

ANNUAL MONITORING PLAN U.S. ARMY GARRISON HAWAII 2025



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Permit NO. HI S000090



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Acronyms and Abbreviations

AMR	Aliamanu Military Reservation
AMS	Asset Management System
AUL	Authorized Use List
BMP	Best Management Practice
BOID	Business Operations Integration Division
CABP	Chemical Applications BMP Program
CADM	Commercial Activities Discharge Management
CSRCP	Construction Site Runoff Control Program
CSRC	Construction Site Runoff Control
DCBP	Debris Control BMP Program
DPW	Directorate of Public Works
ECBP	Erosion Control Best Management Practice Plan
ECI	Environmental Compliance Inspectors
EPA	Environmental Protection Agency
ENV	DPW Environmental Division
FDR	Fort DeRussy
FS	Fort Shafter
FY	Fiscal Year
HDOH	Hawaii Department of Health
HMR	Helemano Military Reservation
IDDE	Illicit Discharge Detection and Elimination
I&M Plan	Implementation and Management Plan
IPC	Island Palm Communities
IPMP	Installation Pest Management Plan
LID	Low Impact Development
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MOU	Memorandum of Understanding
MP	Master Planning
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Cessation
NPDES	National Pollutant Discharge Elimination System
PEO	Public Education and Outreach
Permit	NPDES Permit No. HI S000090
PCSW	Post Construction Storm Water Management
PIP	Public Involvement and Participation
P2	Pollution Prevention
SB	Schofield Barracks
SIC	Standard Industrial Classification
SOP	Standard Operating Procedure
SPCC	Spill Prevention Control and Countermeasures
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TAMC	Tripler Army Medical Center

TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TSS	Total Suspended Solids
USAG Hawaii	U.S. Army Garrison Hawaii
UXO	Unexploded Ordinance
WAAF	Wheeler Army Airfield
WLA	Waste Load Allocations

I. Monitoring Plan Introduction

In November 2020, U.S. Army Garrison Hawaii (USAG Hawaii) was issued a National Pollutant Discharge Elimination System Permit (NPDES) No. HI S000090, hereinafter referred to as The Permit, from The State of Hawaii Department of Health (HDOH). The Permit authorizes USAG Hawaii to discharge storm water runoff into State Waters from the Army's Municipal Separate Storm Sewer System (MS4). The Permit will expire Oct. 31, 2025. In October 2024, the Permit Renewal Application was submitted to HDOH for review and comments.

The USAG Hawaii Directorate of Public Works (DPW) Environmental Division (ENV) is the designated Permittee who administers and oversees compliance with The Permit.

The Permit covers seven U.S. Army Garrison Hawaii installations: Aliamanu Military Reservation (AMR), Fort DeRussy (FD), Fort Shafter (FS), Helemano Military Reservation (HMR), Schofield Barracks (SB), Tripler Army Medical Center (TAMC), and Wheeler Army Airfield (WAAF). The FY26 Permit Renewal does not include HMR as it is no longer considered an urbanized area within USAG Hawaii boundaries per the 2020 Decennial Census.

The following Annual Monitoring Plan is being submitted in accordance with Part E.1. of The Permit. The proposed activities outlined within this plan will be effective during fiscal year (FY) 26, from Oct. 1, 2025 - Sept. 30, 2026.

This monitoring plan is designed to specifically meet the objectives and requirements outlined within The Permit, as follows:

- Part E.1.a.(1): Assess compliance with this permit;
- Part E.1.a.(2): Measure the effectiveness of the Permittee's SWMP;
- Part E.1.a.(3): Assess the overall health based on the chemical, physical, and biological impacts to receiving waters resulting from storm water discharges and an evaluation of the long-term trends;
- Part E.1.a.(4): Characterize storm water discharges;
- Part E.1.a.(5): Identify sources of specific pollutants;
- Part E.1.a.(6): Detect and eliminate illicit discharges and illegal connections to the MS4;
- Part E.1.a.(7): Assess water quality issues in watershed resulting from storm water discharges to receiving waters.

In previous NPDES permits, USAG Hawaii was assigned Standard Industrial

Classification (SIC) codes according to related public-sector industries. However, in the 2020 NPDES permit, HDOH and Environmental Protection Agency (EPA) approved USAG Hawaii's request to change the SIC code to National Defense (9711). As such, USAG Hawaii is not required to conduct storm water sampling. Even though sampling is no longer required, this plan will clearly demonstrate how USAG Hawaii will conduct monitoring activities over the next FY to meet the goals and objectives outlined within this plan, the Storm Water Management Plan (SWMP), and The Permit.

A. Monitoring Program Plan for FY26

The goal of this Annual Monitoring Plan is to document objectives and provide a description of USAG Hawaii's monitoring activities for the upcoming fiscal year, FY26. The purpose of the monitoring program is to allow the USAG Hawaii and HDOH to implement and assess the effectiveness of the 2021 SWMP and determine how monitoring activities fulfil the requirements within The Permit. In accordance with The Permit and the SWMP, USAG Hawaii will reduce, to the Maximum Extent Practical (MEP), the discharge of pollutants to and from its MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act.

The proposed monitoring plan for FY26 consists of the following elements:

- **Measuring Effectiveness of the Storm Water Management Plan**
- **Public Education and Outreach**
- **Public Involvement/Participation**
- **Illicit Discharge Detection and Elimination**
- **Construction Site Runoff Control Program**
- **Post Construction Storm Water Management**
- **Pollution Prevention/ Good Housekeeping**
- **Commercial Activities Discharge Management**
- **Total Maximum Daily Load Implementation & Management Plan**

The elements listed above were strategically chosen for the FY26 monitoring plan to effectively incorporate the minimum control measures (MCM) outlined in Part E.1.a.(1) through Part E.1.a.(7) of The Permit. The following sections of this annual monitoring plan will be based on the elements listed above. In addition, The Permit requires each objective to include:

- **Written Narrative-** of the proposed monitoring plan's objective, including but not limited to the objectives listed above and description of activities.
- **Determining Compliance-** A description of how the results will be used to determine compliance with The Permit.

