

U.S. NAVAL BASE GUAM



Year 1 MS4 Annual Report

MS4 Permit No.: GUS040000

April 2020

PREPARED BY:

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Naval Base Guam

Municipal Separate Storm Sewer System (MS4) Permit No.: GUS040000

Reporting Period: February 1, 2019 – January 31, 2020

Certification Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,

E.E. Moon

Installation Environmental Program Director

By Direction of the Commanding Officer

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Section 1 INTRODUCTION

The following “Naval Base Guam (NBG) Year 1 MS4 Annual Report,” fulfills the annual reporting requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. GUS040000. According to the compliance schedule specified in Table 4, Part 5.5 of the permit, NBG must submit its MS4 annual reports on or before every April 30th following each respective permit year. The report should account for all permit compliance activities of the previous permit year.

This report is submitted to:

NPDES Permit Section
US EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Guam EPA - Water Pollution Control Program
P.O. Box 22439
Barrigada, GU 96921

1.1 Compliance History

The United States Environmental Protection Agency (USEPA) issued the NBG MS4 permit on December 20, 2018 and became effective on February 1, 2019. This permit authorized NBG to discharge stormwater and other non-prohibited discharges from all outfalls of NBG's MS4. This permit also requires NBG to effectively prohibit all type of non-storm water discharges into its MS4 unless such discharges are either authorized under a separate NPDES permit or listed as allowable non-stormwater discharge in Part 1.3.2 of the MS4 permit.

1.2 Permit and Installation Information

The Department of the Navy NPDES permit GUS040000 applies to Naval Base Guam (NBG) owned and operated MS4 which includes the following existing facilities:

- NBG at Apra Harbor (NBGAH).
- Family housing / community support areas at Apra Heights.
- Family housing / community support areas at Nimitz Hill.
- NBG Munition Site (NBGMS).

- Naval Hospital and Guam High School.

Appendix A provides an overview and relative locations of each existing facilities covered under the MS4 permit. A more detailed map of NBG's storm water conveyance system will be provided in the completed Storm Water Management Plan (SWMP) document.

1.3 Report Contents and Organization

This report follows the organization and requirements outline of the MS4 permit. This will aid Program Managers, Regulators and other stakeholder in the performance of the review process and tracking of multiple compliance activities. Future permit year reports will follow the presentation and organization of the approved SWMP document.

This annual report includes details of NBG compliance efforts, from February 1, 2019 to January 31, 2020, to meet permit conditions and requirements including the development of the SWMP; existing inspection, reporting, and record keeping requirements for program activities to meet minimum control measures; current good-housekeeping contracts that provide street sweeping and stormwater conveyance maintenance activities.

A description of SWMP and permit compliance related activities planned for the future year program implementation is also included in this report. *However, these planned activities are based on the MS4 permit minimum requirements and may be changed, updated or replaced depending on the specific required activities in the completed SWMP.* Past compliance activities are also provided, where applicable.

This 1st annual report does not provide a comprehensive information regarding the MS4 program effectiveness evaluation. The effectiveness evaluation requires data derived from actual stormwater management program implementation and MS4 outfall sampling and analytical results. The NBG stormwater program effectiveness evaluation will be included in future MS4 annual reports.

1.4 Schedules, Deadlines and Permit Modification Request

Requirements due dates (Appendix B) referenced in this report are based on the original summary of deadlines describe in Table 4, Part 5.5 of the MS4 permit. NBG submitted a permit modification request to US EPA regarding permit implementation schedule citing difficulty in securing funding for emergent compliance program, logistic challenges in the acquisition of a MS4 SWMP development project and MS4 compliance program implementation contract acquisition. All NBG MS4 compliance activity schedules and deadlines may change pending approval of the permit modification request.

1.5 NBG MS4 Program Contact Information

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Section 2 MS4 MANAGEMENT PROGRAM

2.1 General Requirements

The MS4 permit requires NBG to develop and implement a Stormwater Management Plan (SWMP) that outlines how the Installation will comply with the MS4 permit conditions. The SWMP document will aim to address the following requirements:

- Identify and implement Best Management Practices (BMPs) for all appropriate minimum control measures (MCMs) designed to reduce the discharge of pollutants from MS4 to the maximum extent possible (MEP), to protect water quality and to satisfy water quality requirements of the CWA and the Guam water quality standards.
- Identify measurable goals and milestones for BMPs, MCMs and other control measures.
- Provide planning and guidance document to be used by military personnel, civilian staff, contractors and members of the general public at NBG facilities who have the authority to access the base and outlying areas.
- Develop an implementation schedule and monitoring program to determine effectiveness of the control measures.
- Identify and assess existing policies for adequacy in the implementation of the MS4 permit conditions and SWMP document requirements.
- Develop and implement an enforcement response plan.

2.2 Stormwater Management Plan Development Project

The SWMP development project was not completed during this reporting period. The document will be submitted in accordance with the schedule and deadline provide in Appendix B.

The contract to develop the SWMP document, Contract Number N40192-16-D-0002, was awarded on September 24, 2019. Based on the SWMP development contractor's POAMs, the project is scheduled for completion before the August 1, 2020 deadline. A timeline for the SWMP project development is provided in Appendix C (Interim NBG MS4 Consolidated Information System).

Upon completion of the SWMP development project, NBG MS4 Program Managers will identify all SWMP-based compliance activity requirements and will develop a list of deliverables for future MS4 program implementation contract. An Independent Government Estimate (IGE) will be developed for each deliverables and a funding request will be submitted through channels.

2.2.1 Adequate Legal Authority Requirement

The Department of Navy (DON) environmental readiness program OPNAVISNT 5090.1E, the NBG Environmental Policy Statement (Appendix D), Executive Order 13514, and other DoD environmental policies such as the Low Impact Development (LID) are already in place in lieu of ordinances and other regulatory mechanisms required to implement an effective stormwater management program. As a non-traditional MS4, NBG's Installation Commanding Officer (ICO) has the authority to issue additional policies and memoranda to implement the SWMP requirements and to require all base tenants to comply with general provisions of the MS4 permit.

Upon completion of the SWMP document, NBG MS4 Program Managers will identify the SWMP-based compliance activity requirements and will review existing policies to verify if the Installation meet the "adequate legal authority" requirements to control pollutant discharges as specified in Section 2.3 of the permit.

A statement from the Installation's Legal Counsel certifying the adequacy of NBG's legal authority to implement permit requirements will be included as part of the SWMP document and in accordance with the schedule provided in Appendix B.

2.2.2 Enforcement Response Plan

The Enforcement Response Plan (ERP) document was not completed during this reporting period. The plan will be provided in accordance with the NBG MS4 general permit schedule.

The ERP development was included in the SWMP document contract to ensure compliance with the MS4 general permit requirements. The plan will outline the potential response to violation and will address repeat and continuing violations through progressively stricter responses.

Due to the nature and operational structure of NBG, the most effective means for enforcement is escalation of unaddressed violations to the next higher authority. All violations and corrective measures will be tracked and recorded in a manner consistent with the procedure that will be described in the completed ERP / SWMP and the MS4 permit requirements.

2.2.3 Fiscal Analysis

Conventional annual fiscal analysis is not applicable to NBG as it is unique from most traditional MS4s in that it owns the property and almost all of the facilities. The Installation also provides funding for a majority of work on grounds and facilities located within its boundaries. Program implementation funding will be requested based on the IGE for each compliance activity deliverables specified in the SWMP document and the MS4 asset maintenance cost.

Chapter 2 of the OPNAVINST 5090.1E provides implementing policy guidance identifying and programming resources for environmental shore compliance. NBG SWMP / MS4 Program Managers are responsible for identifying requirements and request for necessary funding to comply with the MS4 permit and the SWMP requirements. Funding may come from one or all three appropriations (O&M, OPN, RDT&E) as describe in section 2-3.4 of OPNAVINST 5090.1E.

MS4 Program Management Past Year Activities:

- NBG requested and secured funding for the development of the SWMP document.
- NFM completed the development of an IGE and the scope of work for the SWMP development project.
- NFM completed the source selection / contract mechanism process and have identified a contractor for the SWMP development project.
- NFM awarded an Indefinite Delivery / Indefinite Quantity (IDIQ) SWMP development contract.
- Development of an ERP was included and part of the SWMP document contract.
- NBG / NFM identified permit-based compliance activity requirements and begun consolidating for the 1st NBG MS4 Annual report.

MS4 Program Management Future Year Activities:

- Accept completed program plan from the SWMP development project contractor.
- Review and submit completed SWMP document to U.S. and Guam EPA for approval.
- Identify SWMP-based compliance activity requirement and review existing Installation policy to determine adequacy to implement stormwater pollution control measure. Develop and implement additional stormwater pollution control policies if necessary.
- Review and identify SWMP-based list of requirements and contract deliverable for future BOS Environmental Compliance or an alternative MS4 compliance contract.

- Develop a SWMP-based IGE for each contract deliverables and submit a request for funding for MS4 compliance program implementation based on the IGE.
- Identify interested parties who has the capability to run a MS4 compliance implementation contract.
- Modify Base Operation Support or any alternate Environmental Compliance contract requirements to include NBG MS4 program implementation or solicit other forms of contract mechanisms (i.e. stand-alone MS4 compliance contract).

Section 3 MINIMUM CONTROL MEASURES

The NBG MS4 permit requires the Installation to provide a SWMP that will describe the six (6) Minimum Control Measures (MCMs) and details on the development and implementation of these measures required to qualify the Installation for permit coverage. The six MCMs are:

- MCM 1 - Public Education and Outreach,
- MCM 2 - Public Involvement / Participation,
- MCM 3 - Illicit Discharge Detection and Elimination (IDDE),
- MCM 4 - Construction Stormwater Run-off Control,
- MCM 5 - Post-Construction Stormwater Management and,
- MCM 6 - Pollution Prevention / Good Housekeeping for Base Operation.

