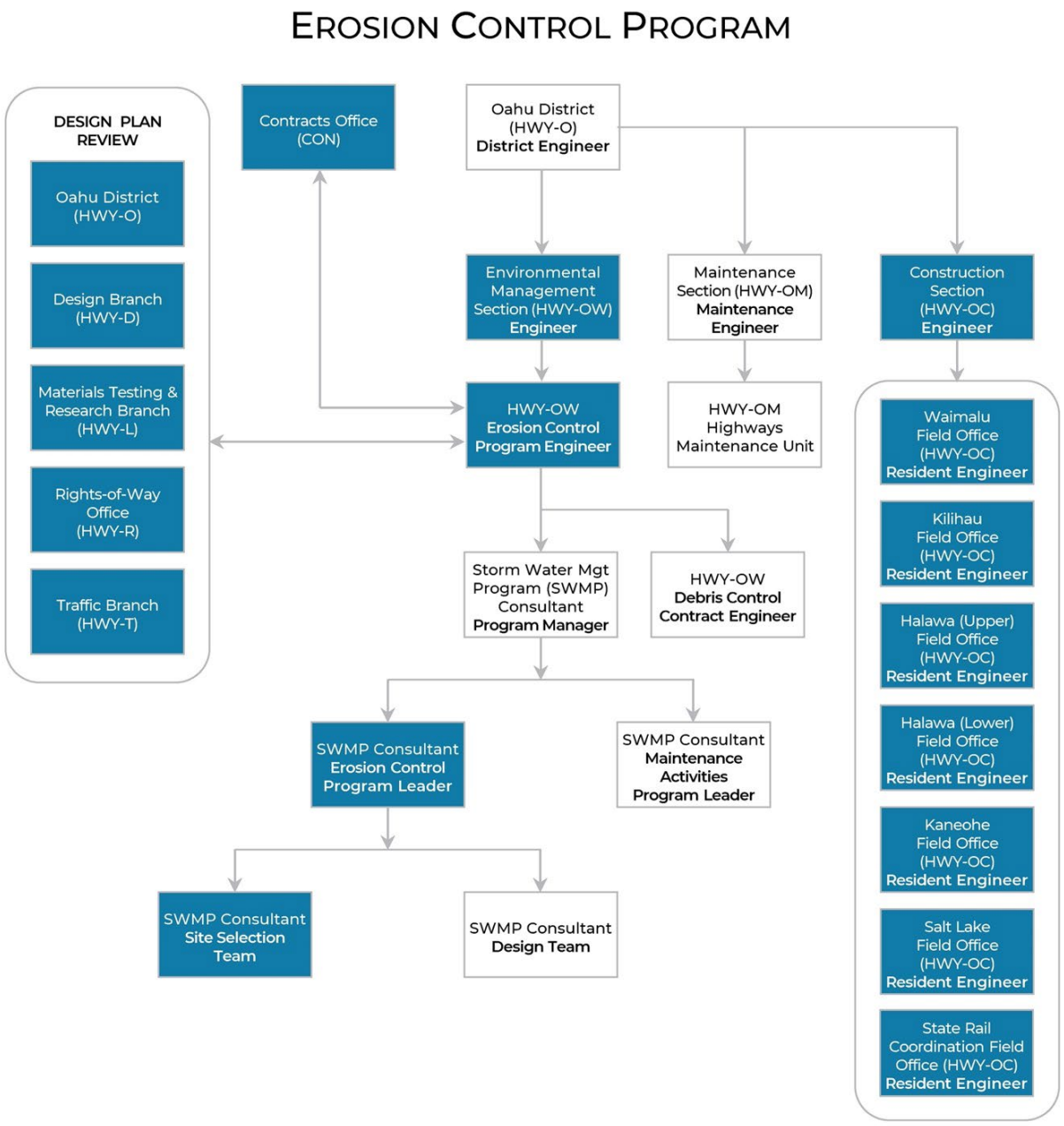


Figure 8-3. Erosion Control Program Organizational Chart for Roles and Responsibilities Related to Permanent Erosion Control Improvements.

8.2 **Temporary Erosion Control Measures** | MS4 NPDES Permit Part D.1.f.(3)(ii)

As significant erosional areas are identified, DOT-HWYS implements temporary erosion control measures (e.g., erosion control blankets and/or fabrics, gravel bag placement and silt fencing/fiber rolls) if a permanent solution is not immediately possible. All significant erosional areas that are included in the Implementation Schedule for Significant Erosional Areas are identified as either having temporary erosion control BMPs installed, or a permanent remediation project completed. The status of each significant erosional area is included in the Implementation Schedule for Significant Erosional Areas, which is updated and provided as an appendix in the Annual Report.

During the temporary BMP selection process, DOT-HWYS assesses the conditions of each significant erosional area that may require temporary BMPs to determine the most appropriate BMP type for each site. Erosion and sediment control BMPs are selected from the *Construction Best Management Practices Field Manual* (Appendix D.1). The Implementation Schedule for Significant Erosional Areas indicates the significant erosional areas where temporary erosion control BMPs are implemented until permanent erosion control is established. Temporary erosion control BMPs are inspected annually, and after significant storm events, and are maintained as needed to ensure that they are functioning properly.

Temporary erosion control BMPs are implemented on significant erosional areas if a permanent solution is not immediately possible.



The individuals and team highlighted in Figure 8-4 are responsible for implementing the control measures described in this section.

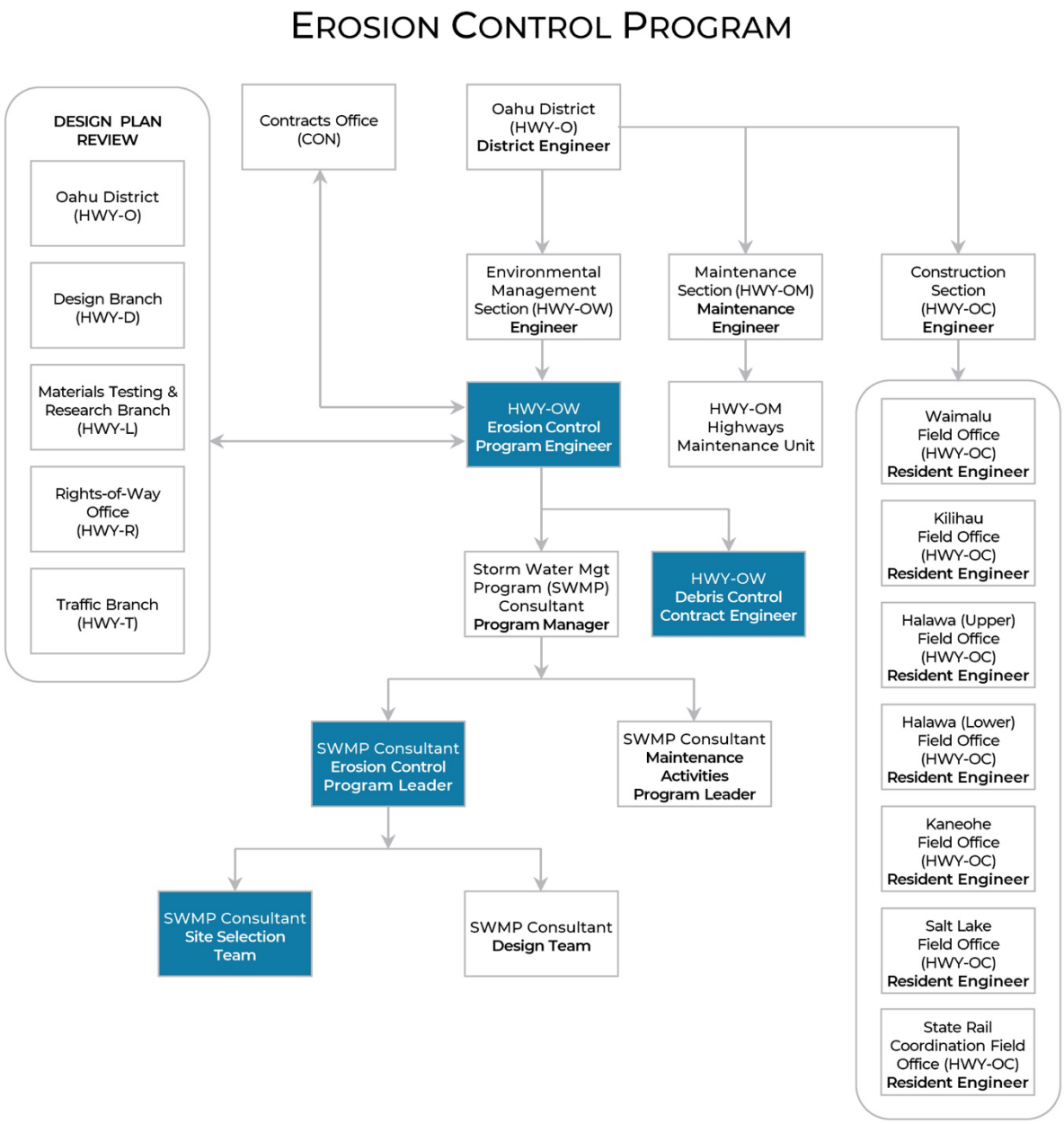


Figure 8-4. Erosion Control Program Organizational Chart for Roles and Responsibilities Related to Temporary Erosion Control Measures.

8.3 Maintenance Plan for Vegetated Portions of the MS4 | MS4 NPDES Permit Part D.1.f.(3)(iii)

DOT-HWYS continues to implement a maintenance plan for vegetated portions of the drainage system used for erosion and sediment control, and LID features. The previous document that used to satisfy this permit requirement, the *Maintenance Plan for Vegetated Portions of the MS4,* has been replaced by Chapters 1, 5, 7, and 10 of the *Highway Manual for Sustainable Landscape Maintenance*, as this document includes a more comprehensive guidance regarding vegetation maintenance.

The *Highway Manual for Sustainable Landscape Maintenance* provides guidance on proper landscape maintenance practices and explains the importance of maintaining vegetation in and along the MS4, including ditches, open channels, vegetated swales, bioretention basins, rain gardens, and other vegetated post-construction BMPs. The manual also includes guidance on how to minimize excessive removal of vegetation and avoid over-application of herbicides. DOT-HWYS provides annual training to HWY-OM staff and service contractors regarding proper maintenance techniques for vegetated portions of the MS4 (Appendix G.2).

The *Highway Manual for Sustainable Landscape Maintenance* is available on the website, www.hidot.hawaii.gov/highways/landscape-architecture-program/.

Landscape maintenance of native erosion control plantings is conducted in accordance with the Highway Manual for Sustainable Landscape Maintenance.



The individuals and team highlighted in Figure 8-5 are responsible for implementing the control measures described in this section.

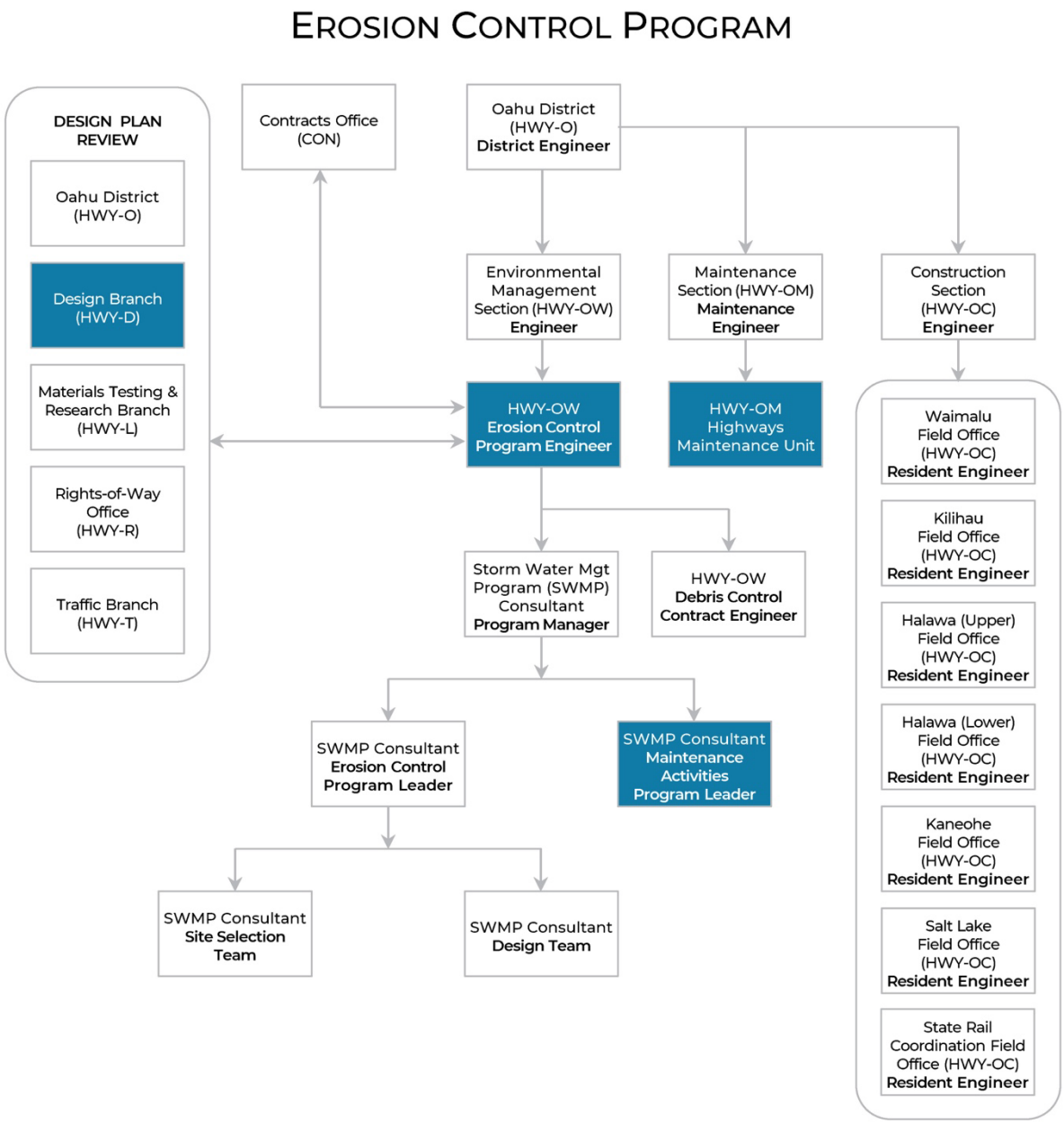


Figure 8-5. Erosion Control Program Organizational Chart for Roles and Responsibilities Related to the Maintenance Plan for Vegetated Portions of the MS4.

8.4 Action Plan to Address Erosional Outfalls | MS4 NPDES Permit Part D.1.f.(3)(iv)

The *Action Plan to Address Erosional Outfalls* (Appendix H.2) provides the evaluation criteria for the selection of erosional outfall repair sites and an implementation schedule for completing remediation projects. The implementation schedule is provided in the Annual Report to include additional erosional outfall repair sites and to provide updates on the status of sites that were previously identified on the list.

The individuals and teams highlighted in Figure 8-6 are responsible for implementing the control measures described in this section.

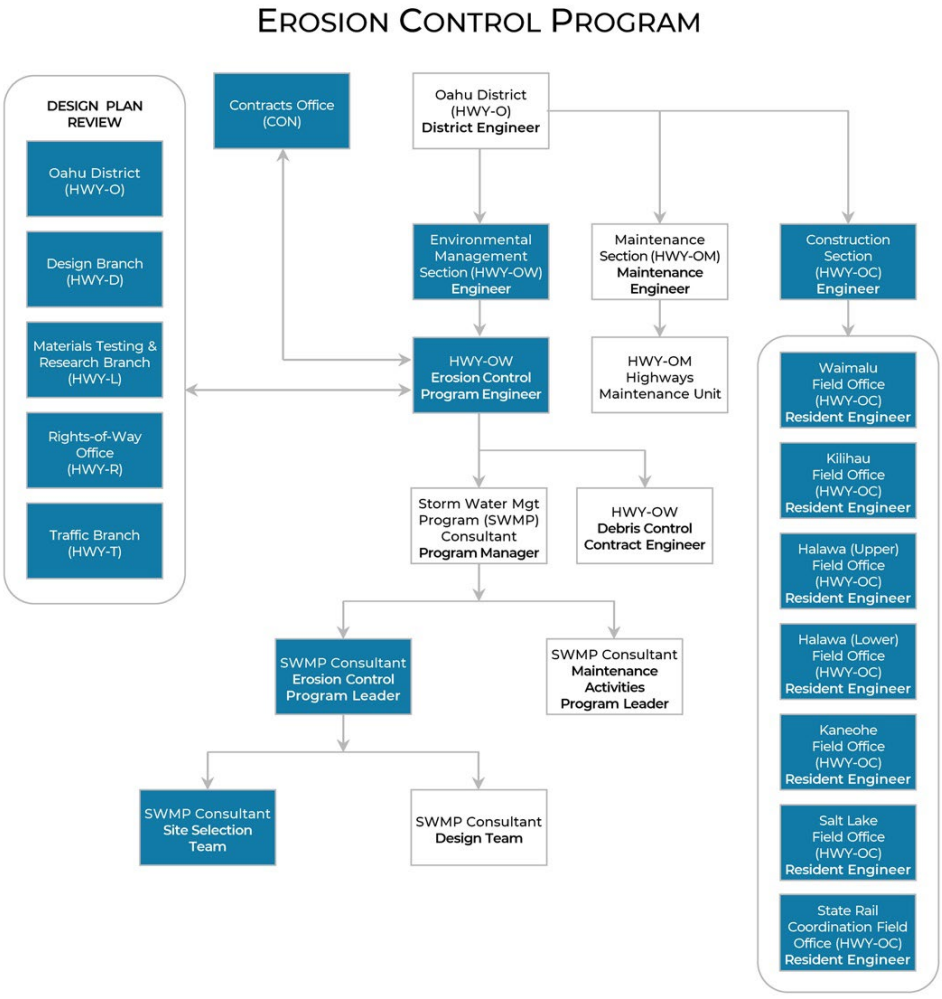


Figure 8-6. Erosion Control Program Organizational Chart for Roles and Responsibilities Related to the *Action Plan to Address Erosional Outfalls*.

8.5 Identification of Significant Erosional Areas | MS4 NPDES Permit Part D.1.f.(3)(v)

DOT-HWYS continually updates the Implementation Schedule for Significant Erosional Areas as significant erosional areas are identified. DOT-HWYS maintains a database of erosional areas that have historically met the classification of significant erosional areas but were subsequently included in a permanent repair project or remediated through improved vegetative maintenance practices. Sites included in the erosional areas database are evaluated to determine whether repairs and/or stabilization are needed due to changes in site conditions. These routine inspections are recorded in the AMS Maximo Erosion Control Module. New erosional areas are also identified by DOT-HWYS and through public complaints. Erosional areas that meet the criteria of a significant erosional area are added to the Implementation Schedule for Significant Erosional Areas, which is updated annually and provided in the Annual Report.

Significant erosional areas are determined by assessing sites against a set of criteria.



The individuals and team highlighted in Figure 8-7 are responsible for implementing the control measures described in this section.

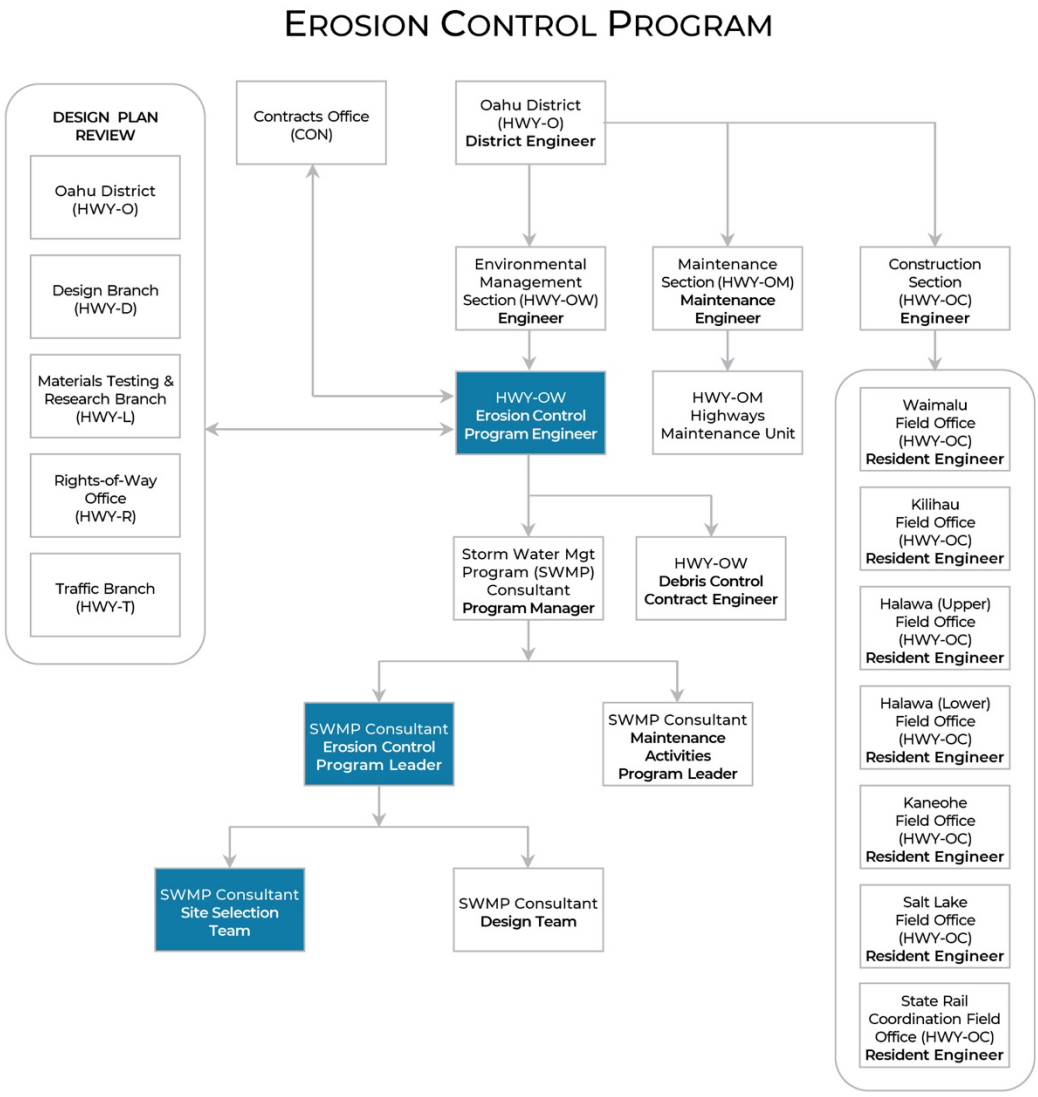


Figure 8-7. Erosion Control Program Organizational Chart for Roles and Responsibilities Related to Identification of Significant Erosional Areas.

8.6 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 11) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

9 | Pollution Prevention/Good Housekeeping Maintenance Activities BMPs Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



BMPs are implemented during rockfall mitigation off Pali Highway, Kaneohe, Hawaii.