- **Effectiveness of Management Measures-** identification of management measures proven effective and/or ineffective at reducing pollutants and flow.

II. Measuring the Effectiveness of the Storm Water Management Plan

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a. (2) Measure the effectiveness of the Permittee's SWMP.*

A. Written Narrative

USAG Hawaii was issued a new National Pollutant Discharge Elimination System permit in September 2020 and the current SWMP was finalized in October 2021.

Determining effectiveness of the SWMP is important for several reasons: to meet regulatory requirements, document progress toward water quality goals, justify commitment of resources, provide feedback to the management program, and assess reductions in pollutants of concern.

USAG Hawaii's two-tiered approach to evaluation effectiveness of the SWMP includes:

1. **Assessing Program Operations-** Assessing program operations involves checking basic compliance with permit requirements and documenting efforts made to reduce storm water impacts. This approach to program evaluation will be applied to all program components of the USAG Hawaii SWMP.
2. **Assessing Training and Outreach-** Indicators related to training are important for assessing achievement of goals related to increasing knowledge and changing attitudes among groups such as residents, military and civilian personnel, and construction contractors.

B. Determining Compliance

The first method used to assess program operations will be to track Best Management Practices (BMPs) under the six Minimum Control Measures (MCM) outlined within The Permit. Tracking BMPs such as Low Impact Development (LID) features and those implemented under the Construction Site Runoff Control Program will provide Clean Water Program staff with direct feedback on whether goals set for the SWMP are being achieved.

U.S. Army Garrison Hawaii's SWMP includes BMPs to satisfy requirements of The Permit and measurable goals to determine the program's effectiveness in satisfying these requirements. The SWMP includes measurable goals for each MCM.

The 2021 SWMP describes the required BMP, measurable goals, areas of responsibility, and proposed schedule of implementation.

C. Effectiveness of Management Measures

The Annual Report will summarize completed and proposed BMP activities to comply with The Permit's MCMs. BMP information, including BMP descriptions, measurable goals, implementation, past and future activities, resources, modifications, and program effectiveness are included in the annual report. Each measurable goal is evaluated and areas that need improvement are identified in the Annual Report.

The evaluation of training and outreach efforts may include tracking the number of training sessions and participants, issuing surveys or questionnaires at appropriate events, and tracking metrics related to outreach materials. Feedback received from trainings, events, and surveys will be compiled and incorporated to improve the program overall. Each section within this plan will clearly outline how USAG Hawaii will maintain compliance with the Permit and meet the goals discussed within the SWMP.

III. Public Education and Outreach

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a. (2) Measure the effectiveness of the Permittee's SWMP.*

A. Written Narrative

USAG Hawaii implements Public Education and Outreach programs throughout each fiscal year to stay in compliance with requirements within The Permit and to ensure the Army community is informed of the impacts that they can have on the quality of storm water runoff and, subsequently, on the waters of the United States. A comprehensive education plan, outlined within the SWMP, includes an overview of targeted groups, detailed goals, and a review of the approaches as well as resources USAG Hawaii will offer.

B. Determining Compliance

The Public Education and Outreach section of the SWMP was strategically developed to meet the requirements within The Permit. The SWMP includes an inclusive list of targeted groups across the Army community, the educational goals for each group, and the proposed schedule for implementation. As required within The Permit, the SWMP also includes the comprehensive education plan with a list of goals, actions, resources, as well as proposed topics to be covered. The BMPs included in the SWMP are listed below.

Measurable Goals for FY26:

PEO—1 Storm Water Awareness Brochures/Posters/Fact Sheets

- Storm water fact sheets, posters, and brochures are available for distribution. Total number of resources made available will be tracked.
- Trainings are provided to key targeted groups. Training events will be tracked and counted throughout the year.

PEO—2 Online Communication and Media Relations

- Online communications will be assessed over the year to track the number of page views and total posts. All social media posts will be reported in the annual report.

PEO—3 Elementary School Education

- USAG Hawaii will conduct storm water education for elementary school students on base. The total number of educational events, number of elementary school children and the ages of students participating will be tracked throughout the year.

PEO—4 Environmental Compliance Officer (ECO) Program Training

- All personnel requiring ECO Training or ECO Refresher shall be provided with training opportunities. Trainings will be held on a monthly basis.
- Environmental Compliance Inspectors (ECI's) will continue to conduct inspections to ensure all ECOs are properly trained. USAG Hawaii has a goal of training 100% of assigned ECOs each year.

PEO—5 Effectiveness Survey

- USAG Hawaii will distribute 50 surveys throughout the FY.
- USAG Hawaii will track and review survey responses to determine the effectiveness of the PEO program. Previous responses will be analyzed against the most recent surveys to measure program progress.

PEO—6 Collaboration with Other MS4 Permit Holders

- USAG Hawaii participate in collaboration meetings with other MS4

stakeholders throughout the permit term.

- The total number of trainings and meetings will be tracked.

Compliance with the Permit will be evaluated yearly within the Annual Monitoring Report and Annual Report, where USAG Hawaii will demonstrate that all public education and outreach activities have been completed.

