

CHAPTER 4

CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

The purpose of the Construction Site Runoff Control Program (Construction Program) is to reduce to the MEP the discharge of pollutants from private and public construction projects implemented within or otherwise encroaching DOT-HWYS' right-of-way. The Construction Program's requirements apply to all projects conducting construction activities within or otherwise encroaching DOT-HWYS' right-of-way. There are two types of construction projects – contract construction projects and encroachment permit construction projects – both of which are required to comply with applicable DOT-HWYS' policies and standards. DOT-HWYS does not perform in-house or maintenance construction activity.

The Construction Program includes the following elements:

1. Require proposed construction projects to implement BMPs and standards in accordance with DOT-HWYS' policies.
2. Maintain an inventory of construction projects and track project information.
3. Administer the review and approval of construction project plans and permits.
4. Conduct inspections using standard inspection forms and track inspections in databases.
5. Establish enforcement policies and penalties for projects in non-compliance with DOT-HWYS' policies, standards, and project-specific requirements and permits. Develop and implement an Enforcement Response Plan (ERP).
6. Provide annual construction BMP training to DOT-HWYS' staff with construction storm water responsibilities.
7. Provide educational material to permit applicants, contractors, developers, property owners, and other responsible parties.

The Construction Program is administered in accordance with the MS4 Permit and Consent Decree requirements outlined in Table 4-1 and Table 4-2, respectively.

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

| MS4 Permit Reference | SWMPP Section |
|---|---------------|
| <i>Part D.1.d 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, in-house, maintenance, and encroachment). The construction site management program shall include the following minimum elements:</i> | |
| <i>Part D.1.d.(1) Requirement to implement BMPs - Within one (1) year of the effective date of this permit the Permittee shall establish policies to require proposed construction projects to implement BMPs and standards described in the following:</i> <ul style="list-style-type: none">• <i>Hawaii Standard Specifications for Road and Bridge Construction and/or Special Provisions</i> | Section 4.1 |

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| MS4 Permit Reference | SWMPP Section |
|---|---------------|
| <ul style="list-style-type: none"> • <i>Construction Best Management Practices Field Manual</i> • <i>Maintenance Activities Best Management Practices Field Manual</i> • <i>Storm Water Permanent Best Management Practices Manual</i> <p><i>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.</i></p> | |
| <p>Part D.1.d.(2) <i>Inventory of construction sites - Within six (6) months of the effective date of this permit, the Permittee shall, implement a system to track both private and public construction projects (i.e., contract, in-house, 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).</i></p> | Section 4.2 |
| <p>Part D.1.d.(3).(i) <i>Prior to approval of the construction plans and specifications, DOT-HWYS shall review the appropriate Site-Specific BMP Plan and other pollution prevention measures (e.g., for Erosion and Sediment Control, Grading, Post-construction BMP and Landscaping) or similar plan(s)/document(s) to verify that meets the following requirements:</i></p> <ul style="list-style-type: none"> • <i>DOT-HWYS' Standard Specifications and Special Provisions;</i> • <i>DOT-HWYS' Construction BMP Field Manual;</i> • <i>DOT-HWYS' Storm Water Permanent Best Management Practices Field Manual;</i> • <i>DOT-HWYS' Maintenance Activities Best Management Practices Field Manual;</i> • <i>HAR, Chapter 11-55, Appendix C, and any other requirements under the NPDES permit program, as applicable; and</i> • <i>Implementation of measures to ensure that the discharge of pollutants from the site will be reduced to the appropriate discharge limitations subject to the Best Available Technology currently available (BAT)/ Best Conventional Pollutant Control Technology (BCT) discharge requirement, consistent with the CWA and other respective federal and state requirements for such facilities and will not cause or contribute to an exceedance of water quality standards.</i> | Section 4.3 |
| <p>Part D.1.d.(3).(ii) <i>Require a permit or written equivalent approval for drainage connections to its MS4, discharge of surface storm water runoff of storm water associated with construction (i.e., from both private and public projects) or discharge permit (i.e., hydrotesting and dewatering effluent or other non-storm water, except those allowed under this permit) into their MS4 and maintain a database of the permits/approvals. Prior to issuing a drainage connection, discharge of surface runoff permit/approval, discharge permit, Permit to Perform Work Upon State Highways, or encroachment permit the Permittee shall ensure that the following are met:</i></p> <ul style="list-style-type: none"> • <i>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;</i> • <i>The project owner has provided proof of filing a NOI Form F and/or G or NPDES application for the discharge, if applicable; and</i> • <i>A Site-Specific BMP Plan or other documents (e.g., Erosion and Sediment</i> | Section 4.3 |

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|---|---------------|
| <i>Control, Grading, Post-construction BMP and Landscaping Plans, Dewatering Plan, and Hydrotesting Plan) relating to pollution prevention or similar document(s) have been reviewed and accepted by DOT-HWYS;</i> | |
| Part D.1.d.(3).(iii) <i>Not allow construction to commence on any private or public construction project (i.e., contract, in-house, 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);</i> | Section 4.3 |
| Part D.1.d.(3).(iv) <i>Within 90 calendar days of the effective date of this permit, the Permittee shall update and submit for review and acceptance, a plan review 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, discharge, and encroachment 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 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.</i> | Section 4.3 |
| Part D.1.d.(4).(i) <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 inspector 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.</i> | Section 4.4 |
| Part D.1.d.(4).(ii) <i>In addition to inspections required by the NPDES permit program, all contract, in-house 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. The reporting procedures shall include, at a minimum, notification of any critical deficiencies to the DOH. Upon three successive monthly inspections that indicate, in total, no critical or major deficiencies or less than six (6) minor deficiencies 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</i> | Section 4.4 |

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|---|---------------|
| <i>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 further develop and 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 at a minimum require that 1) any critical deficiencies shall be corrected or addressed before the close of business on the day of the inspection at which the deficiency is identified, and 2) any major deficiencies shall be corrected or addressed as soon as possible, but in no event later than five (5) calendar days after the inspection at which the deficiency is identified or before the next forecasted precipitation, whichever is sooner.</i> | |
| Part D.1.d.(4).(iii) <i>All construction projects with a Permit to Perform Work Upon State Highways, connection permit, encroachment 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. The reporting procedures shall include, at a minimum, notification of any critical deficiencies to the DOH.</i> | Section 4.4 |
| Part D.1.d.(4).(iv) <i>Develop and 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 inspection form(s), inspection checklist, reporting and corrective procedures shall be submitted to DOH for review and acceptance within 90 calendar days of the effective date of this permit.</i> | Section 4.4 |
| Part D.1.d.(5).(i) <i>Enforcement – Within one (1) year of the effective date of this permit, the Permittee shall: Establish policies for enforcement and penalties for those in non-compliance with Part D.1.d.(1) requiring the implementation of standards, and</i> | Section 4.5 |
| Part D.1.d.(5).(ii) <i>Develop and 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.</i> | Section 4.5 |
| Part D.1.d.(6) <i>Process to refer noncompliance 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.6. 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</i> | Section 4.5 |

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| <i>NPDES permit program, the Permittee shall provide written notification in accordance with Part A.6. to DOH within two (2) weeks of the discovery.</i> | |
| Part D.1.d.(7) Training - 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 |
| Part D.1.d.(8) Education - The Permittee shall implement an education program as part of its ongoing SWMP to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the storm water requirements they need to implement. | Section 4.7 |

Table 4-2. Consent Decree Requirements for the Construction Program

| Consent Decree Reference | SWMPP Section |
|---|---------------|
| Pg 12, Section V.9.b.(1) Within 90 days after entry of the Consent Decree, any Contractor (either professional consultant or construction contractor) involved with construction at HDOT facilities or within State Highways rights-of-way shall be required to obtain the CCH Manual. | Section 4.3 |
| Pg 13, Section V.9.b.(2) HDOT shall provide annual training on the Construction BMP Program Plan to all staff with construction storm water responsibilities, including construction engineers, maintenance staff, and plan reviewers. This training shall be specific to HDOT activities (including the proper installation and maintenance of approved BMPs), policies, and procedures. The first annual training shall be conducted by no later than September 15, 2005 or within 30 days after entry of this Decree, whichever is later. | Section 4.6 |
| Pg 13, Section V.9.b.(3) Beginning 30 days after entry of this Decree, HDOT shall not allow construction to commence on any contract, in-house, or encroachment permit project unless and until it (a) has verified that the project has received from DOH a Notice of General Permit Coverage under the Hawaii General Construction Activities Storm Water permit (unless the project will disturb less than one acre of land) and has satisfied any other applicable requirements of the Hawaii NPDES permit program, and (b) has reviewed the applicable Site-Specific BMP Plan to verify that it fully meets all requirements of the following, to the extent that they are applicable: (i) HDOT's Standard Provisions (Sections 107.17 and 209); (ii) Water Pollution and Erosion Control Notes; (iii) NPDES Requirements for Permit Projects Within State Highway Right-of-Way Notes; (iv) the General Construction Activities Storm Water NPDES permit; and (v) any other applicable requirements of the Hawaii NPDES permit program. For encroachment permit projects, HDOT shall only be responsible for the activities described in Subparagraphs 9.b.(1) and 9.b.(3) above, for work that occurs within HDOT rights-of-way. | Section 4.3 |
| Pg13, Section V.9.b.(4) Within 10 business days after entry of this Decree, HDOT shall submit for approval a checklist that its reviewer shall use in evaluating the BMP plans pursuant to this Paragraph. Upon approval, HDOT shall provide copies this checklist to applicants for encroachment permits and to contractors for their use in developing construction Site-Specific BMP Plans for HDOT-contracted construction projects. | Section 4.3 |

