

**SECTION 4**  
**Construction Site Runoff Control Program**

---

## SECTION 4

### **Construction Site Runoff Control Program**

*(Permit Part D.1.d.)*

#### **I. Introduction**

The purpose of the US Army Garrison, Hawaii (USAG-HI) Construction Site Runoff Control Program is to reduce pollutant discharges to the Army's storm drain system and to mitigate water quality impacts to receiving waters associated with construction activities to the maximum extent practical (MEP).

The Construction Site Runoff Control Program (CSRCP) requirements apply to all construction sites greater than or equal to **one (1) acre** in size and smaller projects that are part of a common plan of development that is **one (1) acre** or more in size. The program requires construction site operators to control waste and apply erosion and sediment control BMPs in compliance with *NPDES Chapter 11-55 Appendix C*.

The CSRCP includes the following components:

- Requires all NPDES covered construction projects to implement and maintain BMPs in accordance with adopted BMP manuals, permit requirements and USAG-HI policies.
- Maintain a construction database to track both private and public project information and documentation.
- Administer the review and authorization of construction plans and permits using plan review checklists.
- Conduct initial and monthly site inspections for all NPDES covered projects using inspection forms, photographs and proper reporting procedures.
- Implement the USAG-HI Enforcement Response Plan (ERP) for projects in non-compliance with USAG-HI policies, requirements and permits.
- Provide annual BMP training to staff with construction storm water responsibilities.
- Implement an education program to ensure that responsible parties understand storm water requirements.

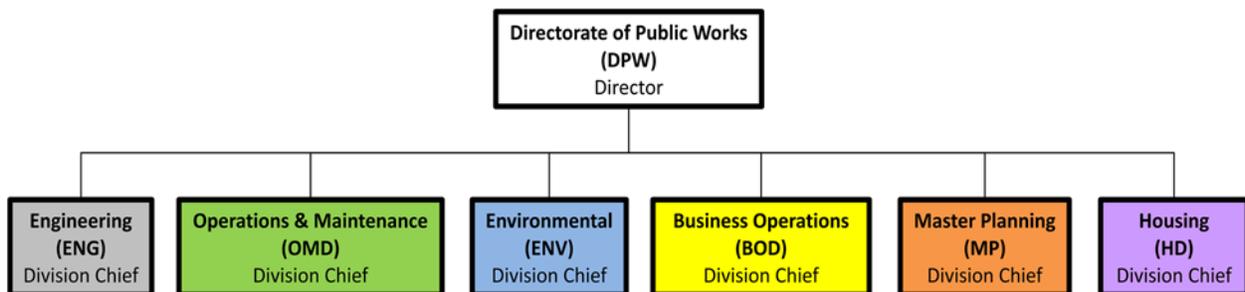
#### **II. Legal Authority**

All personnel, tenants, contractors and residents on the USAG-HI property are prohibited from illegally discharging pollutants to its MS4 through USAG-HI Enforcement Policies, permits, lease agreements, contract language and Military Law Enforcement. These mechanisms allow the USAG-HI to pursue

enforcement actions against entities in non-compliance with the requirements of the USAG-HI MS4 permit. Each mechanism is discussed in section IV, *Procedures and Best Management Practices* of this document.

### III. Roles and Responsibilities

The USAG-HI is the overseeing command for the Directorate of Public Works (DPW) as well as multiple other directorates. DPW is responsible for managing and implementing the NPDES MS4 permit. DPW is composed of several divisions: Business Operations Division (BOD), Engineering (ENG) which comprise of Construction and Utilities branches, Environmental (ENV) which comprise of Compliance and Conservation branches, Master Planning (MP), Operations and Maintenance Division (OMD), and Housing (HD). The chart below is a simplified organizational chart of DPW where the color and departmental codes are used to identify the responsible divisions for executing specific responsibilities detailed in section IV, *Procedures and Best Management Practices*. A complete detailed organizational chart can be found in the **INTRO Appendix C**.