3.1 Public Education and Outreach

The development of the NBG Public Education and Outreach program was not completed during this reporting period. Program development is part of the SWMP document project that will be submitted in accordance with the schedule provided in Appendix B. Proposed and existing BMPs are describe in the succeeding subsections.

Pursuant to Section 3.1 of the MS4 general permit requirements, NBG will focus on the development and implementation of base-wide awareness program designed to inform the base tenants about the impacts that stormwater discharges could have on local waterbodies. The program will involve development and distribution of informational materials and conducting outreach activities aimed at enhancement of awareness and providing knowledge to NBG's target audiences about their activities that may have potential adverse effect(s) to water quality so that they can avoid these activities and thereby improve overall water quality.

Knowledge of the program will garner greater public support, as well as a more willingness to change their attitudes and comply with the BMPs set forth in the program.

3.1.1 Electronic Media Outreach

No electronic media outreach activity performed during this reporting period. This BMP is dependent upon the completion of the SWMP development project. Detailed outreach procedure description will be included in the SWMP document. The Installation plans to utilize one or combination of the following NBG and Joint Region Marianas (JRM) webpages as an additional platform for reaching out to key audiences:

- <https://www.cnic.navy.mil/Guam/>
- http://www.cnic.navy.mil/regions/jrm/installations/navbase_guam/
- <https://www.facebook.com/USNavalBaseGuam/>
- <https://www.facebook.com/jrmguam/>

These webpages are accessible to the public making them also accessible to tenants that may have trouble accessing websites that are restricted by the Navy for operational security (OPSEC) reasons.

Pertinent MS4 documents such as educational materials aimed at residents and commercial tenants, such as good housekeeping practices, disposal of household hazardous wastes, and NBG policies addressing stormwater pollution prevention will be posted on these websites.

Past Year Activities:

- Not applicable / required during this reporting period.

Future Year Activities:

- Post the completed SWMP document on one or combination of NBG and JRM websites.
- Provide mechanism for public to view the NBG MS4 annual reports online.
- Inform the public on the location and availability of SWMP document and how to access additional information.
- Distribute informational materials via electronic mail, Facebook pages and NBG / JRM websites.
- Identify additional approach and materials that can be circulated by electronic means.
- Evaluate effectiveness of the electronic outreach program.

3.1.2 Stormwater Pollution Prevention Training

NBG has an existing Spill Prevention Control and Countermeasure (SPCC) and Stormwater Pollution Prevention (SWP2) annual training and refresher program in compliance with the Multi-Sector General Permit (MSGP) requirements. The Installation's SPCC and SWP2 training programs are being implemented as part of the Base Operating Support (BOS) Contract, N62742-19-C-1175. Training is afforded at least annually to all personnel stationed in the industrial / commercial facilities within the NBG MS4 permit area.

The following quantities were taken from the BOS Contractor 2019 Annual SWP2 Training report. Trainings provided to facilities and personnel outside the NBG MS4 permit area are excluded from Table 1 below:

Table 1: CY2019 NBG SWP2 Training

Facility / Building No.:	Date	Number of Attendees
--------------------------	------	---------------------

DLA Bldg. 631 Disposition Facility	08/26/2019	12
Transportation Maintenance Shop Bldg. 372	12/06/2019	12
Material Handling, Bldg. 372	10/24/2019	139
Transportation, Filling Station, Bldg. 374		
██████████ Maintenance ██████████ ██████████	12/13/2019	41
██████████ (Bldg. 3000-3008)	11/15/2019	20
Port Operations, Bldg. 3169	11/08/2019	25
Marina Facilities, Bldg. 5406	12/19/2019	12
PACSEA Bldg. 3169	11/08/2019	75
Navy Berthing Facilities		
██████████ Facilities, Bldg. 4430	12/05/2019	4
AHWTP, Bldg. 1794	10/15/2019	27
Utilities and Machine Shop, Bldg. 1793	10/23/2019	19
US Navy Sanitary Landfill	12/16/2019	17
Naval Hospital Compound	11/01/2019	33
U.S. Navy Water Treatment Plant	10/17/2019	15
U.S. Navy Laboratory	10/16/2019	10
Hazardous Waste Conforming Storage Facility, B1790	10/09/2019	11
Cold Storage Facility, Bldg. 780	12/06/2019	18
Total Number of Personnel Trained:		490

Source: BOS Contractor Annual SWP2 Training Report (CDRL-CV)

Note: Some facility names are redacted for OPSEC reason.

The NBG BOS contractor also offers orientation program to their newly acquired personnel. Part of the orientation is provide basic summary of NBG's environmental policies including stormwater pollution prevention. However, the BOS contractor new hire orientation activities is not currently being tracked and not part of the contractor's deliverables. The number of sessions and the quantity of attendees are currently not recorded for the purpose of complying with the MCM1. This program could be enhanced and tracked to meet the MS4 MCM1 requirements and each session can be used as a venue for MS4 informational material distribution.

Past Year Activities:

- NBG implemented existing annual SPCC and SWP2 training programs to educate base personnel, tenants and contractors regarding stormwater pollution prevention.
- NBG conducted seventeen (17) training sessions and trained four hundred ninety (490) personnel stationed within MS4 permitted area on SPCC and SWP2.

Future Year Activities:

- Continue implementation of existing SPCC and SWP2 training programs and identify additional facilities / personnel that requires training under the MS4 program.
- Modify / improve existing SPCC and SWP2 training materials to include MS4 permit and SWMP requirements.
- Modify / improve the Government and Contractor new-hire orientation and personnel indoctrination programs to include MS4 permit and SWMP requirements. Document the number of orientations provided during each compliance year.
- Modify existing BOS environmental contract or provide an alternate contract mechanism to include MS4 training program.
- Evaluate effectiveness of the SPCC and SWP2 training programs. Previous evaluations were performed in accordance with MSGP requirements.

3.1.3 Informational Materials

The development and production of NBG MS4 informational materials is part of the SWMP document contract. No materials have been created and program implementation is not due during this reporting period.

Upon availability of the informational materials, the Installation will work with offices of Personnel Management (OPM) and NBG Housing to include MS4 topics and informational materials distribution during the mandatory indoctrination briefing for NBG new arrivals (military and civilian). Newcomers will also be informed of the illicit discharge reporting procedures and will be encourage to participate in a MS4 related activities (storm drains clean-up, labelling).

BOS and other contractors will also be asked to distribute MS4 informational materials and to review and update their environmental presentation materials during the Contractor's new-hire orientation.

Past Year Activities:

- Development and initial production of four (4) general stormwater pollution prevention educational materials (brochure formats), 500 copies each, was included as part of the SWMP document contract.

Future Year Activities:

- Continue production of informational materials and develop new ones that target specific sectors such as housing tenants and school children.
- Identify additional venues and events (e.g. World Earth Day) for the distribution of informational materials. Identify additional means of materials dissemination.
- Modify existing BOS environmental contract or provide an alternate contract mechanism to include MS4 distribution and tracking of MS4 informational materials.

3.1.4 Survey

The design of a statistically valid survey is part of the SWMP development contract and is not required during this reporting period. Surveys to assess changes in public awareness and behavior resulting from implementation of the public outreach program within four (4) years from the effective date of the permit (EDOP). Overall program implementation will be conducted in accordance with the schedules and deadlines outlined in Appendix B.

Past Year Activities:

- Not applicable / required during this reporting period. Design and development of a statistically valid survey was included in the SWMP document contract.

Future Year Activities:

- Depending on the survey design, NBG may conduct an initial survey to establish a baseline.
- Perform surveys to assess changes in public awareness and behavior. Modify SWMP implementation program based on survey results.
- Modify existing BOS environmental contract or provide an alternate contract mechanism to include MS4 survey program.

3.2 Public Participation / Involvement

The NBG MS4 Public Participation / Involvement program is not due for implementation during this reporting period. Detailed description of this program is part of the SWMP development contract which will become available during Year 2 of the permit compliance period.

NBG will develop steps and procedures that will allow and encourage public participation in the overall compliance with the MS4 permit requirements. NBG will implement additional compliance measures that will encourage base tenant's participation in the development and implementation of this BMP, solicits tenants reporting of suspected illicit discharges and promotes active involvement in increasing stormwater pollution control awareness.

Proposed and interim BMPs for this MCM are describe below:

3.2.1 Public Review of NBG SWMP

Upon completion of SWMP document, NBG plans to make a redacted copy of the document available on these following webpages:

- <http://www.cnic.navy.mil/guam/>
- http://www.cnic.navy.mil/regions/jrm/installations/navbase_guam/

NBG recognizes the importance in allowing the public to play an active role in the development and implementation of the SWMP. An active and involved community will help develop a large public support base for the program including a broader base of expertise and allow for shorter implementation schedules due to fewer obstacles in the form of public challenges.

Implementation of this BMP is not required during this reporting period.

Past Year Activities:

- Not applicable / required during this reporting period.

Future Year Activities:

- Provide a mechanism for the public to review and provide comments on the SWMP document and MS4 annual reports.
- NBG MS4 program managers to review public input and apply changes to the SWMP where applicable or include in the scope of work of the annual SWMP update contract deliverable of the BOS or any alternate MS4 Environmental Compliance contract.

3.2.2 Public Participation Campaign

Formal implementation of this program is not due during this reporting period and dependent upon the completion of the SWMP development project. However, NBG personnel have been participating in various community clean-up events, working with members of the community to clean up trash, green waste, and debris to help keep pollutants from entering the receiving waters. The following is a short list of example activities that will be encourage, promoted and tracked during the next reporting period:

- *NBG CSADD Atantano Historical Shrine Clean-up (located near Atantano River), October 20, 2019.*
- *World Earth Day Energy and Water Presentation, April 24, 2019.*

NBG plans to coordinate and improve existing programs by working with Community Relation (COMREL) personnel of various NBG tenants / units in promoting public awareness about the impacts of trash and illicit discharges on storm water runoff quality. COMREL activities may include but not limited to trash pick-up, beach clean-ups, and storm drain marking.