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| Consent Decree Reference | SWMPP Section |
|--|---------------|
| Pg 14, Section V.9.b.(5) Upon entry of this Decree, prior to the initiation of ground-disturbing activities at any Site, except for activities associated with the installation of BMPs at a Site, no other construction activities may commence until an HDOT engineer (or an engineer retained by HDOT) or qualified inspector reviews and becomes familiar with the projects' site-specific BMP plan and inspects the Site to determine whether the BMPs required by the BMP plan have been installed correctly and in the correct locations. The engineer or qualified inspector who conducts this inspection shall document that the BMPs required by the BMP plan have been installed correctly and in the correct locations prior to the commencement of any other ground-disturbing activity. | Section 4.4 |
| Pg 19, Section V.10.c.(2) To the extent that HDOT utilizes contractors, with the exception of general contractors used to construct contract construction projects, to implement any SWMPP activities, HDOT shall require that such contractors receive training equivalent to that included in HDOT's training program in all applicable areas. | Section 4.6 |
| Pg 19, Section V.10.c.(3) No less than annually, HDOT shall offer appropriate storm water runoff management training to general contractors and subcontractors used to construct HDOT's contract construction projects. Such training shall emphasize sediment and erosion control requirements and BMPs (Chapter 2 in the CCH manual), but shall additionally cover, in appropriate detail, requirements and BMPs for all of the other Contractor Activities covered in Chapter 1 of the CCH Manual. | Section 4.6 |
| Pg 19, Section V.10.c.(4) Prior to the issuance of any Notice to Proceed, or the equivalent, to any contractor or any contract construction project, HDOT shall hold a preconstruction meeting with the project's prime contractor during which the requirements of the General Construction Activities Storm Water Permit shall be discussed, as well as (a) Standard Provisions (Sections 107.17 and 209); (b) "Water Pollution and Erosion Control Notes"; and (c) the applicable requirements of this Consent Decree. | Section 4.7 |
| Pg 22, Section V.10.g.(1) HDOT shall revise the following documents to require use of the CCH Manual and the City and County of Honolulu's "Rules for Soil Erosion Standards and Guidelines," April 1999: (a) Standard Provisions (Sections 107.17 and 209); (b) "Water Pollution and Erosion Control Notes"; and (c) "NPDES Requirements for Permit Projects Within State Highway Right-of-Way Notes." These revised documents shall be used, to the extent applicable, on all contract, in-house, and encroachment permit construction projects on Oahu. HDOT shall incorporate these revised documents, either explicitly or by reference, into its revised SWMPP. | Section 4.3 |
| Pg 22, Section V.10.g.(2).(a) In addition to inspections required by the Hawaii General Construction Activities Storm Water permit, and as otherwise required under the Hawaii NPDES permit program, all in-house and contract construction projects shall be inspected at least monthly by a qualified construction inspector who is independent (i.e., not involved in the projects' day-to-day planning, design, or implementation) of the construction projects to be inspected. HDOT may use more than one qualified construction inspector for these inspections. | Section 4.4 |
| Pg 22, Section V.10.g.(2).(a) HDOT, in consultation with DOH, shall develop and implement a standard inspection form, and reporting procedures for use in these inspections. The inspection form shall include, at a minimum, a checklist for the proper installation of BMPs specified in the BMP plan, and the reporting procedures shall include, at a minimum, notification of critical deficiencies to the Director of HDOT and DOH. | Section 4.4 |

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| Consent Decree Reference | SWMPP Section |
|--|---------------|
| Pg 22, Section V.10.g.(2).(a) <i>HDOT shall further develop and implement written procedures for appropriate corrective actions and follow-up inspections when an inspected project is not in full compliance with this Consent Decree, the HDOT MS4 permit, the Hawaii General Construction Activities Storm Water permit, or any other applicable requirements under the Hawaii NPDES permit program. The corrective action procedures shall at a minimum require that (i) any critical deficiencies shall be corrected or addressed before the close of business on the day of inspection at which the deficiency is identified, and (ii) any major deficiencies shall be corrected or addressed as soon as possible, but in no event later than five business days after the inspection at which the deficiency is identified or before the next forecasted precipitation, whichever is sooner.</i> | Section 4.4 |
| Pg 23, Section V.10.g.(2).(b) <i>All encroachment permit construction projects shall be inspected at least once during the life of the project, and any project of the types listed immediately below shall be inspected at least annually if it continues longer than one year's duration: (1) Housing/commercial development improvements; (2) Utility main installation; (3) Landscape/irrigation installation; (4) Drainline connections All inspections shall be conducted by a qualified construction inspector. HDOT may use more than one qualified construction inspector for these inspections.</i> | Section 4.4 |
| Pg 23, Section V.10.g.(2).(b) <i>HDOT, in consultation with DOH, shall develop and implement a standard inspection form and reporting procedures for use in these inspections. The inspection form shall include, at a minimum, a checklist for the proper installation of BMPs specified in the BMP plan, and the reporting procedures shall include, at a minimum, notification of any critical deficiencies to the Director of HDOT and DOH.</i> | Section 4.4 |
| Pg 23, Section V.10.g.(2).(b) <i>HDOT shall further develop and implement written procedures for appropriate corrective actions and follow-up inspections when an inspected project is not in full compliance with this Consent Decree, the HDOT MS4 permit, or the Hawaii General Construction Activities Storm Water permit.</i> | Section 4.4 |

4.0 Program Organization

To fulfill the requirements of the MS4 Permit and the Consent Decree, the following organizational structure has been established for the Construction Program.