### IV. Procedures and Best Management Practices

DPW has identified and selected the following BMP's to achieve the goals of the program. The specific tasks below constitute the activities that USAG-HI conducts as its CSRCP program.

**BMP# CON – 1:**

**Adoption of BMP Manuals**

*Permit Part D.1.d.(1)*

Divisions responsible:



BMP manuals provide comprehensive guidance for implementing storm water and erosion control measures and maintenance procedures for construction activities. During permit year 1, USAG-HI Directorate of Public Works, Environmental Division (DPW ENV) adopted the following reference manuals for all construction projects:

- “Storm Water Best Management Practice Manual: Construction,” prepared by the Department of Environmental Services City and County of Honolulu, November 2011, available in **CON Appendix A**.
- “Storm Water Permanent Best Management Practices Manual,” prepared by the Hawaii State Department of Transportation Highways Division, April 2015, available in **CON Appendix B**.
- “Army Low Impact Development Technical User Guide,” prepared by the U.S. Army Corps of Engineers, January 2013, available in **PC Appendix D**. The guide discusses maintenance of post construction BMP’s.

DPW ENV will review manuals annually and update as necessary to include descriptions of new or modified Best Management Practices (BMPs) including permanent BMPs and Low Impact Development (LID) practices. All revision made during a calendar year will be discussed in corresponding Annual Reports and all documents included in the Storm Water Management Plan (SWMP). The adopted reference manuals will be available to USAG-HI staff, contractors, and consultants on the Clean Water Program website. Web links to the manuals will also be posted in the storm water BMP training PowerPoint slides given to contractors working on NPDES covered projects.

**BMP# CON – 2:**

**Requirement to implement BMPs**

*Permit Part D.1.d.(2)*

Divisions responsible:

ENG

DPW ENG will change contract language for all construction activities by the 3<sup>rd</sup> year of EDOP. The contract language will apply to all funding categories and all construction projects. The contract language will require all construction projects to implement and maintain BMPs and standards described in the reference manuals described above in *BMP# CON – 1*.

All projects will be inspected per section *Permit Part D.1.d(5)* in accordance to the USAG-HI adopted field guidance manuals. If BMPs are not sufficiently installed or maintained per the above reference manuals, enforcement actions will be applied per *BMP# CON – 6* standards.

**BMP# CON – 3:**  
**Inventory of Construction Sites**

*Permit Part D.1.d.(3)*

Divisions responsible:

ENV

USAG-HI funded a contract to develop an updated electronic construction inspection database to be completed during permit year 3. DPW ENV will be responsible for the implementation and maintenance of the tracking system for both private and public construction projects disturbing over one (1) acre of land or smaller projects that are part of a common plan of development that is one (1) acre or more in size. DPW's system shall be managed to simultaneously track plan review and field inspections. Furthermore, the system will track Record of Environmental Considerations (RECs) that determines if ground disturbance will occur and if a project NOI Form C is necessary. Tracking system implementation will occur during the first permit year and continue to be improved throughout the permit duration. The system will include the frequency of construction inspections and documentation of BMP deficiencies as well as the following data:

- Project information (project name/type, NPDES tracking number, owner, contact information, COE representative, location, start and end dates, receiving waters etc.)
- Project status (NOI forms, and whether the project has applied for coverage under *HAR, Chapter 11-55, Appendix C*, NPDES General Permit and correspondence)
- Status of Storm Water Pollution Prevention Plan (SWPPP) review and date of acceptance, DPW issued letter authorizing the discharge of storm water associated with construction activity
- Initial BMP inspection forms (deficiencies, site photos)
- Construction inspections (inspection checklists, observations, photographs, follow-up documentation)
- Violations (type of violations, corrective actions/photographs, applicable correspondence)
- NPDES permit Notice of Cessation (NOC)

This database will be able to quantify and evaluate annual BMP violations and generate summaries showing common reoccurring deficiencies. DPW ENV will evaluate biannual project summaries in order to accurately assess BMPs and program effectiveness and to determine where program modifications are necessary. Project summary information will also be used to educate contractors, subcontractors and COE representatives on frequent storm water and erosion control insufficiencies.