Past Year Activities:

- Identified units and POCs for possible COMREL activities.
- Identified possible venues and opportunities for public involvement and participation.

Future Year Activities:

- Provide mechanism for various NBG units to perform COMREL activities which may include beach clean-ups and storm drain markings.
- Participate in World Earth Day and / or other similar events.
- Provide a mechanism for public input in the design and development of NBG MS4 slogan / logo.

3.3 Illicit Discharge Detection and Elimination (IDDE)

The NBG IDDE program is part of the SWMP development contract. Formal implementation of the BMPs describe below are not required during this reporting period.

NBG will identify and eliminate sources of illicit discharges by developing and implementing a program to investigate and eliminate non-stormwater discharges, including illegal dumping. This program will include developing BMPs and establishing measurable

goals to eliminate illicit discharges into its MS4 in accordance with the general permit requirements. The following are interim BMPs that outlines NBG's procedures in addressing illicit discharges. Additional BMPs may be added during the course of the SWMP development project.

3.3.1 NBG MS4 Map

NBG will develop an accurate and up-to-date Geographic Information System (GIS)-based storm sewer system map of the MS4 permitted areas. These maps will include and identify all key elements of NBG MS4 system including storm drain system, open drainage system, impounding basins, flow direction and outfalls. Field inspectors and laboratory sampling personnel will reference these elements during field screening and sampling.

Past Year Activities:

- NBG MS4 conveyance system mapping was included and part of the SWMP development project.

Future Year Activities:

- Update the MS4 map when necessary. Consolidate updates during the annual SWMP review.

3.3.2 Identification of Priority Outfall

Based on the information collected from the MS4 mapping activities, NBG will generate an inventory of all outfalls within the permit area. NBG will conduct an evaluation and develop a list of priority area identified as having a higher potential of illicit discharges / connections and illegal dumping based on the following criteria:

- Areas with older infrastructure
- Industrial, commercial or mixed use areas
- Location's history of previous illicit discharges / connections
- Location's history of sewer overflows
- Areas upstream of sensitive waterbodies
- Locations that may discharge pollutants in significant quantities to the waters of the U.S.

A list of proposed priority outfall will be submitted to Guam EPA for review and approval.

Past Year Activities:

- NBG MS4 mapping, and evaluation and identification of priority stormwater outfalls was included and part of the SWMP development project.

Future Year Activities:

- Submit a list of proposed priority outfalls to Guam EPA for approval.
- Review and update the priority outfall list when necessary to reflect changes in the MS4.
- Consolidate update requirements in the annual SWMP review.

3.3.3 Dry Weather Field Screening

NBG will develop a dry weather field screening / Outfall Reconnaissance Inventory (ORI) program to ensure that outfalls identified as priority will be visited at least annually for dry weather field screening. Samples will be collected and analyzed if flow or ponded runoff is observed and there has been at least seventy-two (72) hours of dry weather. Sample collected will be tested for indicators listed on Table 2 below. Samples will be submitted to the Installation's in-house U.S. Navy Laboratory (USNL) or other laboratory with DMRQA program for analyses except for pH which can be measured in-situ by trained personnel.

Table 2: Dry Weather Field Screening Benchmark

Indicator	Benchmark
Ammonia	> 50 mg/L
Conductivity	> 2000 uS/cm
Surfactants	> 0.25 mg/L
pH	< 6 or > 9 s.u.
Enterococcus (Geometric Mean)	35 MPN/100 mL

In addition, a minimum of 20% of the total outfall will also be subjected to dry weather screening on an annual basis. This is to ensure that all non-priority outfalls will be screened at least once during the permit term.

No ORI and dry weather field screening activities were performed during this reporting period. Initial field screening will be conducted upon completion of the NBG MS4 mapping and outfall identification programs in accordance with the schedule provided in Appendix B.

Past Year Activities:

- Description of the NBG dry weather field screening program was included and part of the SWMP development project.
- Purchase of field sampling and testing equipment was included in the Contract N40192-16-D-0002

Future Year Activities:

- Perform dry weather field screening and outfall reconnaissance inventory inspections base on the SWMP schedule.
- Provide training for dry weather field screening personnel.
- Perform corrective actions and / or propose preventative measures if necessary for dry weather field screening /ORI findings.

3.3.4 Illicit Discharge Public Reporting

The Illicit Discharge Reporting program development is part of the SWMP document contract. Implementation of this program is not due to begin during this reporting period.

NBG have an existing hazardous substance and sewer spill reporting and response program as part of the Base Operating Support (BOS) Contract N62742-19-C-1175. A 24-hour emergency phone numbers are already available and the following BOSC spill response procedures are already in place:

- *ENV-I-0201 - Hazardous Substance Spill Response*
- *ENV-I-0105 - Sewage Spill Response*

In addition to the BOS contractor's spill response procedures, NBG have a standing instruction for oil and hazardous substance spill contingency and response that provide a flowchart for spill reporting and clean-up including points of contact and contact numbers:

- NAVBASEGUAMINST 5090.3 Series

These spill response programs and instructions may be enhanced to include reporting of illicit discharges to the Installation's MS4 conveyance system.

NBG recently completed the update of its Spill Prevention, Control and Countermeasure (SPCC) Plan and the accompanying Facility Response Plan. These plans help ensure that oil storage facilities are equipped with proper spill prevention and spill response tools, and a standing procedure for reporting spills is maintained. These plans helps prevent petroleum-based pollutants in reaching NBG's storm sewer system.

NBG plans to build around and refine these programs to meet MS4 permit requirements. NBG will encourage base tenants to report the presence of illicit discharges, or water quality impacts associated with discharges from the MS4 including accidental spills.

Past Year Activities:

- NBG implemented existing reporting program for hazardous substances and sewage spills response. This programs helps prevent pollutants to come in contact with the stormwater conveyance system.

Future Year Activities:

- Develop a stand-alone procedure for MS4 illicit discharge reporting and/or;
- Expand existing spill reporting programs and procedures to include storm sewer illicit discharge reporting.
- Evaluate effectiveness of the existing spill reporting programs and instructions in preventing pollutants from reaching the MS4 conveyance system.

3.3.5 IDDE Source Investigation and Elimination

The NBG IDDE source investigation and elimination program development is part of the SWMP document contract. This program will outline the procedures for detection of illicit discharges, conducting investigation for confirmed illicit discharges as well as the implementation of corrective actions to eliminate such discharges.

NBG currently implements a reporting program for non-stormwater discharges and spills as mentioned in Section 3.3.4 of this report. NBG plans to build around and implement this program in combination with the dry weather field screening/ORI BMP to meet the IDDE requirements of the permit.

The spill response procedures and instructions mentioned in the previous section requires the BOS contractor to mitigate and remove spilled media and prevent these contaminant from reaching the storm conveyance system. The following are quantities of shore-based spill and sewer overflow responses and mitigation performed during this reporting period:

- *30 Used oil and hazardous substances spill response and clean-up.*
- *4 Sanitary Sewer Overflow / Spill clean-up and response.*

Table 3: Summary of NBG CY2019 Spill Response Activities

Type of Response	Permit Area / Quantity				
	NBGAH	Apra View / Palms	Nimitz Hill	NBGMS	Naval Hospital

HW/HS Spill	25	0	1	2	2
Sewer Spill	4	0	0	0	0

*Sources: BOS Contractor Reports CDRL-GF and CDRL-AY.

These shore-based spills and sewer overflow responses and clean-ups are proven method in water pollution prevention by not allowing contaminants to reach NBG's MS4 system and nearby navigable waters.

Naval Facilities Engineering Command Pacific (NAVFACPAC) commissioned an illicit discharge survey of the whole NBG Installation. Five hundred forty-five (545) facilities were surveyed and a total of seventy-seven (77) potential illicit discharges were identified, associated with sixty-eight (68) facilities located within the permitted area. Upon availability of IDDE program description in the SWMP document, NBG plans to revisit these facilities to verify if these potential illicit discharges have been addressed through the MSGP compliance program and / or routine facility maintenance. Otherwise, NBG will recommend corrective measures and / or establish BMPs that is consistent with the IDDE program that will be described in the future SWMP. Some of these discharges may also be covered as allowable discharge under the MS4 permit provided appropriate BMPs are developed. Appendix E provides a summary of survey findings at facilities within the NBG MS4 permit area.

NBG and NFM also implement an inter-departmental review program for the development and redevelopment of facilities. This review process comes standard to all projects and includes the review and approval of sewer line connections, thus ensuring separation of sewer line from the MS4 system.

Past Year Activities:

- Implemented existing spill response and clean-up program for hazardous substances and sewage spills response.
- Development of the NBG IDDE program was included and part of Contract N40192-16-D-0002 deliverables.
- Commissioned an illicit discharge survey to identify potential illicit discharge sources within the MS4 permit area.
- Implemented inter-departmental sewer connections review and approval process.

Future Year Activities:

- Expand existing spill reporting program to include illicit discharge reporting.

- Re-inspect facilities with potential illicit discharges as identified in the NAVFACPAC survey report and verify implementation of the recommended corrective actions.
- Continued implementation of inter-departmental review process for the development and redevelopment of NBG facilities.
- Evaluate effectiveness of the existing spill response procedures and instructions preventing pollutants from reaching the MS4 conveyance system.