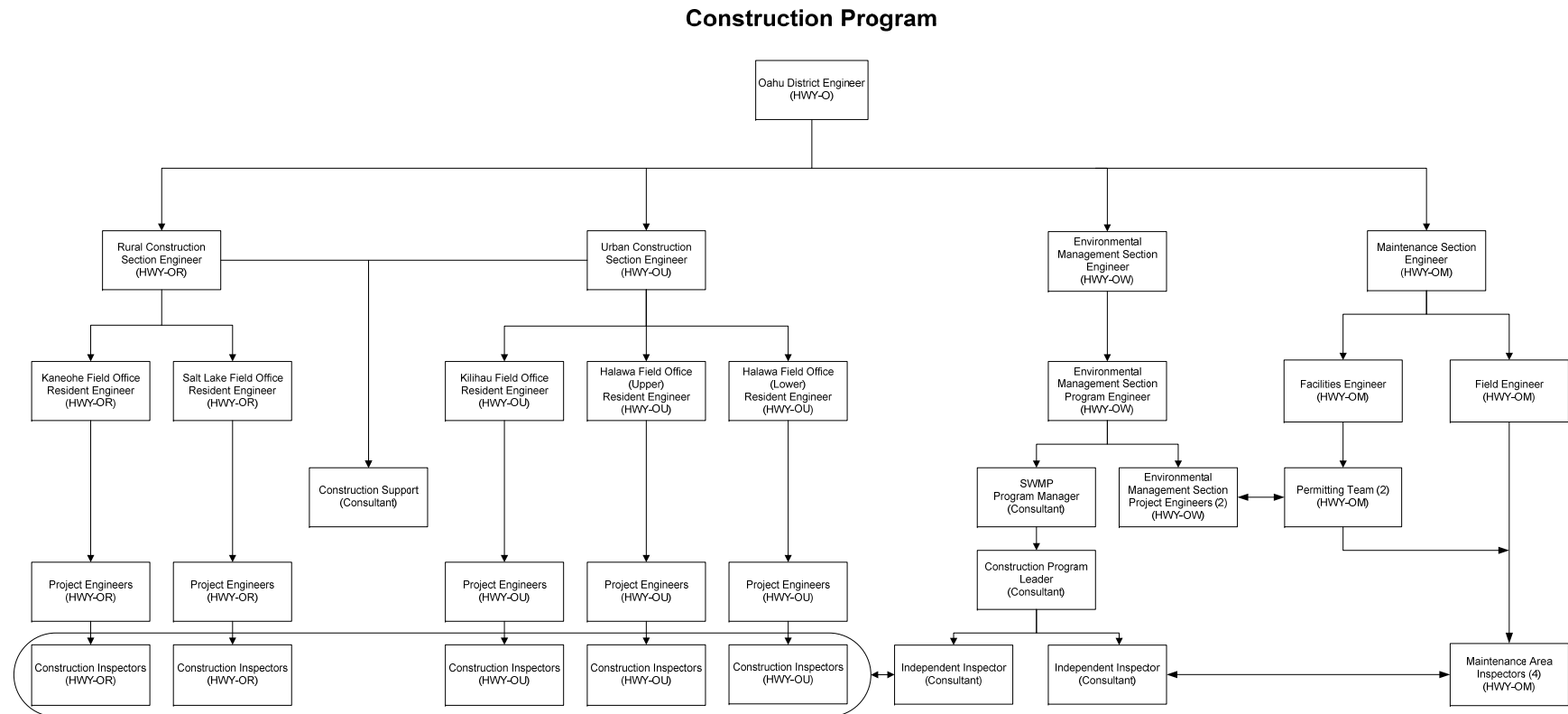


Figure 4-1. Construction Program Organizational Chart
(Note: The number in parenthesis indicates the number of individuals involved.)

4.1 BMP Implementation

DOT-HWYS uses the manuals and standards discussed in this section to provide guidance for implementing BMPs on construction projects.

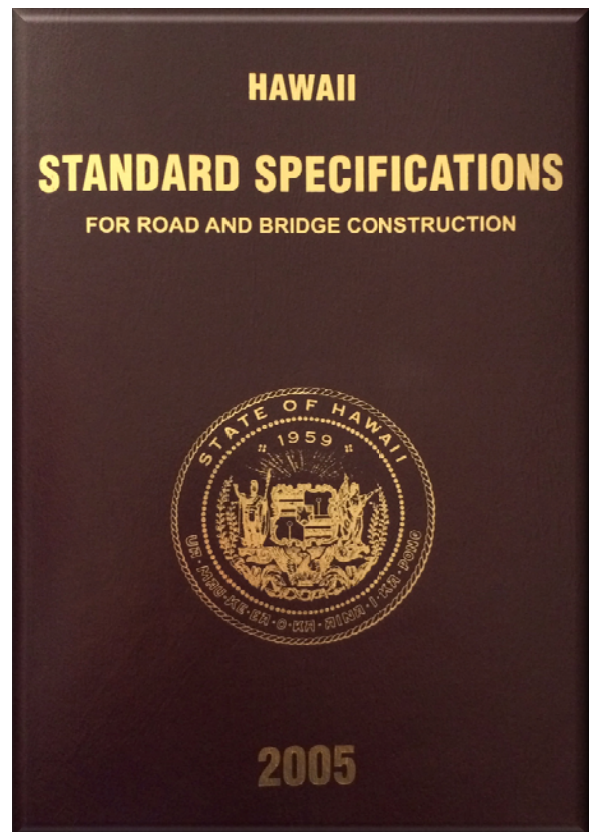
In accordance with DOT-HWYS' policies and Part D.1.d.(1) of the MS4 Permit, proposed construction projects are required to implement the BMPs and standards described in the following:

- *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); and
- *Storm Water Permanent Best Management Practices Manual* (Appendix E.1).

These documents are available on the websites listed below for DOT-HWYS' staff, contractors, and consultants:

The *Hawaii Standard Specifications for Road and Bridge Construction and/or Special Provisions* is available for download on DOT-HWYS' website at <http://hidot.hawaii.gov/highways/s2005-standard-specifications/2005-standard-specifications/>.

The *Construction Best Management Practices Field Manual* (*Construction BMPs Field Manual*), *Maintenance Activities Best Management Practices Field Manual* (*Maintenance BMPs Field Manual*), and *Storm Water Permanent Best Management Practices Manual* (*Permanent BMPs Manual*) are available on www.stormwaterhawaii.com and as appendices to this SWMPP.



Hawaii Standard Specifications for Road and Bridge Construction are a compilation of provisions and requirements.

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As shown in Figure 4-2, the Environmental Management Section Engineer is responsible for ensuring the documents discussed in this section are made available to the appropriate parties, reviewed annually, and revised as necessary to account for new, modified, or revised BMPs, including permanent BMPs and LID practices. Any revisions to these documents will be discussed in the Annual Report.

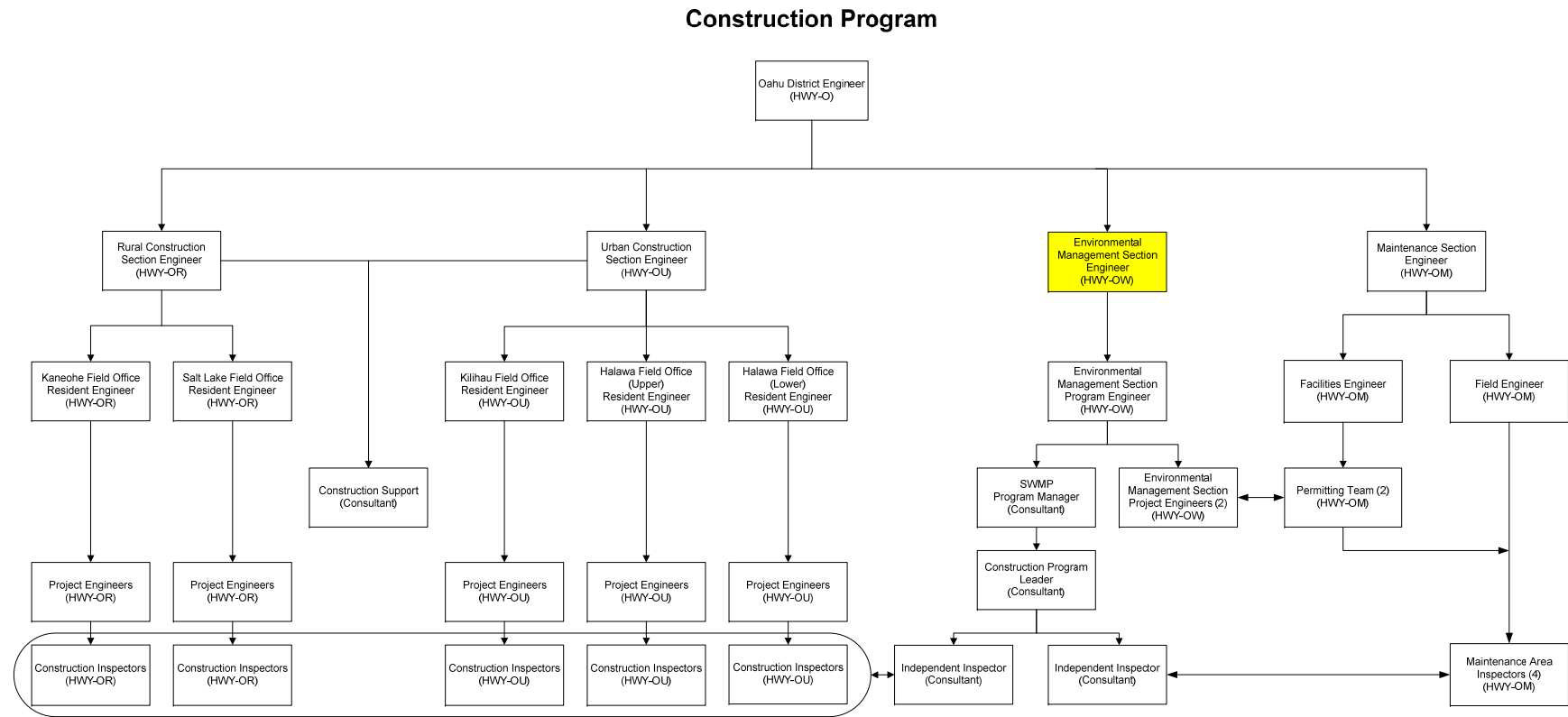


Figure 4-2. Construction Program Organizational Chart for Roles and Responsibilities Related to BMP Implementation

4.2 Inventory of Construction Projects

DOT-HWYS uses various systems to maintain an inventory of contract and encroachment permit construction projects. These systems include databases, spreadsheets, and project files that are maintained by HWY-OU, HWY-OR, and HWY-OW.