DPW ENV will be primarily responsible for conducting construction site inspections, entering BMP-specific data and details for each inspection and tracking all follow-ups and corrections until project completion (NOC filed).

**BMP# CON – 4:**  
**Plan Review and Approval**  
*Permit Part D.1.d.(4)*

Divisions responsible:

ENV

USAG-HI requires a site-specific Storm Water Pollution Prevention Plan (SWPPP) for any land disturbance greater than one acre or part of a larger common plan of development. DPW ENV Clean Water Program staff will review 100% of all SWPPP and other pollution prevention measures (e.g., for Erosion and Sediment Control, Grading, Post-construction BMP and Landscaping) or similar plans/documents prior to approval of the construction plans and specifications. DPW ENV uses an approved SWPPP Review Checklist (see **CON Appendix C**) to verify all document contents meets the following requirements:

- Hawaii Administrative Rules (HAR), *Chapter 11-55, Appendix C*, and any other requirements under the NPDES permit program, as applicable
- Construction Best Management Practices Field Manual
- Maintenance Activities Best Management Practices Field Manual
- Storm Water Permanent Best Management Practices Manual
- 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 (BAT) currently available/ 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.

DPW ENV provides blank copies of the SWPPP Review Checklist to consultants and contractors to assist in SWPPP development. The Review Checklist includes *HAR, Chapter 11-55, Appendix C* permit requirement citations for reference use.

In addition to the SWPPP review requirements DPW ENV also ensures:

- The project owner has provided proof of filing an NOI Form C or NPDES application for the discharge of storm water associated with the construction activities that disturb one (1) acre or more and

- The project owner has provided proof of filing a NOI Form F and/or G or NPDES application for the discharge, if applicable

If the SWPPP plan and all supporting documents meet the above requirements, DPW-ENV will issue the permittee a “Letter of Authorization” (LOA). The LOA is the written equivalent of a permit that provides approval for drainage connections to the USAG-HI MS4 and the discharge of surface storm water runoff associated with construction. Contractors cannot complete the permit coverage application process without the LOA issued by USAG-HI. DPW ENV includes the LOA in the construction site database along with review documentation. An example of an LOA is included in **CON Appendix D**.

**BMP# CON – 5:**

**Inspections**

*Permit Part D.1.d.(5)*

Divisions responsible:

ENV

ENG

**Permit Part D.1.d(5)(i)**

Prior to the initiation of ground-disturbing activities at any site, except for the activities associated with the installation of BMPs, a qualified DPW ENV staff inspector familiar with the permit requirements and the project SWPPP will conduct an initial BMP inspection. Initial inspections will consist of reviewing all documents, and verifying that BMPs have been properly installed to the SWPPP specifications prior to the commencement of the ground-disturbing activity. Inspections will include a review of site Erosion and Sediment Controls, good housekeeping practices, and compliance with Permittee-accepted erosion and sediment control plans, construction BMPs plans and other similar documents and permittee approved permits.

The inspector will 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 projects construction activities. A DPW ENV generated Initial BMP Checklist with supporting photographs will be used to document any deficiencies and to provide comments. The Initial BMP Checklist is included in **CON Appendix E**. If the inspector identifies any BMP measure not installed to SWPPP specifications or detects 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 proceed until all deficiencies have been resolved. All initial inspections and deficiencies will be tracked using the comprehensive inventory database discussed in *BMP# CON – 3*.

---

**Permit Part D.1.d(5)(ii)**

All contract, in-house and maintenance construction projects greater than one (1) acre will be inspected at least monthly by qualified DPW ENV staff construction inspector(s) who is independent of the construction project to be inspected. DPW ENV will conduct random wet weather inspections and unannounced inspections prompted by any public complaint. The primary inspector is a third party EnviroCert Certified Erosion, Sediment and Storm Water 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 secondary inspector(s) will be qualified DPW ENV staff who are familiar with construction permit requirements, adopted BMP manuals and project specific SWPPP's.