3.4 Construction Site Runoff Control

The MS4 permit requires NBG to develop a Construction Site Storm Water Runoff Control program that will address how NBG will reduce pollutants in storm water runoff from construction activities that result from a land disturbance of greater than or equal to one acre. This program aims to:

- standardized BMP implementation and erosion and sediments controls requirements
- develop and maintain inventory of NBG's construction sites
- standardize construction plan review and approval process and promote incorporation of BMPs as part of the early planning stage of the project design
- establish routine construction site inspection procedures
- identify training requirements
- promotes construction operators awareness and encourage public involvement

3.4.1 Construction Stormwater Management Policy

NBG will adapt the 2014 NPDES Comprehensive Construction Stormwater Pollution Prevention Plan for the Guam Military Relocation DPRI Construction Program. A memorandum was issued by the NBG Public Works Director (PWD) to the Director of the Facilities Engineering and Acquisition Division (FEAD) to ensure that the construction requirements of the MS4 permit are met (Appendix F) and will require contractors to select, install, implement and maintain stormwater control measures.

NBG will apply this program to all construction projects within the permitted area, which include both public and private maintenance contract and construction projects with total land disturbance of 1 acre or more.

Past Year Activities:

- NBG develop a draft memorandum for the Installation Commanding Officer to sign, instructing FEAD to adopt the 2014 DPRI Comprehensive SWPPP.

Future Year Activities:

- Implement construction site SWPPP review process and storm water runoff control measures in accordance with the 2014 DPRI CSWPPP.
- Conduct regular meeting / communication with FEAD and Marine CORPS Activity Guam (MCAG) regarding implementation and inspection of storm water runoff control measures.

3.4.2 Construction Site Inventory

NBG will develop an electronic tracking system that includes a list of all active private and public construction sites that will have at least an acre of total disturbed land. An interim tracking system is currently in use and provided in Appendix F. Final format of the construction site tracker will be developed based on the specific description of the completed SWMP document.

There are currently three (3) construction site projects that disturbs lands greater than 1 acre in total area. These projects broke grounds prior to the issuance of NBG MS4 permit. All pertinent information are provided in Appendix G.

Past Year Activities:

- NBG developed an interim construction site inventory spreadsheet to track storm water runoff control measure for development / redevelopment projects with 1 acre or more total land disturbance.

Future Year Activities:

- Update the interim construction site inventory spreadsheet based on the specific description provided on the completed SWMP development project.
- Continue updating the inventory spreadsheet base on the completion of on-going projects and breaking grounds of new ones.

3.4.3 Construction Plan Review Procedure

Development of the NBG construction plan review procedure is part of the SWMP document project. Formal written procedure will be available upon completion of the SWMP project.

There are currently three (3) construction site projects that disturbs lands greater than 1 acre in total area. These projects broke ground prior to the MS4 permit issuance. Construction plan review process were conducted consistent with the Construction General Permit (CGP) requirements. The review process documentation may not be consistent with all 2014 DPRI CSWPPP requirements. All pertinent construction plan review information are provided in Appendix F. Project progress will continue to be documented and will be included in the next reporting period annual report.

Past Year Activities:

- Not applicable. On-going construction projects with 1 acre or more land disturbance broke ground prior issuance of the NBG MS4 permit.
- Conducted construction plan review based on the CGP requirements and existing inter-departmental review process.

Future Year Activities:

- NBG will implement construction plan and SWPPP review process for development / redevelopment project with 1 acre or more total land disturbance in accordance with the 2014 DPRI CSWPPP / NBG MS4 SWMP.
- Continue implementation of inter-departmental review process to ensure compliance with site runoff control and Section 401 certification requirements as describe in the special condition section of the MS4 permit.
- Distribution of the 2014 DPRI CSWPPP and the NBG MS4 Permit to FEAD construction plan reviewers.

3.4.4 Construction Site Inspection

Development of the NBG construction site inspection procedure is part of the SWMP document project. Formal written procedure will be available upon completion of the SWMP project.

There are currently three (3) construction site projects that disturbs lands greater than 1 acre in total area. These projects broke ground prior to the MS4 permit issuance. Initial inspection were conducted consistent with the CGP requirements and may not be consistent with all MS4 permit / 2014 DPRI CSWPPP requirements. All pertinent construction inspection information are provided in Appendix F. A summary of CY-2019 construction site inspections is provided in Table 4 below:

Table 4: Summary of Construction Site Inspections

Project Site	Inspection Date CY2019			
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Water Front HQ Building*	01/25/2019	04/18/2019	7/16/2019	10/1/2019

Sewer System Recapitalization**	01/09/2019	04/26/2019	07/11/2019	10/09/2019
Apra Medical / Dental Clinic*	1/18/2019	4/12/2019	8/09/2019	10/09/2019

Notes: * On-going DPRI projects. ** FEAD Project.

- Total number of CY quarterly inspection conducted = 12

Project inspections will continue to be documented and will be included in the next reporting period annual report.

Past Year Activities:

- NBG requested FEAD and MCAG Construction Management Engineers (CMEs) / Engineering Technicians (ETs) to provide construction sites stormwater runoff control measures inspection dates.

Future Year Activities:

- NBG will continue to collect stormwater runoff control measures inspection data from applicable project sites and update the construction site inventory / inspection tracker when new data becomes available.
- Develop a regular scheduled meeting / engagement between NBG MS4 Program Management team, FEAD and MCAG MDEs / ETs.
- Evaluate effectiveness of the construction site inspections program in preventing construction related pollutants from reaching the MS4 conveyance system.

3.4.5 Permittee Staff Training

NBG will implement a training program for its staff whose primary duties are related to the implementing the construction stormwater program. Below is an initial on-line training received during this reporting period and is part of the effort to survey readily available training opportunities. Full training program implementation is planned beginning year 2 reporting period in accordance with the permit requirement timeline.

- *Construction Site Stormwater Seminar = 1*

Past Year Activities:

- Surveyed training opportunities that are readily available for CMEs and ETs.

Future Year Activities:

- NBG will coordinate with FEAD and MCAG CME Supervisor to ensure CMEs and ETs are provided training required to perform stormwater runoff control measures inspection and review.
- Survey FEAD for construction site stormwater runoff control measure inspection and SWPPP review training and,
- Assist CME Supervisors identify training opportunity for CMEs and ETs.
- Evaluate effectiveness of the construction site inspections training program in preventing construction related pollutants from reaching the MS4 conveyance system.

3.4.6 Construction Site Operator Education & Public Involvement

The NBG construction site operator education and public involvement program will be implemented in conjunction with the MCM 1 and MCM 2. MS4 permit compliance activities for this BMP requirements are described under MCM 1 and MCM 2 of this report.

Past Year Activities:

- Development and initial production of five hundred (500) copies of construction site educational material was included in the SWMP development contract.

Future Year Activities:

- Future year compliance activities for this BMP requirement are described under MCM 1 and MCM 2 of this report.

3.5 Post-Construction Stormwater Management

NBG will develop, implement, and enforce a program to address post-construction storm water runoff from new development and redevelopment projects IAW the 2006 CNMI and Guam Stormwater Management Manual and 2010 Guam Transportation Stormwater Drainage Manual.

In addition to the BMP measures required during construction, the CGP conditions requires owners, operators and contractors to provide post-construction BMP measures in areas undergoing new development or redevelopment. This program involves multiple components for reporting and describe in the following subsections.

3.5.1 Post-Construction Stormwater Management Policy

This BMP is not required during this reporting period. Full implementation will begin during Year 2 permit compliance period. NBG will adopt the 2014 DPRI CSWPPP acceptable post construction BMPs. A draft memorandum was developed and will be issued by the NBG PWD to the FEAD Director to ensure that the post-construction

requirements of the MS4 permit are met (Appendix F). As a non-traditional MS4, this memorandum, once finalized, will suffice the requirement of developing an ordinance / regulation for post construction stormwater management.

NBG will apply this program to ensure that site performance standards are met in all Installation's construction projects, which include both public and private maintenance contract and construction projects.

Past Year Activities:

- NBG develop a draft memorandum for the Installation Commanding Officer (ICO) to sign, instructing FEAD to adopt the 2014 DPRI Comprehensive SWPPP including the specified acceptable post-construction BMPs.

Future Year Activities:

- Finalized NBG ICO memorandum and continue program implementation to ensure to ensure compliance with the site performance standard requirements.

3.5.2 Site Plan Review

Written procedures for this BMP was be included in the SWMP development contract. Full implementation will begin during Year of the permit compliance period in accordance with the permit schedule. NBG may adopt the 2014 DPRI CSWPPP inter-departmental consultation for site plan review and approval procedure.

An as-built certification submittals are already required for all NBG construction projects.

Past Year Activities:

- Implemented standard inter-departmental review process and as-built certification submittal requirements.

Future Year Activities:

- Continue program implementation of inter-departmental review and as-built submittal requirements.
- Implement the review of plans for post-construction BMP procedure that will be describe in the complement SWMP document.

3.5.3 Long-Term Maintenance of Post-Construction BMPs

Development of the NBG long-term post-construction BMPs maintenance program is included in the SWMP document project. Formal written procedure will be available upon completion of the SWMP project which is due on Year 2 of the permit compliance period.

NBG may adopt and implement the requirements describe on Section 3.6.7 of the permit where the Installation is required to conduct a minimum of annual inspection on all structural storm water controls. Maintenance will be provided base on the inspection report recommendations.

Past Year Activities:

- Post-construction BMP operation and maintenance program description was included in the SWMP development contract.

Future Year Activities:

- Implement the post-construction BMP operations and maintenance program as describe in the completed SWMP document.

3.5.4 Post-Construction Stormwater Control Measures Inventory and Maintenance

An inventory of all post-construction stormwater control measure has not been develop. Establishment of this database is part of the on-going effort and will be available upon completion of the SWMP development project which is due on Year 2 of the permit compliance period.

An Asset Management System (AMS) or an equivalent program will be implemented to track inspections and maintenance of permanent post-construction BMPs. It is important that plans be made for long-term operation and maintenance of permanent post-construction BMPs because if maintenance is inadequate or ceases the BMPs not work as originally intended. BMP's that are not working as designed may become a source of pollution.