C. Effectiveness of Management Measures

Continual evaluation of the education and outreach activities is crucial to determining the effectiveness of the proposed education plan. Measuring the effectiveness of the BMPs listed within this section will require detailed tracking of activities, feedback, and a determination of how to incorporate changes each year.

As required within The Permit and the SWMP, USAG Hawaii will update the targeted group list as necessary, implement activities outlined within the educational plan, and effectively evaluate the progress of the proposed plan. To ensure the goals are met, each activity will be recorded on a tracker with all relevant information (date, number of attendees, topics, etc.). Any outreach conducted through online communications (e.g. social media, USAG Hawaii website) will be saved on the internal network. USAG Hawaii will review the engagement of online communications through page views and engagements with posts. USAG Hawaii's goal is to conduct at least 50 surveys to the targeted groups annually. The results of these surveys will be analyzed and compared to previous years. The information gleaned from these surveys will be utilized to improve the comprehensive education plan in the future.

IV. Public Involvement/Participation

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a. (2) Measure the effectiveness of the Permittee's SWMP.*

A. Written Narrative

The Public Involvement/Participation program allows opportunities for public review of the SWMP and other plans required by the Permit. Outreach events and public involvement strategies bring awareness to the community about how their daily activities have an impact on water quality and how to effectively reduce those impacts.

B. Determining Compliance

The Permit requires USAG Hawaii to give the public and key stakeholders the opportunity to participate in developing, reviewing, and implementing the SWMP and other required plans. The Permit also outlines other activities to continue to involve the public, such as volunteer opportunities. To maintain compliance with the Permit, USAG Hawaii has committed to implement the following BMPs.

Measurable Goals for FY26:

PIP—1 Public Review and Comment to SWMP

- USAG Hawaii will provide the opportunity for the public to review and comment on the SWMP and other plans required by the Permit.
- 100% of these plans will be made available for a 30-day public comment period, as necessary. USAG Hawaii will maintain copies of any public notices and will track the comments provided on each plan.
- In 2021, the SWMP was made available for public comment. If there are any major revisions to this plan, an informational meeting will be held at that time.

PIP—2 SWMP and Annual Report Availability

- 100% of plans will be made available for a 30-day public comment period, as necessary. USAG Hawaii will maintain copies of any public notices and will track the comments provided on each plan.
- USAG Hawaii will make plans available at the DPW Environmental Division Office.

PIP—3 Volunteer and Clean-up of MS4 Receiving Water Activities

- USAG Hawaii is not able to conduct volunteer events in or around streams on USAG Hawaii property due to the potential presence of UXO. USAG Hawaii will continue to identify potential areas for volunteer activities that are deemed safe.
- The total number of outreach events and participants related to water quality protection and cleanup of MS4 receiving waters will be tracked internally and reported in the Annual Monitoring Report and Annual Report.
- If trash is collected during an event, the total amount of trash collected will be tracked.

C. Effectiveness of Management Measures

USAG Hawaii will determine the effectiveness of the Public Involvement/Participation program by tracking the plans made available for public comment, the feedback received, as well as the incorporated changes. The feedback received from the public comment

period will allow USAG Hawaii to become aware of the interests, knowledge, and concerns from the groups that are affected by USAG Hawaii's plans to improve the overall health of the impacted waters.

USAG Hawaii will also keep track of any volunteer activities conducted and the overall message, activities, and attendees for each event. Any feedback received from the public will be tracked and incorporated into our management plan, as applicable.

V. Illicit Discharge Detection and Elimination (IDDE) Program

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a.(3) Assess the overall health based on chemical, physical, and biological impact to receiving waters resulting from storm water discharges and an evaluation of the long-term trends*
- *NPDES Permit Part E.1.a.(4) Characterize storm water discharges*
- *NPDES Permit Part E.1.a.(5) Identify sources of specific pollutants.*
- *NPDES Permit Part E.1.a.(6) Detect and eliminate illicit discharges and illegal connections to the MS4.*
- *NPDES Permit Part E.1.a. (7) Assess the water quality issues in watershed resulting from storm water discharges to receiving waters.*

A. Written Narrative

U.S. Army Garrison Hawaii (USAG Hawaii) has an Illicit Discharge Detection and Elimination Program developed to prevent the discharge of pollutants and non-storm water sources from its storm sewer system to the MEP. Routine inspections will be conducted to identify and prevent illegal discharges and/or connections to the USAG Hawaii MS4. Since the USAG Hawaii MS4 system is mostly contained within USAG Hawaii boundaries, illegal connections have not been an issue under this permit. However, USAG Hawaii is enacting various BMPs to address potential illicit discharge issues such as, field screenings of storm drain outfalls, monitor complaint investigations, develop and follow USAG Hawaii's Spill Prevention and Response Plan and Used Oil and Toxic Disposal Program, provide training materials for inspectors, operators, and family housing residents, and continue to update maps of installation sewer systems and infrastructures.

B. Determining Compliance

USAG Hawaii will continue to inspect outfalls as prescribed by the SWMP and the Permit to screen for illicit discharges and illegal connections. Establishing enforcement policies for those not in compliance and establishing connection permit programs for facilities not owned by USAG Hawaii will help to detect and eliminate pollutant discharges.

Measurable Goals for FY26:

IDDE—1 Connection Permit Program

- USAG Hawaii will continue to implement and track permits for organizations that discharge to its MS4.
- DPW ENV personnel will review relevant NEPA documents to ensure projects follow USAG Hawaii policies and implement proper BMPs.
- A database including location information, property descriptions, point of contact, connection permit status, and description of MS4 infrastructure on property will continue to be updated by inspectors.
- Violations found while inspections are conducted will be added to the tracker, and the facility will be notified of fines in compliance with the IDDE Program Enforcement Policy.