All inspection and reporting procedures will be in accordance with USAG-HI's *Corrective Procedures for Construction Storm Water Inspections* document (July 2014). Definitions of critical, major, and minor deficiencies, along with reporting procedures, are explained in the document located in **CON Appendix F**. The reporting procedures will include, at a minimum, notifications of any critical deficiency to the Hawaii Department of Health (HDOH). Upon three (3) successive monthly site inspections that indicate, in total, no critical or major project BMP and storm water control deficiencies or less than six (6) minor deficiencies with no more than three (3) minor deficiencies in one (1) month, in the projects BMPs or other storm water management activities, then DPW ENV may decrease inspection frequency to quarterly. However, if under quarterly inspection frequency, one (1) critical or major deficiency is observed or three (3) or more minor deficiencies are detected, the inspection frequency shall immediately return to no less than monthly. The reduced inspection frequency option is contingent upon the permittee having defined each type or deficiency. The permittee shall further develop and implement written procedure for appropriate corrective actions and follow-up inspections when deficiencies have been identified at an inspected project. The corrective action procedures shall at a minimum require that:

- All critical deficiencies are addressed or corrected before the close of business on the day the deficiency was identified.
- All major deficiencies are addressed or corrected as soon as possible, but in no event later than five (5) calendar days after the deficiency is identified or before the next forecasted rain event, whichever is sooner.

**Permit Part D.1.d(5)(iii)**

If a construction project requires a connection permit, encroachment permit or discharge of surface runoff permit/approval shall be inspected at least annually or once during the project whichever comes first regardless of size. The site will be inspected by a qualified construction inspector(s) who is independent of the construction project to be inspected. If the project has a SWPPP or equivalent document the inspection shall verify that the BMPs were properly installed at the locations specified in

the plan. The inspection and reporting procedures will be implemented as described in *Permit Part D.1.d(5)*.

**Permit Part D.1.d(5)(iv)**

In accordance with *Permit Part D.1.d.(4)(iv)* of the MS4 Permit, DPW ENV submitted standard inspection forms and corrective and reporting procedures for inspections to HDOH, within 90 days of the effective date of the MS4 Permit. The *Construction Oversight Field Inspection Checklist* located in **CON Appendix G** includes site information, weather and discharge observations, BMP evaluation, comments on deficiencies and dates when deficiencies were addressed to the satisfaction of DPW ENV. Photographs will accompany inspection forms to document any deficiencies observed. Photographs and dates showing the observed deficiencies have been corrected will complement the inspection forms. The inspection tracking database (*BMP# CON – 3*) will be used to record all inspection forms, deficiencies and corrections.

As stated in the *Corrective Procedures for Construction Storm Water Inspections* document DPW ENV implements the following procedures to correct or address deficiencies identified during a site inspection conducted under *Permit Part D.1.d(4).(ii)* of the MS4 Permit:

1. If the inspector identifies a critical deficiency (see **CON Appendix F** for definition) 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.
2. 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.

**BMP# CON – 6:**

**Enforcement**

*Permit Part D.1.d.(6)*

Divisions responsible:

ENV

ENG

In April 2015 (permit year 1), DPW ENV developed a Construction Site Runoff Control Enforcement policy that is pending approval and can be located at **CON Appendix H**. The policy memo dictates enforcement actions and penalties for those in non-compliance with *Permit Part D.1.d.(2)*.

In addition DPW ENV developed a Construction Site Runoff Control Enforcement Plan that can be found in **CON Appendix I**. The plan includes written procedures and describes the enforcement actions. All contractors working on USAG-HI property are subject to the requirements of the enforcement plan.

**BMP# CON – 7:**

**Refer Noncompliance and Non-filers to HDOH**

*Permit Part D.1.d.(7)*

Divisions responsible:

ENV

ENG

In the event that the noncompliance has not been resolved, or DPW ENV has exhausted its use of sanctions and cannot bring a construction site or construction operator into compliance with its policies, standards, or the NPDES permit, or otherwise believes the site poses an immediate and significant threat to water quality, DPW-ENV shall in accordance with MS4 *Permit Part D.1.d.(7)*:

- Provide an e-mail notification to HDOH Clean Water Branch (CWB) Enforcement Section within one week of determination.
- E-mail notifications will be followed by written notification and include supporting inspection documentation (checklists, notes) and correspondence within two weeks of determining a site noncompliant.
- In instances where an inspector identifies a site that has not applied for permit coverage under the NPDES program, DPW-ENV will provide written notification to HDOH CWB Enforcement Section within two weeks of the discovery.