Past Year Activities:

- Post-construction BMP operation and maintenance and inspection database program description was included in the SWMP development contract.

Future Year Activities:

- Implement the post-construction BMP operations and maintenance program as describe in the completed SWMP document.

3.5.5 Inspection and Enforcement

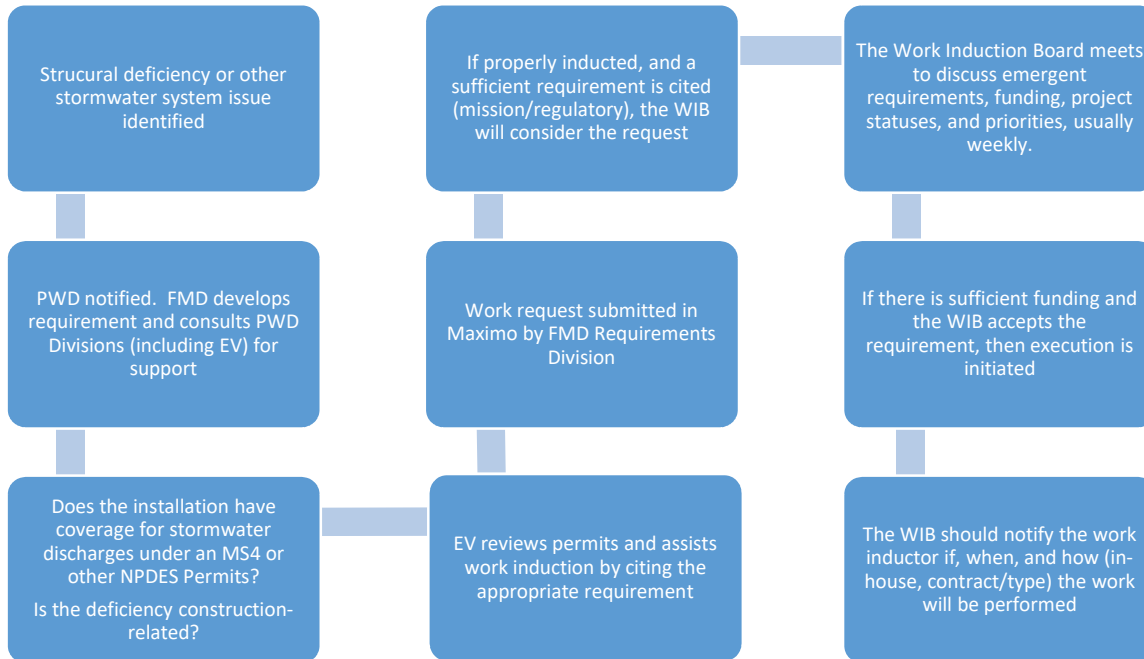
Formal implementation of the post-construction stormwater control measures inspection program is not required this reporting period. A description of the inspection procedure is part of the ongoing SWMP development project which is due on the next reporting period.

NBG may adopt the inspection schedule provided in Section 3.6.7 of the permit or based on the inspection program description that will be provided in the completed SWMP document. Inspection report will include recommendations for improvements and/or

repairs to ensure compliance with regulatory requirements and conformance with Navy and DoD policies.

NBG will may also adopt the draft Naval Facilities (NAVFAC) general stormwater management inspection and maintenance flowchart (Figure 1) to ensure the physical integrity of NBG's storm sewer system and compliance with the MS4 permit requirements.

Figure 1: NAVFAC General Stormwater Management Flowchart



Past Year Activities:

- Post-construction BMP operation and maintenance and inspection database program description was included in the SWMP development contract.

Future Year Activities:

- Implement the post-construction BMP operations and maintenance program as describe in the completed SWMP document in conjunction with existing NAVFAC processes related to stormwater management (see Figure 1).

3.6 Pollution Prevention / Good Housekeeping Program

NBG will develop and implement an operation and maintenance program that aims to prevent and reduce pollutant run-off into the storm drainage system in accordance with the MS4 permit requirements. Written procedures for the program implementation is part of the SWMP development project.

3.6.1 Facility Assessment and "High Priority" Facilities Stormwater Controls Program

Development and mapping of facility stormwater control inventory will be included in the SWMP document. At a minimum, stormwater control inspections will be conducted base on the schedule specified in Section 3.6.7 of the permit.

Assessment and inspection procedures for "High Priority" facilities will also be incorporated in the SWMP document including identification of facilities that will be subjected to weekly visual and quarterly comprehensive inspections.

Although the facility inspection program will officially begin implementation during Year 2 of the MS4 permit compliance period, NBG have already an established inspection program that meets or exceeds the MS4 permit requirements.

NBG have previously conducted surveys to identify facilities with potential to impact stormwater quality in compliance with the NBG Multi-Sector General Permit (MSGP) requirements. The NAVFAC PAC illicit discharge survey also identified industrial type facilities within NBG MS4 permit area. NBG plans to consolidate compliance activities with other NPDES permits so in effect, the Installation have already an existing inventory and inspection procedure for "High Priority" facilities.

Routine facility inspections are currently conducted by the BOS contractor in accordance with the MSGP SWPPP. NBG plans to build upon and refine these procedures to meet the MS4 permit requirements. Inspections conducted during this reporting period is provided in Table 5 below:

Table 5: CY 2019 MSGP Facility Inventory and Routine Inspection

Facility ID	Date Inspected			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
DLA (Formerly DRMO) Bldg. 631 Disposition Services Guam	3/19/2019	6/7/2019	7/25/2019	11/27/2019
Transportation Maintenance Shop, Bldg 372	2/8/2019	5/7/2019	7/10/2019	10/30/2019
Material Handling Equipment, Bldg 364	3/8/2019	5/7/2019	7/10/2019	10/30/2019
Filling Station, Bldg 374	2/8/2019	5/7/2019	7/10/2019	10/30/2019
██ Bldg 557 A-C, 561, 562, 563, 571, & 578	3/12/2019	5/15/2019	8/22/2019	12/4/2019
████████████████████ 3000-3002,3008	3/25/2019	6/17/2019	8/14/2019	11/15/2019

Port Operations, Bldg 3169	3/11/2019	6/12/2019	8/14/2019	11/15/2019
Kilo Wharf Compound 1802-1803	3/15/2019	5/10/2019	8/23/2019	11/27/2019
Marina Facilities, Bldg 5406	3/15/2019	5/21/2019	7/17/2019	12/31/2019
PACSEA Bldg 3169	3/11/2019	6/12/2019	8/14/2019	11/15/2019
Navy Berthing Facilities: Bravo, Echo, Romeo, Sierra, Victor)	3/21/2019	6/6/2019	9/9/2019	11/15/2019
██████████ Apra Harbor	3/13/2019	5/16/2019	8/16/2019	11/18/2019
██████████ Bldg. 3, 3A * K-Span	3/13/2019	5/16/2019	8/16/2019	11/18/2019
██████████ Bldg 4430, Site III	<i>1/17/2019</i>	5/10/2019	8/6/2019	12/16/2019
Apra Harbor Wastewater Treatment Plant, Bldg1794- 1809	3/12/2019	5/22/2019	8/26/2019	11/19/2019
Bldg 1793 A/B Utilities & Machine Shop	3/27/2019	5/31/2019	8/26/2019	11/11/2019
US Navy Sanitary Landfill	3/12/2019	6/7/2019	8/22/2019	11/27/2019

Source: BOS Contractor MSGP Facility Inspection Report (CDRL-CV).

Note: Italicized inspection date(s) conducted outside reporting period. Some facility names are redacted for OPSEC reason.

Seventeen (17) facilities located within the MS4 permitted area were visited at least once every quarter for good housekeeping and industrial outfall inspection. A total of sixty-seven (67) inspections conducted during this reporting period. Table 6 below provides a summary of the CY2019 inspection findings:

Table 6: CY2019 Inspection Summary

Inspection Period	Findings / Deficiency	Inspection Comments
1 st Quarter	Nine (9) Housekeeping One (1) Structural	Inspection report provided to facility POCs and NBG IEPD for immediate action. Corrective measure documented in the original BOS Contractor reports.
2 nd Quarter	Eleven (11) Housekeeping One (1) Structural	
3 rd Quarter	Ten (10) Housekeeping	
4 th Quarter	Twelve (12) Housekeeping	

Source: BOS Contractor Facility Inspection Report (CDRL-CV).

Additional storm water conveyance system inspections are conducted at the Guam High School facility within the Naval Hospital area. This sub-section of the Naval Hospital complex is covered under a Guam EPA SDWA Class V UIC permit. Regular storm

drainage system maintenance and inspection is conducted on a monthly basis to ensure compliance with the UIC permit conditions.

Plans to abandon the UIC chambers in favor of a percolating ponding basin are in place. Stormwater conveyance inspections in accordance with the UIC permit conditions will continue until the conversion project is completed. A total of twelve (12) inspections and corrective action reports were provided by the BOS contractor (CDRL-CV) during this reporting period.

Past Year Activities:

- Facility assessment and high priority facilities inspection program was included and part of Contract N40192-16-D-0002 deliverables.
- Implemented existing stormwater routine facility inspection and corrective action program.
- Performed monthly stormwater conveyance inspections at Guam High School facility within the Naval Hospital compound in accordance with the Guam UIC regulation.

Future Year Activities:

- Implement an inspection program to meet MS4 permit requirements through the SWMP document.
- Incorporate existing corrective action program in the MS4 enforcement response plan.
- Maintain the NBG facility inspection requirements in the new BOS or alternate environmental compliance contract.
- Perform assessment on Guam High School facility once the ponding basin conversion project is completed and incorporate in the SWMP inspection program where applicable.