The Pollution Prevention/Good Housekeeping (PP/GH) Program is designed to develop and maintain a system maintenance program to reduce, to the MEP, the discharge of pollutants from facilities, roads, parking lots, baseyards, and maintenance facilities, and the MS4.

The PP/GH Maintenance Activities BMPs Program (Maintenance Activities Program) is designed to minimize, to the MEP, the discharge of pollutants from routine municipal maintenance activities.

The Maintenance Activities Program includes the following control measures:

1. Implement BMPs in accordance with the *Maintenance Activities BMPs Field Manual*.
2. Operate Flood Control Project activities at the Punahou Pump Station.
3. Train staff on proper BMP implementation and pollution prevention strategies.

The Maintenance Activities Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 9-1.

Table 9-1. MS4 NPDES Permit Requirements for the Maintenance Activities Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.f —The Permittee shall further develop and maintain a system maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, baseyards, maintenance facilities, and the MS4. The program shall include:	
Part D.1.f.(4) BMPs and Field Manual for municipal maintenance activities — The Permittee shall implement the BMPs as identified in the field manual titled "Maintenance Activities Best Management Practices Field Manual" (Field Manual) for all municipal maintenance activities. The Field Manual shall be updated as necessary and include written procedures to minimize pollutant discharge for maintenance activities which have the potential to discharge pollutants to the MS4.	Section 9.1
Part D.1.f.(5) Pump Station — The Permittee shall implement the flood control project activities described in its ongoing SWMP, including monthly inspection and maintenance of the Interstate H-1 Punahou Pump Station.	Section 9.2
Part D.1.h.(5) Maintenance Activities BMPs Program Plan — The Permittee shall further develop and provide annual training to all DOT-HWYS staff responsible for conducting maintenance activities, on proper municipal maintenance activities to prevent storm water pollution. The training shall cover the Field Manual, identify potential sources of pollution, general BMPs that can be used to reduce and/or eliminate such sources, and specific BMPs for their activities. The training shall incorporate components of the public education campaign and educate staff that they serve a role in protecting water quality. Staff shall be made aware of the NPDES permit, the overall SWMP, and the applicable BMPs Program(s).	Section 9.3

9.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Maintenance Activities Program, the following organizational structure has been established, as shown in Figure 9-1.

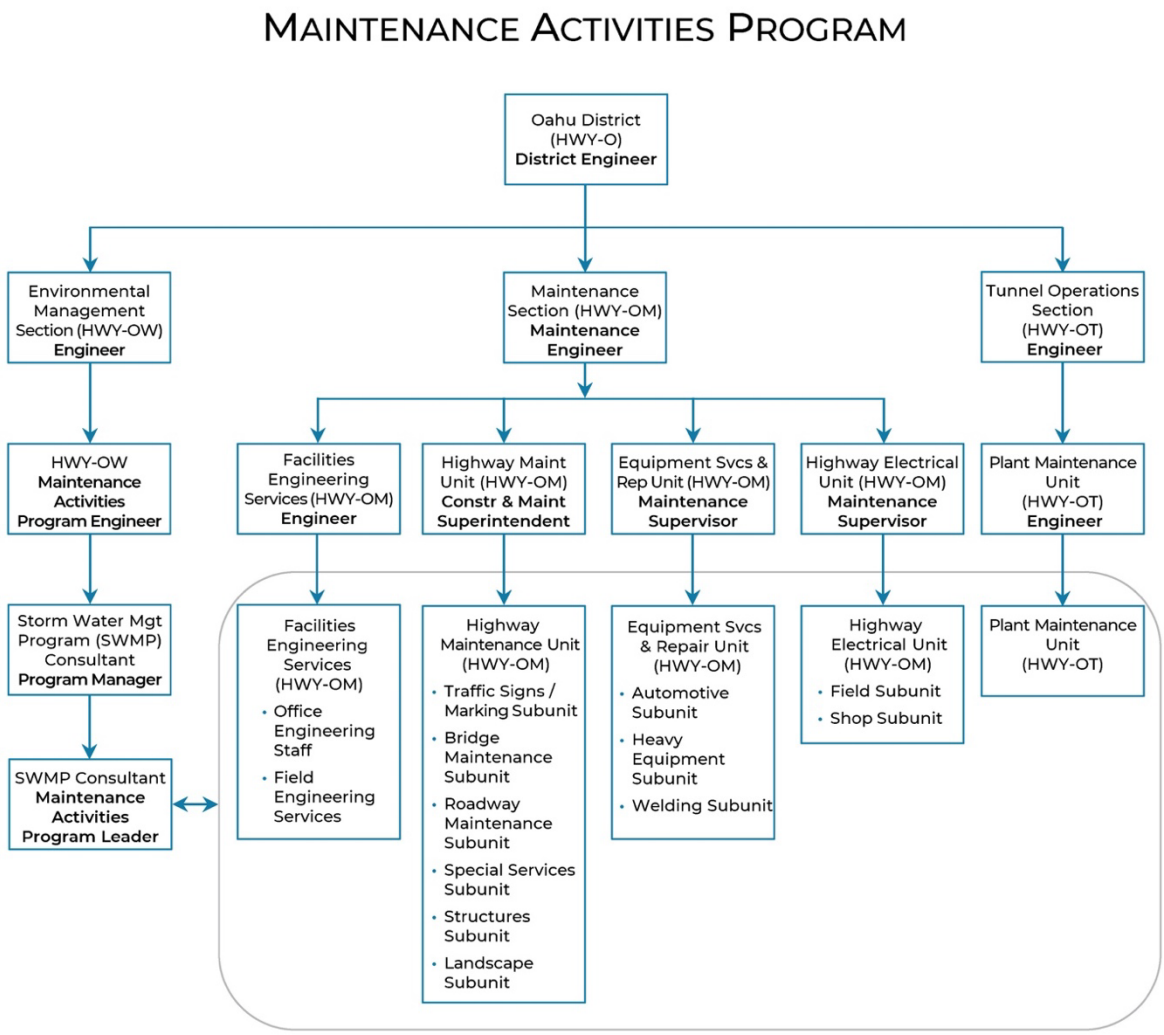


Figure 9-1. Maintenance Activities Program Organizational Chart.

9.1 Maintenance Activities BMPs | MS4 NPDES Permit Part D.1.f.(4)

DOT-HWYS implements BMPs in accordance with its *Maintenance Activities BMPs Field Manual* (Appendix I.1) for all maintenance activities. The *Maintenance Activities BMPs Field Manual* includes written procedures to minimize pollutant discharge for

maintenance activities which have the potential to discharge pollutants to the MS4. The manual is updated as necessary, and updates are provided in the Annual Report.

The *Maintenance Activities BMPs Field Manual* is available on the DOT-HWYS website, www.stormwaterhawaii.com. Additionally, booklets of the *Maintenance BMPs Field Manual* are provided to HWY-OM and HWY-OT field staff to keep in their offices and vehicles for quick and easy reference. Posters of the manual are located in high visibility areas in and around the baseyard.

Service contractors who perform maintenance activities (e.g., landscape maintenance, street sweeping, etc.) are required to perform operations in accordance with the Maintenance Activities Program's standards, training, and required BMPs.

Maintenance activities include, but are not limited to:

- Buried utility repair and installation BMPs
- Concrete work BMPs
- Curb and gutter replacement BMPs
- Debris handling BMPs
- Landscaping BMPs
- Landslide response BMPs
- Painting BMPs
- Paving BMPs
- Tidal sand response BMPs
- Sawcutting BMPs
- Spill response BMPs
- Storm drain cleaning BMPs
- Stream cleaning BMPs
- Street sweeping BMPs
- Vehicle cleaning and washing BMPs

Routine maintenance projects are scheduled or cyclical projects performed to preserve the life of a system; to restore the original function or delay the deterioration of an existing asset without substantially increasing its structural capacity; or to maintain the original line and grade, hydraulic capacity or original purpose of a facility, system or asset, in which maintenance activities do not go beyond the original footprint of the previous structure. Examples of routine maintenance projects include, but are not limited to, the replacement or repair of guard rails, sidewalks, street signs, fences, curbs, and highway lighting poles; repaving without disturbing the base course; tunnel washing; rock fall mitigation; and landscaping maintenance.

The requirements and pollution prevention procedures for maintenance construction activities, which are not considered routine maintenance, are described in Chapter 4 Construction Site Runoff Control Program.

Special Services Crew remove debris from a culvert off Farrington Highway, Makaha, Oahu.



The teams highlighted in Figure 9-2 are responsible for implementing the control measures described in this section.

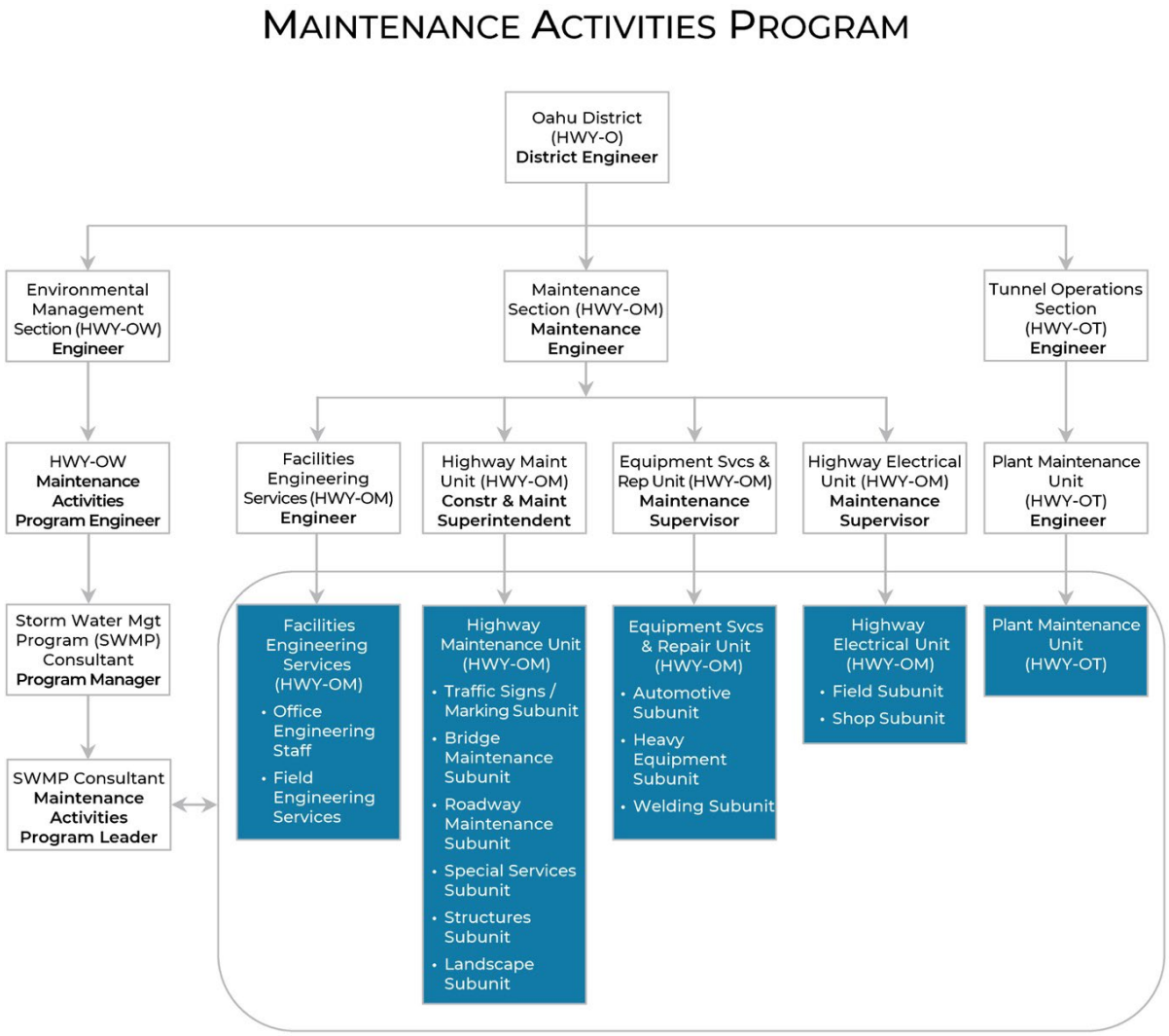


Figure 9-2. Maintenance Activities Program Organizational Chart for Roles and Responsibilities Related to Maintenance Activities BMPs.

9.2 Flood Control Project | MS4 NPDES Permit Part D.1.f.(5)

DOT-HWYS operates the Punahou Pump Station, a flood control facility located on the H-1 Freeway, near the Punahou Street overpass. The pump station services a low point in the freeway where gravity drainage from a section of the roadway is not possible. The pump station is used to dewater sump areas on the roadway that collect water.

The drainage area of the pump station encompasses approximately a half-mile section of the H-1 Freeway. Although the H-1 Freeway is swept routinely, sweeping does not remove all debris from the roadway, and potential pollutants may collect within the freeway's storm drainage system and the four inlets discharging to the pump station. Metal grates cover the drain inlets to keep out larger-sized debris. Within the wet well, there is a trash rack to further screen out debris that may be carried through the drain inlets and drain pipes (Figure 9-3). Water from the pump station is pumped to a nearby storm drain manhole and then to a covered concrete drainage canal through which Makiki Stream flows as it passes beneath the H-1 Freeway.

Inspections and pump station maintenance are performed at least monthly by the HWY-OT Plant Maintenance Unit. During inspections, the pump is tested to ensure that it is operating correctly.

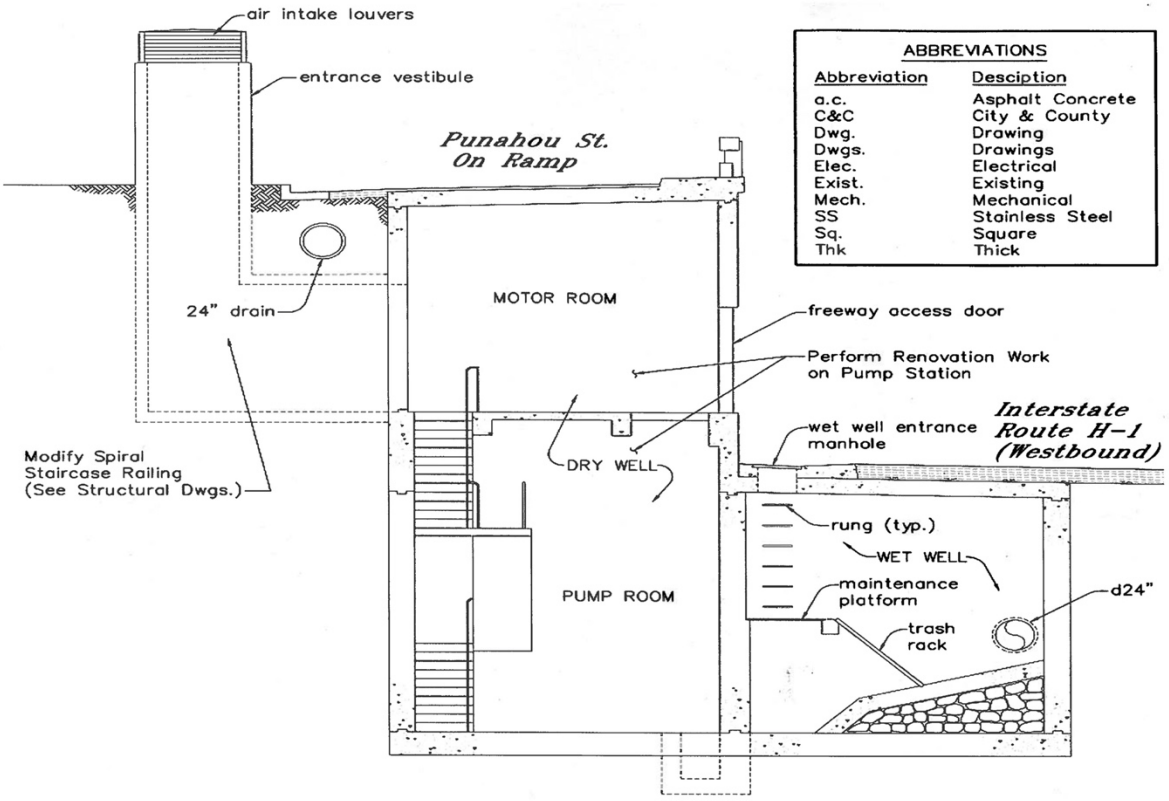


Figure 9-3. Design Details of the Punahou Pump Station.

The procedures for inspecting and maintaining the Punahou Pump Station are provided below:

- Inspections are performed to determine if cleaning or repairs are required.
- Emergency call dialer operation is tested and verified.
- Fuel supply lines and day tanks for emergency back-up diesel engines are checked for leaks.
- Current fuel supply level is verified and logged.
- Pump station is swept and cleaned.
- Sump pump inlet is cleaned and the pump is tested for proper operation.
- Pumping equipment leaks of oil or petroleum products are contained using drip pans or absorbent material, and equipment is repaired to prevent further leaks.
- During maintenance and repair of the pump station, all waste oil is removed and placed in an approved container for disposal. Waste oil is not stored or left at the pump station.
- Logs of pump station inspections and cleanings are maintained and included as an appendix in the Annual Report.

Accumulated debris is removed from the pump station wet well as needed. All materials removed are properly disposed of. Debris removal and pump station cleaning reduces the amount of pollutants discharged to the MS4.

Accumulated debris is removed from the Punahou Pump Station wet well.



The individuals and team highlighted in Figure 9-4 are responsible for implementing the control measures described in this section.

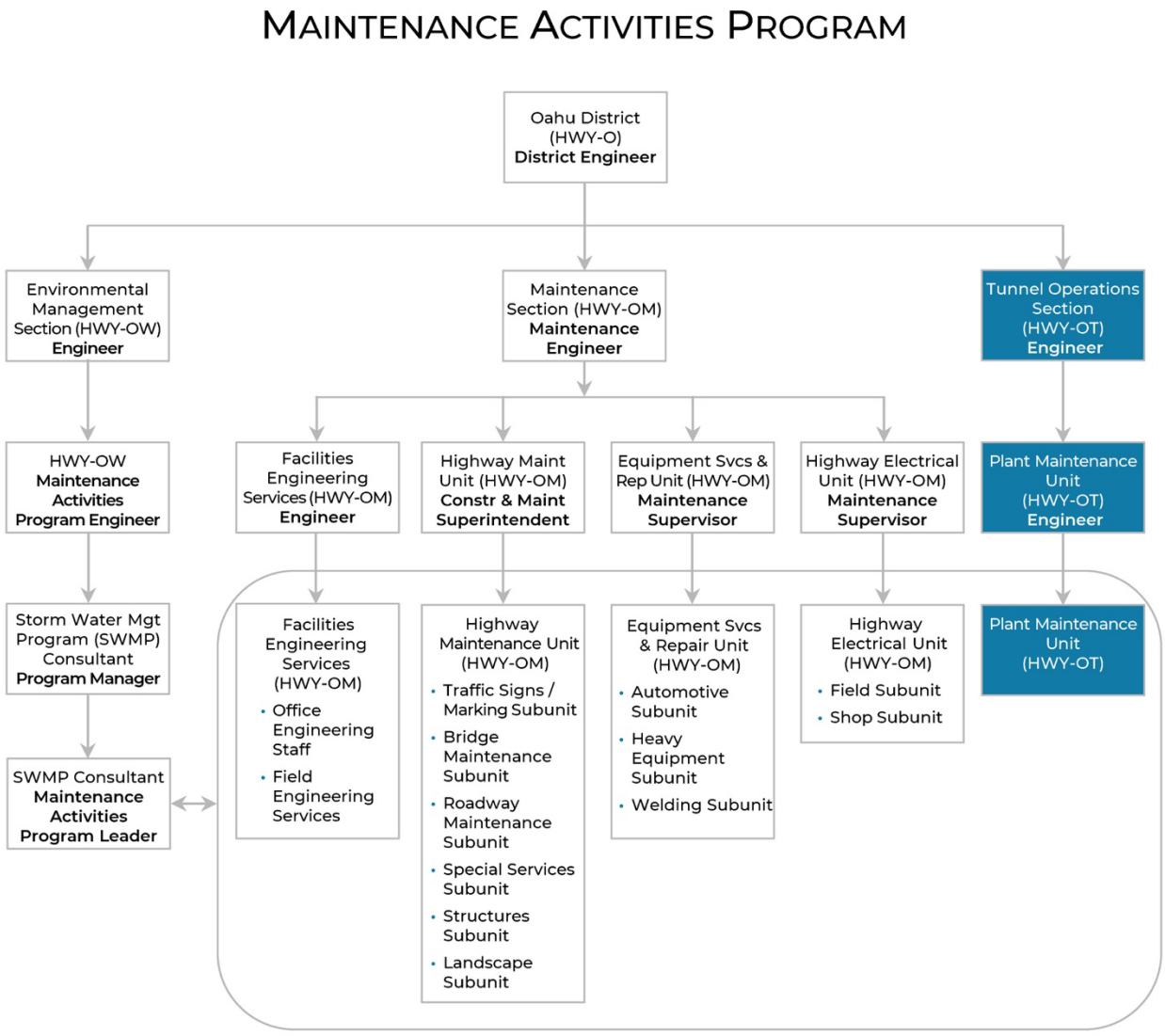


Figure 9-4. Maintenance Activities Program Organizational Chart for the Roles and Responsibilities Related to Flood Control Project.

9.3 **Training** | MS4 NPDES Permit Part D.1.h.(5)

DOT-HWYS provides annual Maintenance Baseyard Storm Water Training for HWY-OM and HWY-OT staff responsible for conducting maintenance activities. Training is conducted for each maintenance crew to address proper BMP implementation for general maintenance activities and for activities specific to each crew's responsibilities.



The Maintenance Baseyard Storm Water Training Champions Plaque is awarded to the maintenance baseyard crew with the highest average quiz score.

The Maintenance Baseyard Storm Water Training outline is provided in Appendix G.2.

Staff that regularly conduct operations at maintenance baseyards are trained on the implementation of their respective baseyard's Storm Water Pollution Control Plan (SWPCP).

Following the annual Maintenance Baseyard Storm Water Training, a post-training quiz is provided for HWY-OM and HWY-OT personnel to assist in reinforcing training objectives and intended outcomes. The post-training quiz is conducted as an extension of the training where problem-solving and collaboration among the crew is encouraged. Scores from HWY-OM and HWY-OT quizzes are recorded and the crew (e.g., Maintenance Subunit) with the highest average score on the quiz receives the Maintenance Baseyard Storm Water Training Champions Plaque as a reward for their efforts.

The individuals highlighted in Figure 9-5 are responsible for implementing the control measures described in this section.