The information tracked for contract construction projects and encroachment permit construction projects may include the project title, project number, or permit number, status of plan review and approval, inspection dates, and if applicable, enforcement actions.



Construction projects are required to implement BMPs to protect water quality.

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Resident Engineers at the field offices maintain an inventory of contract construction projects, while HWY-OW and the Permitting Team keep inventory of encroachment permit construction projects. Their role in tracking construction projects is highlighted in Figure 4-3.

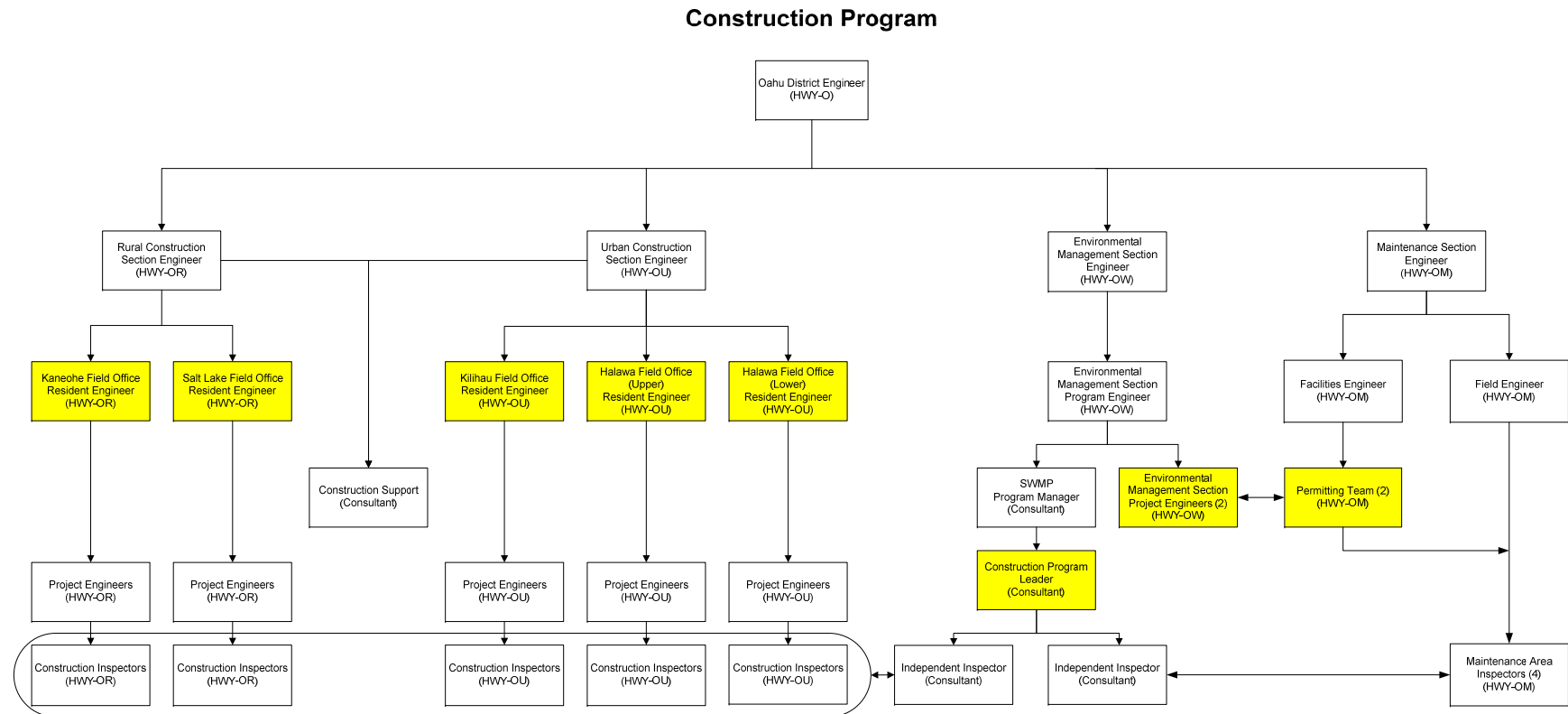


Figure 4-3. Construction Program Organizational Chart for Roles and Responsibilities Related to Construction Project Inventory

4.3 Plan Review and Permitting

DOT-HWYS conducts plan review and issues permits, as applicable, for contract construction projects and encroachment permit construction projects.

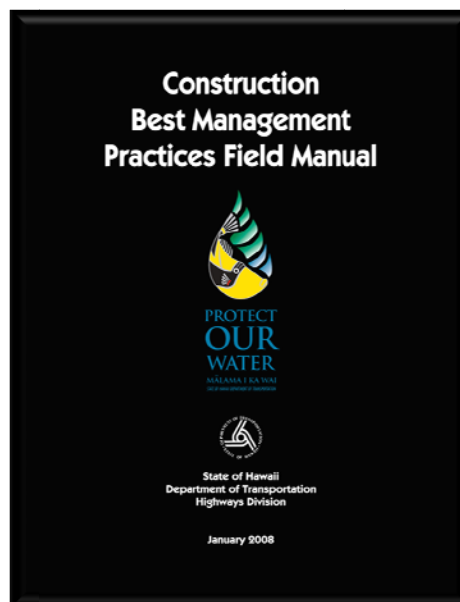
4.3.1 Project Plan Review and Approval

DOT-HWYS reviews construction projects' Site-Specific BMP (SSBMP) Plans and other pollution prevention measures (e.g., Storm Water Pollution Prevention Plans, Water Pollution & Erosion Control Notes, Erosion Control Plans, Grading Plans, etc.) to verify that they meet the requirements outlined in Part D.1.d.(3).(i) of the MS4 Permit.

In accordance with the Consent Decree, DOT-HWYS revised the following documents to require use of the CCH's BMP Manual and the CCH's "Rules for Soil Erosion Standards and Guidelines," April 1999:

- Standard Provisions (Sections 107.17 and 209);
- Water Pollution and Erosion Control Notes; and
- NPDES Requirements for Permit Projects Within State Highway Right-of-Way Notes.

However, in 2008, DOT-HWYS developed the *Construction BMPs Field Manual*, which now supersedes use of the CCH's BMP Manual.



The Construction BMP Field Manual provides guidance on BMP installation and maintenance procedures for construction activities.

Contract Construction Projects

DOT-HWYS provides copies of the Site-Specific BMP Plan/Storm Water Pollution Prevention Plan (SWPPP) Review Checklist (SSBMP Plan/SWPPP Review Checklist) (Appendix D.2) to consultants and contractors for their use during the development of SSBMP Plans and SWPPPs. Contract construction projects are required to provide either a SSBMP Plan or a SWPPP, and a completed SSBMP Plan/SWPPP Review Checklist to the project's Resident Engineer.

Prior to the approval of construction plans and specifications for contract construction projects, DOT-HWYS reviews project plans to ensure that Water Pollution & Erosion Control Notes, Erosion Control Plans, and Grading Plans have been incorporated, as applicable.

Prior to the commencement of construction activities for contract construction projects, DOT-HWYS reviews the construction projects' SSBMP Plan or SWPPP. DOT-HWYS uses the SSBMP Plan/SWPPP Review Checklist to verify that a project's SSBMP Plan or SWPPP meets the requirements outlined in Part D.1.d.(3).(i) of the MS4 Permit. The SSBMP Plan/SWPPP Review Checklist is used by DOT-HWYS to comment on any deficiencies in the SSBMP Plan or SWPPP and track the dates the comments were addressed.

DOT-HWYS does not allow construction to commence until it verifies and documents on the SSBMP Plan/SWPPP Review Checklist, that the project has received 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 (unless the project will disturb less than once acre of land) and has satisfied any other applicable requirements of the NPDES permit program (i.e., an individual NPDES permit). The project's NGPC status is tracked as part of the construction site inventory discussed in Section 4.2.

Encroachment Permit Construction Projects

DOT-HWYS provides a copy of the SSBMP Plan/SWPPP Review Checklist to applicants for *Permit to Connect to the State Highways Drainage System* (connection permit) (Appendix C.2), *Permit to Discharge into the State Highways Drainage System* (discharge permit) (Appendix J.1), and *Permit to Perform Work Upon State Highways* (Appendix D.3). Encroachment permit construction projects are required to provide a SSBMP Plan/SWPPP and BMP Checklist when they apply for a *Permit to Perform Work on State Highways*.

Prior to the commencement of construction activities for an encroachment permit construction project, DOT-HWYS reviews SSBMP Plans and SWPPPs, if applicable. DOT-HWYS uses the SSBMP Plan/SWPPP Review Checklist to verify that the project's SSBMP Plan/SWPPP meets the requirements outlined in Part D.1.d.(3).(i) of the MS4 Permit.