3.6.2 Storm Sewer and Catch Basin Maintenance

The description of NBG's storm sewer and catch basin maintenance program is part of the SWMP development contract. Full maintenance program implementation based on the MS4 permit requirements is required during Year 2 permit compliance period and upon completion of the SWMP project. Prioritization and inspection schedule will be included in the SWMP document.

NBG maintains a performance-based ground maintenance contract which incorporate the management of the storm drain systems. Maintenance contract includes removal of trash, debris, and vegetation from curb gutters, inlets, brow ditches, drainage channels, swales,

catch basin, yard drains and other devices used to direct flow of run-off. Table 7 below provide the scope of the storm drainage system maintenance contract:

Table 7: NBG Permitted Area Storm Drainage System Maintenance

Location	Annual Requirements	Performance Standard /
NBG (including Naval Magazine Area)	31,307 LF	No evidence of obstructions in the visible area of the drainage systems. All accumulated obstructions and debris shall be removed from the work site and disposed of at the end of each work day.
NBG Housing: Lockwood Terrace Nimitz Hill Apra View Apra Palm Harbor View North Tupalao	6,452 LF	
Naval Hospital* (including Ocean Ridge Housing)	2,491 LF	
Note: The Guam High School facility within the Naval Hospital area is covered under a Class V UIC permit. Regular storm drainage system maintenance and inspection is conducted on a monthly basis to ensure compliance with the UIC permit conditions.		

Source: NAVFAC Marianas Contract No.: N40192-20-D9000

Contractors are also obligated to notify NBG of damages or other stormwater conveyances system issue outside the scope of their contract within 24 hours of discovery.

Past Year Activities:

- The storm sewer and catch basin maintenance program description was included and part of Contract N40192-16-D-0002 deliverables.
- Implemented existing storm sewer cleaning and trash removal in accordance with NAVFAC Marianas Facility Services Contract No.: N40192-20-D9000.
- Required storm sewer maintenance contractor to report storm sewer conveyance damages / issues within 24 hours of discovery.

Future Year Activities:

- Modify and / or expand Facility Services Contract No.: N40192-20-D9000 to meet the MS4 SWMP storm sewer maintenance and inspection requirements.

- Incorporate storm sewer inspection program to the new BOS or alternate environmental compliance contract.
- Evaluate effectiveness of the storm sewer inspection and maintenance program in preventing debris and other pollutants from reaching any navigable water.

3.6.3 Street Sweeping and Cleaning

Evaluation of streets, roads and parking lots within NBG's permitted area has not been conducted and is not required within this reporting. Procedures for street sweeping prioritization is part of the SWMP development contract.

Street sweeping has proven to be an effective method of removing sediment and debris from roadways before it reaches the drainage system. NBG maintains a performance-based street sweeping contract for cleared pavement, residential and non-residential areas. Contract include roads and other paved areas such as parking lots an open storage area. Table 8 below provide the scope of the storm drainage system maintenance contract:

Table 8: NBG Permitted Area Street Sweeping Schedule

Location	Requirements	Performance Standard /
██████-5	325 MSF Quarterly	Contractor shall sweep roads and other paved surfaces to ensure they are clear in accordance with the specified Common Output Level.
NBG Housing: Lockwood Terrace Nimitz Hill Apra View Apra Palm Harbor View North Tupalao	2,500 MSF Monthly	
Naval Hospital	650 MSF Monthly	

Source: NAVFAC Marianas ISWM Contract No.: N40192-16-R-7000

Note: Some facility names are redacted for OPSEC reason.

Past Year Activities:

- The streets, roads and parking lot evaluation was included and part of Contract N40192-16-D-0002 deliverables.
- Implemented existing street sweeping and trash removal in accordance with NAVFAC Marianas Facility Services Contract No.: N40192-20-D9000.

Future Year Activities:

- Modify and / or expand Facility Services Contract No.: N40192-20-D9000 to meet the MS4 SWMP streets, roads and parking lots sweeping and trash removal.
- Incorporate street, roads and parking lots cleaning to the new BOS or alternate environmental compliance contract.

3.6.4 Pesticide, Herbicide and Fertilizer Application Management

Written procedure for chemical application management will be included in the NBG MS4 SWMP. Control measures for this BMP will be identified in the SWMP document.

Although formal BMP implementation in accordance with the SWMP is not required for this reporting period, NBG has an ongoing program with existing control measures designed to ensure that pesticides and herbicides are safely and properly applied, and the application process does not affect or enter U.S. waters to the MEP. NBG uses an integrated pest management approach and conducts pesticide / herbicide application only when no other non-chemical approaches are practical.

NBG maintains a grounds maintenance contract (NAVFAC Marianas Contract No.: N40192-20-D9000) that includes restrictions, procedures and reporting requirements to minimize landscaping-related pollution:

- The contract requires that herbicide spraying shall be performed only on still days and will be stopped when unfavorable weather or other conditions exist. Application of herbicides on NBG grounds needs prior approval of the Contracting Officer and contractors are required to submit an Herbicide Use Sheet.
- Only organic fertilizer is allowed in NBG grounds and applied at rates in accordance with the manufacturer recommendations. Contractors are required to submit a soil test analysis to determine the fertilizer type to be use.
- Extraneous vegetation, such as grass, weeds, and tree sprout shall be remove through weeding. Weeding shall include but is not limited; to pulling out of weeds, grass, vines, roots, and removing dried leaves and debris. To keep it away from waterways, contractor is required to remove weeding debris and dispose of from the work site at the end of each workday.
- Contractors are required to recycle all organic debris including grass clippings, brush, tree limbs, hedge clippings, etc. Organic debris shall be delivered to an approved recycling facility. Green waste collected from NBG grounds are tracked and recorded through a monthly compost report and annual green waste report.

All contractors involved in pesticide application within NBG facilities are required to have a Guam EPA certified pesticide applicator. This requirements ensure that contractor personnel involve in pesticide application have received training in proper handling of chemicals. The brand, type, quantity and locations of applied pesticides are monitored and reported monthly (BOS Contractor CDRL-EB).

Past Year Activities:

- The NBG chemical application program description was included and part of Contract N40192-16-D-0002 deliverables.
- Implemented contract restrictions and reporting requirements to minimize pollution from landscaping activities.
- Restricted pesticide application to Guam EPA certified pesticide applicators only and tracked certified applicator's list through BOS contractor CDRL-EB.

Future Year Activities:

- Modify and / or expand the Facility Services Contract No.: N40192-20-D9000 to meet the NBG MS4 SWMP chemical application program requirements.
- Continued implementation of contract restriction that minimized pollution generation through landscaping activities including the use of Guam EPA certified pesticide applicator only.
- Maintain chemical application tracking requirements in the new BOS or alternate environmental compliance contract.

3.6.5 Contract Management

All NBG contracts comes standard with Spec Item 2.10 (Environmental Management and Sustainability) requiring contractors to perform work consistent with the Installation's Environmental Management System (EMS) and comply with all applicable Federal, State, and local laws, regulations, executive orders, and with base-wide instructions, standards and permit requirements. Inspection of any of the facilities operated by the Contractor may be accomplished by the Installation Environmental Protection Coordinator, or authorized officials on a no-notice basis during Government regular working hours.

All contractors and their sub-contractor, performing tasks that have the potential to cause a significant environmental impact, are required to provide competent personnel on the basis of appropriate education, training or experience. In the event an EMS non-conformance or environmental non-compliance associated with the contracted services, tasks, or actions occurs, the Contractors are required to take corrective and/or preventative

actions, assume legal and financial liability for the non-compliance and take corrective action immediately to remedy the noncompliance.

Past Year Activities:

- Implemented standard contract format that includes Spec Item 2.10 in all NBG contracts.
- Required contractors to implement corrective and preventative actions for not conforming to the base's EMS program and/or other environmental regulations.

Future Year Activities:

- Continued implementation of contract management procedure of Spec Item 2.10 inclusion on all NBG contract solicitation.
- Incorporate contract Spec Item 2.10 into the MS4 SWMP ERP.

3.6.6 Debris Control Program

This is a multi-faceted program aimed at reducing discharge of pollutants into the MS4 system and may include all BMPs describe under Section 3.6 of this report. Crucial component of this program is the development of a Trash Reduction Plan and Asset Management System (AMS).

A written Trash Reduction Plan is part of the ongoing SWMP development project which is due on the next reporting period. It will outline the procedure for implementation of trash reduction activities, and monitor reductions of trash loads from the MS4.

The AMS will serve as an inventory of asset such as the storm drainage system, structural controls, and equipment and will be used to prioritize inspections / maintenance activities, such that resources are focused on areas that pose the greatest risk to water quality.

Past Year Activities:

- Description of the NBG's trash reduction plan and asset management system, including inspection program, was included and part of Contract N40192-16-D-0002 deliverables.

Future Year Activities:

- Modify and / or expand the new BOS or alternate environmental compliance contract to include implementation and monitoring of the trash reduction plan and asset management system.

3.6.7 Industrial / Commercial Stormwater Sources

NBG has an on-going program to minimize pollutants discharges from industrial / commercial sources through the MSGP and AHWWTW NPDES permits. Formal implementation in compliance with the MS4 requirements is pending completion of written procedures which is part of the SWMP development contract.