**BMP# CON – 8:**

**Training**

*Permit Part D.1.d.(8)*

Divisions responsible:

ENV

ENG

During permit years 2-5, DPW ENV will provide an annual classroom construction storm water BMP presentation to 100% of personnel working on NPDES covered USAG-HI construction projects with construction storm water responsibilities. Personnel includes but is not limited to engineers, inspectors, quality control and assurance staff, contractors, and plan reviewers. Additionally, training will extend internally to DPW division staff including: BOD, ENG, ENV, MP, OMD, and HD. Construction Storm Water BMP Training will be approximately 2 hours in length and contain PowerPoint slides of the following topics:

- A review of SWPPP procedures,
- Proper BMP installation and maintenance techniques,
- Inspection of construction BMPs, and

- All other permit policies

If DPW ENV determines more training is necessary, biannual training or an additional refresher course will be held. Attendees will be given an electronic copy of reference materials that includes implemented BMP manuals, Clean Water Program staff contacts and 24 hour spill hotline. Attendee sign in sheet records will be kept by DPW ENV and tracked using the database.

In addition to classroom training, during Permit year 1, DPW ENV developed and distributed a PowerPoint presentation titled “*Construction Best Management Practice (BMP) Storm Water Training*” found at **CON Appendix J**. Presentation topics include:

- Environmental and regulatory background
- NPDES permit requirements
- Erosion and sediment control measures
- Inspection procedures
- Storm water reference links and staff contact information

The objective of the training program is to ensure project contractors, developers, inspectors, property owners, project applicants and other responsible parties have an understanding of the storm water requirements they need to implement. Presentation slides will be sent to 100% of project staff with construction storm water responsibilities during the duration of the permit term. Presentation slides will be modified and updated as needed to convey the most accurate information. Staff will verify training was reviewed and document participants using the construction inventory database.

Training program effectiveness will be measured on an annual basis determined by change in behavior and knowledge gained. Surveys will be given to participants after the annual classroom presentation is complete to determine the understanding of the program material. Training program information will be updated or modified during the permit term if determined necessary by DPW ENV program staff. Additional training on new or changed BMPs will take place as needed. For example, DPW ENV anticipates a potential need for additional training in the future on construction or installation of LID design measures. DPW ENV staff continues to attend off-site classes and workshops on construction, post-construction, and other related topics including Low Impact Development.

In addition, DPW ENV encourages staff and contractors to attend off-site classes, conferences and workshops offered by other agencies and organizations on related storm water practices.

**BMP# CON – 9:**  
**Education**  
 Permit Part D.1.d(9)

Divisions responsible:

ENV

ENG

DPW ENV will attend 100% of pre-construction meetings for NPDES covered construction projects during permit years 2-5. DPW ENV Clean Water Program staff will brief attendees on SWMP implementation, storm water requirements, USAG-HI MS4 program and answer any questions. DPW ENV will prepare and distribute PowerPoint slides during permit years 2-5 to 100% attendees including project applicants, contractors, developers, property owners, and other responsible parties. An attendee sign in sheet will be kept by DPW ENV to document all educated personnel for the duration of the permit term.