For encroachment permit construction projects, it is the project owner's responsibility to submit the NGPC to DOT-HWYS. The project's NGPC status is tracked as part of the construction site inventory discussed in Section 4.2.

4.3.2 Permitting

Encroachment permit construction projects proposing to construct a connection to the MS4 are required to obtain a connection permit from DOT-HWYS. Encroachment permit construction projects requesting to discharge surface storm water runoff associated with construction, hydrotesting, dewatering effluent, or other non-storm water discharges to the MS4, must obtain a discharge permit. To complete the application process for a connection and/or discharge permit, an *Application for a Private Storm Drain Connection and/or Discharge Permit to the State of Hawaii Highways Division Storm Drain System* (Appendix C.1) must be submitted to DOT-HWYS. Furthermore, encroachment permit construction projects must obtain a *Permit to Perform Work Upon State Highways* before they are allowed to perform any construction activities within DOT-HWYS' right-of-way.

Prior to issuing a connection permit, discharge permit, or *Permit to Perform Work Upon State Highways*, DOT-HWYS uses the SSBMP Plan/SWPPP Review Checklist to ensure 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;
- 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 SSBMP Plan or other documents (e.g., Erosion and Sediment Control, Grading, Post-construction BMP and Landscaping Plans, Dewatering Plan, and Hydrotesting Plan) relating to pollution prevention or similar document(s) have been reviewed and accepted by DOT-HWYS.

The following roles and responsibilities related to plan review and permitting are represented in Figure 4-4: Resident Engineers and Project Engineers review contract construction project plans to ensure compliance with Part D.1.d.(3).(i) of the MS4 Permit. Resident Engineers and Project Engineers, with the assistance of Construction Support, review SSBMP Plans/SWPPPs for contract construction projects. The Environmental Management Section Project Engineers review SSBMP Plan/SWPPPs for encroachment permit construction projects. The Environmental Management Section Project Engineers and the Permitting Team are responsible for reviewing, issuing, and tracking permit approvals for encroachment permit construction projects.

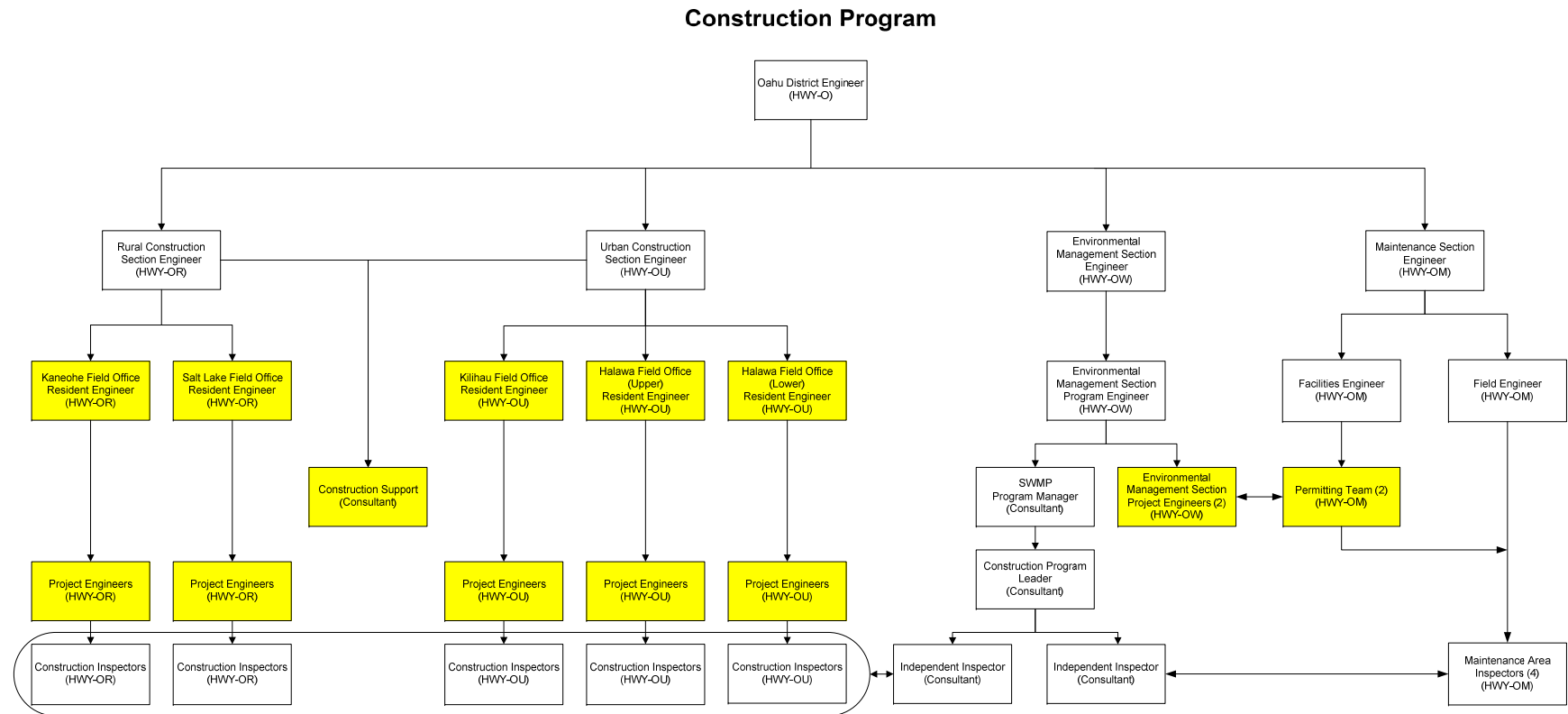


Figure 4-4. Construction Program Organizational Chart for Roles and Responsibilities Related to Plan Review and Permitting

4.4 Inspections

DOT-HWYS conducts initial and independent inspections of construction projects and has developed corrective action and reporting procedures in accordance with Part D.1.d.(4) of the MS4 Permit.

4.4.1 Initial Inspections

Prior to the initiation of ground-disturbing activities at any site, except for activities associated with the installation of BMPs, the Project Engineer, Construction Inspector, or Maintenance Area Inspectors inspects the construction site to verify that BMPs have been installed correctly and in the correct locations, as required by the project's SSBMP Plan and/or other documents. Initial inspections are conducted on any areas affected by DOT-HWYS construction activities and at sites otherwise constructed within DOT-HWYS' right-of-way. Inspections include a review of site erosion and sediment controls, good housekeeping practices, and compliance with DOT-HWYS-accepted erosion and sediment control plans, SSBMP Plan, or other similar documents and DOT-HWYS-approved permits. If the inspector 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.

4.4.2 Independent Inspections

Contract Construction Project Inspections

In addition to inspections required by the NPDES permit program, contract construction projects are required to be 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. The Independent Inspector inspects all contract construction projects at least monthly, using a standard inspection form. 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; and
- 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, the Independent Inspector identifies at least one critical or major deficiency or a total of three or more minor deficiencies, the inspection frequency of the construction project will immediately return to no less than monthly.

Encroachment Permit Construction Project Inspections

All 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 an independent inspector who is not involved in the day-to-day planning, design, or implementation of the construction project to be inspected. If a project has a SSBMP Plan or other equivalent document(s), the inspector verifies that BMPs were properly installed and at the locations specified in the plan. The inspection is documented using a standard inspection form.

4.4.3 Corrective Action and Reporting Procedures

In accordance with Part D.1.d.4.(iv) of the MS4 Permit, DOT-HWYS submitted standard inspection forms (Appendix D.4, D.5 and D.6) and corrective and reporting procedures for inspections to DOH, within 90 days of the effective date of the MS4 Permit.

Corrective Procedures

DOT-HWYS implements the following procedures to correct or address deficiencies identified during inspections conducted under Part D.1.d.(4).(ii) of the MS4 Permit:

1. Conduct inspections of BMPs on DOT-HWYS' contract construction projects.
 - a. If the inspector identifies a critical deficiency during the site visit, the deficiency shall be corrected or addressed before the close of business on the day of the inspection when the deficiency is identified.
 - b. If the inspector identifies a major deficiency during the site visit, the deficiency shall 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.
2. Inspector provides a post-inspection briefing to construction project personnel (e.g., DOT-HWYS Project Engineer, DOT-HWYS Construction Inspector, Construction Manager, Contractor's Representative) summarizing the BMP deficiencies identified.
3. Inspector completes the *Independent (Third Party) Inspection Checklist* (Appendix D.5) and submits the checklist with accompanying photographs to the DOT-HWYS personnel.
4. The DOT-HWYS personnel notifies the contractor of any deficiencies identified by the inspector.
5. DOT-HWYS personnel verify that the deficiencies have been addressed and document the date deficiencies were corrected and the corrective actions taken.
6. DOT-HWYS personnel follow procedures for enforcement and follow-up actions as outlined in the ERP (Section 4.5).