Stormwater pollution prevention activities under the MSGP is provided in Section 3.6.1 of this report. In addition, NBG has an existing inventory and inspection schedule for all industrial / commercial facilities located within the MS4 permitted area. Although inspections are geared towards compliance with the Industrial Waste Discharge Certification Program (IWDCP) requirements of the AHWWTW NPDES permit, provisions are included in the inspection checklist to include other environmental concerns such as stormwater pollution. Additionally, the BOS Contractor IWDCP Program Manager also handles the MSGP program and very keen to call-out possible industrial / commercial facility-related stormwater quality issues. Table 9 below provides an inventory of industrial / commercial facilities and their inspection schedule:

Table 9: CY 2019 Industrial / Commercial Facility Inventory and Inspection

Facility ID		Date Inspected			
Building Name	Bldg. No.	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
X-ray BOWTS	791XR	31 Jan 2019	09 Apr 2019	12 Jul 2019	13 Nov 2019
██████████ Sector Guam	1, 2, 3, and 5	07 Mar 2019	16 May 2019	16 Aug 2019	18 Nov 2019
Branch Health Clinic	6	12 Feb 2019	14 Apr 2019	17 Jul 2019	07 Nov 2019
Central Utilities Plant	23	07 Feb 2019	17 May 2019	05 Aug 2019	24 Oct 2019
MWR Typhoon Complex	75	06 Mar 2019	08 May 2019	29 Jul 2019	18 Oct 2019
NEX Car Care Center	257	24 Jan 2019	12 Apr 2019	31 Jul 2019	18 Nov 2019
NEX Food Court	258	09 Jan 2019	11 Apr 2019	09 Jul 2019	23 Oct 2019
Orote Commissary	275	25 Feb 2019	11 Jun 2019	03 Sep 2019	12 Nov 2019
Wendy's	282	09 Jan 2019	11 Apr 2019	09 Jul 2019	23 Oct 2019
Top o' the Mar	295	04 Mar 2019	17 Apr 2019	29 Jul 2019	18 Oct 2019
McCool Elementary/Middle School	311	28 Jan 2019	14 May 2019	29 Aug 2019	12 Nov 2019
Forklift Maintenance Shop	364	08 Feb 2019	07 May 2019	10 Jul 2019	30 Oct 2019
Transportation Vehicle Wash Rack	364A	08 Feb 2019	07 May 2019	10 Jul 2019	30 Oct 2019
██████████ Compound	368	26 Feb 2019	01 May 2019	15 Aug 2019	21 Nov 2019
Transportation Car Wash Station	375	08 Feb 2019	07 May 2019	10 Jul 2019	30 Oct 2019
Guam High School	401	22 Jan 2019	23 Apr 2019	24 Jul 2019	29 Oct 2019
Camp Covington Dining Facility	503	20 Mar 2019	21 Jun 2019	26 Jul 2019	26 Nov 2019
NMCB/MWR Chiefs' Club	521	23 Jan 2019	20 May 2019	26 Jul 2019	26 Nov 2019
Seabees' Officer's Wardroom	529	23 Jan 2019	20 May 2019	26 Jul 2019	26 Nov 2019

██████████e Maintenance Shop	557A-C	12 Mar 2019	20 May 2019	22 Aug 2019	04 Dec 2019
██████████ Wash Rack	563	12 Mar 2019	20 May 2019	22 Aug 2019	04 Dec 2019
Navy Water Treatment Plant	576, 580, 597	08 Feb 2019	18 Apr 2019	18 Sep 2019	21 Nov 2019
US Navy Laboratory	585, 585A	21 Feb 2019	18 Apr 2019	18 Sep 2019	21 Nov 2019
Camp Covington Enlisted Dining Facility (Galley)	586	<i>23 Jan 2019</i>	21 Jun 2019	26 Jul 2019	26 Nov 2019
Camp Covington Boiler	586A	07 Feb 2019	24 May 2019	05 Aug 2019	24 Oct 2019
Orote Point Lanes	600	N/A	20 May 2019	29 Jul 2019	18 Oct 2019
USDA Dog Kennel	641	<i>17 Jan 2019</i>	17 May 2019	17 Jul 2019	04 Nov 2019
DeCA Guam Central Distribution	780, 3201, 3202	27 Mar 2019	N/A	11 Sep 2019	18 Nov 2019
US Navy Dental Clinic	1	14 Feb 2019	22 Apr 2019	24 Jul 2019	12 Nov 2019
Infusion Coffee and Tea	1658	<i>09 Jan 2019</i>	20 Jun 2019	09 Jul 2019	23 Oct 2019
NEX Minimart and Subway	1760	<i>08 Jan 2019</i>	11 Apr 2019	02 Aug 2019	04 Nov 2019
MWR Auto Hobby Shop	1982A	<i>25 Jan 2019</i>	17 Apr 2019	02 Aug 2019	15 Nov 2019
Child Development Center	1983	<i>07 Jan 2019</i>	30 Apr 2019	16 Jul 2019	22 Oct 2019
NEX Laundromat	1988	09 Feb 2019	03 May 2019	25 Jul 2019	23 Oct 2019
Sierra Wharf BOWTS	1999	<i>31 Jan 2019</i>	08 Apr 2019	12 Jul 2019	13 Nov 2019
██████████	2105, 2108, 2109, 2112, and 2113	<i>28 Jan 2019</i>	18 Apr 2019	26 Aug 2019	05 Nov 2019
██████████ Station AH	3268	07 Mar 2019	09 Apr 2019	16 Aug 2019	18 Nov 2019
██████████ Facility	4430/4430PP	<i>17 Jan 2019</i>	26 Apr 2019	06 Aug 2019	16 Dec 2019
██████████	4451	07 Feb 2019	16 May 2019	05 Aug 2019	24 Oct 2019
██████████ Plant	4907	13 Feb 2019	10 May 2019	05 Aug 2019	24 Oct 2019
██████████	6025	07 Feb 2019	17 May 2019	05 Aug 2019	24 Oct 2019
Polaris Point BOWTS	CNRAF	<i>31 Jan 2019</i>	10 May 2019	12 Jul 2019	13 Nov 2019
Victor Wharf BOWTS	CNRVW	<i>31 Jan 2019</i>	17 May 2019	12 Jul 2019	13 Nov 2019
Sierra Wharf Package Boiler	PB-4	07 Feb 2019	09 Apr 2019	05 Aug 2019	24 Oct 2019
Uniform Wharf Package Boiler	PB-5	07 Feb 2019	09 Apr 2019	05 Aug 2019	24 Oct 2019
MWR Facilities Maintenance Warehouse	SP1	14 Feb 2019	17 May 2019	02 Aug 2019	10 Dec 2019
Veteran's Affairs Clinic	22	N/A	N/A	N/A	10 Oct 2019
Child Development Center NH	10	N/A	N/A	17 Sep 2019	20 Nov 2019
██████████	3000, 3001, 3008	N/A	N/A	N/A	17 Dec 2019

Source: BOS Contractor IWDCP Quarterly Report (CDRL-CV).

Note: N/A means facilities are either secured or were newly added.

Italicized inspection date(s) conducted outside reporting period

Some facility names are redacted for OPSEC reason.

Fifty-one (51) industrial / commercial facilities located within the MS4 permitted area were visited at least once every quarter for good housekeeping inspection. A total of one hundred seventy-seven (177) inspections were conducted during this reporting period. All possible stormwater quality issues noted during the inspections are documented and forwarded to NBG Environmental program coordinator for corrective action.

NBG also maintains an inventory of various hazardous waste accumulation points. There are currently thirty (30) satellite accumulation sites (SAS), three (3) less than 90-day and one (1) Conforming Storage Facility (CSF) for hazardous waste located within the MS4 permit area. Regular inspections are afforded to each of these facility in accordance with 40 CFR 264. These inspection also checks for the facility good housekeeping practices to prevent and reduce discharge of pollutants into the environment particularly the MS4 system from these sites. Table 10 below provides a summary of NBG hazardous waste accumulation sits inspection activities:

Table 10: CY 2019 Hazardous Waste Facilities Inspection

HW Facility	No. of Facility	Inspection Frequency	Total Facility Inspections
SAS	30	Weekly	1560
90-Day Facility	3	Weekly	156
CSF	1	Weekly	52

Sources: BOS Contractor Hazardous Waste SAS Weekly Inspection Report (CDRL-DR)
BOS Contractor Less Than 90-day Facility Inspection Report (CDRL-DS)
BOS Contractor CSF Inspection Report (CDRL-DT)
Multiple SAS's are located within some facility / compound.

A total of one thousand seven hundred sixty-eight (1768) hazardous waste facility inspection were conducted during this monitoring period.

Past Year Activities:

- The NBG industrial / commercial facilities inspection program description was included and part of Contract N40192-16-D-0002 deliverables.
- Implemented industrial facility inspection through the BOS contractor CDRL-CV reports.
- Implemented good housekeeping inspections to various hazardous waste facilities through three (3) BOS contractor deliverables.

Future Year Activities:

- Modify and / or expand the BOS or alternate environmental compliance contract to meet the NBG MS4 SWMP industrial / commercial facilities inspection requirements.
- Continued implementation of hazardous waste facilities inspection program.
- Update existing inspection procedures and checklist language to meet the NBG MS4 SWMP requirements.

Section 4 Monitoring Requirements

The development of the NBG MS4 comprehensive monitoring and assessment program is part of the SWMP development contract. This program will outline the technical and management procedures that will be implemented to meet the monitoring requirement of the MS4 permit.

4.1 Consolidated Information Tracking System

The permit requires NBG to develop an electronic tracking system to monitor compliance activities and facilitate data collection process that will be included in the annual reports. This required consolidated information tracking system is dependent on the MCM BMPs and other requirements that will be specified in the final SWMP.

An interim information tracking spreadsheet was created for the purpose of submitting the 1st annual report.

Past Year Activities:

- Description of the NBG's MS4 comprehensive monitoring and assessment program was included in the SWMP development contract.
- Developed an interim consolidated information spreadsheet to track and monitor the 1st annual report MS4 permit requirements.

Future Year Activities:

- Develop a consolidated information tracking system based on the NBG SWMP document requirements.
- Develop and implement compliance activity schedule based on the information tracking system.

4.2 Sampling and Monitoring Program

The NBG SWMP development project will include a sampling and monitoring program that will identify NBG's stormwater outfalls subject for monitoring. The program will also describe the outfall sample collection, dry weather field inspection and their respective reporting schedules to Guam and U.S. EPA. This program is required and will be implemented during the next reporting period.