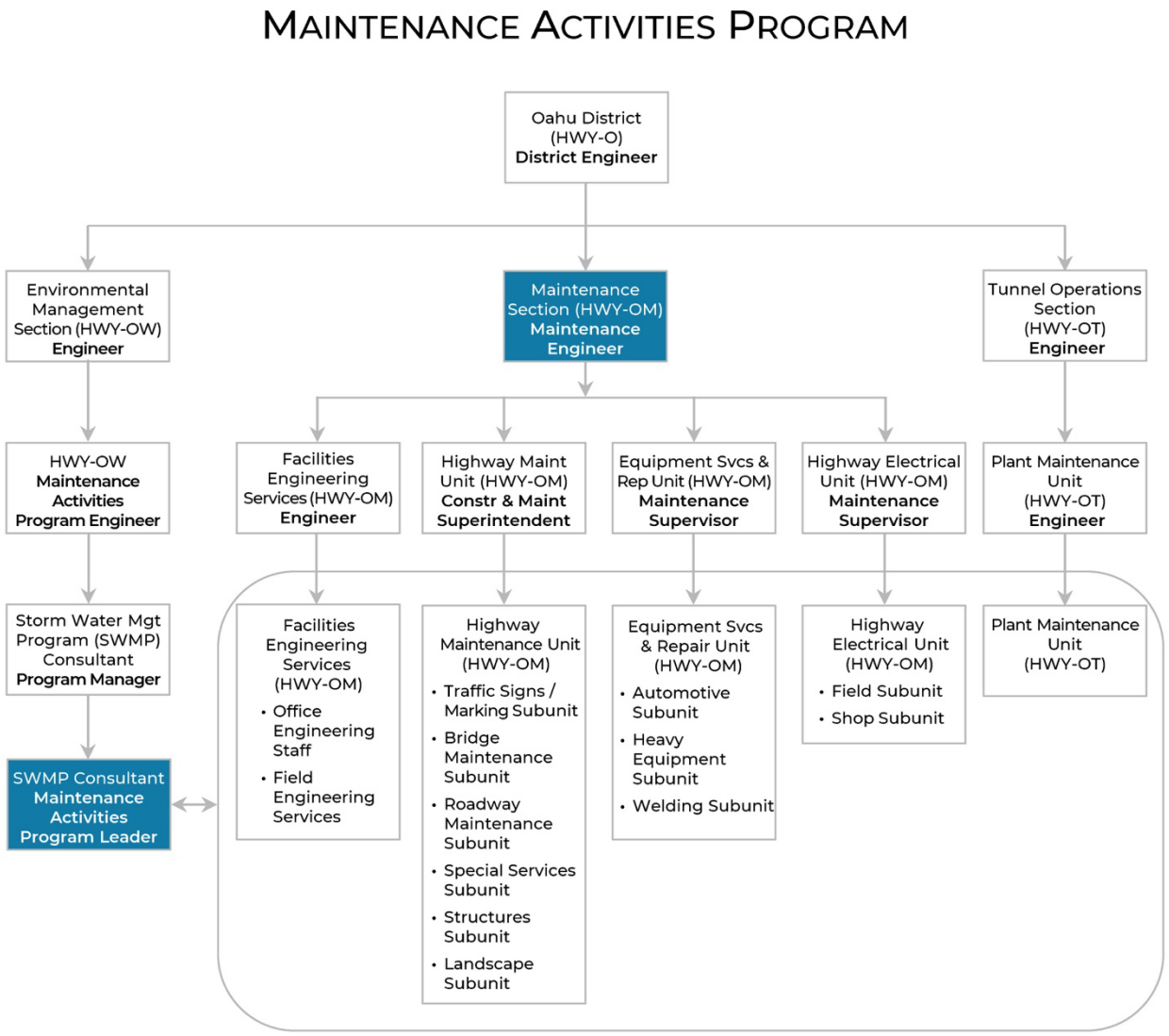


Figure 9-5. Maintenance Activities Program Organizational Chart for the Roles and Responsibilities Related to Training.

9.4 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 12) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

10 | Industrial and Commercial Activities Discharge Management Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



An inspector discusses current activities at a commercial facility to evaluate for potential infractions.

The Industrial and Commercial Activities Discharge Management Program (Industrial and Commercial Program) is designed to reduce, to the MEP, the discharge of pollutants from all industrial and commercial facilities and activities adjacent to DOT-HWYS ROW that initially discharge into the DOT-HWYS MS4. The Industrial and Commercial Program is administered in conjunction with the IDDE Program, with which it shares common objectives, policies, and personnel.

The Industrial and Commercial Program includes the following control measures:

1. Issue and track connection and discharge permits.
2. Maintain and submit to DOH an inventory of industrial and commercial facilities and activities that initially discharge into the MS4.
3. Designate priority areas for inspections.
4. Inspect industrial and commercial facilities and activities and identify potential sources of pollution to the MS4.
5. Rank commercial facilities according to the relative risk of polluted runoff initially discharging into the MS4.
6. Review SWPPPs for industrial facilities, as applicable.
7. Establish and implement an Enforcement Policy for industrial and commercial facilities and activities.
8. Provide training for Industrial and Commercial Program staff.

The Industrial and Commercial Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 10-1.

Table 10-1. MS4 NPDES Permit Requirements for the Industrial and Commercial Program.

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.g – The Permittee shall implement an industrial and commercial discharge management program to reduce to the MEP the discharge of pollutants from all industrial and commercial facilities and activities which initially discharge into the Permittee's MS4. At a minimum, the program shall include:	
Part D.1.g.(1) Approval for Drainage Connections and Storm Water Discharge — DOT-HWYS shall require a permit or written equivalent approval for drainage connections from industrial and commercial facilities and for storm water discharge into the MS4 from industrial facilities subject to an NPDES Permit and maintain a database of such permits/approvals. Such permit/approval shall obligate those industrial and commercial facilities to implement BMPs to prevent the discharge of pollutants to the MS4. For those other industrial and commercial facilities that may discharge storm water into the MS4 but do not have drainage connections and are not subject to an NPDES Permit, DOT-HWYS shall identify those facilities which pose a high risk of discharging pollutants to the MS4. For those industrial and commercial facilities identified as being high risk, DOT-HWYS shall conduct wet weather inspections over the permit term to determine whether the subject facility discharges pollutants to the MS4. For those facilities DOT-HWYS identifies as illicitly discharging pollutants to the MS4, DOT-HWYS shall implement its Enforcement Policy for Industrial and Commercial Facilities and Activities and require implementation of BMPs to prevent future illicit discharges of pollutants.	Section 10.1
Part D.1.g.(2) Inventory and Map of Industrial Facilities and Activities — The Permittee shall update and submit, in electronic portable document format (pdf - minimum 300 dpi), the industrial facilities and activities inventory (industrial inventory), sorted by TMK, and map of such facilities and activities discharging, directly or indirectly, to the MS4 within its 4th Annual Report. The industrial inventory update may be based on the following: • Findings from the Storm Water Questionnaire Survey of Parcels Adjacent to Highway Rights-of-Way (Questionnaire Survey); • Available information about parcel owners from the City and the State; and/or • Collection of new information obtained during field activities or through other readily available intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer hook-up permits). The industrial inventory shall include the facility name, street address, TMK, nature of business or activity, Standard Industrial Classification (SIC) code(s) that best reflect the facility product or service, principal storm water contact, receiving State water, risk ranking of discharging pollutants to the MS4, and whether an NGPC under HAR Chapter 11-55, Appendix B, NPDES General Permit Authorizing the Discharge of Storm Water Associated with Industrial Activities (General Industrial	Section 10.2

MS4 NPDES Permit Reference	SWMPP Section
Storm Water permit) or any other applicable NPDES permit has been obtained, including a permit or file number and issuance date. At a minimum, the industrial inventory shall include facilities and activities such as: • 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 • Findings from follow-up investigations of the industrial facilities identified in the Questionnaire Survey • Facilities subject to NPDES permit coverage which are adjacent to the DOT-HWYS right-of-way and initially discharge to the MS4 • And any other industrial facility that either the Permittee or DOH determines is contributing a substantial pollutant loading to the MS4.	
Part D.1.g.(3) Inventory and Map of Commercial Facilities and Activities — The Permittee shall update and submit, in pdf format (minimum 300 dpi), the commercial facilities and activities inventory (commercial inventory), sorted by TMK, and map of such facilities and activities discharging, directly or indirectly, to the MS4 within its 4th Annual Report. The commercial inventory update may be based on the following: • Findings from the Questionnaire Survey; • Available information about parcel owners from the City and the State; and/or • Collection of new information obtained during field activities or through other readily available intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer hook-up permits). The commercial inventory shall include, by priority area, the facility name, street address, TMK, nature of business or activity, SIC code(s) that best reflect the facility product(s) or service(s), risk ranking of discharging pollutants to the MS4, principal storm water contact, and receiving State water. At a minimum, the commercial inventory shall include facilities and activities such as: • Findings from investigations of the commercial facilities identified in the Questionnaire Survey • Retail Gasoline Outlets • Retail Automotive Services, including Repair Facilities • Restaurants • Any other commercial facility that either the Permittee or DOH determines is contributing pollutants to the MS4 that may cause or contribute to an exceedance of State water quality standards.	Section 10.2

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.g.(4) Prioritized Areas for Industrial and Commercial Facility and Activity Inspections — The Permittee shall implement the Prioritized Areas for Industrial and Commercial Facility and Activity Plan. Under that Plan, the Permittee designated priority areas for industrial and commercial facility and activity inspections, based on the relative risk that any discharge might be contaminated with pollutants. On an annual basis, the Permittee shall modify the Plan based on updated information from its industrial and commercial inventory, findings from previous inspections, the number of industrial and commercial facilities in the area, the density of these facilities, previous storm water violations in the area, and water quality impairments in the area. The modified Plan shall set a schedule that ensures inspections will be completed in accordance with the schedule in Part D.1.g.(5). This Plan shall be submitted with the Permittee's annual report.	Section 10.3
Part D.1.g.(5) Inspection of Industrial and Commercial Facilities and Activities — The industrial/commercial inspection program shall be implemented and updated as appropriate to reflect the outcomes of the investigations. The Permittee shall ensure industrial and commercial facilities and activities identified in the industrial and commercial inventories required under Parts D.1.g.(2) and D.1.g.(3) are inspected and re-inspected as often as necessary based on its findings to ensure corrective action was taken and the deficiency was resolved. At a minimum, the Permittee shall inspect each industrial facility that does not have NPDES permit coverage under the NPDES permit program at least twice every five (5) years, and each industrial facility that does have such NPDES permit coverage at least once every five (5) years. For any industrial facility discharging Industrial Storm Water (as defined by 40 C.F.R. Part 122.26(b)(14)) that does not have NPDES Permit coverage, the Permittee shall provide e-mail notification to DOH at: cleanwaterbranch@doh.hawaii.gov within one (1) week of such determination. Commercial dischargers are to be ranked according to relative risk of discharge of contaminated runoff to the MS4. The highly ranked commercial facilities shall be inspected at least once every five (5) years. All inspections shall be in accordance with the applicable portions (e.g., Chapter 11 – Storm Water) of the "NPDES Compliance Inspection Manual" (EPA 305-X-04-001), dated July 2004. The inspectors shall use an inspection checklist, or equivalent, and photographs to document site conditions and BMP conditions. Records of all inspections shall be maintained for a minimum of five (5) years, or as otherwise indicated. The Permittee shall submit annual inspection report(s) to the DOH by October 31st for inspections done within the previous period.	Section 10.4 Section 10.5
Part D.1.g.(6)(i) Storm Water Pollution Prevention Plan (SWPPP) Review and Acceptance for Industrial Facilities — The Permittee shall: Verify the facility owner has received NPDES permit coverage for the discharge of storm water associated with industrial activity or provided proof of filing an NOI, or NPDES application; and	Section 10.6

MS4 NPDES Permit Reference	SWMPP Section
Part D.1.g.(6)(ii) — Review and accept a Site-Specific Storm Water Pollution Prevention Plan (SWPPP) or other plans relating to pollution prevention or similar document(s) when the facility applies for a connection and/or discharge permit with DOT-HWYS.	Section 10.6
Part D.1.g.(7) Enforcement Policy for Industrial and Commercial Facilities and Activities — The Permittee shall continue to implement its own policies for enforcement and penalties for industrial and commercial facilities which have failed to comply. The policy shall be part of an overall escalating enforcement policy and must consist of the following: • Conducting inspections. • Issuance of written documentation to a facility representative within 30 calendar days of storm water deficiencies identified during inspection. Documentation must include copies of all field notes, correspondence, photographs, and sampling results if applicable. • A timeline for correction of the deficiencies. • Provisions for re-inspection and pursuing enforcement actions, if necessary. In the event the Permittee has exhausted all available sanctions and cannot bring a facility or activity into compliance with its policies and this permit, or otherwise deems the facility or activity an immediate and significant threat to water quality, the Permittee shall provide e-mail notification to cleanwaterbranch@doh.hawaii.gov, Attn: Enforcement Section Supervisor within one (1) week of such determination. E-mail notification shall be followed by written notification and include a copy of all inspection checklists, notes, photographs, and related correspondence in pdf format (300 minimum dpi) in accordance with Part A.7. within two (2) weeks of the determination.	Section 10.7
Part D.1.h.(6) Industrial and Commercial Activities Discharge Management Program — The Permittee shall provide training to all DOT-HWYS staff responsible for conducting industrial and commercial inspections on how to conduct industrial and commercial inspections, the types of facilities covered by the Industrial Storm Water general permit coverage or any other applicable NPDES permit, components in a SWPPP for industrial facilities, BMPs and source control measures for industrial and commercial facilities, and inspection and enforcement techniques. Inspectors shall be trained to identify deficiencies, assess potential impacts to receiving waters, evaluate the appropriateness and effectiveness of deployed BMPs, and require controls to minimize the discharge of pollutants to the MS4. This training shall be specific to DOT-HWYS activities, policies, rules, and procedures. Permittee inspectors shall receive annual training. [Part D.1.g.]	Section 10.8

10.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Industrial and Commercial Program, the following organizational structure has been established, as shown in Figure 10-1.

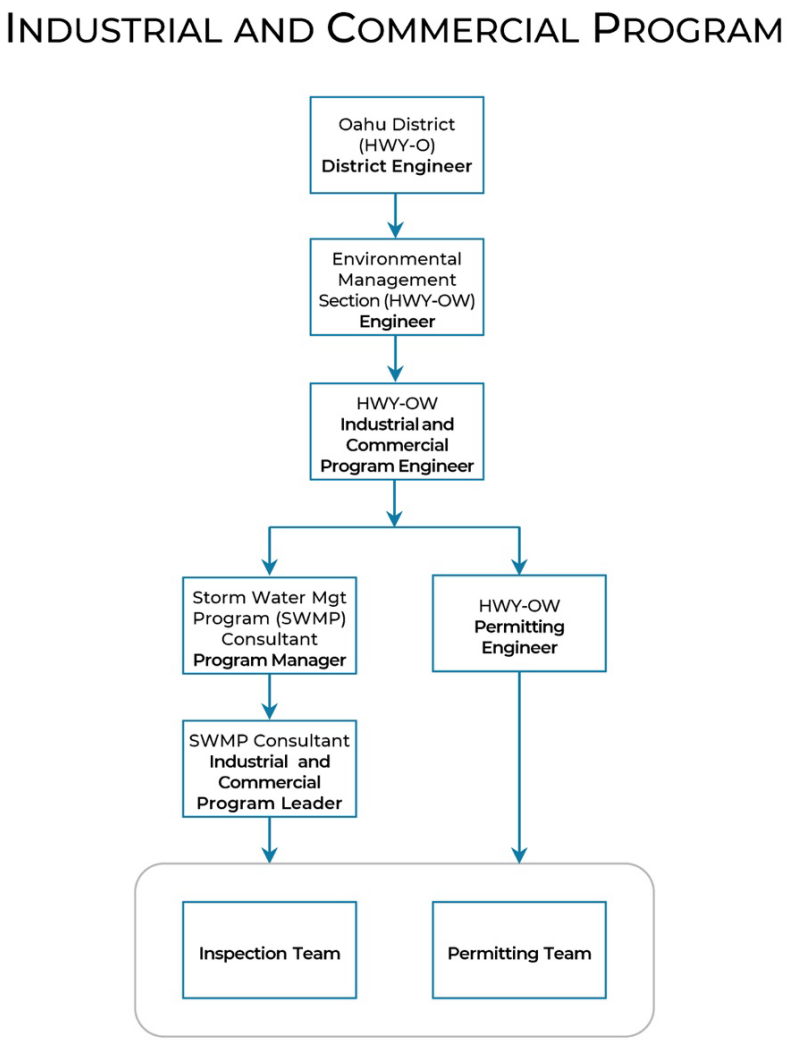


Figure 10-1. Industrial and Commercial Program Organizational Chart.

10.1 Connection and Discharge Permits | MS4 NPDES Permit Part D.1.g.(1)

DOT-HWYS requires a permit for drainage connections from industrial and commercial facilities and for storm water discharge into the MS4 from industrial facilities subject to an Industrial NPDES Permit. The review and approval of connection and discharge permits are documented in the AMS Maximo Permits Module.

10.1.1 Permitting New Connections

A permit must be obtained prior to constructing a physical drain connection to the MS4. A connection permit for the establishment of a new, private drain connection will not be issued until:

- The applicant has provided proof of filing a NOI or an Industrial NPDES Permit application with the DOH, as applicable.
- The applicant has control measures that comply with the requirements of DOT-HWYS to minimize pollutant discharge into the MS4.

A request for a connection permit is made by submitting two separate forms. The first form that must be completed is the *Application for a Private Storm Drain Connection and/or Discharge Permit to the State of Hawaii Highways Division Storm Drain System* (Appendix C.1). In this form, the applicant is instructed to submit information on the property's location, TMK, and bordering state route. The applicant must include a brief description of each connection, size, type of discharge, and flow rate, along with a facility drainage report. In addition, the applicant is required to indicate whether their facility or activities generate storm water associated with "industrial activity," as defined by 40 CFR Part 122.26(b)(14), and whether their facility requires NPDES Permit coverage.

The second form that must be completed and submitted to DOT-HWYS is the *Permit for Connection to the State Highways Drainage System* (Appendix C.2), which states that the applicant agrees to the terms and conditions of the connection permit.

10.1.2 Permitting Existing Connections

Existing connections to the MS4 are considered illegal if they have not been permitted by DOT-HWYS. When an illegal connection is identified, DOT-HWYS first determines if the connection is from an allowable source. If the connection is not from an allowable source or is conveying an illicit discharge, the case is treated as an illicit discharge violation and is subject to enforcement actions (Section 10.7.2) in accordance with the Enforcement Policy.

If the connection is from an allowable source and there is no evidence of an illicit discharge, the case is treated as a deficiency and the appropriate corrective action is for the facility to apply for a connection permit. Written documentation, which includes an inspection report, the connection permit forms described in Section 3.1.1, an Allowable Non-Storm Water Discharge Letter, and a Letter of Warning, is emailed to the property owner or facility representative within 30 calendar days of the inspection date. The property owner or facility representative has 30 days from the date of the Letter of Warning to submit the completed connection permit forms to DOT-HWYS. The illegal connection is considered resolved upon approval of the completed connection permit forms. If the property owner does not submit the completed connection permit forms within the allotted 30-day timeframe, DOT-HWYS pursues enforcement actions (Section 10.7.1) in accordance with the Enforcement Policy.



An inspector performs a dye test to verify the connectivity of the private drainage structure to the DOT-HWYS MS4.

The existing MOU between DOT-HWYS and CCH (Appendix A.5) that establishes that interconnections between the DOT-HWYS MS4 and the CCH MS4 are not considered private drain connections, and therefore do not require private drain connection permits. DOT-HWYS extends this determination to other facilities that have MS4 NPDES Permit coverage. Therefore, the requirement to apply for and obtain a connection permit does not apply to those facilities that have MS4 NPDES Permit coverage. The Industrial and Commercial Program, in conjunction with the IDDE Program, maintains a database of all permitted connections and discharges to the MS4 in the AMS Maximo Permit Module.

10.1.3 Permitting Discharge of Surface Runoff

DOH requires facilities applying for Industrial NPDES Permits to obtain a discharge permit from DOT-HWYS if their surface runoff initially discharges into DOT-HWYS MS4. A request for a discharge permit is made by submitting a completed *Application for a Private Storm Drain Connection and/or Discharge Permit to* the *State of Hawaii Highways Division Storm Drain System* and a *Permit to Discharge into the State Highways Drainage System* (Appendix D.7). The discharge permit authorizes the discharge of surface runoff into the MS4 from industrial facilities and obligates those facilities to implement BMPs to prevent the discharge of pollutants to the MEP. DOT-HWYS tracks discharge permits in the AMS Maximo Permit Module.

For those industrial and commercial facilities that initially discharge surface runoff into the MS4 but do not have drainage connections and are not subject to an Industrial NPDES Permit, DOT-HWYS identifies those facilities which pose a high risk of discharging pollutants to the MS4. The facility is identified as a High Risk Facility if the property owner or facility representative does not appropriately correct any storm water deficiencies identified during a routine inspection within 60 days from the date of the initial Letter of Warning. DOT-HWYS conducts an inspection of each High Risk Facility during a wet weather event at least once per permit term, to determine whether the subject facility discharges pollutants to the MS4.

If DOT-HWYS observes an illicit discharge from a High Risk Facility during a wet weather event, DOT-HWYS implements enforcement actions (Section 10.7.2), which requires BMP implementation and the development of a spill prevention and response plan to prevent future discharges of pollutants. If DOT-HWYS does not observe an illicit discharge from a High Risk Facility during a wet weather event, the facility is no longer deemed as high risk. High Risk Facilities are tracked in the AMS Maximo IC/IDDE Module.

The individual and teams highlighted in Figure 10-2 are responsible for implementing the control measures described in this section.

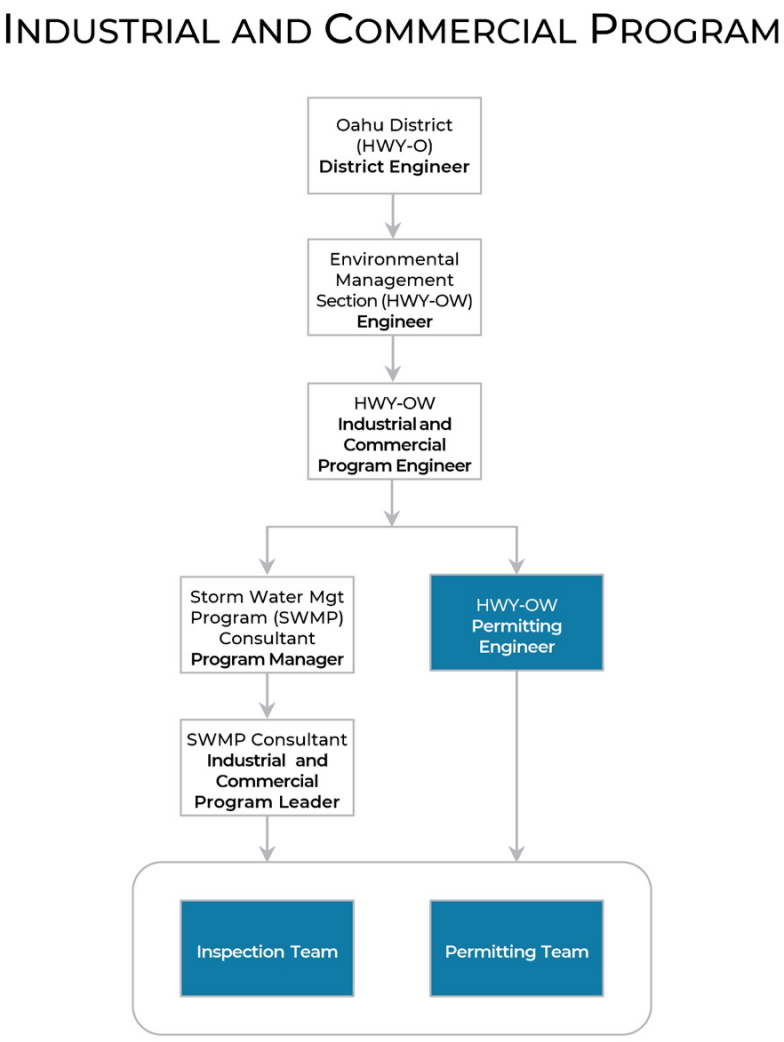


Figure 10-2. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Connection and Discharge Permits.