Reporting Procedures

In addition to corrective procedures, Parts D.1.d.(4).(ii) and D.1.d.(4).(iii) of the MS4 Permit require that reporting procedures be developed and include, at a minimum, notification of any critical deficiencies to the DOH.

The following reporting procedures have been developed for inspections conducted under Part D.1.d.(4).(ii) of the MS4 Permit:

1. Conduct inspections of BMPs on DOT-HWYS contract construction projects.
2. If the inspector identifies a critical deficiency during the site visit, the deficiency shall be corrected or addressed before the close of business on the day of the inspection when the deficiency was identified.
3. Inspector provides a post-inspection briefing to construction project personnel (e.g., DOT-HWYS Project Engineer, DOT-HWYS Construction Inspector, Construction Manager, Contractor's Representative) summarizing the BMP deficiencies identified.
4. Inspector completes the *Independent (Third Party) Inspection Checklist* and submits the checklist with accompanying photographs to the DOT-HWYS personnel.
5. The DOT-HWYS personnel notifies the Contractor of any deficiencies identified by the inspector.
6. DOT-HWYS personnel verify that the deficiencies have been addressed and document the date deficiencies were corrected and the corrective actions taken.
7. The inspector notifies HWY-OW of the critical deficiency and corrective action taken.
8. HWY-OW notifies the DOH of the critical deficiency, which includes a copy of the inspection report and photo documentation.

The following reporting procedures have been developed for inspections conducted under Part D.1.d.(4).(iii) of the MS4 Permit:

1. Conduct inspections of BMPs on construction projects with a *Permit to Perform Work Upon State Highways*, connection permit, and discharge of surface runoff permit/approval at least once annually or once during the life of the project, whichever comes first.
2. If the inspector identifies a critical deficiency during the site visit, the deficiency shall be corrected or addressed before the close of business on the day of the inspection when the deficiency is identified.
3. Inspector completes the *Independent (Third Party) Inspection Checklist (Short Form)* (Appendix D.6) and submits the checklist with accompanying photographs to the DOT-HWYS personnel.
4. DOT-HWYS personnel verify that the deficiencies have been addressed and document the date deficiencies were corrected and the corrective actions taken.
5. The inspector notifies HWY-OW of the critical deficiency and corrective action taken.

HWY-OW notifies the DOH of the critical deficiency, which includes a copy of the inspection report and photo documentation.

4.4.4 Tracking Inspection Results

In accordance with Part D.1.d.(4).(iv) of the MS4 Permit, DOT-HWYS tracks the results of inspections. Inspections conducted as described above in Sections 4.4.1 and 4.4.2 are tracked using databases or equivalent systems managed by DOT-HWYS.

Initial Inspections on Contract Construction Projects

The results for initial inspections conducted prior to construction commencing on contract construction projects are documented on the *Site-Specific Best Management Practice/Storm Water Pollution Prevention Inspection and Maintenance Report* (Appendix D.4) and tracked in DOT-HWYS' Construction Project Management System (CPMS).

Initial Inspections on Encroachment Permit Construction Projects

The results for initial site inspections conducted prior to construction commencing on encroachment permit construction projects are documented on the BMP Checklist and tracked in the AMS.

Independent Inspections on Contract Construction Projects

The results for independent inspections conducted on contract construction projects are documented on the *Independent (Third Party) Inspection Checklist* and tracked in the AMS.

Independent Inspections on Encroachment Permit Construction Projects

The results for independent inspections conducted on encroachment permit construction projects are documented on the *Independent (Third Party) Inspection Checklist (Short Form)* and tracked in the AMS.

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The Project Engineers and/or Construction Inspectors conduct initial inspections for contract construction projects. The Maintenance Area Inspectors conduct initial inspections for applicable encroachment permit construction projects. The Independent Inspectors conduct independent inspections of encroachment permit and contract construction projects, and report their findings to the Construction Program Leader. The Construction Program Leader assisted with the development and submission of corrective action and reporting procedures. Project Engineers and/or Construction Inspectors track initial inspections conducted on contract construction projects. The Construction Program Leader tracks initial inspections and independent inspections on encroachment permit construction projects. The Independent Inspector tracks independent inspections on contract construction projects. These roles and responsibilities related to construction project inspections are depicted in Figure 4-5.

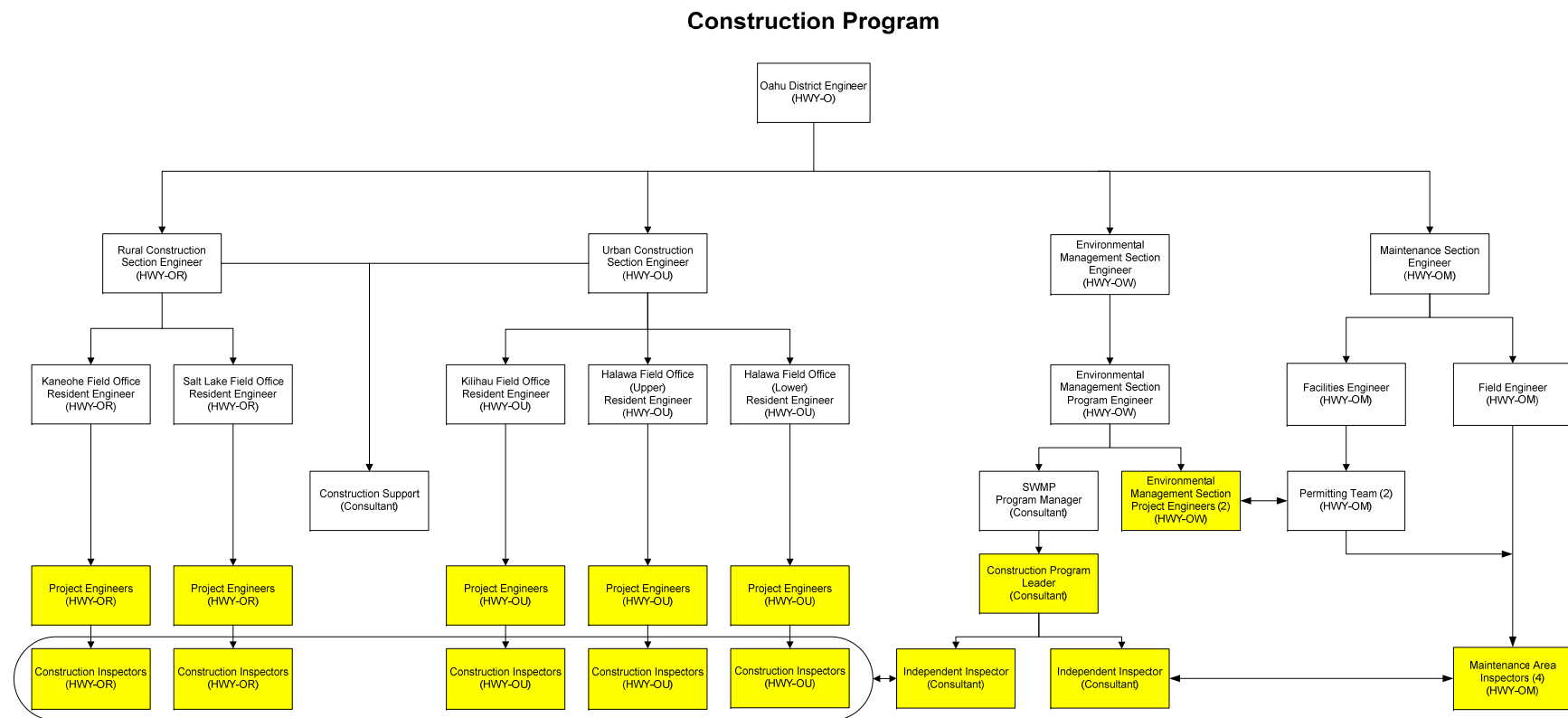


Figure 4-5. Construction Program Organizational Chart for Roles and Responsibilities Related to Inspections

4.5 Enforcement

Contract and encroachment permit construction projects are required to implement BMPs to prevent the discharge of pollutants in accordance with the Part D.1.d.(1) of the MS4 Permit (Section 4.1). To satisfy Part D.1.d.(5) of the MS4 Permit, DOT-HWYS developed an Enforcement Response Plan (ERP) (Appendix D.7) that describes DOT-HWYS' procedures for enforcement and follow-up actions, including assessment of penalties, when a contract or encroachment permit construction project is not in compliance with the MS4 Permit, policies, standards, requirements, and/or applicable permits. Implementation of the ERP ensures a consistent response by DOT-HWYS for compliance with the MS4 Permit and provides the framework for DOT-HWYS to impose enforcement on construction projects if necessary. Specifically, the ERP outlines DOT-HWYS' ability 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 Permit, or otherwise deems the site to pose an immediate and significant threat to water quality, DOT-HWYS will provide e-mail notification to cleanwaterbranch@doh.hawaii.gov within one week of such determination. E-mail 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.