IDDE—2 Outfall Field Screening

- USAG Hawaii DPW ENV staff will inspect all high priority outfalls over the permit term for illicit discharges and connection points.
- A database of major and minor outfalls will continue to be updated to determine priority locations. 100% of high priority outfalls will be inspected and monitored each permit period.
- A database including location information, property descriptions, point of contact, connection permit status, and description of MS4 infrastructure on property will continue to be updated by inspectors.

IDDE-3 Tracking System

- USAG Hawaii will continue to maintain and track complaints, spills, and illicit discharges on the internal shared network database. By doing this, DPW ENV personnel can determine where and what types of discharges are occurring.

IDDE—4 Compliant Investigation

- USAG Hawaii DPW ENV has established a spill hotline to assist those with illicit discharges, complaints, spills, and relevant information. Staff will continue to respond and track incoming calls, any follow-up action, and resolutions on a spreadsheet.
- The Spill Hotline phone number will be added to project reviews, to Soldiers and on post residents, to facilities, and on the DPW ENV website. The phone number will be updated as needed.

IDDE—5 Enforcement Policy

- USAG Hawaii will continue to review the current enforcement policy memo

and determine updates as needed. The policy will continue to be added to project reviews, provided to Soldier and on post housing residents, provided to facilities, and displayed on the DPW ENV website.

- DPW ENV will continue to work with Island Palm Communities (IPC) on the Resident Guide, which includes proper disposal for hazardous materials.
- USAG Hawaii will continue to work with Military Law Enforcement to monitor and report illicit discharges.

IDDE—6 Spill Prevention and Response

- USAG Hawaii DPW ENV will continue to implement the Garrison Spill Prevention Control and Countermeasures (SPCC). The plan provides information to prevent, respond, contain, and clean up spills that enter the MS4. The SPCC Plan will be updated every five (5) years.
- Spill response standard operating procedures (SOPs) will continue to be reviewed, implemented, and updated to provide guidance to inspectors, employees, and Soldiers that may have to respond to a spill that enters the MS4.
- The wastewater spill response SOP will continue to be reviewed, implemented, and updated to describe responsibilities of wastewater entering the MS4. This SOP contains information on non-wastewater spills as well.

IDDE—7 Used Oil and Waste Disposal

- DPW ENV continues to implement the Environmental Compliance Officer (ECO) program, which educates military units and commercial operations about used oil, vehicle fluids, hazardous materials and waste. Fuel Handling trainings will also be held for operators.

IDDE—8 Training

- DPW ENV will continue to provide training to the ECOs on identifying, labeling, storing, and disposing of materials. The trainings are conducted annually and are tracked and updated, as needed.

C. Effectiveness of Management Measures

The IDDE Program will be evaluated based on the standards and/or milestones defined in the SWMP IDDE Program. The summary of activities, surveys, and projects completed over the fiscal year will be presented in the Annual Report.

By reviewing connection permits, DPW ENV is able to determine if discharges or disposal from activities will have an impact on the MS4. While conducting outfall inspections, the

priority list is followed and updated as needed. The information gathered from the inspections and spreadsheet are saved on the internal drive and assist DPW GIS along with other departments to update their records. Tracking complaints and spills by phone, emails, and through in-person communication will allow DPW ENV to determine if the SOP is correctly being followed and how it can be improved. Training provided to ECO's allows information on spills, illicit discharges, and disposal of hazardous materials to be readily available for Soldiers.

VI. Construction Site Runoff Control Program

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a. (2) Measure the effectiveness of the Permittee's SWMP.*

A. Written Narrative

USAG Hawaii has established a Construction Site Runoff Control Program (CSRC) to reduce discharge of sediment and other potential pollutants from construction sites to the maximum extent possible. The USAG Hawaii SWMP reviews the eight (8) BMPs associated with the CSRC program including, implementation and adoption of manuals, maintaining an inventory of construction sites, review and approval of plans, inspections, enforcement, noncompliance reporting, training, and education. Each BMP is designed to efficiently keep track of construction projects and ensure all BMPs are followed to prevent any construction site related discharges.

B. Determining Compliance

Based on the Permit, USAG Hawaii is required to incorporate eight (8) minimum elements into the CSRC program. These eight (8) elements were included in the SWMP with an outline of specific targets to meet programmatic goals. USAG Hawaii will continue to meet the goals, documentation, and reporting requirements outlined in the Permit and the SWMP.

Measurable Goals for FY26:

CSRC—1 Implement BMPs in Accordance with Manuals

- USAG Hawaii had adopted manuals for implementing storm water and erosion control measures for construction activities.
- USAG Hawaii will stay abreast of any updates to the adopted manuals and update the SWMP accordingly.

- Adopted manuals will be made available and referenced during trainings and on the USAG Hawaii website.

CSRC—2 Inventory of Construction Sites

- USAG Hawaii staff will routinely update the construction projects using an internal tracking system and database. Project details, frequency of inspections, inspection forms, and deficiencies will be tracked.
- The total number of deficiencies will be tracked and reported in the Annual Report.

CCRC—3 Plan Review and Approval

- USAG Hawaii is committed to reviewing 100% of all SWPPPs. USAG Hawaii will also review other pollution prevention plans such as Environmental Protection Plans and BMP plans.
- A database of construction projects with all relevant plans, documentation, and inspection reports is maintained internally.

CSRC—4 Inspections

- A database and tracker are maintained for all construction project inspections for projects over one (1) acre and under one (1) acre.
- All projects over one (1) acre will be inspected on a monthly basis, unless a less frequent inspection schedule has been approved, based on deficiencies. USAG Hawaii will track that this inspection frequency standard has been met in the Annual Report and Annual Monitoring Report.