10.2 Facility Inventory | MS4 NPDES Permit Parts D.1.g.(2) and D.1.g.(3)

For the purpose of scheduling inspections and monitoring potential sources of pollution, DOT-HWYS maintains an inventory of industrial and commercial facilities and activities that initially discharge storm water into the MS4.

10.2.1 Industrial and Commercial Database

The inventory of industrial and commercial facilities and activities is maintained in the Industrial and Commercial Database of the AMS Maximo IC/IDDE Module. The Industrial and Commercial Database is continually updated and is used to track the following information for industrial and commercial facilities:

- Facility name
- Street address
- TMK
- Nature of business or activity
- Facility Risk Ranking
- Standard Industrial Classification (SIC) code(s)
- Principal storm water contact
- Receiving state water

The Industrial and Commercial Database is also used to track whether an industrial facility has obtained an Industrial NPDES Permit or any other applicable NPDES Permit. If the facility has Industrial NPDES Permit coverage, a permit or file number and the issuance date are tracked in the Industrial and Commercial Database.

10.2.2 Inventory and Map Deliverables

DOT-HWYS will update and submit inventories, complete with maps, for industrial and commercial facilities and activities initially discharging into the MS4 within the *Annual Report 2023-2024* (4th Annual Report). The industrial facilities and activities inventory (industrial inventory) and the commercial facilities and activities inventory (commercial inventory) will include the information maintained in the Industrial and Commercial Database, as specified in Section 10.2.1. The industrial inventory will also include each facility's Industrial NPDES Permit coverage status, and as applicable, the permit and issuance date or file number.

The industrial inventory will be sorted by TMK and include, at a minimum, the following types of facilities and activities that initially discharge into the MS4:

- 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

- Findings from follow-up investigations of the industrial facilities identified in the Questionnaire Survey
- Facilities subject to Industrial NPDES Permit coverage that are adjacent to the DOT-HWYS ROW and discharge into the MS4
- Any other industrial facility that either DOT-HWYS or DOH determines is contributing a substantial pollutant loading to the MS4

The commercial inventory will be sorted by TMK and include, at a minimum, the following types of facilities and activities:

- Findings from investigations of the commercial facilities identified in the Questionnaire Survey
- Retail gasoline outlets
- Retail automotive services, including repair facilities
- Restaurants
- Any other commercial facility that either DOT-HWYS or DOH determines is contributing pollutants to the MS4 that may cause or contribute to an exceedance of state water quality standards

With regards to facilities covered under the CCH MS4 NPDES Permit, a signed MOU between DOT-HWYS and the CCH, dated February 2002, defines the roles and responsibilities between the two agencies to control illicit discharges into the MS4. The objectives of the MOU are to:

1. Establish effective intergovernmental coordination between the DOT and the CCH.
2. Clearly delineate the roles and responsibilities of each agency in an effort to minimize, to the MEP, the discharge of any pollutant from one MS4 into the other MS4.
3. Minimize duplication of effort.
4. Ensure accountability through judicious application of best management practices, design and engineering methods, and periodic water quality monitoring.

As such, facilities covered under the CCH MS4 NPDES Permit are excluded from the industrial and commercial inventories maintained by DOT-HWYS. DOT-HWYS extends this exclusion to other facilities that have MS4 NPDES Permit coverage. Note, however, the MS4 NPDES Permit Part D.1.g.(2) specifically requires DOT-HWYS to include municipal landfills (open and closed) in the inventory. To comply with this requirement, the inventory will include any municipal landfill that initially discharges into the MS4.

The individual and team highlighted in Figure 10-3 are responsible for implementing the control measures described in this section.

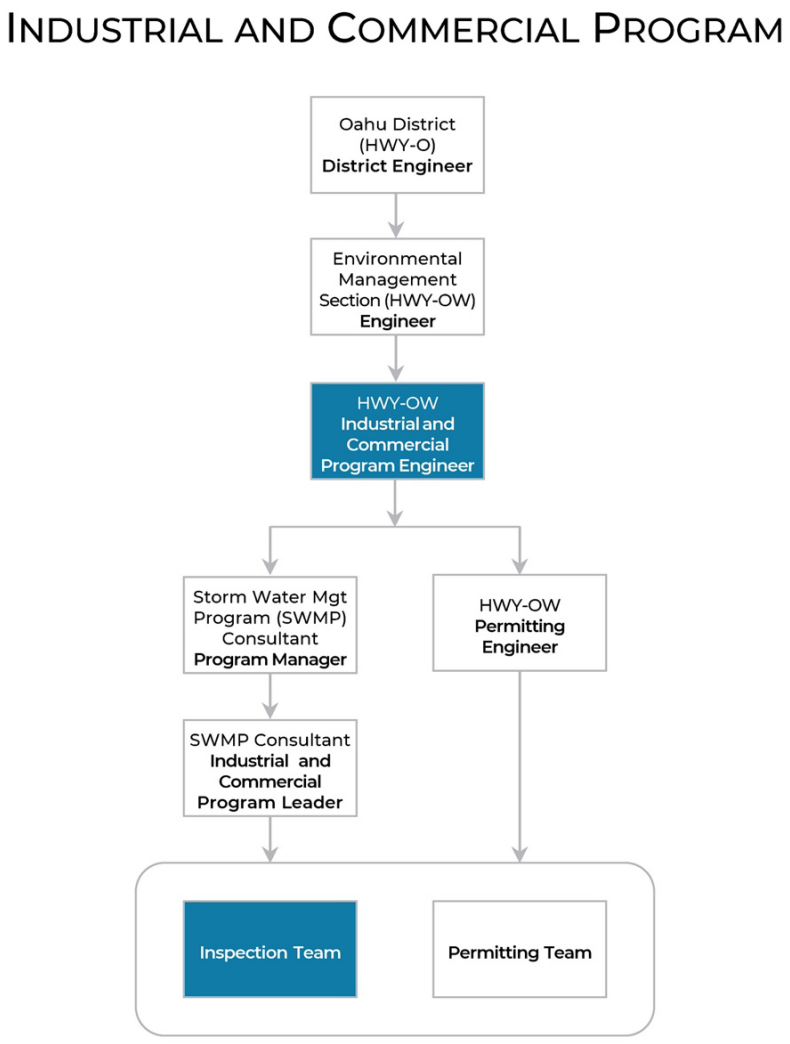
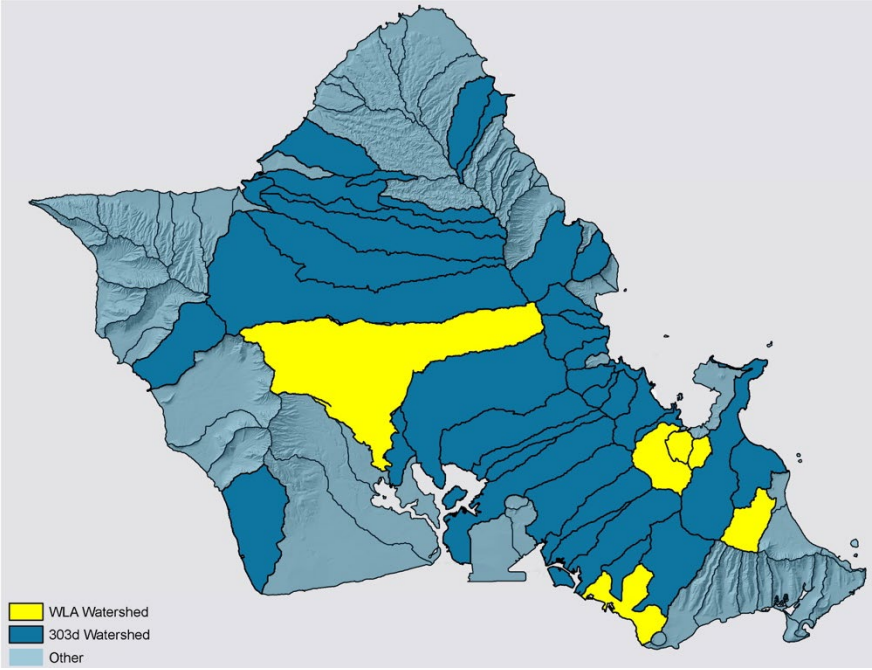


Figure 10-3. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Facility Inventory.

10.3 Prioritized Area Plan | MS4 NPDES Permit Part D.1.g.(4)

The *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections* (Appendix J.1) designates priority areas for industrial and commercial facility and activity inspections based on the relative risk that any discharge might be contaminated with pollutants. The plan was originally published as an appendix to the *2007 SWMPP.* It has been modified to include up-to-date information about inspection findings, previous deficiencies and/or violations, industrial and commercial inventories, facility densities in priority areas, and water quality impairments (i.e., TMDLs, WLAs, and CWA Section 303(d) listed impaired water bodies).



Priority areas for industrial and commercial facility inspections are defined by ranking watersheds based on a number of factors.

Priority areas are defined by watershed. The WLA watersheds are assigned the highest priority. The CWA Section 303(d) listed impaired water bodies are assigned the second highest priority. All other watersheds are assigned the lowest priority. Watersheds within each priority level are ranked based on the number of facilities within the priority area, the density of industrial and commercial facilities in the area (number of facilities/watershed acres), and the number of deficiencies and/or violations cited within the priority area.

The modified *Prioritized Area Plan for Industrial and Commercial Facility Activity and Inspections* includes an inspection schedule that establishes inspection frequencies for industrial and commercial facilities and activities, in accordance with the frequencies described in Section 10.4.2. The plan is annually updated and included as an appendix to the Annual Report.

The individuals highlighted in Figure 10-4 are responsible for implementing the control measures described in this section.

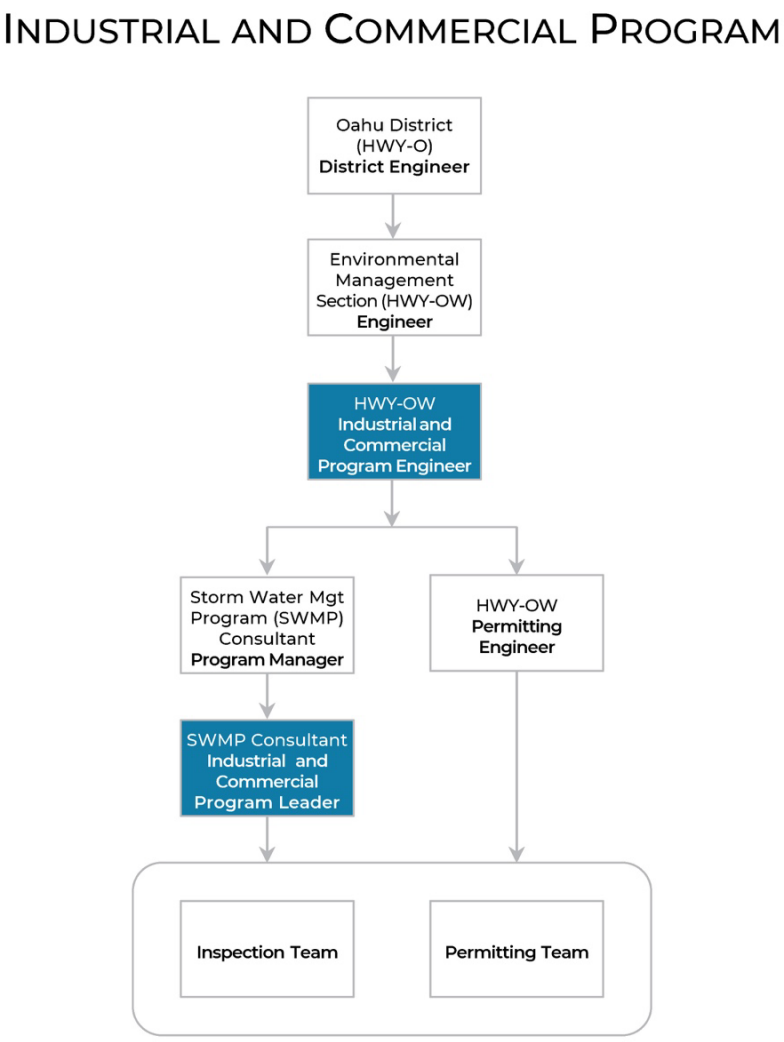


Figure 10-4. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to the Prioritized Area Plan.

10.4 Inspections | MS4 NPDES Permit Part D.1.g.(5)

DOT-HWYS implements an inspection program, ensuring that industrial and commercial facilities and activities are inspected and reinspected as often as necessary based on its findings to confirm that corrective action was taken and deficiencies were addressed.

10.4.1 Inspection Procedures

Industrial and Commercial Program inspectors assess the appropriateness and effectiveness of the BMPs implemented at a facility; identify illegal connections and illicit discharges into the MS4, potential sources of pollution, and deficiencies in BMP implementation; educate facility owners about storm water-related issues and proper source control measures; and require corrective actions when deficiencies are identified.

Industrial and Commercial Program inspectors use the Industrial and Commercial MS4 Site Investigation Sheet (SIS) (Appendix J.2) to document findings during inspections. Inspection results are documented in the AMS Maximo IC/IDDE Module. Additionally, inspection reports with accompanying photographs are maintained on the document management system (DMS). Records of inspections are maintained for a minimum of five years. DOT-HWYS submits annual inspection reports to DOH for industrial and commercial inspections conducted during the previous period by October 31st of each year. All inspections are conducted in accordance with the applicable portions of the *NPDES Compliance Inspection Manual* (EPA 305-X-04-001), published in July 2004.

Facilities discharging industrial storm water, as defined by 40 CFR Part 122.26(b)(14), may be required to obtain an Industrial NPDES Permit from DOH. The Industrial and Commercial Program inspectors verify Industrial NPDES Permit coverage on the DOH website, https://wpc-viewer.doh.hawaii.gov/ or by submitting a request to DOH to access a government record. If the Industrial and Commercial Program inspectors identify a facility discharging industrial storm water that does not have Industrial NPDES Permit coverage or a Conditional No-Exposure Exclusion on file with DOH, DOT-HWYS provides email notification to DOH within one week of such determination. DOH determines whether or not the facility is required to obtain an Industrial NPDES Permit and administers the permitting process accordingly.

The industrial and commercial inspection program is organized into three workflow processes that begin with the pre-inspection desktop research tasks, through conducting the on-site inspection, to the post-inspection reporting and tracking activities (Figure 10-5).

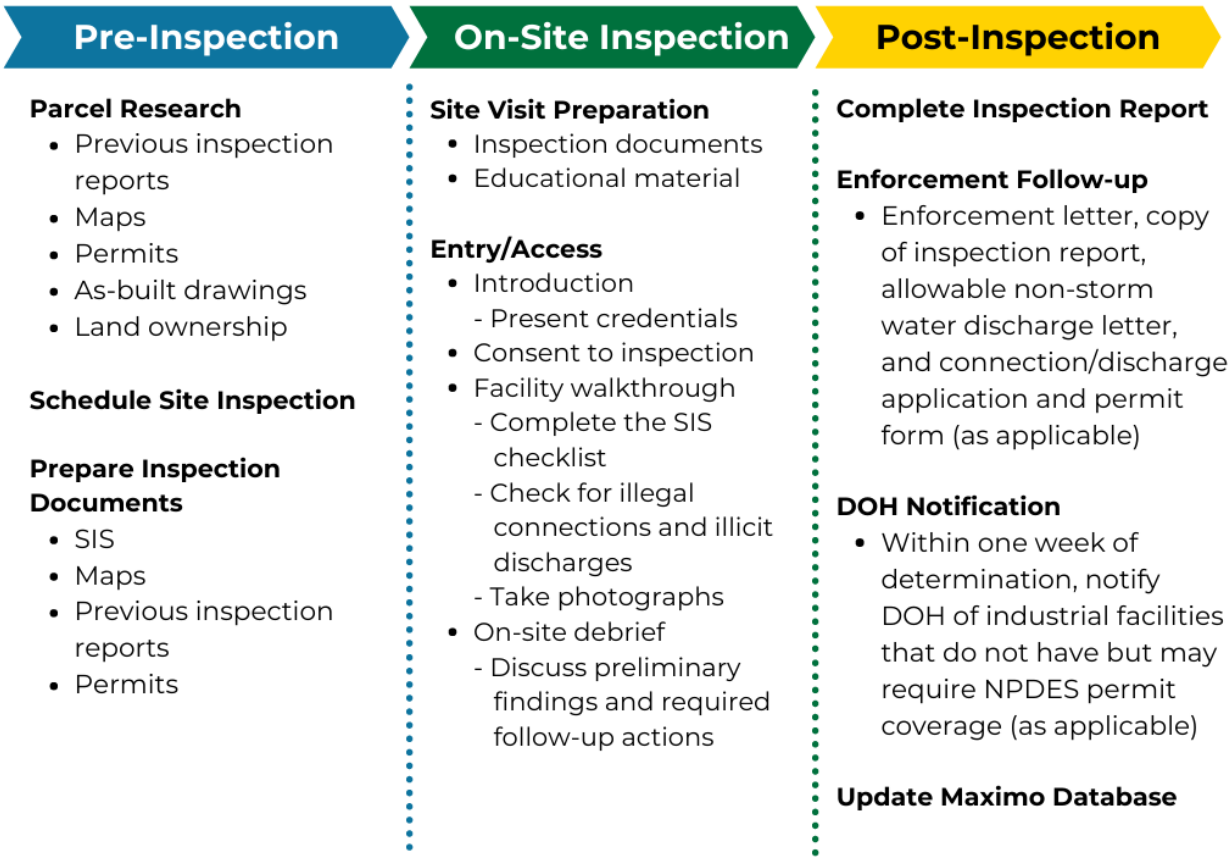


Figure 10-5. Industrial and Commercial Program Inspection Workflow.

10.4.2 Inspection Schedules

Priority areas for industrial and commercial facility and activity inspections are selected based on the relative risk that any discharge might be contaminated with pollutants. Specific priority areas and inspection schedules are designated in the *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections*, as discussed in Section 10.3. At a minimum, industrial facilities that do not have Industrial NPDES Permit coverage are inspected at least twice every five years, while each industrial facility with Industrial NPDES Permit coverage are inspected at least once every five years. The ranking system used to designate high priority commercial facilities is described in Section 10.5. Highly ranked commercial facilities are inspected at least once every five years.

The industrial and commercial inspection program, including inspection schedules and area prioritization, is modified as necessary to account for inspection findings and updates to water quality impairments.

In addition to conducting scheduled inspections, DOT-HWYS investigates potential illegal connection and illicit discharges in response to public complaints. Public complaints are investigated in conjunction with the IDDE Program (Section 3.4).

The individual and team highlighted in Figure 10-6 are responsible for implementing the control measures described in this section.

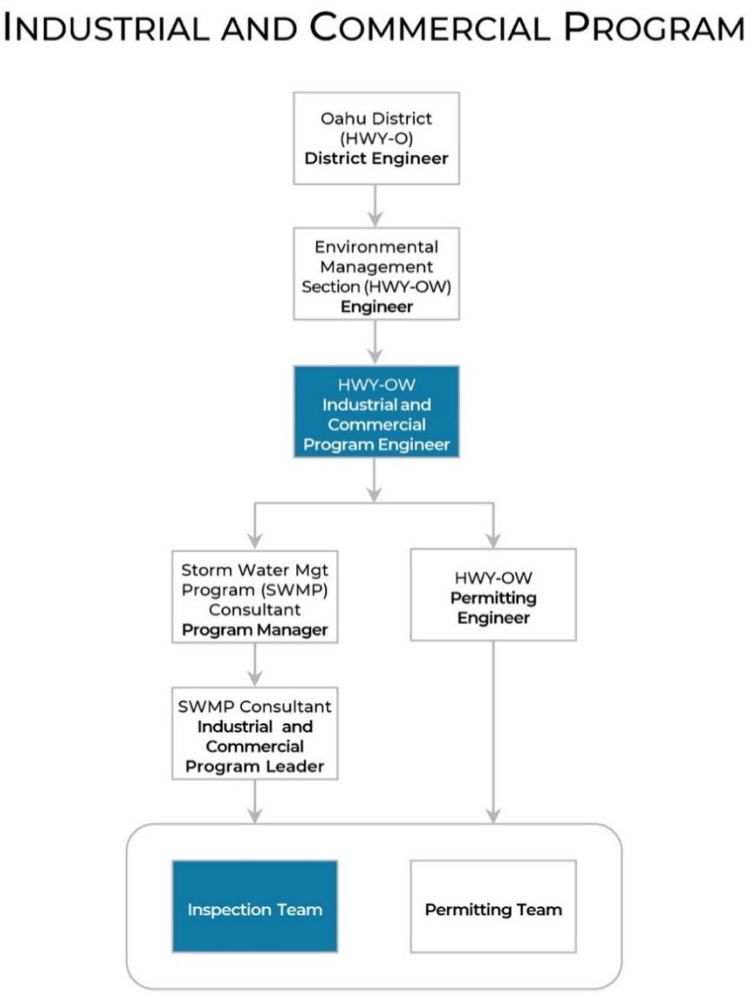


Figure 10-6. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Inspections.

10.5 Commercial Facility Ranking | MS4 NPDES Permit Part D.1.g.(5)

DOT-HWYS has developed a system to rank commercial facilities that initially discharge into the MS4, according to the relative risk that a facility might discharge contaminated runoff into the MS4.

10.5.1 Facility Ranking Criteria

Commercial facilities are ranked using a point system, with each facility receiving a score from 1 to 10 points. Commercial facilities with a score of 3 points or higher are classified as high priority and are inspected at least once every five years.

Six variables are considered to determine a facility's score:

1. Nature of the business or activity
2. Physical connection to the MS4
3. Deficiency within the last ten years
4. IDDE case within the last ten years
5. Location within a WLA watershed
6. Inspection within the last ten years

Commercial facilities are evaluated and ranked with a point system.



The criteria for points assigned to each variable are described in Figure 10-7.