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As depicted in Figure 4-6, the Rural Construction Section Engineer, Urban Construction Section Engineer, Environmental Management Section Engineer, and Maintenance Section Engineer are responsible for ensuring the implementation of the ERP.

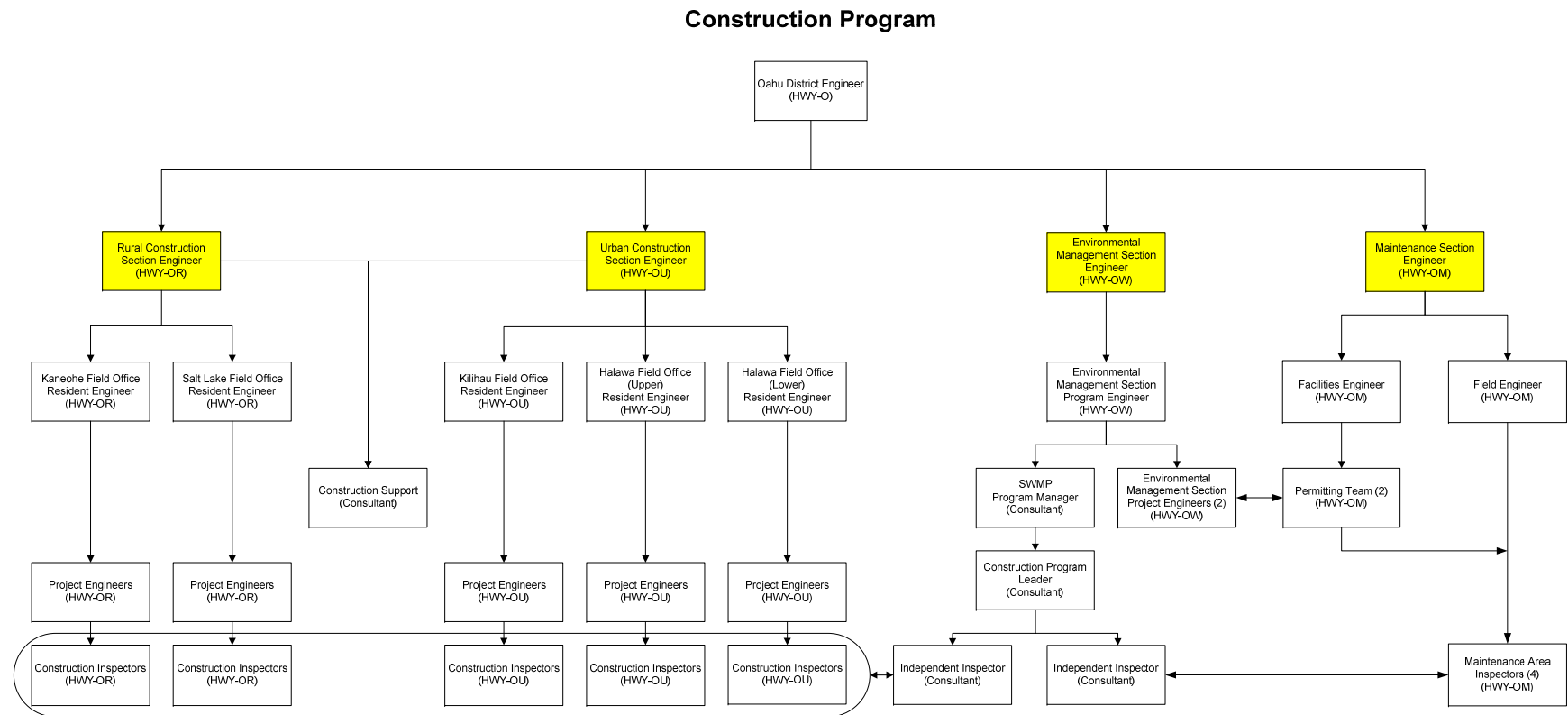


Figure 4-6. Construction Program Organizational Chart for Roles and Responsibilities Related to Enforcement

4.6 Construction BMP Training

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. The Construction BMP Training may include a review of SWMPP development; proper installation, maintenance, and inspection of construction BMPs; as well as a review of policies, rules, and procedures.



DOT-HWYS conducts annual Construction BMP Training.

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As depicted in Figure 4-7, the Environmental Management Section Engineer, SWMP Program Manager, and Construction Program Leader are responsible for coordinating the Construction BMP Training.

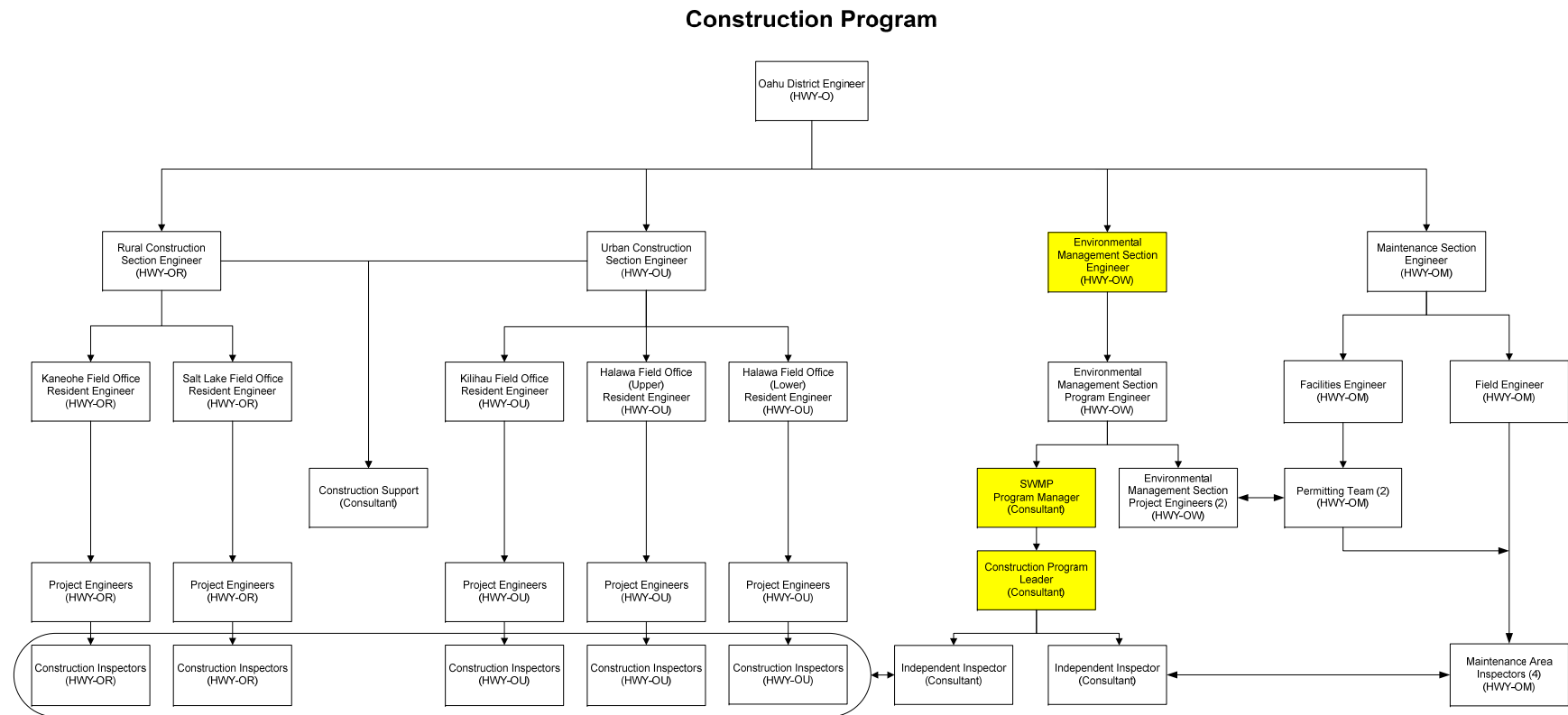


Figure 4-7. Construction Program Organizational Chart for Roles and Responsibilities Related to Training

4.7 Education

In addition to the Construction BMP Training, DOT-HWYS provides educational material to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the storm water requirements they need to implement.