CSRC—5 Enforcement

- USAG Hawaii developed a formal, written enforcement policy signed by the Garrison Commander. This policy states requirements to comply with the Permit and USAG Hawaii's CSRC policies.
- USAG Hawaii will review the policy annually and make revisions as necessary.
- Any violations of the policy will be tracked and escalated to the appropriate Army official, as necessary.

CSRC—6 Noncompliance Reporting

- Any noncompliance issues identified by USAG Hawaii staff and inspectors will be internally tracked and escalated. In the event that the noncompliance will not be resolved, then the HDOH Enforcement Section will be notified of the noncompliance issue.
- USAG Hawaii will ensure that all instances of noncompliance will be

tracked and reported, if necessary.

CSRC—7 Training

- USAG Hawaii staff will be trained annually in storm water BMPs. All training dates and certificates will be kept in the internal database. The total number of trainings attended will be reported.
- Staff working on NPDES-covered construction projects will complete trainings prior to construction and will renew their credentials.

CSRC—8 Education

- USAG Hawaii will provide construction project proponents with educational materials early in the planning process.
- The educational materials will be kept in the internal database and USAG Hawaii will commit to ensuring that this information is available for all projects.

C. Effectiveness of Management Measures

USAG Hawaii will determine the effectiveness of the CSRC program by reviewing that all goals have been met each FY. If all projects are tracked, inspections performed, and personnel trained, then it is likely that the deficiencies per project will decrease overall. USAG Hawaii inspectors and program staff will routinely review the type of common deficiencies found at construction projects and adjust trainings to help address those issues before they arise.

VII. Post Construction Storm Water Management

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a. (2) Measure the effectiveness of the Permittee's SWMP.*
- *NPDES Permit Part E.1.a. (5) Identify sources of specific pollutants.*

A. Written Narrative

U.S. Army Garrison Hawaii will review plans for new and re-development projects and inspect and monitor all post-construction BMPs to ensure proper operation. USAG Hawaii will implement a tracking system for post-construction BMP Inspection and Maintenance. USAG Hawaii will continue to provide educational material to appropriate staff, such as those responsible for inspections of Low Impact Development (LID) features. USAG Hawaii will continue to monitor storm water runoff leaving U.S. Army Garrison Hawaii

installations as required by The Permit. The health of receiving waters will help USAG Hawaii identify management measures to reduce target pollutants.

As required by USAG Hawaii's NPDES MS4 Permit, an Asset Management System (AMS) will be implemented to track inspections and maintenance of permanent post-construction BMPs.

USAG Hawaii will continue to report on the AMS development and implementation in the Annual Report. USAG Hawaii will continue to collect permanent post-construction BMP inspection and maintenance data to include in Annual Reports or to satisfy other SWMP reporting requirements.

B. Determining Compliance

USAG Hawaii will continue to track projects and BMPs using a database on the internal drive which is accessible to USAG Hawaii DPW ENV staff and inspectors. Inspections are conducted annually to track the condition and maintenance of the LID features. Educational materials are distributed, and trainings are presented to various stakeholders who conduct inspections annually. Inspections and monitoring the BMPs will allow USAG Hawaii to effectively fulfill the requirements listed in the Permit and the goals USAG Hawaii has established in the SWMP.

Measurable Goals for FY26:

PCSW—1 Standard Revisions

- USAG Hawaii continues to follow Installation and Environment DOD policy EISA 438 for development or redevelopment projects to include Low Impact Development (LID) features.
- USAG Hawaii DPW ENV will continue to review and comment on LID storm water features to ensure policies are met and The Permit is being followed.

PCSW-2 Review of Post-Construction BMP Plans

- DPW ENV will review new development and re-development projects.
- DPW ENV will create, and update as needed, language describing LID features and use it when commenting on projects.

PCSW-3 Database to Track BMPs, Operations and Maintenance, and Inspections

- DPW ENV will create a database with all LID features on USAG Hawaii installations. Inspections will be conducted each year for each LID and be tracked on the database. The conditions, maintenance needed, and

locations of LID features will be tracked to determine repair and maintenance requirements.

PCSW—4 Education and Training

- DPW ENV will create and distribute educational material and training guidance to those who work in areas of the LID storm water features.
- DPW ENV will create, update, and conduct annual storm water BMP training to inspectors.
- Training slides and materials will be given to contractors, upon request.

C. Effectiveness of Management Measures

USAG Hawaii will continue to inspect and monitor all post-construction BMPs to ensure proper operation. USAG Hawaii will implement a tracking system for the post-construction BMP and maintenance, which will allow installation maps and GIS maps to be updated as needed. Training and education materials will continue to be conducted and distributed to those responsible for inspecting, and those who work around post-construction BMPs. USAG Hawaii will continue to monitor storm water runoff leaving installations as required by The Permit. The health of receiving waters will help USAG Hawaii identify management measures to reduce target pollutants.

The information collected during inspections, feedback from training, and maintenance data will be included in the Annual report to satisfy other SWMP reporting requirements.

VIII. Pollution Prevention / Good Housekeeping

Covered Monitoring Permit Objectives:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a. (2) Measure the effectiveness of the Permittee's SWMP.*
- *NPDES Permit Part E.1.a.(5) Identify sources of specific pollutants.*

A. Written Narrative

U.S. Army Garrison Hawaii has adopted numerous control programs to identify and reduce the discharge of pollutants into the MS4 system to the MEP. Control programs are a way to group BMPs according to how they may be implemented. These programs may address more than one MCM. The BMPs include the Debris Control BMP Program, Chemical Applications, Erosion Control, and Maintenance Activities.