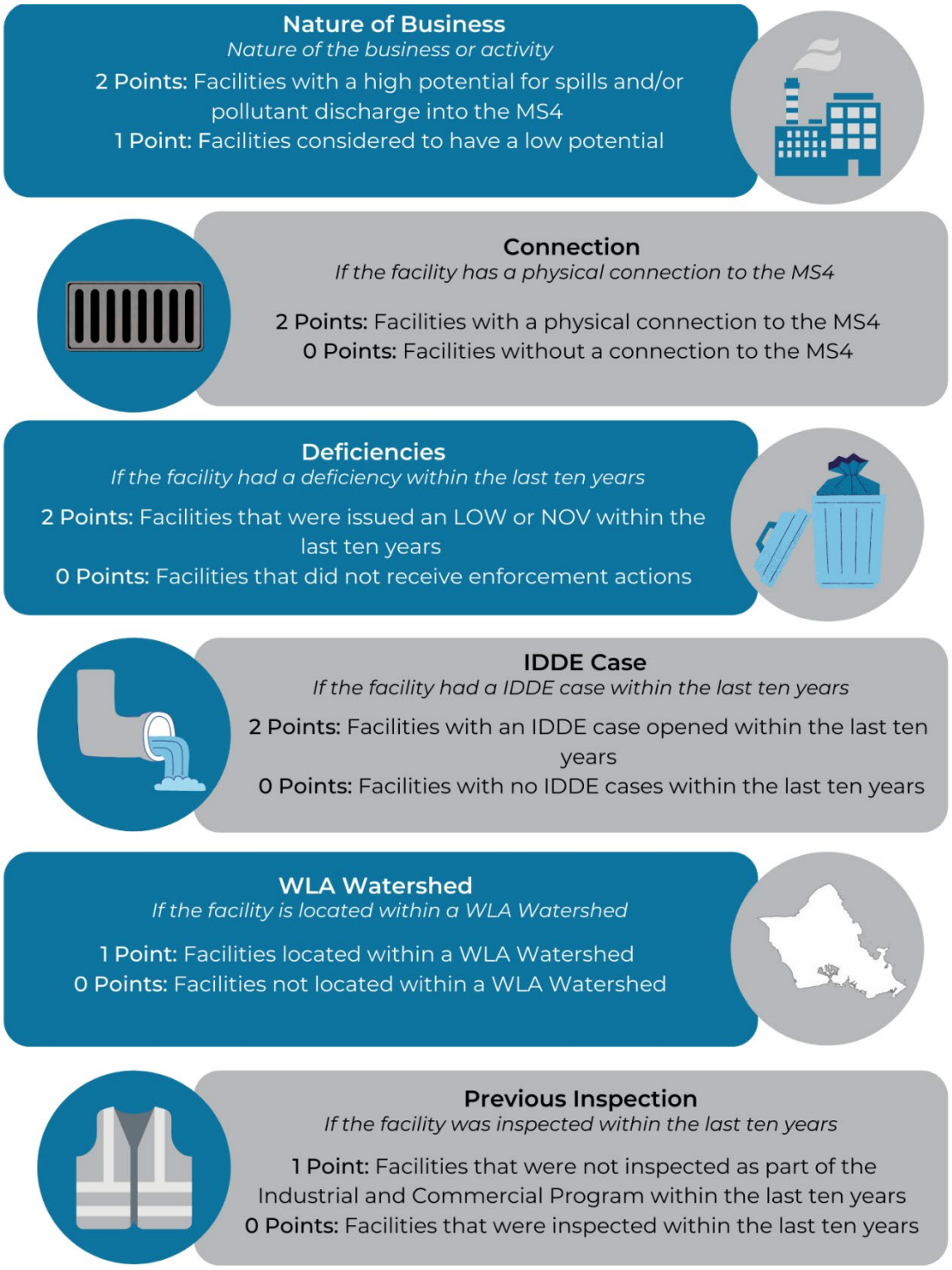


Figure 10-7. Six Variables to Consider in Determining a Facility's Score.

10.5.2 Facility Ranking Results

Commercial facility ranking is based on the aggregate points assigned in Section 10.5.1. Facility ranking results are documented in the Industrial and Commercial Database of the AMS Maximo IC/IDDE Module.

The individuals highlighted in Figure 10-8 are responsible for implementing the control measures described in this section.

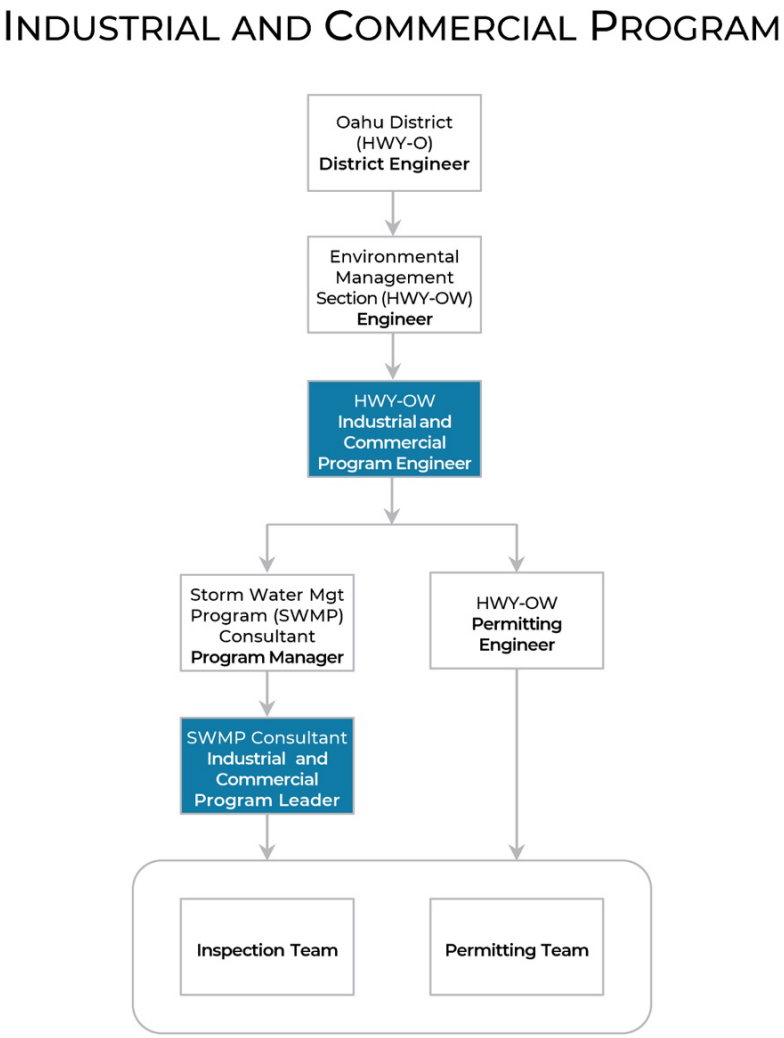


Figure 10-8. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Commercial Facility Ranking.

10.6 SWPPP Review | MS4 NPDES Permit Part D.1.g.(6)

Facilities that apply for Industrial NPDES Permit coverage with DOH are required to develop and implement SWPPPs as a stipulation of the permitting process. DOT-HWYS reviews and accepts industrial facilities' SWPPPs or other plans relating to pollution prevention or similar documents when the facility applies for a connection and/or discharge permit with DOT-HWYS.

Facilities with Industrial NPDES Permit coverage may be required to keep on-site a SWPPP, or other plans or documents related to storm water pollution prevention. DOT-HWYS reviews these SWPPPs or other pertinent documents if they are available during inspection. DOT-HWYS also verifies that the facility owner has received Industrial NPDES Permit coverage for the discharge of storm water associated with industrial activity or can provide proof of filing an NOI or Industrial NPDES application, as applicable (Section 10.4.1).

Industrial and Commercial Program inspectors evaluate a facility in Honolulu, Hawaii.



The individual and teams highlighted in Figure 10-9 are responsible for implementing the control measures described in this section.

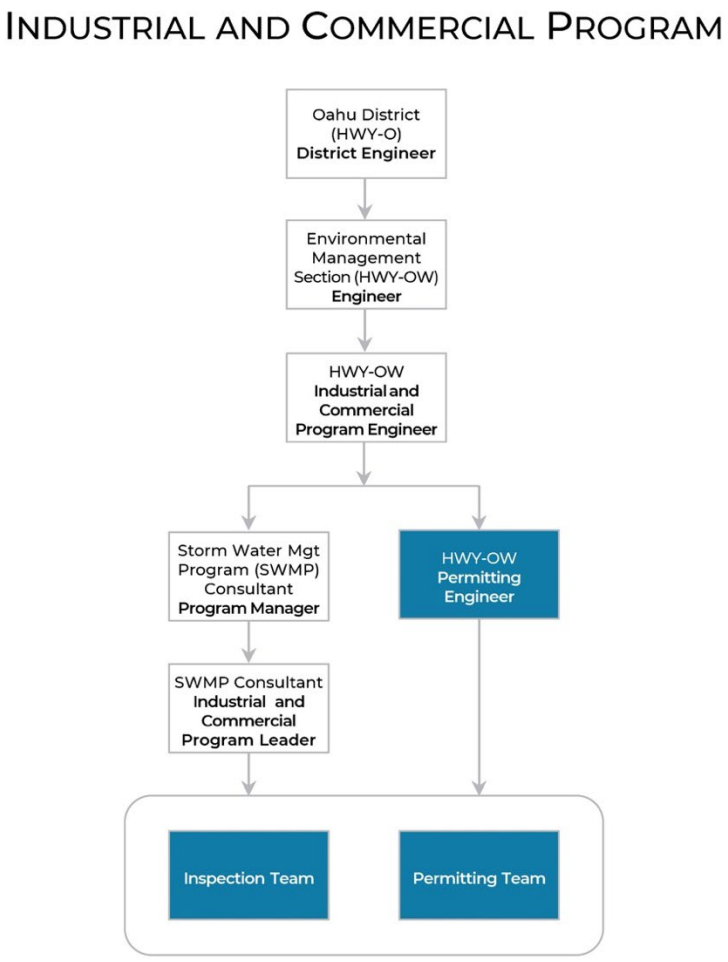


Figure 10-9. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to SWPPP Review.

10.7 Enforcement | MS4 NPDES Permit Part D.1.g.(7)

DOT-HWYS has established an Enforcement Policy for the Industrial and Commercial Program to reduce, to the MEP, the discharge of pollutants from all industrial and commercial facilities and activities which initially discharge into the MS4. The Enforcement Policy is executed through the MOU between DOT-HWYS and DOH (Appendix A.4) in accordance with HRS Chapter 342D-2 Administration, Chapter 342D-30 Civil Penalties, Chapter 342D-31 Administrative Penalties, and Chapter 342D-50(a)(d) Water Pollution Control; conforms to HAR Chapter 11-55-40 for fines to settle verifiable violations

of HRS Chapter 342D; utilizes the connection and discharge permits issued by DOT-HWYS; and is in compliance with requirements of the MS4 NPDES Permit.

During the permit term, DOT-HWYS will initiate amendments to the MOU between DOT-HWYS and DOH to reflect the collaborative efforts of both agencies to enforce against illicit discharges to the MS4.

In summary, industrial and commercial facilities subject to compliance with the Industrial and Commercial Program are categorized as follows:

- NPDES facilities with physical connections
- NPDES facilities without physical connections
- Non-NPDES facilities with physical connections
- Non-NPDES facilities without connection/discharge permits

(Note: NPDES facilities are those subject to or holding an Industrial NPDES Permit issued by the DOH.)

For each category, enforcement actions are triggered when a facility fails to comply with corrective actions necessary to address any storm water pollution control deficiency, and when an illicit discharge violation occurs. A "deficiency" is defined as any potential pollutant that could discharge into the MS4 during a rain event. A "violation" is defined as any non-allowable storm water discharge into the DOT-HWYS ROW, or the MS4.

10.7.1 Addressing Deficiencies

During the initial site inspection, DOT-HWYS provides verbal instruction to the owner to correct any deficiency while on-site. Deficiencies include observation of inadequate pollution control measures to prevent the potential illicit discharge of pollutants, an illegal physical connection, or the need for a discharge permit. Within 30 days of identifying any uncorrected deficiencies, written documentation is sent to the facility owner or representative. Written documentation includes an inspection report, an Allowable Non-Storm Water Discharge Letter, a Letter of Warning, and connection/discharge permit forms, as applicable. The Letter of Warning may require the facility to:

- Apply for a connection permit.
- Apply for a discharge permit.
- Implement appropriate BMPs.
- Submit a written response that clearly identifies the BMPs or other pollution control measures the facility owner or representative will implement to correct deficiencies at their facility.

The facility owner or representative has 30 days from the date marked on the Letter of Warning to submit a response. The deficiency is considered resolved upon acceptance of their response and/or approval of the completed connection/discharge permit forms, as applicable. If the facility owner or representative is non-responsive to the Letter of Warning, DOT-HWYS may terminate the facility's connection permit and/or discharge permit, plug and/or sever the facility's connection to the MS4, and/or designate the facility as a High Risk Facility for future inspection during a wet weather event to screen for an illicit discharge violation.

10.7.2 Addressing Illicit Discharge Violations

Illicit discharges into the MS4 violate the MS4 NPDES Permit, HRS Chapter 342D, HAR Chapters 11-54 and 11-55, and the CWA (as amended, 33 USC 1251).

If an illicit discharge is identified, DOT-HWYS issues a verbal order to immediately cease discharging and/or causing the discharge of pollutants into the MS4. DOT-HWYS then contacts H-3 Tunnel Operations Center Dispatch (at 808-485-6200) who notifies the Emergency Coordinator to initiate the illicit discharge and spill response measures (Section 3.6).

Within 30 days of identifying any uncorrected illicit discharge violations, written documentation is sent to the facility owner or representative. Written documentation includes an inspection report, an Allowable Non-Storm Water Discharge Letter, and a Notice of Violation & Order. The Notice of Violation & Order may require the facility to:

- Immediately cease and desist discharging and/or causing the discharge of pollutants into the MS4.
- Clean portions of the MS4 affected by the illicit discharge within 24 hours of receiving the Notice of Violation & Order, and provide documentation of corrective actions and evidence of the cleaned site.
- Submit a written response that clearly identifies the BMPs or other pollution control measures they are implementing to prevent the discharge of pollutants into the MS4.
- Develop a spill prevention and response plan which describes measures that will be taken to prevent any future illicit discharge of pollutants into the MS4.
- Apply for a connection permit.
- Apply for a discharge permit.

The facility owner or representative has 20 days from the date marked on the Notice of Violation & Order to submit a response. The violation is considered resolved upon acceptance of their response and/or approval of the completed connection/discharge permit forms, as applicable. If the facility owner or representative is non-responsive to the Notice of Violation & Order, DOT-HWYS may terminate the facility's connection permit and/or discharge permit, plug and/or sever the facility's connection to the MS4, and/or report the facility to DOH for NPDES Permit non-compliance.

For those facilities which DOT-HWYS has exhausted all available sanctions, and determined it cannot bring a facility or activity into compliance with their policies and the MS4 NPDES Permit, or otherwise deems the facility or activity an immediate and significant threat to water quality, DOT-HWYS provides email notification to cleanwaterbranch@doh.hawaii.gov, Attn: Enforcement Section Supervisor, within one week of such determination. Email notification is followed by written notification and include a copy of all inspection checklists, notes, photographs, and related correspondence within two weeks of the determination.



A team of inspectors document a connection.

The individuals and team highlighted in Figure 10-10 are responsible for implementing the control measures described in this section.

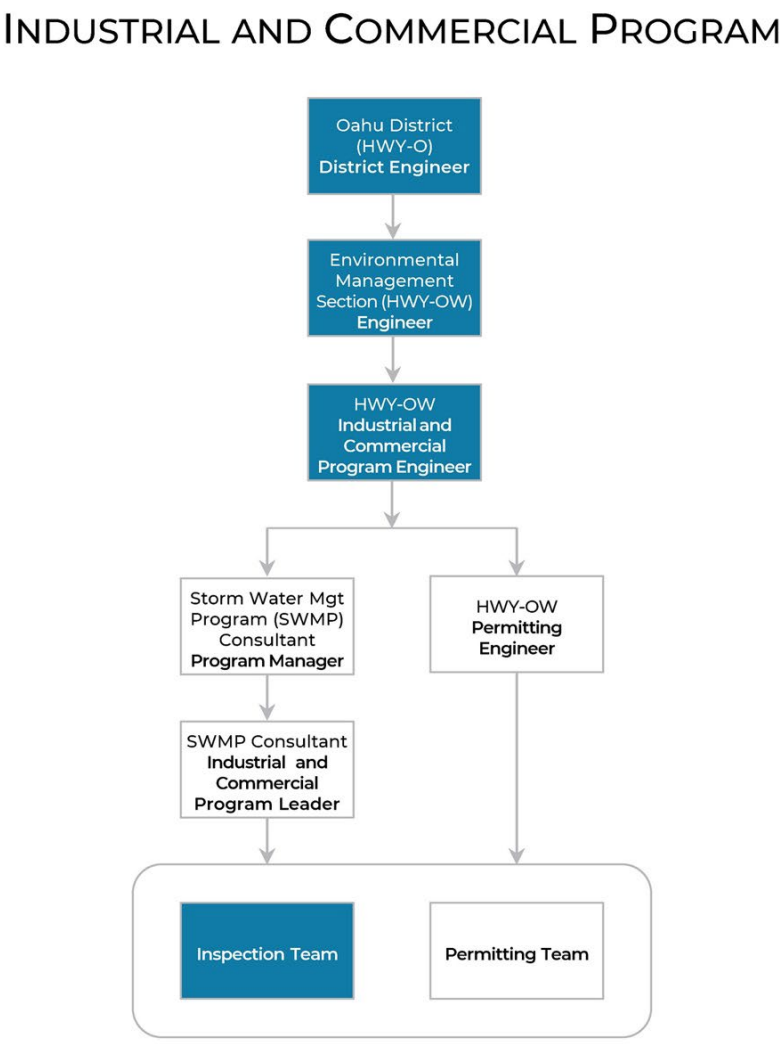


Figure 10-10. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Enforcement.

10.8 Training | MS4 NPDES Permit Part D.1.h.(6)

Industrial and Commercial Program Training is provided to staff in the Industrial and Commercial Program annually or more frequently, as needed. Training follows the guidance offered in the *NPDES Compliance Inspection Manual*, dated July 2004, as it relates to industrial and commercial facilities and activities, specifically regarding storm water pollution control. As appropriate, the Industrial and Commercial Program Training is supplemented with "on-the-job" field inspections.

The content of the Industrial and Commercial Program Training includes the following:

- Inspection and enforcement techniques
- Identification of deficiencies during inspections of industrial and commercial facilities or activities
- Assessment of potential impacts to receiving waters
- BMPs and source control measures for industrial and commercial facilities to reduce storm water pollution
- Evaluation of the appropriateness and effectiveness of BMPs
- Types of facilities subject to Section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023
- Types of facilities covered by the General Industrial Storm Water Permit or any other applicable Industrial NPDES Permit
- Components of a SWPPP for industrial facilities
- Forms and/or processes to document inspections of industrial and commercial facilities and activities

The Industrial and Commercial Program Training is provided to any DOT-HWYS staff whose responsibilities include inspections of industrial and commercial facilities and activities. The training is specific to activities, policies, rules, and procedures of DOT-HWYS. Industrial and Commercial Program Training is documented by sign-in sheets and the submission of a post-training quiz measures BMP effectiveness.

The individuals highlighted in Figure 10-11 are responsible for implementing the control measures described in this section.

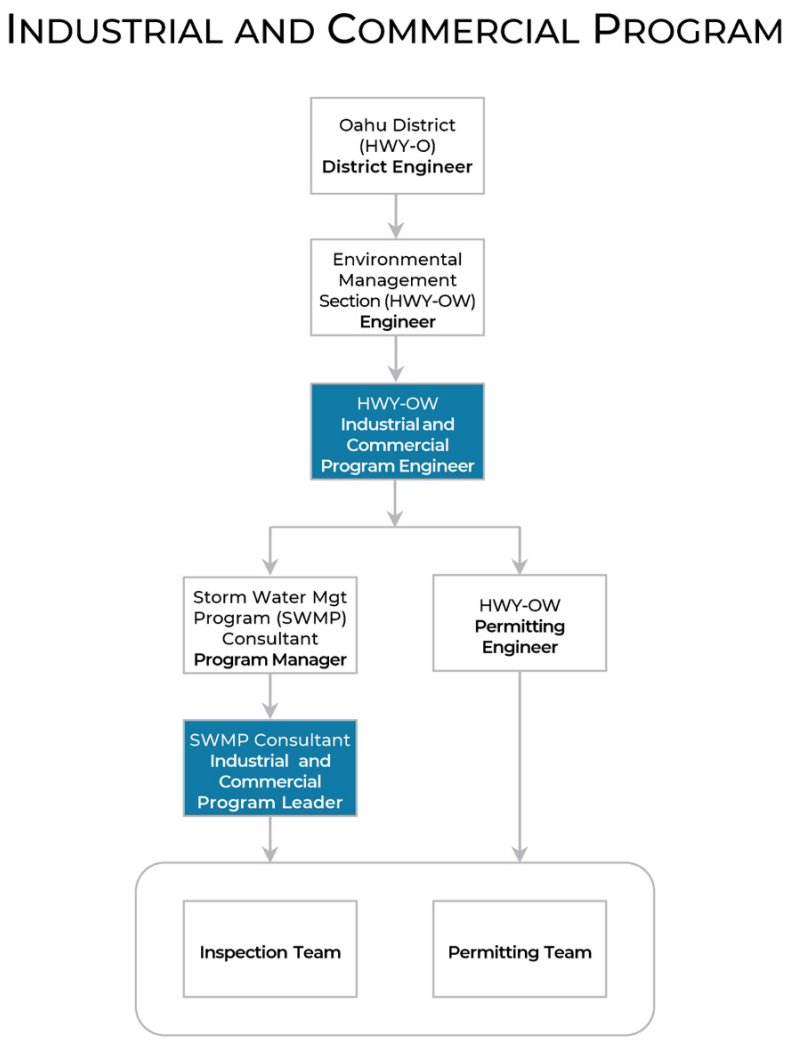


Figure 10-11. Industrial and Commercial Program Organizational Chart for Roles and Responsibilities Related to Training.

10.9 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 13) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

11 | Baseyard Facilities Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



A Dewatering Facility is located at Pearl City Baseyard, Pearl City, Hawaii.

The Baseyard Facilities Program is designed to reduce, to the MEP, the discharge of pollutants from five baseyards facilities (Keehi, Kakoi, Pearl City, Waianae, and Windward Baseyards) on Oahu that are subject to the MS4 NPDES Permit requirements.

The Baseyard Facilities Program includes the following control measures:

1. Submit and implement its latest SWPCPs.
2. Implement BMPs during baseyard operations and maintenance activities.
3. Provide training to baseyard staff, as well as training a supervisor or designee(s) at each baseyard who is responsible for overseeing daily activities and ensuring SWPCP implementation, including but not limited to, conducting inspections, identifying deficiencies, and performing corrective actions.
4. Inspect baseyards semiannually using an individual independent of any specific baseyard.