Educational materials, including a Permit Holders Guide to Understanding Storm Water (Appendix D.8), are provided to encroachment permit construction project applicants at the time they apply for a *Permit to Perform Work Upon State Highways*. At this time, DOT-HWYS also verifies that the contractor has a copy of the *Construction BMPs Field Manual*.

For contract construction projects, DOT-HWYS educates contractors on a project-by-project basis for the development and review of SSBMP Plans or SWPPPs and BMP implementation. Additionally, DOT-HWYS holds a Pre-Construction Conference and Water Pollution and Erosion Control Conference prior to construction commencing. DOT-HWYS also provides contractors with a copy of the following materials:

- “What HDOT Contractors Need to Know About Staging Areas”;
- “What HDOT Contractors Should Expect During a DOH Compliance Inspection”;
- “What HDOT Contractors Need to Know About HDOT’s Enforcement Response Plan for Construction Site Runoff Control”;
- “What HDOT Contractors Should Know About Solid Waste”;
- Illegal Dumping Poster;
- State of Hawaii DOH Illegal Dumping Notice (April 2011);
- Construction BMP Training on a compact disk;
- *Construction BMPs Field Manual*;
- ERP; and
- Consent Decree.

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As depicted in Figure 4-8, the Resident Engineers are responsible for distributing educational materials to contract construction projects, and the Permitting Team is responsible for providing educational materials to encroachment permit construction projects. Additionally, the Environmental Management Section Engineer, SWMP Program Manager, and Construction Program Leader provide educational materials to Construction BMP Training attendees and to participants at educational outreach events.

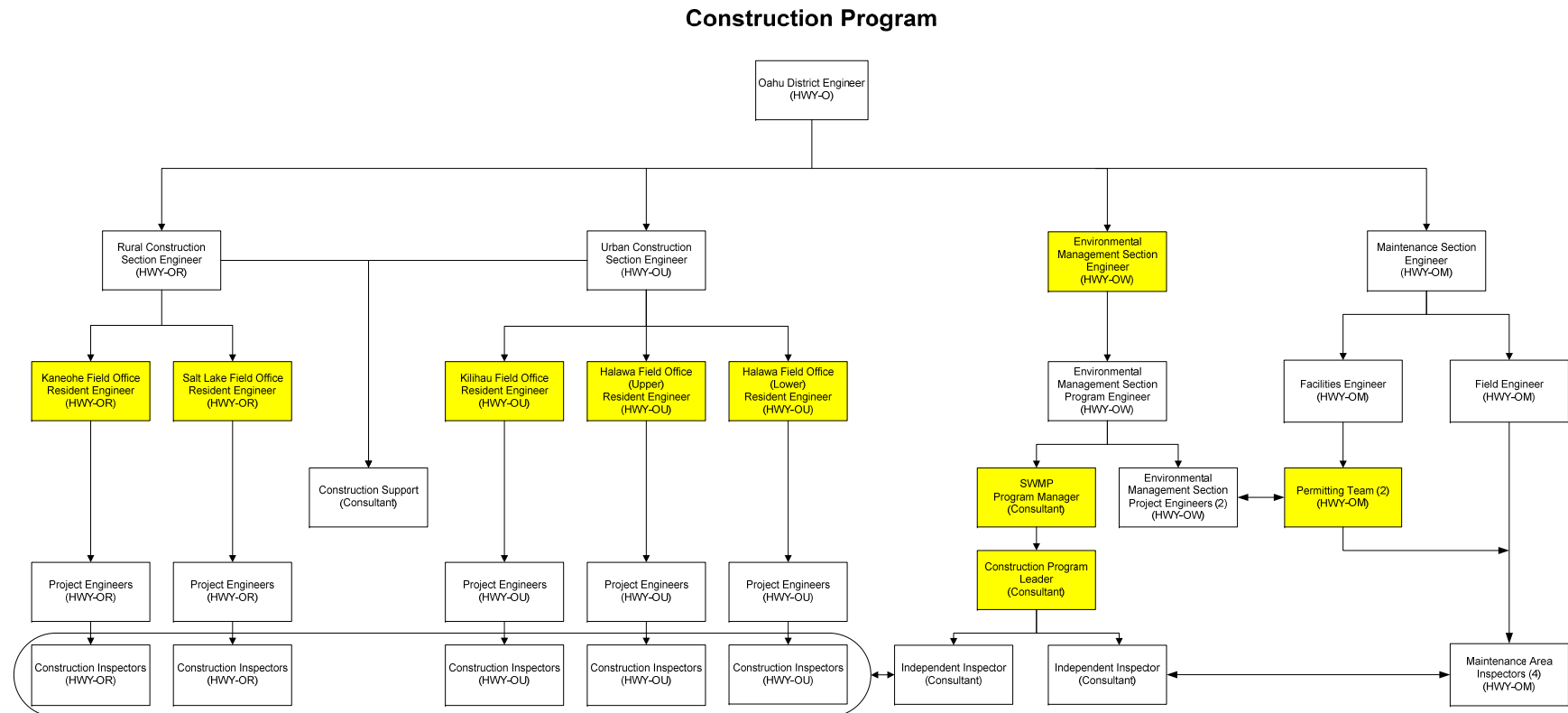


Figure 4-8. Construction Program Organizational Chart for Roles and Responsibilities Related to Education

4.8 Monitoring Program Effectiveness

Table 4-3 provides measurable standards/milestones for the BMPs discussed in this chapter and DOT-HWYS' strategy for monitoring the effectiveness of their implementation.

Table 4-3. Standards/Milestones for the Construction Program

| Section | BMP | Standard/Milestone | Monitoring Effectiveness |
|---------|---------------------------------|---|--|
| 4.1 | BMP Implementation | <ul style="list-style-type: none"> Establish policy to require proposed construction projects implement BMPs and standards. Annually review and as necessary revise the Hawaii Standards Specifications for Road and Bridge Construction and/or Special Provision, <i>Construction BMPs Field Manual</i>, <i>Maintenance BMPs Field Manual</i>, and the <i>Permanent BMPs Manual</i>. | <ul style="list-style-type: none"> Milestone completed on 10/27/ 2014. Report revisions in the Annual Report. |
| 4.2 | Inventory of Construction Sites | <ul style="list-style-type: none"> Use CPMS to track contract construction projects. Use databases to track encroachment permit construction projects. | <ul style="list-style-type: none"> Confirm that all contract construction projects have been entered into CPMS. Confirm that all encroachment permit construction projects have been entered into databases. |
| 4.3 | Plan Review and Permitting | <ul style="list-style-type: none"> Review all contract and encroachment permit construction project's SSBMP Plans and other pollution prevention measures to verify that they meet the requirements outlined in Part D.1.d.(3).(i) of the MS4 Permit. Use databases to track connection permits, discharge permits, and Permits to Perform Work Upon State Highways. | <ul style="list-style-type: none"> Document project plan review using the SSBMP Plan/SWPPP Plan Review Checklist. Maintain completed SSBMP Plan/SWPPP Plan Review Checklist in project files for all projects. Confirm permits or written equivalent approvals are tracked in databases. |

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| Section | BMP | Standard/Milestone | Monitoring Effectiveness |
|---------|---------------------------|--|---|
| 4.4 | Inspections | <ul style="list-style-type: none"> • Inspect all sites 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 activities. • Inspect all contract construction projects in accordance with Part D.1.d.4.(ii) of the MS4 Permit. • Inspect all construction projects with a connection permit, discharge permit, or <i>Permit to Perform Work Upon State Highways</i> in accordance with Part D.1.d.4.(iii) of the MS4 Permit. | <ul style="list-style-type: none"> • Track initial inspections for contract construction projects in CPMS. • Track initial inspections for encroachment permit construction projects in AMS. • Track independent inspections for contract construction projects in AMS. • Track independent inspections for encroachment permit construction projects in AMS. |
| 4.5 | Enforcement | <ul style="list-style-type: none"> • Develop and implement an ERP. | <ul style="list-style-type: none"> • Milestone completed on 10/27/2014. |
| 4.6 | Construction BMP Training | <ul style="list-style-type: none"> • Provide annual training for DOT-HWYS staff with construction storm water responsibilities. | <ul style="list-style-type: none"> • Maintain sign-in sheets of all training attendees. |
| 4.7 | Education | <ul style="list-style-type: none"> • Provide education on storm water requirements to project applicants, contractors, developers, property owners, and other responsible parties. | <ul style="list-style-type: none"> • Ensure that educational materials are distributed at DOT-HWYS District Office, Pre-Construction Conferences, and are available for download on www.stormwaterhawaii.com. |

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