Included in the SWMP development contract is the procurement of programmable portable auto-samplers, manual field sampling and portable testing instruments. This is to ensure that the dry weather field inspection / ORI and the sampling and monitoring program can be implemented as early as possible.

NBG will implement the wasteload allocation (WLA)-based effluent limitations describe in Part 4.1.1 of the permit.

NBG plans to utilize the services of the US Navy Laboratory (USNL) to comply with the sampling and analytical requirements of the permit. The laboratory is currently operated by DZSP21 under the BOS Contract N62742-19-C-1175.

The USNL is Guam EPA certified for the analysis of drinking water. Their ISO 17025 compliant Quality Assurance Program Plan (QAPP) have been reviewed by Guam EPA Certification Officers. This QAPP meets the quality assurance requirements specified in Part 5.2.3.3 and Part 5.2.3.4 of the MS4 permit.

The USNL also participates in the EPA's annual DMRQA study program through the accredited third party vendors (Environmental Research Associates and / or NSI Lab Solutions). This is required of any laboratory to maintain its capability to perform clean water act type sampling and analysis. Results of these studies are submitted to Guam EPA's Water Pollution Control Program Manager in accordance with the DMRQA study schedule and requirements.

USNL have established their minimum levels (MLs) and minimum detection limits (MDLs) for CWA type analyses. Appendix H is a summary of USNL MLs and MDLs that will be used in complying with the MS4 permit monitoring requirements.

Past Year Activities:

- Description of the NBG MS4 sampling and monitoring program was included and part of the SWMP development contract deliverables.
- Identified on-island laboratory to provide sampling and analytical support for the MS4 monitoring requirements.
- Purchase of appropriate field sampling and testing equipment was included in the SWMP development contract to ensure early implementation of the MS4 sampling and monitoring programs
- Supported and maintained USNL personnel and analytical capabilities to perform NPDES and DMR related monitoring based on the requirements specified in Part 5.2.3.3 and Part 5.2.3.4 of the MS4 permit.

Future Year Activities:

- Review of the completed SWMP sampling and monitoring requirements and assess existing resources. Program managers to submit request for funding if applicable.
- Modify and / or expand the BOS or an alternate environmental compliance contract to meet the NBG SWMP sampling, monitoring, recordkeeping and reporting requirements.
- Continue to support USNL capabilities to ensure timely collection of samples and analytical report turn-around.

- Provide training to field sampling and testing personnel in accordance with the dry weather and annual outfall monitoring requirements.

4.3 Program Evaluation

This requirement is pending completion of the SWMP development project and the availability of sampling and analytical results. NBG plans to adopt a three-tiered approach for future evaluation of its MS4 program implementation. Program effectiveness assessment will include the following step:

- Assessment of program operations
- Evaluation of social indicators through surveys
- Outfall / Effluent quality monitoring.

These steps will be used to document progress towards water quality goals and reduction of pollutants in the MS4 system. Evaluation of NBG's overall MS4 program effectiveness will be included during the next reporting period.

Past Year Activities:

- Not applicable / required during this reporting period. Written strategy for the determination of NBG SWMP effectiveness is part of N40192-16-D-002 contract deliverables.

Future Year Activities:

- Implement a multi-tiered approach to evaluate the NBG MS4 program effectiveness, a written description of which will be provided in the completed SWMP document.

4.4 NBG MS4 Annual Report

NBG's annual reports will be completed and submitted in accordance with the MS4 permit and the completed SWMP requirements. Reports will include a summary of collected data and the required assessment of the results.

4.4.1 Annual Monitoring Reports

No stormwater quality monitoring conducted during the 1st reporting period. NBG will begin conducting scheduled sampling and monitoring upon identification of priority outfalls.

Annual analytical reports will be submitted in a format and schedule consistent with the requirements specified in Part 5.2.3.7 of the permit.

Past Year Activities:

- Not applicable / required during this reporting period. Identification of sampling points and priority outfalls is part of N40192-16-D-002 contract deliverables.

Future Year Activities:

- Implement sampling and monitoring based on the program that will be described in the completed SWMP document.
- Develop list of pollutants of concern (POC), in addition to POC's listed in Table 3 of the permit, which may be observed from stormwater discharges specific to a particular outfall where applicable.
- Submit annual monitoring report based on the requirements specified in Part 5.2.3.7 of the permit.

4.4.2 Year 1 Annual Report

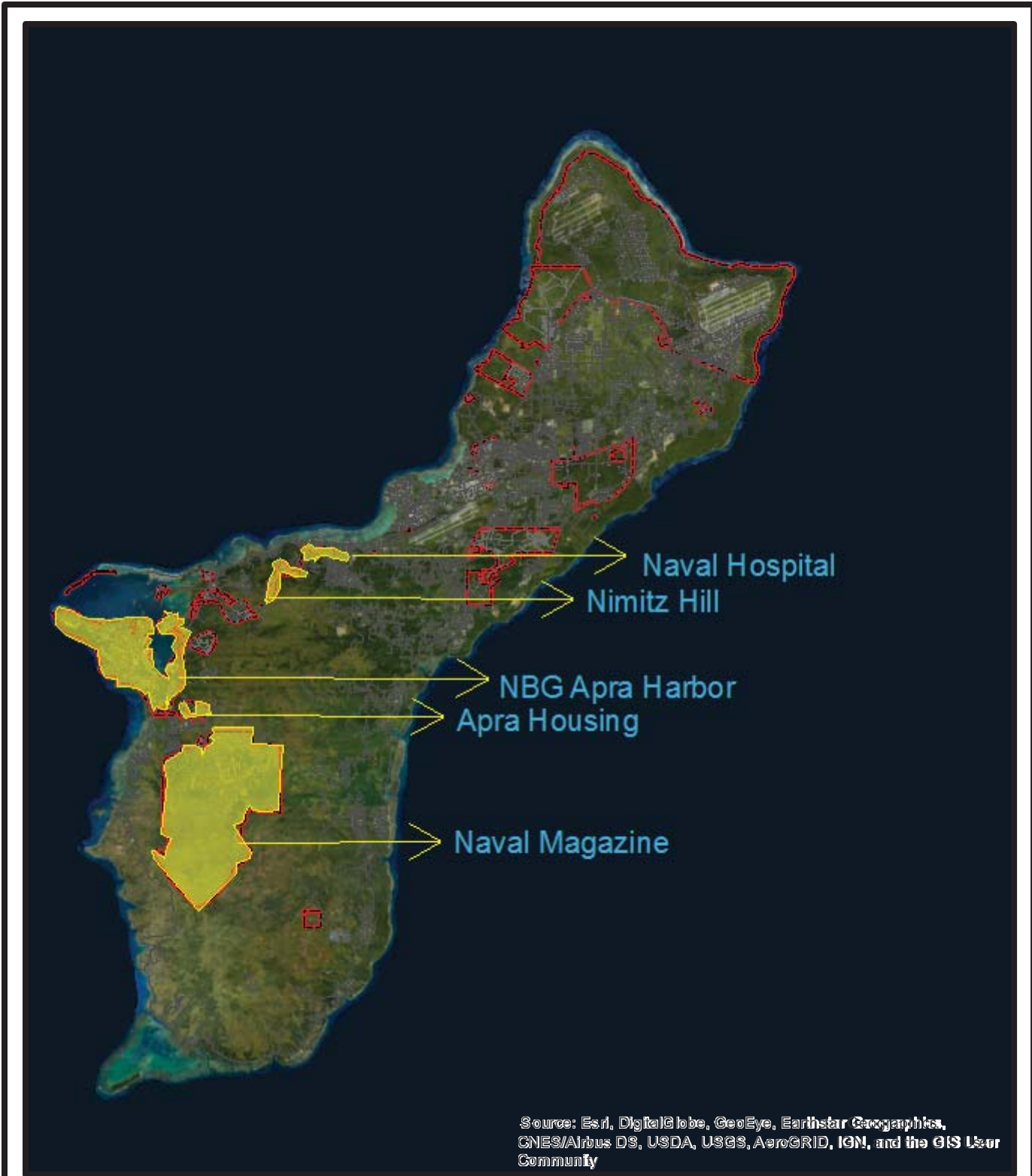
This Year 1 reporting period annual report will be submitted to US EPA Region 9 NPDES Permit Section and Guam EPA's Water Pollution Control Program Manager upon review and approval of the IEPD. This annual reports, with some redacted information for operational security reasons, will be made available online next to the NBG completed SWMP document:

- http://www.cnic.navy.mil/regions/jrm/installations/navbase_guam/

Section 5 REFERENCES

- Naval Base Guam Municipal Separate Storm Sewer System (MS4) NPDES Permit GUS040000
- Storm Water Management Plan (SWMP) development Contract - Contract Number N40192-16-D-002
- OPNAVINST 5090.1E
- NAVBASEGUAMINST 5090.3 Series
- Naval Base Guam Base Operations Support Contract (BOSC) - Contract N62742-19-C-1175
- NAVFAC Marianas Grounds Maintenance and Tree Trimming Service Contract - Contract N40192-20-D-9000
- NAVFAC Marianas Integrated Solid Waste Management and Pavement Clearance Services Contract - Contract N40192-16-R-7000
- 2014 DPRI Construction Program Comprehensive Construction Stormwater Pollution Prevention Plan (CSWPPP)
- Naval Base Guam Multi-Sectoral General Permit Stormwater Pollution Prevention Plan (MSGP SWPPP)
- Illicit Discharge Survey Report, Contract No.: 62742-16-D-1800
- US Navy Laboratory Quality Assurance Program Plan.

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Map of:
**NBG MS4 Permitted
Facilities Overview**

Prepared For:
NFM Environmental



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