The Baseyard Facilities Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 11-1.

Table 11-1. MS4 NPDES Permit Requirements for the Baseyard Facilities Program.

MS4 NPDES Permit Reference	SWMPP Section
Part E.1 — DOT-HWYS Baseyard facilities: Keehi, Kakoi, Pearl City, Waianae, and Windward Baseyards shall continue to implement its latest SWPCP per facility.	Section 11.1
Part E.2 — An individual at each facility shall be charged with ensuring implementation of the SWPCP. The Permittee's designated representative shall be trained to implement the SWPCP, including but not limited to, conducting inspections, identifying deficiencies, and performing corrective actions. To ensure consistency and provide assistance and oversight, the Permittee shall identify an individual, also trained in the above independent of any specific baseyard, who shall conduct inspections of all five (5) baseyards semi-annually.	Section 11.1 Section 11.2 Section 11.3
Part E.3 — Industrial and commercial facilities seeking industrial storm water coverage shall submit applicable Notice of Intent (NOI) or individual NPDES permit application forms for coverage of industrial storm water discharges.	Section 11.1

Figure 11-1 shows the locations of the five baseyard facilities on Oahu that are subject to the MS4 NPDES Permit requirements.

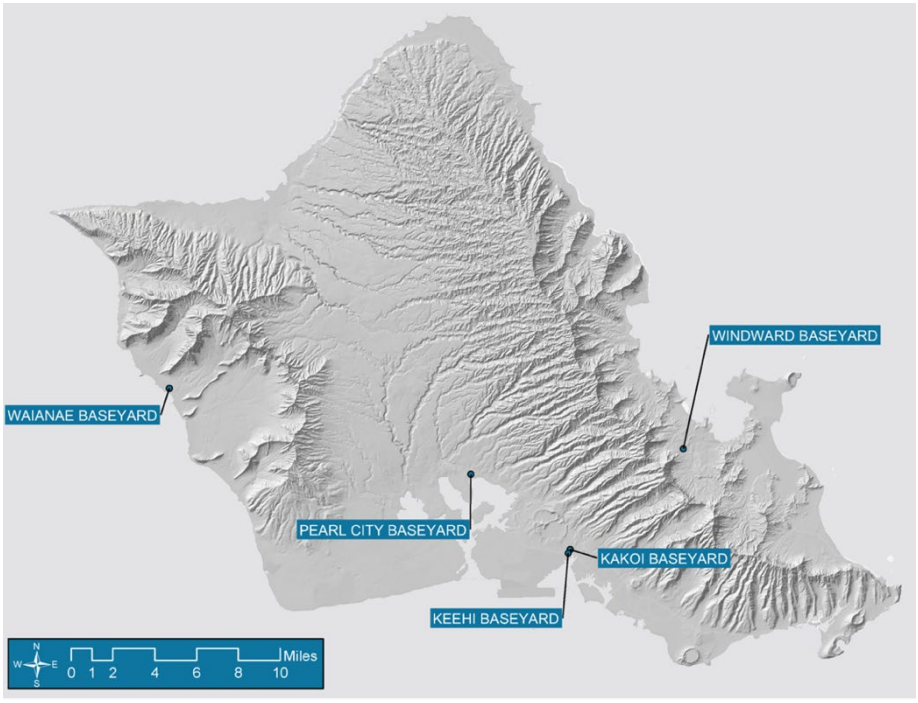


Figure 11-1. Locations of DOT-HWYS Baseyard Facilities Subject to the MS4 NPDES Permit Requirements.

11.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Baseyard Facilities Program, the following organizational structure has been established, as shown in Figure 11-2.

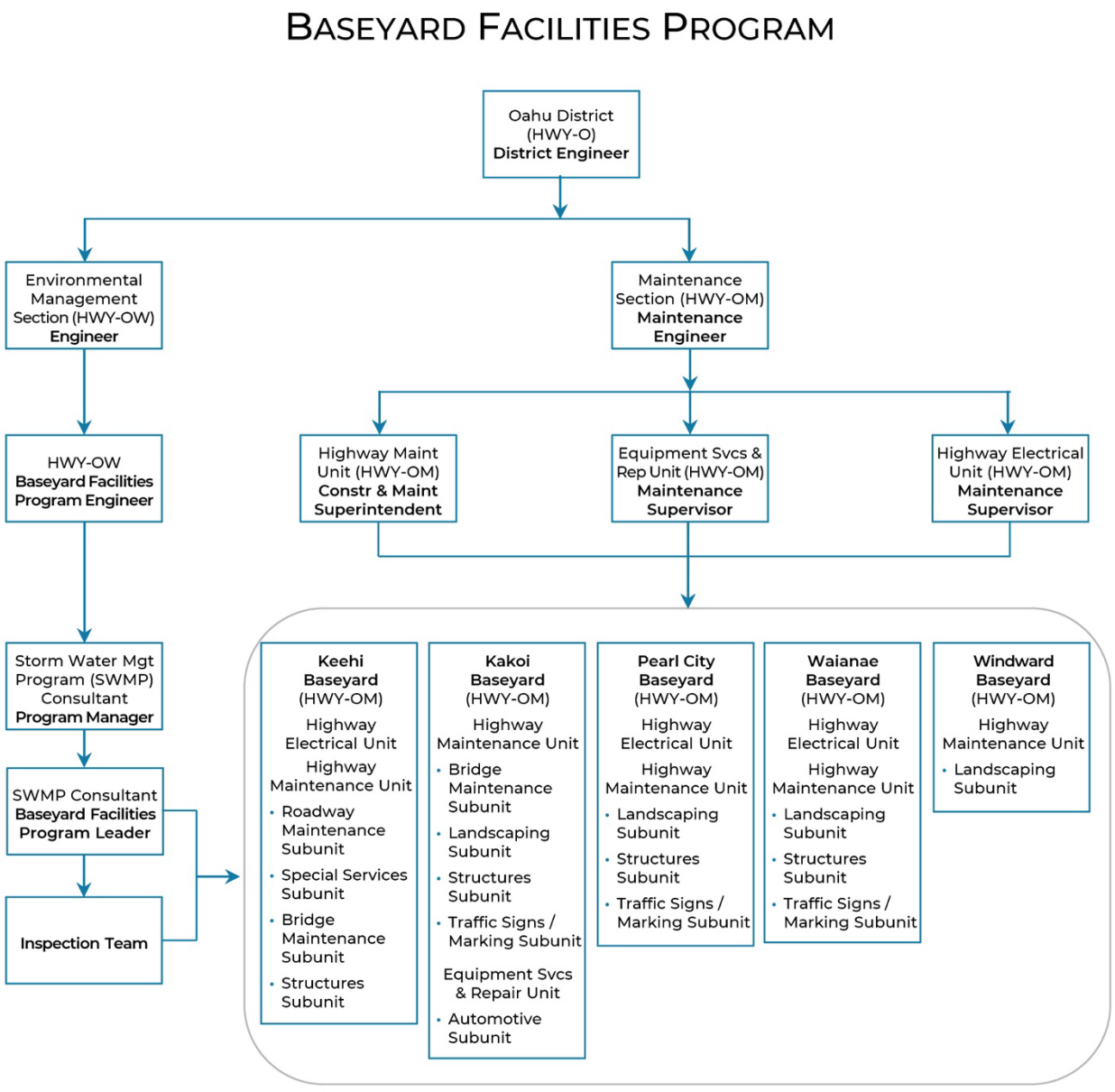


Figure 11-2. Baseyard Facilities Program Organizational Chart.

11.1 **SWPCPs Implementation** | MS4 NPDES Permit Parts E.1, E.2, and E.3

The Baseyard Facilities Program ensures that all baseyards are operated and maintained in full compliance with their latest SWPCPs. DOT-HWYS implements its latest SWPCP for the five baseyards, which are available on the DOT-HWYS website, www.stormwaterhawaii.com. Any changes made to SWPCPs are provided in the Annual Report.

The SWPCPs establish the BMPs that are implemented at the maintenance baseyards. A hard copy of the respective SWPCP is kept at each baseyard and includes the following information:

- Brief facility description
- Detailed site maps
- Discussion of drainage areas
- Pollutant control strategy
- General operating conditions
- Spill prevention and response plan
- Information about previous leaks and/or spills over a five-year period
- Information regarding storm water discharges that required notification
- Inspection checklist

Should any baseyard facility seek industrial storm water coverage, DOT-HWYS will submit the applicable NOI or individual NPDES permit application forms.

The individuals and teams highlighted in Figure 11-3 are responsible for implementing the control measures described in this section.

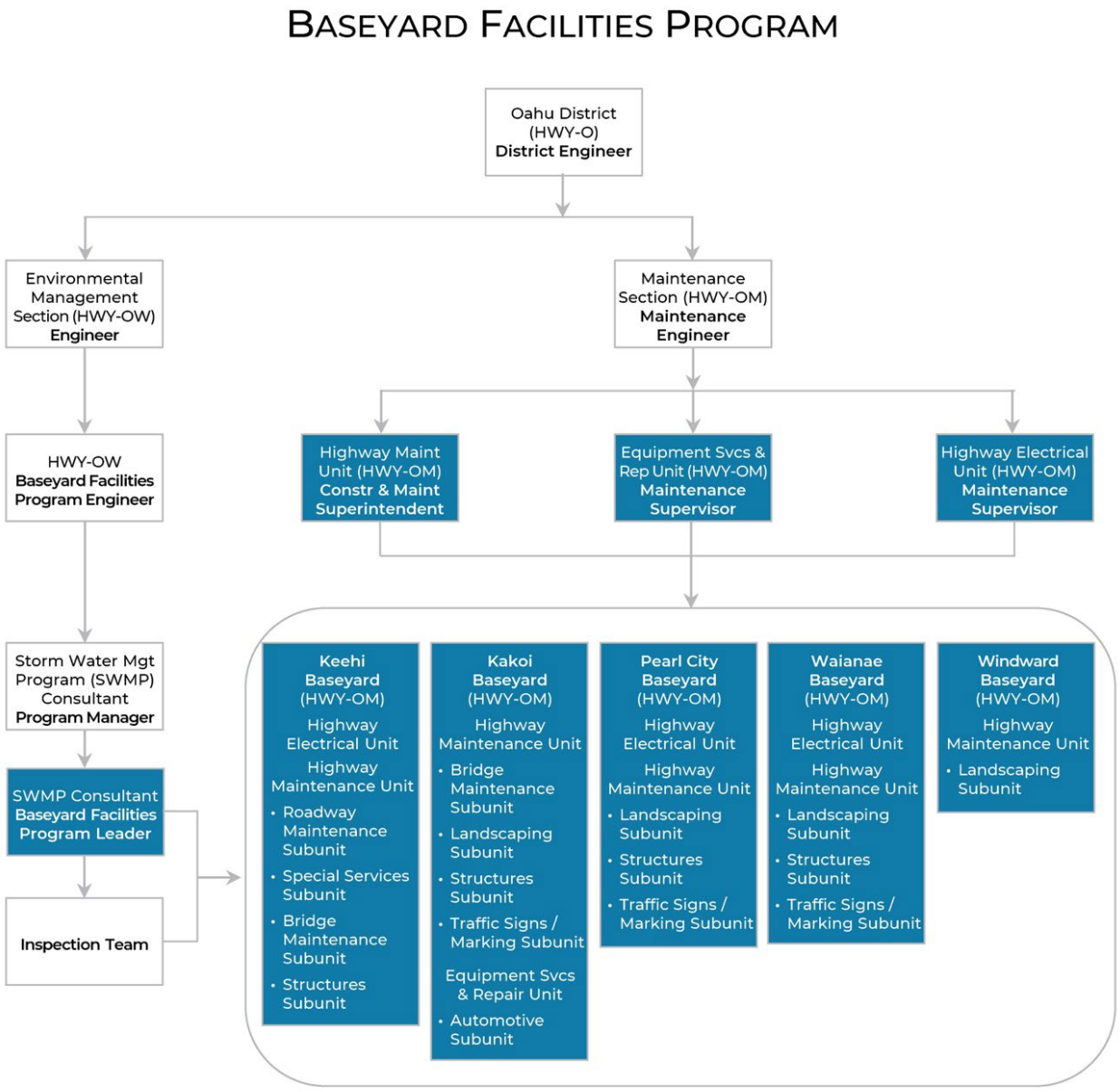


Figure 11-3. Baseyard Facilities Program Organizational Chart for Roles and Responsibilities related to SWPCPs Implementation.

11.2 **Training** | MS4 NPDES Permit Part E.2

Maintenance staff annually attend the Maintenance Baseyard Storm Water Training (Section 9.3). The training covers topics such as the identification of potential sources of pollutants, BMP and SWPCP implementation, and staff's role in protecting water quality both at baseyards and in the field.

The Maintenance Baseyard Storm Water Training outline is provided in Appendix G.2.

In addition to attending the Maintenance Baseyard Storm Water Training, baseyard supervisors or designee(s) are trained on the following activities:

- SWPCP implementation
- Conducting inspections
- Identifying deficiencies
- Performing corrective actions

Crew receives training at Pearl City Baseyard.



The individuals highlighted in Figure 11-4 are responsible for implementing the control measures described in this section.

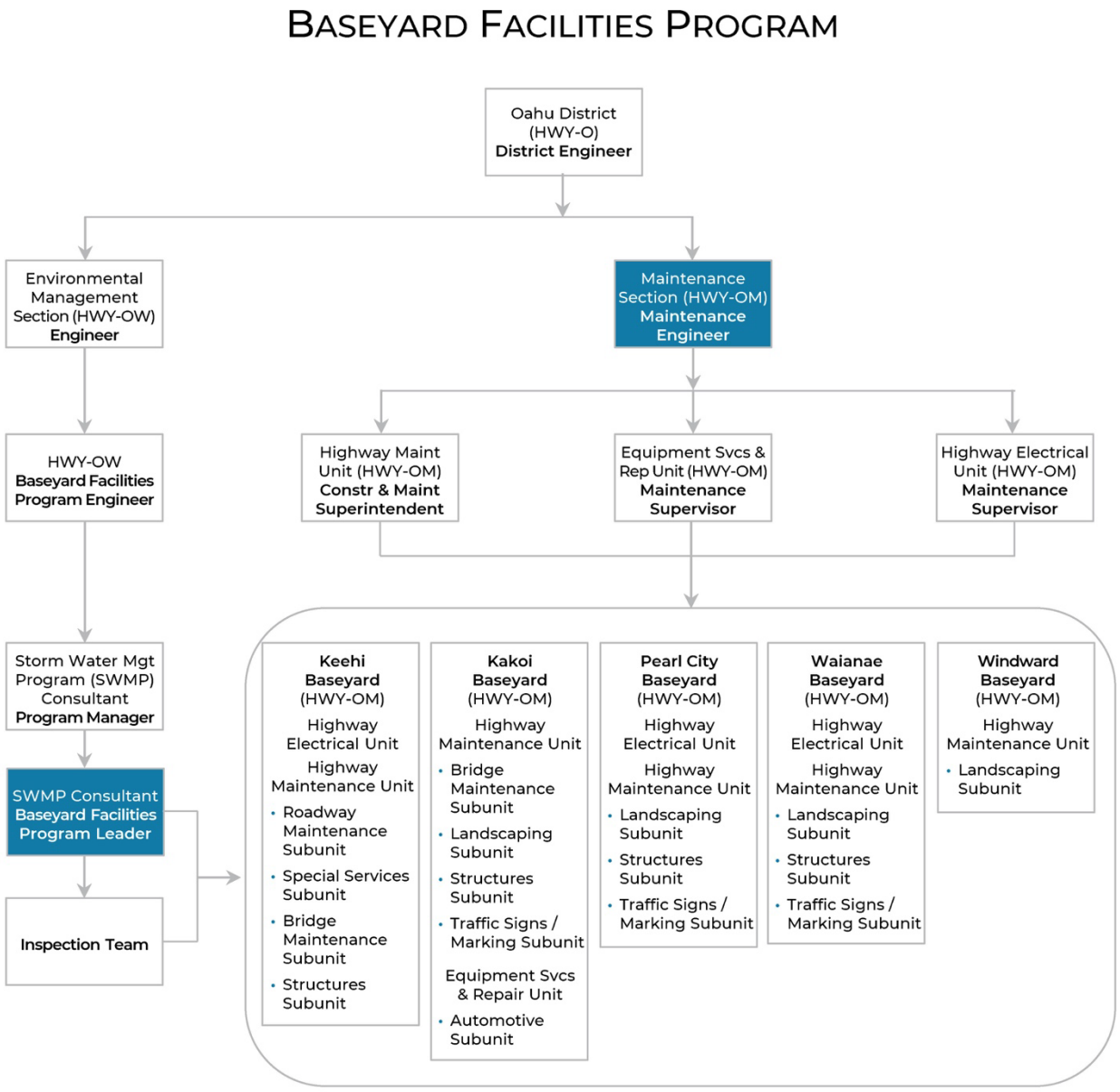


Figure 11-4. Baseyard Facilities Program Organizational Chart for Roles and Responsibilities Related to Training.

11.3 **Baseyard Inspections** | MS4 NPDES Permit Part E.2

To ensure consistency and provide assistance and oversight, an inspector that is independent of any specific baseyard conducts semiannual inspections of the baseyards.

Inspection results are documented in the AMS Maximo Baseyards Module and are accompanied by photograph documentation. To aid DOT-HWYS in addressing required corrective actions in a timely manner, corrective action timeframes have been established in the SWPCP Inspection Corrective Action Timeframe (Appendix K.1). A description of the corrective actions taken and the date of completion are tracked in the AMS Maximo Baseyards Module.

Independent inspectors conduct semiannual inspections at Windward Baseyard, Kaneohe, Hawaii.



The individual and team highlighted in Figure 11-5 are responsible for implementing the control measures described in this section.

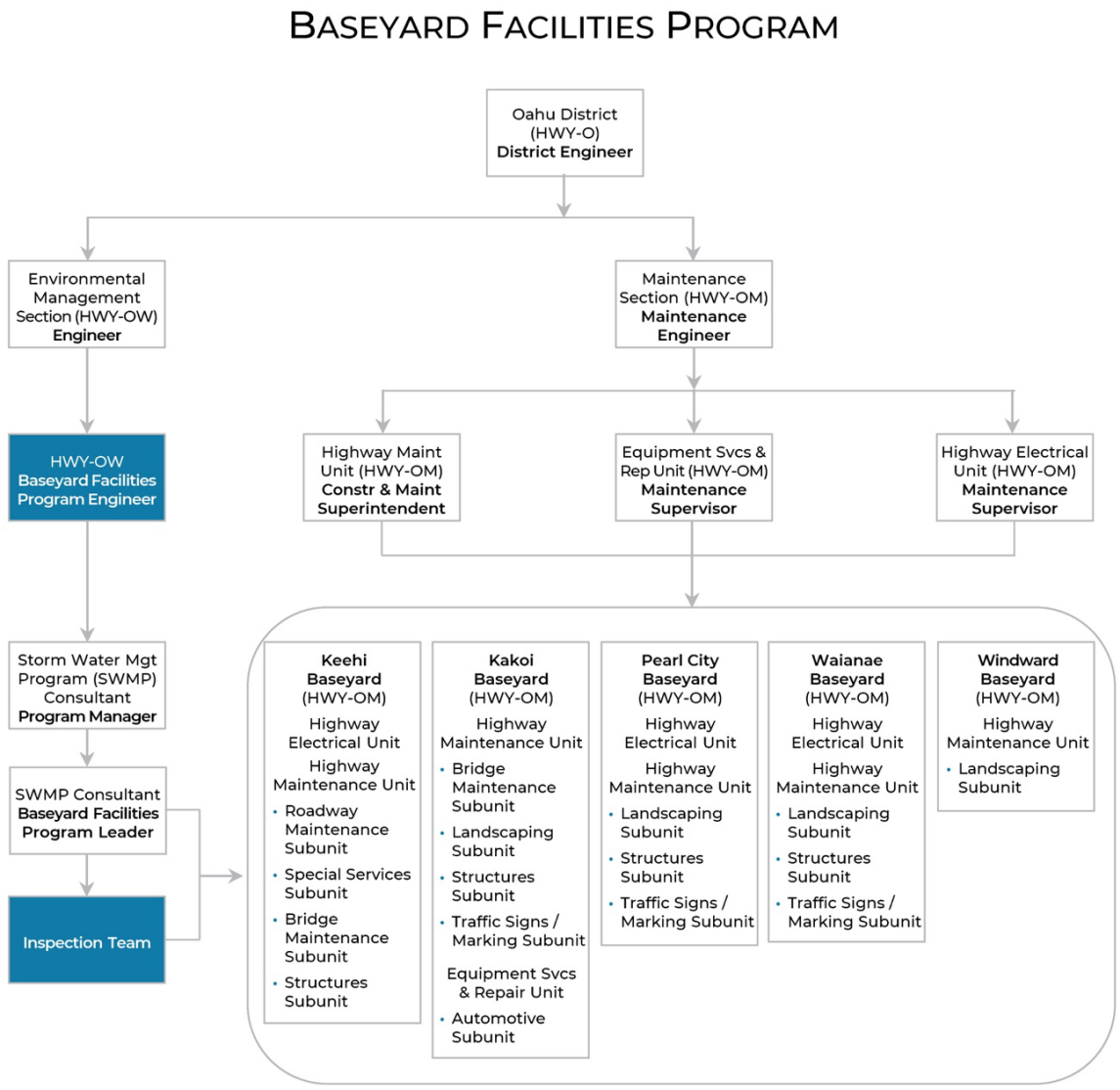


Figure 11-5. Baseyard Facilities Program Organizational Chart for Roles and Responsibilities Related to Baseyard Inspections.

11.4 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 14) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

12 | Monitoring Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



Inspectors collect grab samples from a water polisher along Kaneohe Bay Drive, Kaneohe, Hawaii.

The Monitoring Program is designed to assess compliance with the MS4 NPDES Permit, measure the effectiveness of the SWMP, characterize storm water discharges from the MS4, and assess the water quality issues in the watershed resulting from storm water discharges to receiving waters.

The Monitoring Program includes the following control measures:

1. Submit the Annual Monitoring Plan by June 1st and implement in the next fiscal year.
2. Submit the Annual Monitoring Report by October 31st for monitoring activities in the previous fiscal year.

The Monitoring Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 12-1.

Table 12-1. MS4 NPDES Permit Requirements for the Monitoring Program.