The Debris Control BMP Program (DCBP) maintains an Asset Management System that includes an inventory of features, infrastructure, and facilities of USAG Hawaii MS4. The system is used to prioritize and create a schedule for debris-removal activities such as street sweeping, catch-basin cleaning, and removal of green waste and accumulated sediment. From the DCBP system database, DPW Master Planning (MP) GIS Section updates GIS maps for all USAG Hawaii installations. USAG Hawaii has a street sweeping program to remove debris on streets and prevent materials from entering storm drains. Street sweeping is conducted on a day-to-day rotation by a contract through DPW Business Operation Integration Division (BOLD). Island Palms Communities (IPC) maintains its own separate street sweeping in housing areas. Storm drain placards are placed on inlets and post-construction BMP installations to provide a visual reminder to the public of the connection between storm drains and the ocean. Inspections and surveys of the placards are added to the Asset Management System. The Trash Reduction Plan assesses trash loads collected from the MS4, and how to reduce the MEP. The plan is added to the Asset Management System to track amounts and type of trash collected and removed.

The Chemical Applications BMP Program (CABP) is designed to reduce pollutant load in the MS4 associated with the application, storage, and disposal of chemicals. The CABP includes developing an Authorized Use List (AUL) of chemicals USAG Hawaii uses and implements specific training for applicators and proper use of applications. The USAG Hawaii Pest Management Program uses the Integrated Pest Management Plan (IPMP) based on techniques and a sustainable approach to managing pests. The IPMP provides guidance for operating and maintaining an effective pest management program through training, surveys, proper use of BMPs, and inspections.

The Erosion Control BMP Program (ECBP) prioritizes permanent erosion control improvements at erosion-prone areas with potential to impact water quality and public safety. BMPs are determined for the erosion-prone areas by surveys and inspections conducted by inspectors.

USAG Hawaii will continue to implement a Maintenance Activities BMPs Field Manual by providing training to staff who perform, remove debris, and work in areas of maintenance activities. Training, debris removed, and updates of the manual are tracked in the Asset Management System.

B. Determining Compliance

The strategies designed to address reductions in pollutant levels and flows include inspections of facilities, monitoring and tracking projects, and estimating debris and sediment removed from installations. Following and updating the TMDL Plan, conducting

trainings, and tracking work done to reduce erosion control measures will allow USAG Hawaii to comply with permit requirements.

Measurable Goals for FY26:

P2—1 Debris Control

- DPW ENV will create and update a database with storm water features. The database will help determine a priority system for inspections and maintenance activities.
- The database, inspections, and field verification information will be given to USAG Hawaii GIS for updating maps.
- Inspection and/or maintenance of all structures will be conducted at least once during the permit period. This includes recording debris accumulated and cleaning storm drain systems.
- DPW ENV will work with DPW Operations and Maintenance Division, or a contractor, to complete cleaning and maintenance of the storm drain systems.
- DPW ENV will assist with installing 25 storm drain placards per year. The location of the placards will be tracked on the database.

P2—2 Chemical Applications

- AUL will be updated annually, as necessary.
- DPW ENV will track trainings and certificates for those who use and work around chemicals on USAG Hawaii lands.
- DPW ENV will review the IPMP annually and update it every five (5) years.

P2—3 Erosion Control

- DPW ENV will implement the ECBP and track areas where potential erosion poses safety concerns. This will be tracked on AMS.
- Inspections will be conducted in new and existing erosion prone areas to identify improvement and maintenance needed.
- DPW ENV will review and comment on projects within existing erosion prone areas to determine the appropriate BMPs.

P2—4 Maintenance Activities BMPs Program Plan

- DPW ENV will continue to implement the Maintenance Activities BMPs Field Manual and provide training to DPW OMD staff. Training will be provided and tracked to include in the Annual Report to HDOH.

C. Effectiveness of Management Measures

The effectiveness of this objective will be evaluated utilizing the criteria established in the

SWMP monitoring program in the DCBP and IDDE sections. Comparison of current and past findings during surveys and facility inspection will be analyzed to determine whether effectiveness of outreach and trainings have impacted reduction of pollutant levels and flow.

IX. Commercial Activities Discharge Management (CADM) Program

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a.(3) Assess the overall health based on chemical, physical, and biological impact to receiving waters resulting from storm water discharges and an evaluation of the long-term trends AND*
- *NPDES Permit Part E.1.a.(4) Characterize storm water discharges*
- *NPDES Permit Part E.1.a. (7) Assess the water quality issues in watershed resulting from storm water discharges to receiving waters.*

A. Written Narrative

USAG Hawaii owns and/or operates the majority of commercial facilities and associated activities within the MS4 permit area. USAG Hawaii owned and operated commercial facilities are required to implement the BMPs prescribed by each facility's specific SWPPP, and to adhere to the Garrison's enforcement policy and requirements of the MS4 permit. The tenants are required to obtain a Memorandum of Understanding (MOU) with USAG Hawaii for connecting private drains to the USAG Hawaii MS4. The USAG Hawaii connection permit obligates facilities to implement BMPs; however, because USAG Hawaii owns the property and the MS4 infrastructure, most commercial facilities are exempt from the connection permit requirement.

B. Determining Compliance

An inventory and map of commercial facilities on each installation are updated to allow inspectors and those who work with the facilities to understand potential impacts water quality and discharges can have on the MS4. From this inventory a list of prioritization criteria is created based on risks associated with different types of discharges to local water bodies categorized as high, medium, and low. Environmental Compliance Officers (ECOs) inspect a majority of the facilities to ensure BMPs are being implemented, and permit compliance is met. Inspections and site visits are conducted to determine what needs to be included in each facilities SWPPP. The spreadsheet of commercial facilities and number of inspections completed are tracked each calendar year, and installation maps are updated as needed. Inspection frequency and prioritization of the facilities are determined by activity and relative risk of discharge runoff to the MS4. From the results of the inspections and findings, priority and frequency can be modified. Training continues to be provided to inspectors and those who work with commercial facilities, so

BMP implementation and compliance can be met.