## V. Measurable Goals

The measurable goals listed in the table below will be used to monitor the BMP’s progress and evaluate the Construction Site Runoff Control program success:

BMP#	BMP Description	Measurable Goal	Area of Responsibility	Schedule
CON – 1	Adoption of BMP Field Manuals	1. Adopt manuals.	<div style="background-color: #4F81BD; color: white; padding: 2px 5px; border: 1px solid black;">ENV</div>	1. Adopted in May 2014.
CON – 2	Requirement to implement BMPs	1. Ammend contract language.	<div style="background-color: #A9A9A9; padding: 2px 5px; border: 1px solid black;">ENG</div>	1. Permit year 3.
CON – 3	Inventory of Construction Sites	1. Implement a system to track inventory of all NPDES covered projects. 2. Track 100% of construction projects and all corresponding information and inspection forms.	<div style="background-color: #4F81BD; color: white; padding: 2px 5px; border: 1px solid black;">ENV</div>	1. Construction database to be complete permit year 3. 2. Complete on spreadsheet and electronic media.

BMP#	BMP Description	Measurable Goal	Area of Responsibility	Schedule
CON – 4	Plan Review and Approval	<ol style="list-style-type: none"> <li>Review 100% of project SWPPPs and supporting documents.</li> <li>Require 100% of projects greater than one (1) acre to obtain a Letter of Authorization to discharge storm water to the Army's MS4 before applying for a permit.</li> </ol>	<div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 2px; width: fit-content; margin: 0 auto;">ENV</div>	<ol style="list-style-type: none"> <li>Implemented-Continue as required.</li> <li>Implemented-Continue as required.</li> </ol>
CON – 5	Inspections	<ol style="list-style-type: none"> <li>Respond to 100% of complaints.</li> <li>Implement corrective actions per policies for 100% of sites where a violation is detected.</li> </ol>	<div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 2px; width: fit-content; margin: 0 auto;">ENV</div> <div style="border: 1px solid black; background-color: #A9A9A9; color: black; padding: 2px; width: fit-content; margin: 0 auto;">ENG</div>	<ol style="list-style-type: none"> <li>Implemented-Continue as required.</li> <li>Implemented-Continue as required</li> </ol>
CON – 6	Enforcement	<ol style="list-style-type: none"> <li>Develop Construction Site Runoff Control Enforcement policy.</li> </ol>	<div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 2px; width: fit-content; margin: 0 auto;">ENV</div> <div style="border: 1px solid black; background-color: #A9A9A9; color: black; padding: 2px; width: fit-content; margin: 0 auto;">ENG</div>	<ol style="list-style-type: none"> <li>Policy complete. Pending approval.</li> </ol>
CON – 7	Refer Noncompliance and Non-filers to HDOH	<ol style="list-style-type: none"> <li>Refer 100% noncompliance and non-filers to HDOH.</li> </ol>	<div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 2px; width: fit-content; margin: 0 auto;">ENV</div>	<ol style="list-style-type: none"> <li>Will be initiated permit year 2.</li> </ol>
CON – 8	Training	<ol style="list-style-type: none"> <li>Provide an annual presentation to 100% of personnel working on NPDES covered projects.</li> <li>Distribute Training Slide to 100% of contractors.</li> </ol>	<div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 2px; width: fit-content; margin: 0 auto;">ENV</div> <div style="border: 1px solid black; background-color: #A9A9A9; color: black; padding: 2px; width: fit-content; margin: 0 auto;">ENG</div>	<ol style="list-style-type: none"> <li>Permit years 2-5.</li> <li>Permit year 2-5.</li> </ol>
CON – 9	Education	<ol style="list-style-type: none"> <li>Attend 100% of pre-construction meetings for NPDES covered projects to brief on storm water requirements.</li> </ol>	<div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 2px; width: fit-content; margin: 0 auto;">ENV</div> <div style="border: 1px solid black; background-color: #A9A9A9; color: black; padding: 2px; width: fit-content; margin: 0 auto;">ENG</div>	<ol style="list-style-type: none"> <li>Permit years 2-5.</li> <li>Permit years 2-5.</li> </ol>

---

BMP#	BMP Description	Measurable Goal	Area of Responsibility	Schedule
		2. Distribute PowerPoint slides to 100% of attendees.		

## VI. Reporting

A summary of activities, surveys and projects will be presented in the annual SWMP report that will be submitted to the HDOH CWB and EPA CWB. The information will be compiled in a table that illustrates the effectiveness of the BMP's as related to each measurable goal.