MS4 NPDES Permit Reference	SWMPP Section
Part F.1.a — The Permittee shall submit the Annual Monitoring Plan to the Director by June 1st of each year for review and acceptance. The Annual Monitoring Plan shall be implemented over the coming fiscal year. The monitoring program must be designed and implemented to meet the following objectives:	Section 12.1
Part F.1.a.(1) — Assess compliance with this permit (including TMDL I&M Plans and demonstrating consistency with WLAs);	Section 12.1
Part F.1.a.(2) — Measure the effectiveness of the Permittee's storm water management program;	Section 12.1
Part F.1.a.(3) — Assess the overall health of the receiving waters based on the chemical, physical, and biological impacts resulting from storm water discharges and an evaluation of the long-term trends;	Section 12.1
Part F.1.a.(4) — Characterize storm water discharges from the MS4;	Section 12.1
Part F.1.a.(5) — Identify sources of specific pollutants;	Section 12.1
Part F.1.a.(6) — Detect and eliminate illicit discharges and illegal connections to the MS4; and	Section 12.1
Part F.1.a.(7) — Assess the water quality issues in watershed resulting from storm water discharges to receiving waters.	Section 12.1
Part F.1.b — The Annual Monitoring Plan shall, at a minimum, include the following items:	Section 12.1
Part F.1.b.(1) — Written narrative of the proposed monitoring plan's objectives, including but not limited to the objectives identified in Part F.1.a., and description of activities;	Section 12.1
Part F.1.b.(2) — For each activity, a description of how the results will be used to determine compliance with this permit.	Section 12.1
Part F.1.b.(3) — Identification of management measures proven to be effective and/or ineffective at reducing pollutants and flow.	Section 12.1
Part F.1.b.(4) — Written documentation of the following: (i) Characteristics (timing, duration, intensity, total rainfall) of the storm event(s); (ii) Parameters for measured pollutant loads; and (iii) Range of discharge volumes to be monitored, as well as the timing, frequency, and duration at which they are identified;	Section 12.1

MS4 NPDES Permit Reference	SWMPP Section
Part F.1.b.(5) — Written documentation of the analytical methods to be used;	Section 12.1
Part F.1.b.(6) — Written documentation of the Quality Assurance/Quality Control procedures to be used; and	Section 12.1
Part F.1.b.(7) — Estimated budget to be implemented over the coming fiscal year.	Section 12.1
Part G.2.a — The Permittee shall submit the Annual Monitoring Report by October 31st of each year in pdf format (minimum 300 dpi) in accordance with Part A.7. The Annual Monitoring Report shall cover the past fiscal year.	Section 12.2
Part G.2.b — The monitoring report shall at a minimum, include the following items:	Section 12.2
Part G.2.b.(1) — Discussion on the activities/work implemented to meet each objective, as outlined in Part F.1.a., including any additional objectives identified by the Permittee, and the results [e.g., assessment of the water quality issues in each watershed resulting from storm water discharges, refer to Part F.1.a.(7)] and conclusions.	Section 12.2
Part G.2.b.(2) — Written narrative of the past fiscal year's activities, including those coordinated with other agencies, objectives of activities, results and conclusions.	Section 12.2
Part G.2.b.(3) — Data gathered on levels of pollutants in non-storm water discharges to the MS4; and	Section 12.2
Part G.2.b.(4) — Using rainfall data collected by the Permittee and other agencies, the Permittee shall relate rainfall events, measured pollutant loads, and discharge volumes from the watershed and other watersheds that may be identified from time to time by the Director or Permittee.	Section 12.2

A volumetric weir is installed for flow monitoring at University Avenue interchange, Honolulu, Hawaii.



12.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Monitoring Program, the following organizational structure has been established, as shown in Figure 12-1.

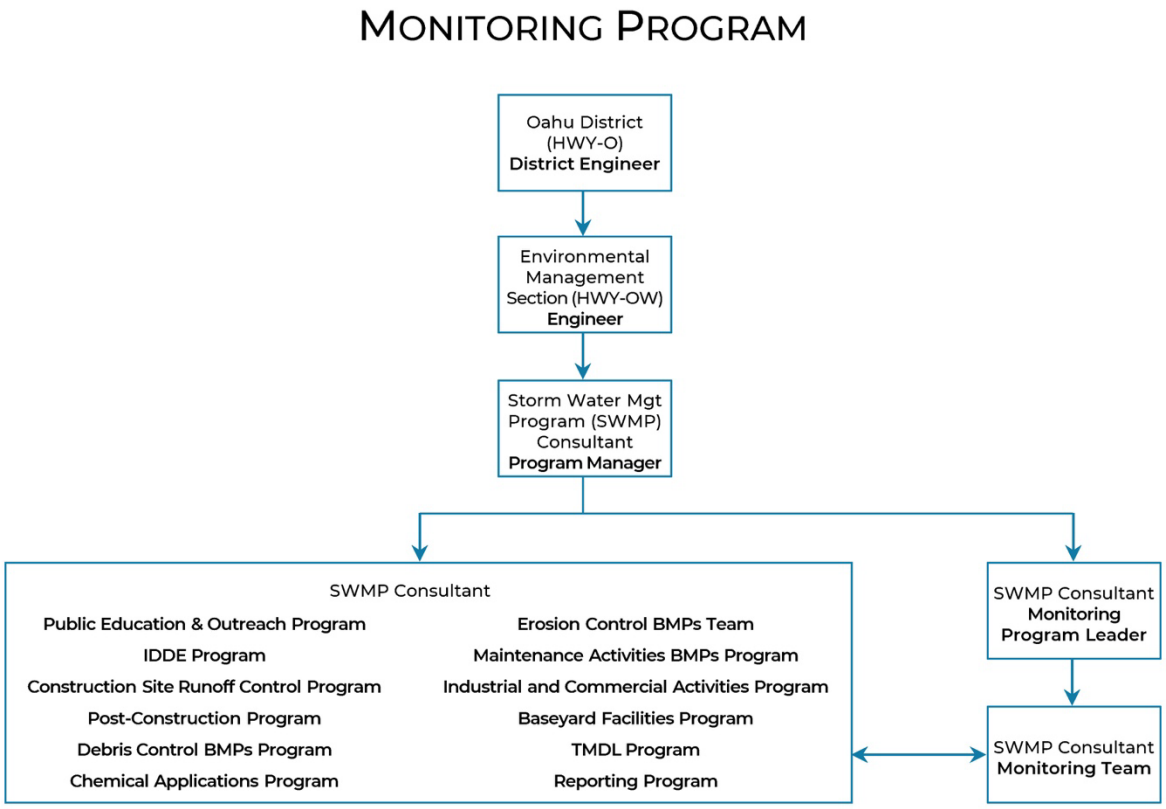


Figure 12-1. Monitoring Program Organizational Chart.

12.1 **Annual Monitoring Plan** | MS4 NPDES Permit Parts F.1.a. and F.1.b.

The Monitoring Program activities are designed and implemented to meet the objectives outlined in MS4 NPDES Permit Parts F.1.a.(1) through F.1.a.(7). DOT-HWYS utilizes a watershed level strategy for its Monitoring Program by monitoring runoff within high priority watersheds. Monitoring efforts are concentrated in watersheds where TMDL studies have been established or identified, or that have approved TMDLs in place. Sampling locations are selected based on the water quality issues that result from discharges to the receiving water to evaluate watershed health and characterize storm water discharges from the MS4. Water quality samples are analyzed over a range of storm intensities for pollutant loads, rainfall volume and intensity, and runoff volume.

DOT-HWYS submits the Annual Monitoring Plan to the DOH Director by June 1st of each year for review and acceptance, and implements the plan in the next fiscal year.



The Annual Monitoring Plan helps to assess the effectiveness of the SWMP and achieve goals required in the Annual Monitoring Report.

The individuals and team highlighted in Figure 12-2 are responsible for implementing the control measures described in this section.

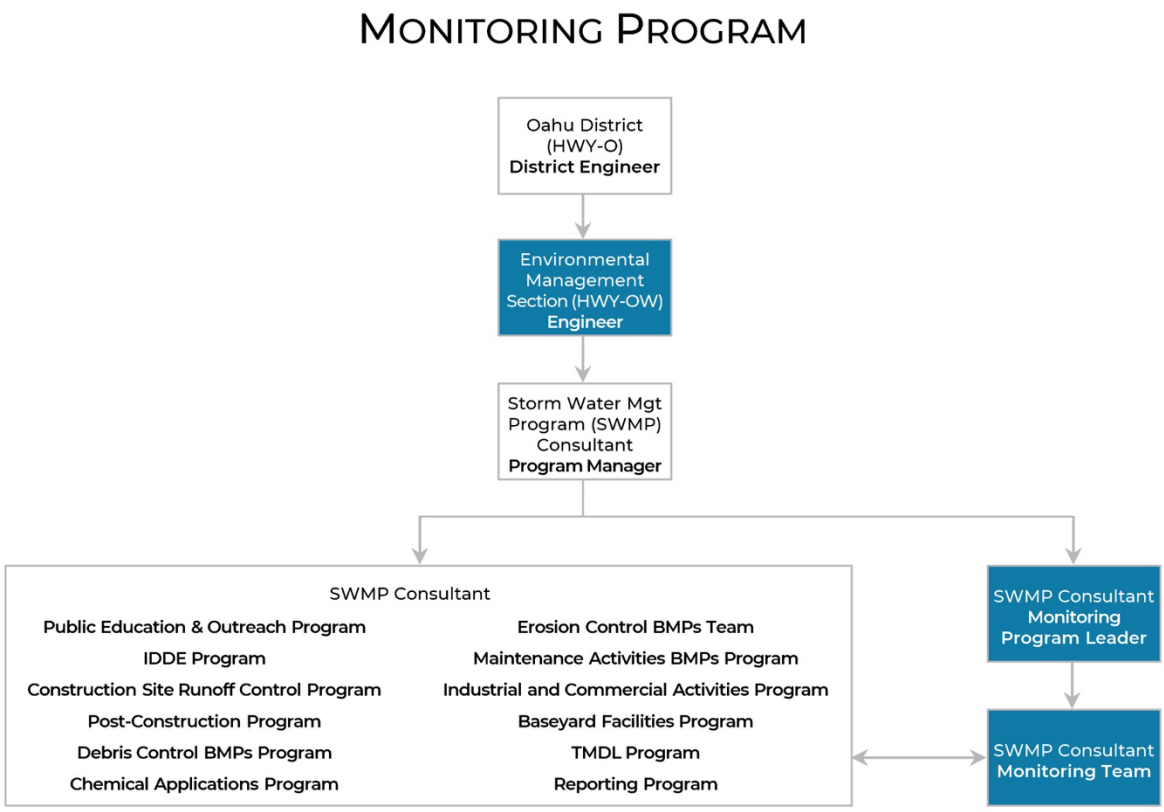


Figure 12-2. Monitoring Program Organizational Chart for Roles and Responsibilities Related to the Annual Monitoring Plan.

12.2 **Annual Monitoring Report** | MS4 NPDES Permit Parts G.2.a and G.2.b

DOT-HWYS submits an Annual Monitoring Report, which details the monitoring activities conducted during the past fiscal year, by October 31st of each year. In addition to the items required by MS4 NPDES Permit Part G.2.b, the Annual Monitoring Report describes the sampling activities conducted during the previous monitoring period and an analysis of the laboratory results.

The Annual Monitoring Report is submitted to DOH through the e-Permitting Portal website. DOT-HWYS utilizes the Electronic Signature Subscriber Agreement Form which allows the Permittee to electronically certify forms and reports using the e-Permitting Portal website and no longer requires the submission of a CD or DVD.

An inspector collects water quality samples from H-1 Freeway, Honolulu, Hawaii.



The individuals and teams highlighted in Figure 12-3 are responsible for implementing the control measures described in this section.

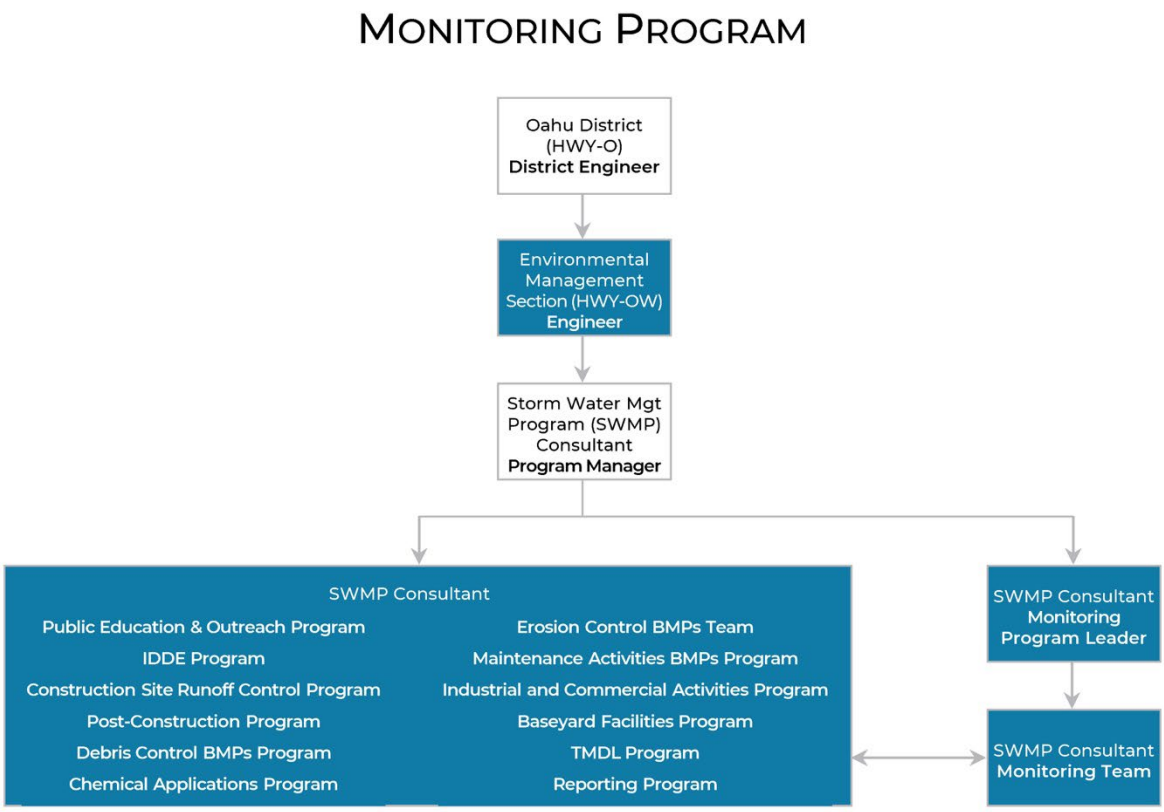


Figure 12-3. Monitoring Program Organizational Chart for Roles and Responsibilities Related to the Annual Monitoring Report.

12.3 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 15) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

13 | Total Maximum Daily Load Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



Eroded slope repair addresses sediment and nutrients loading along Kalanianaole Highway in Kailua, Hawaii.

The Total Maximum Daily Load Program (TMDL Program) is designed to comply with waste load reductions for Ala Wai Canal, Kawa Stream, Waimanalo Stream, Kapaa Stream, Kaneohe Stream, and Waikele Stream watersheds consistent with the assumptions of the associated TMDL document effective in accordance with the Schedules of Compliance.

The TMDL Program includes the following control measures:

1. Implement BMPs as described in the Implementation and Monitoring (I&M) Plans to comply with waste load reductions.
2. Complete milestones and submit deliverables to DOH in accordance with the Schedule of Compliance for each TMDL watershed, as applicable.
3. Develop I&M Plans for future TMDLs, as applicable.

The TMDL Program is administered in accordance with the MS4 NPDES Permit requirements referenced in Table 13-1.

Table 13-1. MS4 NPDES Permit Requirements for the TMDL Program.

MS4 NPDES Permit Reference	SWMPP Section
Part F.3 — TMDL Implementation and Monitoring for Ala Wai Canal, Kawa Stream, Waimanalo Stream, Kapaa Stream, Kaneohe Stream, and Waikele Stream watersheds.	
Part F.3.a — The Permittee shall continue to implement the TMDL I&M Plan for Ala Wai Canal and Waimanalo Stream watersheds. For Kaneohe Stream, Kawa Stream, Kapaa Stream, and Waikele Stream watersheds, the Permittee shall continue to implement the TMDL I&M Plans in accordance with the Schedules of Compliance in Part F.3.c. of this permit.	Section 13.1
Part F.3.b — The Permittee shall implement the TMDL I&M Plans to document compliance with the following annual or seasonal WLA reductions consistent with the assumptions of the associated TMDL document effective in accordance with the Schedules of Compliance in Part F.3.c., as applicable.	Section 13.1
Part F.3.b.(1) — Ala Wai Canal WLA Reductions (See Table in Permit)	Section 13.1
Part F.3.b.(2) — Kawa Stream WLA Reductions (See Table in Permit)	Section 13.1
Part F.3.b.(3) — Kapaa Stream WLA Reductions (See Table in Permit)	Section 13.1
Part F.3.b.(4) — Kaneohe Stream WLA Reductions (See Table in Permit)	Section 13.1
Part F.3.b.(5) — Waimanalo Stream WLA Reductions (See Table in Permit)	Section 13.1
Part F.3.b.(6) — Waikele Stream WLA Reductions (See Table in Permit)	Section 13.1
Part F.3.c TMDL Schedules of Compliance — The Permittee is required to provide proof of completion of each milestone and submittal of the deliverable by the date as indicated in the following tables. The Permittee shall comply with the WLA reductions consistent with the assumptions of the applicable TMDL document by the Final Compliance Date.	Section 13.2
Part F.3.c.(1) — Kawa Stream (See Schedule of Compliance in Permit)	Section 13.2
Part F.3.c.(2) — Kapaa Stream Schedule of Compliance (See Table in Permit)	Section 13.2
Part F.3.c.(3) — Kaneohe Stream Schedule of Compliance (See Table in Permit)	Section 13.2
Part F.3.c.(4) — Waikele Stream Schedule of Compliance (See Table in Permit)	Section 13.2
Part F.4 Other TMDLs — As additional TMDLs are adopted by DOH and approved by the EPA that identify the Permittee as a source, the Permittee shall develop I&M Plans for a minimum of one (1) additional TMDL per year within one (1) year of the approval date. The plans shall include, at a minimum, the following:	Section 13.3

MS4 NPDES Permit Reference	SWMPP Section
Part F.4.a. — Detailed information on the activities proposed to be implemented.	Section 13.3
Part F.4.b. — Actual or literature documentation of the estimated effectiveness of the activities targeted to reduce the pollutants of concern such as total nitrogen, total phosphorus, total suspended solids, and turbidity in the watershed, as applicable, to demonstrate consistency with the annual or seasonal WLA reductions consistent with the assumption of the associated TMDL document.	Section 13.3
Part F.4.c. — A detailed and quantitative analysis which demonstrates that the proposed activities would ensure consistency with the annual or seasonal WLA reductions consistent with the assumption of the associated TMDL document.	Section 13.3
Part F.4.d. — Information from pre- and post-monitoring activities to quantitatively demonstrate consistency with the annual or seasonal WLA reductions consistent with the assumption of the associated TMDL document.	Section 13.3
Part F.4.e. — A monitoring plan which shall identify activities to demonstrate consistency with the annual or seasonal WLA reductions consistent with the assumption of the associated TMDL document.	Section 13.3
Part F.4.f. — A compliance schedule with a final deadline to demonstrate consistency with the WLAs consistent with the assumption of the associated TMDL document. The schedule shall provide for the implementation of the BMPs, monitoring to evaluate its performance, and time to make adjustments necessary to demonstrate consistency with the WLAs consistent with the assumption of the associated TMDL document at the earliest possible time. If the schedule extends beyond a year, interim dates and milestones shall be included in the schedule with the time between interim dates not to exceed one (1) year.	Section 13.3
Part F.5. Re-opener — In accordance with 40 CFR Parts 122 and 124, this permit may be modified (i.e., to include compliance schedules, permit conditions, etc.) to address additional or revised TMDLs as adopted by DOH and approved by the EPA.	Section 13.3

13.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the TMDL Program, the following organizational structure has been established, as shown in Figure 13-1.

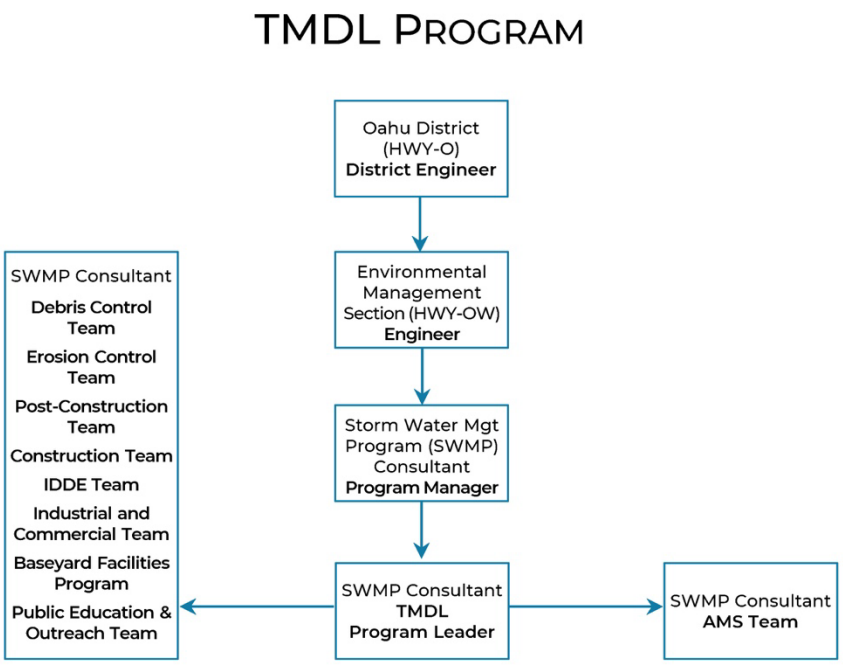


Figure 13-1. TMDL Program Organizational Chart.

13.1 Implementation and Monitoring Plans | MS4 NPDES Permit Parts F.3.a and F.3.b

DOT-HWYS continues to implement the I&M Plans for the Ala Wai Canal, Kawa Stream, Waimanalo Stream, Kapaa Stream, Kaneohe Stream, and Waikele Stream watersheds (Appendices L.1 to L.6). The I&M Plans detail the strategy for attaining required waste load reductions and documenting compliance. TMDL compliance is assessed on a watershed scale through quantitative analyses of the waste load reductions required for pollutants of concern identified in each TMDL. The TMDL Program relies on the effective implementation of BMPs by SWMP program elements (e.g., Debris Control Program, Erosion Control Program, etc.) to attain and demonstrate compliance with waste load reductions for TMDL watersheds.

The AMS Maximo TMDL Module facilitates compliance tracking for TMDL watersheds. The TMDL Module aggregates pollutant reduction data from other modules (e.g., Manhole/Inlet Module, Open Channels Module, Outfalls Module, and Street Sweeping Module) to calculate the reduction in units of kilograms per season for each pollutant of concern. KPIs show in real time the compliance status in each TMDL watershed in relation to the assigned waste load reduction.

For the Kaneohe and Kapaa Stream watersheds, the required waste load reductions in the 2013 MS4 NPDES Permit were calculated as event-based and included the sum of the seasonal 10% and the 2% runoff events. In the 2020 MS4 NPDES Permit, the calculations of the waste load reductions for Kaneohe and Kapaa Stream watersheds were revised to exclude the seasonal 2% runoff events as these are included in the 10% events. The revised waste load reductions required of DOT-HWYS are shown in Table 13-2.

Table 13-2. Comparison of 2013 and 2020 MS4 NPDES Permit Waste Load Reductions for Kaneohe and Kapaa Stream Watersheds.