Measurable Goals for FY26:

CADM—1 BMP Implementation

- Review BMPs and specific SWPPP for USAG Hawaii owned and operated commercial facilities.
- Review and issue connection permits as required.

CADM—2 Enforcement Policy

- DPW ENV will conduct inspections for facilities that don't fall under the ECO program. Total number of inspections and findings will be tracked and reported.
- DPW ENV will review the enforcement policy when conducting inspections and track the findings on a database. From inspection findings, the policy can be updated as needed.

CADM—3 Inventory and Mapping

- DPW ENV will continue to track commercial facility inspections to determine priority needed at each location. The tracking spreadsheet will be updated annually, as necessary.
- DPW ENV will work with ECOs and DPW GIS to update maps for each installation, for projects, and for internal use.

CADM—4 Areas Prioritized for Inspections

- DPW ENV will continue to work with ECOs to determine inspection priority for each facility.
- DPW ENV will continue to update the priority inspection plan annually and set a schedule for inspection for the upcoming year.
- DPW ENV will complete 100% of inspections per established frequency.

CADM—5 Inspections

- DPW ENV will continue to work with ECOs to conduct and complete inspections per established frequency.
- DPW ENV will continue to track and update a spreadsheet of all commercial facilities inspected, along with inspection findings.

CADM—6 Training

- DPW ENV will provide training to ECOs on commercial facility BMPs. The slides will be reviewed and updated as needed.
- DPW ENV staff will attend trainings on commercial facilities and track attendance in trainings tracker on the internal network.

C. Effectiveness of Management Measures

USAG Hawaii documents the connection permits for review and approval for facilities at each installation, which is tracked and updated on a spreadsheet on the server. By conducting inspections, the findings and enforcement policy can be evaluated to determine the priority category for the facility. The inspections are tracked on the same spreadsheet and are given to DPW GIS so maps can be updated as needed. The updated maps also provide information within the Annual Report. Training continues to be updated and provided to inspectors and personnel at the facilities.

X. Total Maximum Daily Load (TMDL) Implementation & Management Plan

Covered Monitoring Objectives within Permit:

- *NPDES Permit Part E.1.a. (1) Assess compliance with this permit (including TMDL Implementation and Management (I&M) Plans and demonstrating consistency with waste load allocations (WLAs), if required).*
- *NPDES Permit Part E.1.a.(3) Assess the overall health based on chemical, physical, and biological impact to receiving waters resulting from storm water discharges and an evaluation of the long-term trends AND*
- *NPDES Permit Part E.1.a.(4) Characterize storm water discharges*
- *NPDES Permit Part E.1.a. (7) Assess the water quality issues in watershed resulting from storm water discharges to receiving waters.*

A. Written Narrative

Part E.2. of The Permit requires USAG Hawaii (the permittee) to develop TMDL Implementation & Monitoring (I&M) Plan for the Waikele Stream. The Waikele Stream is included on Hawaii's section 303(d) list due to non-attainment of nutrient and turbidity water quality criteria since 2002. Waste load allocations (WLA) and reductions for total suspended solids (TSS) and total nitrogen (TN) were assigned to USAG Hawaii, as seen in Table 1.

In May 2020, USAG Hawaii developed the TMDL I&M Plan for the Waikele Stream, which outlines the actions USAG Hawaii will take to decrease pollutants received by the Waikele Stream. A variety of strategically chosen qualitative and quantitative best management practices (BMP) were chosen to achieve the WLA reductions assigned to USAG Hawaii.

USAG Hawaii's SWMP and TMDL I&M Plan can be requested by contacting the Department of Public Works, Environmental Division, Wheeler Army Airfield, Building 105, 3rd Floor; (808) 927-6657.

TMDL Pollutant	Waste Load Allocation (kgd)		Existing (modeled) Load (kgd)		Required Daily Reduction (kgd)		Required Seasonal Reduction (kg/season)	
	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season
TN	0.09	0.42	0.87	2.60	0.78	2.18	71.76 ²	197.29 ¹
TSS	N/A*	129.0	N/A*	2,559.1	N/A*	2,430.1	N/A*	43,984.81 ³

Notes:
For TN:
¹Wet Season is 181 days (November 1st to April 30th); 181 days x 50% = 90.5 days
²Dry Season is 184 days (May 1st to October 31st); 184 days * 50% = 92 days
For TSS:
³Wet Season is 181 days (November 1st to April 30th); 181 days x 10% = 18.1 days
*Waialeale Watershed is not listed for TSS in dry season on 303(d) list, so it is not included in WLAs

Table 1: Established Pollutant Reductions to Meet Waialeale Watershed TMDL Requirements

B. Determining Compliance

As identified in the TMDL I&M Plan for the Waialeale Watershed, USAG Hawaii will conduct strategic qualitative and quantitative BMPs to reduce TSS and TN from entering Waialeale Stream and its tributaries. USAG Hawaii will focus on the following BMPs:

Quantitative BMPs

- **Street Sweeping:** USAG Hawaii will collect data from street sweeping and utilize adopted calculations to determine TN and TSS removed.
- **Storm Drain Cleaning:** USAG Hawaii will continue to pursue contracts for inspecting and cleaning out storm water features. USAG Hawaii will document total weight of the sediment and debris removed from drains. TN removed will be determined based on adopted calculations.
- **Green Waste Management Program:** DPW Operation and Maintenance Division and Soldiers are required to take all green waste to the USAG Hawaii recycling center, which is then reused at Hawaiian Earth Products. The total weight of green waste is tracked and calculated to determine TN removed.
- **Post Construction Low Impact Development (LID) Features:** USAG Hawaii has multiple hydrodynamic separators, which are storm water quality treatment units. There are also numerous other LIDs that help with preventing flooding and excessive nutrient load. USAG Hawaii staff will conduct yearly inspections of all LID features and track results in an internal database.