Kaneohe Stream Watershed

MS4 NPDES Permit	Season	TSS (kg per season)	TN (kg per season)	TP (kg per season)
2013	Wet Season Reduction	0	82.59	28.04
2020		0	13.21	5.79
2013	Dry Season Reduction	0	24.86	11.39
2020		0	0.74	0.74

Kapaa Stream Watershed

MS4 NPDES Permit	Season	TSS (kg per season)	TN (kg per season)	TP (kg per season)
2013	Wet Season Reduction	288.60	3.25	7.21
2020		108.60	1.81	1.81
2013	Dry Season Reduction	70.30	0.74	1.85
2020		1.84	0	0

Figure 13-2 shows the locations of the six TMDL watersheds on Oahu with waste load reductions assigned to DOT-HWYS.

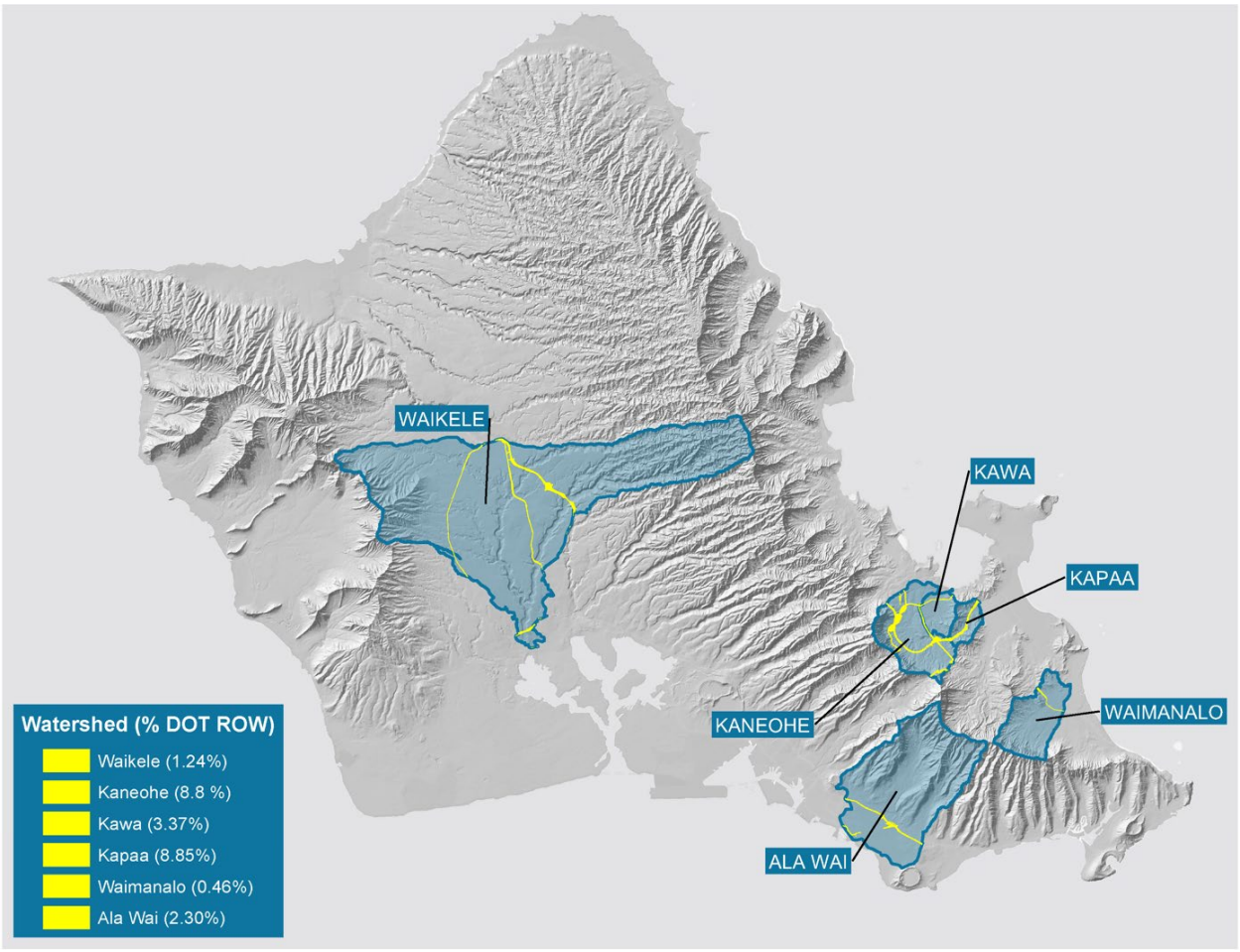


Figure 13-2. TMDL Watersheds (in blue) with Waste Load Reductions Assigned to DOT-HWYS (in yellow).

The individuals and teams highlighted in Figure 13-3 are responsible for implementing the control measures described in this section.

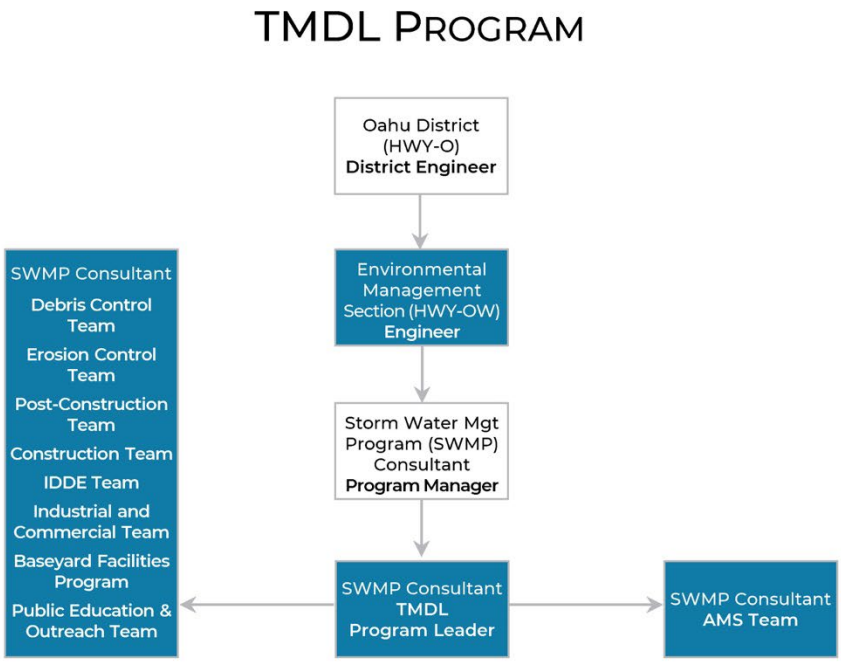


Figure 13-3. TMDL Program Organizational Chart for Roles and Responsibilities Related to the Implementation and Monitoring Plans.

13.2 Schedules of Compliance | MS4 NPDES Permit Part F.3.c

Prior to the expiration of the respective Schedules of Compliance, DOT-HWYS submitted Waste Load Allocation (WLA) Completion Reports for the Ala Wai Canal, Kawa Stream, and Waimanalo Stream watersheds, which documented BMPs and quantitatively demonstrated attainment of the associated waste load reductions. Schedules of Compliance have been established for the Kapaa Stream, Kaneohe Stream, and Waikele Stream watersheds, which are provided in MS4 NPDES Permit Part F.3.c. The Schedules of Compliance include required milestones and submittal dates for I&M Plans, enhanced debris cleaning, post-construction BMP implementation (as applicable), and Final WLA Completion Reports. Upon the milestone due date, DOT-HWYS will submit a notice of completion and will comply with the waste load reductions consistent with the assumptions of the applicable TMDL document by the final completion date.

The individuals and teams highlighted in Figure 13-4 are responsible for implementing the control measures described in this section.

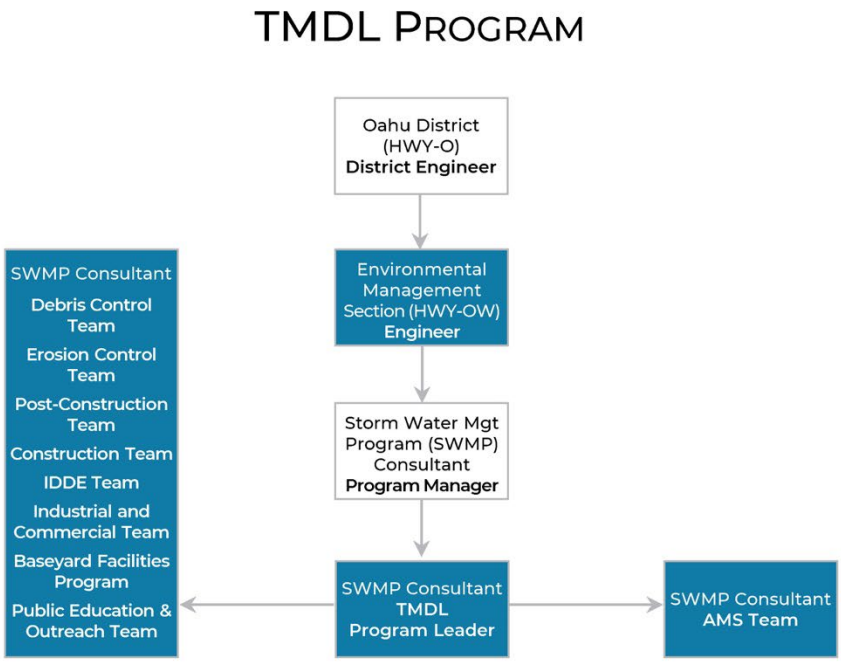


Figure 13-4. TMDL Program Organizational Chart for Roles and Responsibilities Related to the Schedules of Compliance.

13.3 I&M Plans for Future TMDLs | MS4 NPDES Permit Parts F.4 and F.5

As additional TMDLs that identify DOT-HWYS as a source are adopted by DOH and approved by the Environmental Protection Agency (EPA), DOT-HWYS will develop I&M Plans for a minimum of one additional TMDL per year, within one year of the approval date. The MS4 NPDES Permit may be modified as needed to include additional or revised TMDLs as adopted by DOH and approved by the EPA.

The individuals highlighted in Figure 13-5 are responsible for implementing the control measures described in this section.

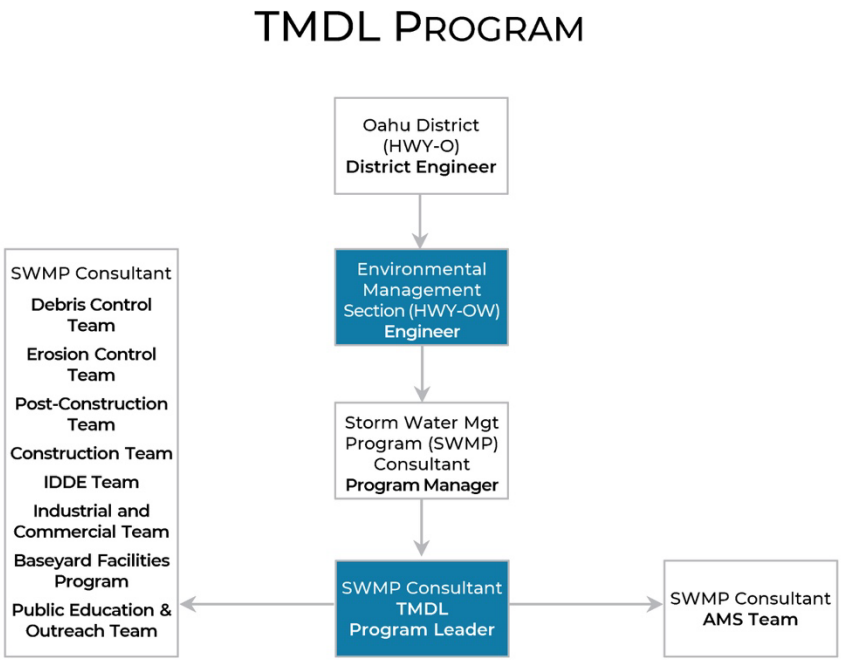


Figure 13-5. TMDL Program Organizational Chart for Roles and Responsibilities Related to I&M Plans for Future TMDLs.

13.4 Monitoring Program Effectiveness

The *Program Effectiveness Strategy* (Appendix A.3, Table 15) provides the measurable standards and/or milestones for each Program BMP, including the outcome level, data collection method, and assessment parameter.

.

14 | Reporting Program



State of Hawaii, Department of Transportation
Highways Division, Oahu District
SWMPP, February 2022



DOT-HWYS maintains Kalanianaole Highway along of eastern coast of Oahu.

The Reporting Program is designed to document SWMP activities and demonstrate compliance with conditions of the MS4 NPDES Permit and commitments set forth in the *SWMPP*.

The Reporting Program includes the following control measures:

1. Submit the Annual Report on October 31st for activities in the previous fiscal year.
2. Propose the content and structure of the Annual Report.

The Annual Report is submitted in accordance with the MS4 NPDES Permit requirements referenced in Table 14-1.

Table 14-1. MS4 NPDES Permit Requirements for the Reporting Program.

MS4 NPDES Permit Reference	SWMPP Section
Part G.1.a — The Permittee shall submit the Annual Report by October 31st of each year in pdf format (minimum 300 dpi) in accordance with Part A.7. The Annual Report shall cover the past fiscal year. For the calendar year prior to the expiration date of the permit, the Annual Report and the e-Permitting CWB Individual NPDES Form, or other form approved by the DOH, shall be submitted to the DOH. The Annual Report shall include a description of the statuses of all items required in the permit. Submittal of the renewal application shall be at least one (1) year prior to the expiration date of this permit and include a $1,000 filing fee.	Section 14.1
Part G.1.b — The Permittee shall revise its SWMP to include a description of reporting procedures and activities, including schedules and proposed content of the Annual Reports such that, at a minimum, the following is reported for each storm water program component in each Annual Report:	Section 14.2
Part G.1.b.(1) Requirements — Describe what the Permittee was required to do (describe status of compliance with conditions of this permit and other commitments set forth in the SWMP).	Section 14.2
Part G.1.b.(2) Past Year Activities — Describe activities over the reporting period in comparison to the requirements, including, where applicable, progress accomplished toward meeting specific measurable goals, standards and milestones or other specific performance requirements. When requirements were not fully met, include a detailed explanation as to why the Permittee did not meet its commitments for the reporting period. Also describe an assessment of the SWMP, including progress towards implementing each of the SWMP program components.	Section 14.2
Part G.1.b.(3) Future Activities — Describe planned activities, including, where applicable, specific activities to be undertaken during the next reporting period toward accomplishing specific measurable goals, standards and milestones or other specific performance requirements.	Section 14.2
Part G.1.b.(4) Resources — Report on the status of the Permittee's resource base for implementing this NPDES permit during the applicable reporting period and an estimate of the resources over and above those required in the current reporting period that will be required in the next reporting period.	Section 14.2
Part G.1.c Modifications — In each Annual Report, the Permittee shall describe any modifications made to the SWMP and implementation schedule during the past year, including justifications. The Permittee shall also describe major modifications made to the MS4, including, but not limited to, addition and removal of outfalls, drainage lines, and DOT-HWYS facilities.	Section 14.1
Part G.1.d Program Effectiveness Reporting — As part of the SWMP, the Permittee shall submit to DOH a written strategy for determining effectiveness of its SWMP. The strategy shall incorporate the results of water quality monitoring efforts (see Part G.2.) as well as program implementation information and other indicators. The Permittee shall include an assessment of program effectiveness and identification of water quality improvements or degradation beginning with the 2nd Annual Report.	Section 14.1

14.0 Program Organization

To fulfill the MS4 NPDES Permit requirements of the Reporting Program, the following organizational structure has been established, as shown in Figure 14-1.

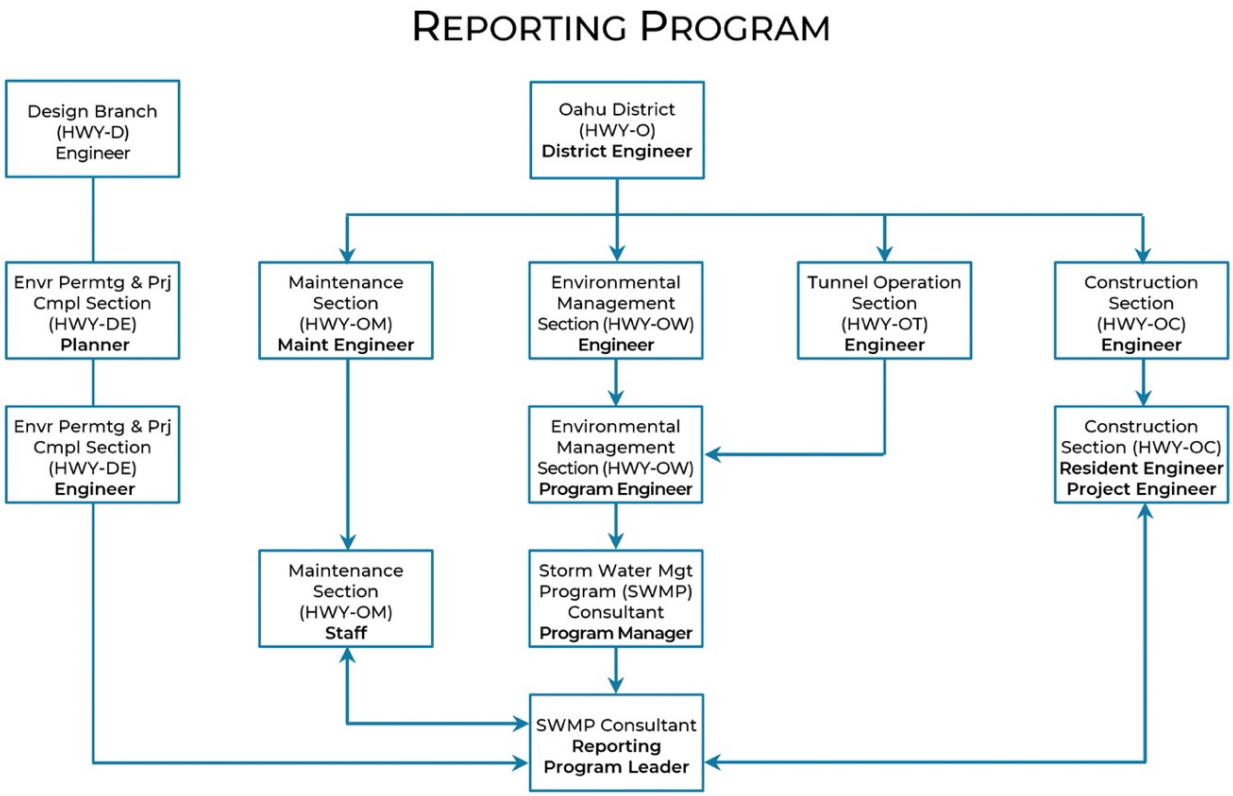


Figure 14-1. Reporting Program Organizational Chart.

14.1 Addressing Requirements | MS4 NPDES Permit Parts G.1.a, G.1.c, and G.1.d

DOT-HWYS submits an Annual Report to DOH by October 31st of each year. The Annual Report covers a reporting period from July 1st of the previous year to June 30th of the submittal year. The Annual Report is submitted to DOH through the e-Permitting Portal website. However, as previously described in Section 12.2, due to the use of the Electronic Signature Subscriber Agreement Form, a CD/DVD of the submission is no longer required.

In conjunction with MS4 NPDES Permit Parts D.3.a and D.3.b, the Annual Report includes a description of any modifications made to the *SWMPP* and/or implementation schedule, and any major alterations made to the MS4. Proposed changes that imply a major reduction in the overall scope and/or level of effort of the SWMP will be submitted to the DOH Director for acceptance at least 30 calendar days prior to the initiation date of the major modification. Major alterations to the MS4 will be identified by letter within 30 calendar days of the completion of the alteration. Any amendments to the MOU between DOT-HWYS and the CCH (Appendix A.5) or the MOU between DOT-HWYS and DOH (Appendix A.4) will be summarized in the Annual Report.

The *Program Effectiveness Strategy* for determining the effectiveness of the SWMP is included as Appendix A.3.

Table 14-2 summarizes additional information DOT-HWYS is required to include in the Annual Report, as necessary.

Table 14-2. Additional MS4 NPDES Permit Reporting Requirements.

MS4 NPDES Permit Reference	Action	Reporting Frequency
Part D.1.a.(3)	Summary of the public education evaluation results	Annually
Part D.1.d.(1)	Revisions to construction standards	As applicable
Part D.1.d.(4)(iv)	Revisions to construction inspection form(s), checklist, reporting and corrective procedures	As applicable
Part D.1.f.(1)(ii)	Revisions to priority-based schedules for street sweeping and drain inspections	As applicable
Part D.1.f.(1)(iv)	Annual updates to the implementation schedule of the *Action Plan for Retrofitting Structural BMPs*	Annually
Part D.1.f.(1)(v)	Revisions to the *Trash Reduction Plan*	As applicable
Part D.1.f.(3)(iv)	Annual updates to the implementation schedule of the *Action Plan to Address Erosional Outfalls*	Annually

MS4 NPDES Permit Reference (Continued)	Action (Continued)	Reporting Frequency (Continued)
Part D.1.f.(3)(v)	Annual updates to the implementation schedule of erosional areas with the potential for significant water quality impact	Annually
Part D.1.g.(2)	Inventory and Map of Industrial Facilities and Activities (4th Annual Report only)	As applicable
Part D.1.g.(3)	Inventory and Map of Commercial Facilities and Activities (4th Annual Report only)	As applicable
Part D.1.g.(4)	Annual updates to the Prioritized Areas for Industrial and Commercial Facility and Activity Inspections	Annually
Part D.3.a	Report and justify all other modifications made to the SWMP	As applicable
Part D.3.b	All alterations and/or additions to the DOT-HWYS MS4	As applicable
Part G.3.a	Amendments to the CCH MOU	As applicable
Part G.3.b	Amendments to the DOH MOU	As applicable

14.2 Annual Report Content | MS4 NPDES Permit Part G.1.b

The Annual Report chapters are organized by program element, as follows:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping – Debris Control BMPs
- Pollution Prevention/Good Housekeeping – Chemical Applications BMPs

- Pollution Prevention/Good Housekeeping – Erosion Control BMPs
- Pollution Prevention/Good Housekeeping – Maintenance Activities BMPs
- Industrial and Commercial Activities Discharge Management
- Baseyard Facilities
- Water Quality Monitoring

Each chapter in the Annual Report contains three sections:

- Program Implementation of BMPs — Describes program requirements and provides a description of how DOT-HWYS complies with the MS4 NPDES Permit requirements.
- Program BMPs Assessment — Reports the metrics of the implemented BMPs and provides a temporal analysis on BMP effectiveness as further described in the *Program Effectiveness Strategy*.
- Future Activities — Describes planned activities and specific measurable goals to be met in the next reporting period.

The resources for SWMP implementation are detailed in the last section of the Annual Report. The Annual Report is utilized by program management to analyze the effectiveness of SWMP activities and to guide an iterative approach for future decision-making regarding resource allocation and program implementation.