- **Wash Facilities for Vehicles Leaving Training Lands:** There are (4) wash facilities close to training lands that Soldiers are required to utilize to prevent sediment from getting into the roads and storm drains. USAG Hawaii will document the total weight of the sediment and debris removed from the wash facilities. TN removed will be determined based on adopted calculations for wash racks located within the Waikele Watershed.

Qualitative BMPs

- **Construction Site Runoff Control Policy:** USAG Hawaii has implemented as CSRC Enforcement policy, required by the Permit and previously discussed in section VI of this plan.
- **Illicit Discharge Detection and Elimination (IDDE) Program:** USAG Hawaii has developed a comprehensive IDDE program. Measurable goals are discussed in section V of this plan.
- **Public Education and Outreach:** USAG Hawaii implemented a comprehensive education plan that inform residents, Soldiers, contractors, tenants, civilians and visitors of how their daily actions can affect water quality. Specific reporting and measurable goals are discussed in section III of this plan.
- **Soldier Training:** USAG Hawaii has multiple policies pertaining to environmental compliance and training requirements. These policies will continue to be followed and enforced. The USAG Hawaii website features an Environmental Compliance Guide, which provides information on frequently asked questions. This information will be routinely disseminated and updated, as necessary.
- **USAG Hawaii Erosion Control Best Management Program:** USAG Hawaii has implemented an Erosion Control BMP program to identify erosion prone areas and work on improvement projects. USAG Hawaii will track areas identified for erosion control projects as well as work on calculating the TN and TSS reduced from completed erosion control projects. This program is discussed in more detail in section VIII of this plan.

Each BMP outlined within the TMDL I&M Plan will allow USAG Hawaii to meet the assigned WLA and reach other Permit requirements and goals set forth within the SWMP.

C. Effectiveness of Management Measures

Tracking TMDL BMPs included in the 2020 TMDL Implementation and Monitoring Plan such as street sweeping, green waste removal, and storm drain cleaning will reduce total nitrogen and total suspended solids to meet the Waste Load Allocations (WLAs) assigned by HDOH for the Waikele Watershed. Since sampling is not a requirement with the 2020 Permit, USAG Hawaii conducted research to determine how to properly _____

calculate quantitative and account for qualitative BMPs. In the TMDL I&M Plan, USAG Hawaii shows how the sediment and green waste collected from BMPs such as street sweeping, storm drain cleaning, and green waste management can be calculated into TN and TSS diverted from the Waikele Watershed. USAG Hawaii will continue to track total sediment and green waste diverted from storm drains and subsequently, the Waikele Watershed. USAG Hawaii will also routinely reevaluate the calculations within the TMDL I&M to ensure they are still accurate.

If there are any new TMDL requirements, USAG Hawaii will incorporate these new allocations into the TMDL plan.

XI. Fiscal Year 26-Estimated Budget

NPDES Permit Part E.1.b.(7) Estimated budget to be implemented over the coming fiscal year

U.S. Army Garrison Hawaii's Clean Water programmed projects for Fiscal Year 26 (Oct. 1, 2025- Sept. 30, 2026) are estimated at over \$2,000,000. Projects will be ranked and prioritized in USAG Hawaii Department of Public Works Annual Work Plan. Programmed projects will be executed based on priority and funding levels.

XII. Quality Assurance/Quality Control Procedures

USAG Hawaii is committed to ensuring that the data received, tracked, and presented to HDOH is accurate and reliable. USAG Hawaii also relies on maintaining high standards for the data utilized in reporting and tracking to incorporate this information into decision-making about the program going forward.

Most of the tracked and reported data are based on information that USAG Hawaii DPW ENV staff collect and maintain internally. An example of this is the CSRC program, where storm water inspectors conduct site visits, maintain reports, keep updated NPDES permits on file, while updating internal construction project trackers. By monitoring and tracking internally, this allows the Clean Water Program Manager to ensure requirements are met. Construction sites with excessive deficiencies can be targeted for training opportunities.

USAG Hawaii collects information from internal and external partners for sediment and green waste from composting/recycling, street sweeping, and storm drain cleaning. This information is used to calculate USAG Hawaii's progress towards achieving WLA requirements in the TMDL I&M Plan. Since USAG Hawaii is not required to conduct sampling, quality control and quality assurance from external partners for lab reporting is not required.

XIII. Summary

In accordance with NPDES/MS4 permit HI S000090, Part E, the USAG Hawaii is submitting the 2025 Annual Monitoring Plan for six U.S. Army installations: AMR, FDR, FS, SB, TAMC, and WAAF. HMR is not included as it is no longer considered an urbanized area within USAG Hawaii installation boundaries per the 2020 Decennial Census. This monitoring plan satisfies the requirements of Permit HI S000090 and serves as a guide for improving the quality of the water leaving these facilities by assessing potential impacts on receiving water bodies. The sampling requirements for USAG Hawaii facilities have been eliminated for the 2020 version of The Permit. Effort will be focused on measures that can identify major threats to downstream water quality and implement the most effective BMPs to mitigate those threats.