



# NAVAL BASE SAN DIEGO



# STORM WATER PROGRAM

MUNICIPAL SEPARATE STORM SEWER SYSTEM

STORM WATER MANAGEMENT PLAN

*Order: R9-2013-0064*

*NPDES: CA0109169*

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## ACRONYMS AND ABBREVIATIONS

ACSCE	Annual Comprehensive Site Compliance Evaluation
AST	Aboveground Storage Tank
BMP	Best Management Practice
CM/CONSTR MGR	Construction Manager
CNIC	Commander Navy Installation Command
CNRSW	Commander Navy Region Southwest
CGP	Construction General Permit
DN	Deficiency Notice
DRMO	Defense Reutilization and Marketing Office (aka Defense Logistics Agency Disposition Services)
DOD	Department of Defense
ECATTS	Environmental Compliance Assessment, Training, and Tracking
EMS	Environmental Management System
ENV	Environmental
FMS	Facilities Maintenance Specialist
FY	Fiscal Year
HM/HAZMAT	Hazardous Material
HW/HAZWASTE	Hazardous Waste
ID	Identify
ICID	Illicit Connection and Illicit Discharge
IEPD	Installation Environmental Program Director
IT	Information Technology
KO	Contracting Officer
LID	Low Impact Development
LOC	Location
MEP	Maximum Extent Practicable
MGRF	Mission Gorge Recreational Facility
MCMS	Minimum Control Measures
MS4	Municipal Separate Storm Sewer System
MFIF	Municipal Facility Inspection Form
MFMS	Municipal Facility Master Spreadsheet
MWR	Moral Welfare & Recreation
NAL	Numeric Action Level
NASSCO	National Steel and Shipbuilding Company
NAVFAC SW	Naval Facilities Engineering Command Southwest

**ACRONYMS AND ABBREVIATIONS**

NBSD	Naval Base San Diego
NBSD	Includes: Mainside Complex, NMCSO, MGRF and Broadway Complex
NEPA	National Environmental Policy Act
NESDI	Navy Environmental Sustainability Development to Integration Program
NEX	Navy Exchange
NMCSO	Naval Medical Center, San Diego
NOAA	National Oceanic and Atmospheric Administration
NTU	Nephelometric Turbidity Unit
NPDES	National Pollutant Discharge Elimination System
PAO	Public Affairs Officer
PM	Project Manager
POC	Point of Contact
POL	Petroleum Oils and Lubricants
PW(O)	Public Works (Officer)
QIFVI	Quarterly Industrial Facility Visual Inspections
QSE	Qualifying Storm Event
RCRA	Resource Conservation and Recovery Act
RLD	Risk Level Determination
SDRWQCB	San Diego Regional Water Quality Control Board
SMARTS	Storm Water Multiple Application and Report Tracking System
SME	Subject Matter Expert
SOP	Standard Operating Procedure
SOW	Statement of Work
SPAWAR	Space and Naval Warfare Systems Command
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
µg/L	Micrograms per Liter
UST	Underground Storage Tank

## 1.0 BACKGROUND

This Storm Water Management Plan (SWMP) was developed in accordance with the requirements in the Naval Base San Diego (NBSD) National Pollutant Discharge Elimination System (NPDES) Permit #CA0109169 (Permit), hereby referred to as the Permit. NBSD submitted an initial SWMP to San Diego Regional Water Quality Control Board (SDRWQCB) in April 2015, within the Permit deadline submission date of May 1, 2015. This current version of the SWMP includes revisions requested by SDRWQCB. The SWMP was revised in response to SDRWQCB comments on the SWMP April 2015 version. The SWMP will be reviewed annually and revised as necessary (NPDES Permit L-4). A summary of changes made to the SWMP will be performed for each annual review. The identified inadequacies, and any planned efforts to address the identified inadequacies shall be maintained in the Annual Review Summary (Attachment 8) of this SWMP and it will be maintained for a minimum of five years.

This SWMP is designed to reduce the discharge of pollutants from NBSD and its Municipal Tenants, within the area outlined as NBSD, to the technology-based standard Maximum Extent Practicable (MEP) to protect receiving water quality. Furthermore, the SWMP serves as the central document that identifies, describes, assigns, and implements NBSD's Best Management Practices (BMPs) to control municipal discharges throughout NBSD. This is accomplished by integrating existing programs that have storm water quality benefits into the SWMP as well as developing new programs to fill coverage. These programs are identified as BMPs in Section 2 of this SWMP and focus on addressing the Minimum Control Measures (MCMs) outlined in Attachment L of the Permit, including: 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post Construction Storm Water Runoff Control; and 6. Pollution Prevention and Good Housekeeping. Some BMPs address more than one MCM; however, the parameters to assess performance (tasks, measurable goals, timelines and staff assigned) for these BMPs are specific to a MCM. BMP specifics are defined in the BMP Tables (Section 2) with support documents provided in Attachments 1-8 and Figures 1-4.

As part of the SWMP, the Permit also prescribes requirements for NBSD to submit a written plan for monitoring pollutants in non-industrial storm water discharges from Municipal Separate Storm Sewer System (MS4) areas on NBSD. The goal for the monitoring plan is to evaluate the effectiveness of the SWMP and its

implementation. The specific monitoring procedures, to include listed pollutants, representative locations, and schedules for monitoring, are incorporated into Section 3 of the SWMP. The monitoring results that are prescribed within the Monitoring section will be submitted annually with the Storm Water Annual Report (NPDES Permit E-34).

Section 1 of the SWMP provides requirements prescribed from the Permit for the BMPs, Monitoring Plan, facility specific information, and lists the current storm water and non-storm water programs in place as well as facility specific information. Section 2 provides tables, with narrative, which detail municipal BMPs and provide specific implementation information. Section 3 provides detail on the monitoring, as well as recordkeeping and observations, required to satisfy the BMPs. Section 4 is the certification page. The attachments contained in the SWMP, support the completion of requirements prescribed within the BMP Tables, the Monitoring Plan and other requirements within this SWMP.

## **1.1 NBSD INSTALLATION DESCRIPTION**

As described in the Permit, NBSD is comprised of the following four complexes: Mainside (NBSD), Naval Medical Center, San Diego (NMCSD), Broadway, and Mission Gorge Recreational Facility (MGRF).

### **1.1.1 MAINSIDE COMPLEX**

NBSD proper is located at 32nd Street and Harbor Drive approximately three miles southeast of downtown San Diego on the eastern edge of San Diego Bay. It is bordered by the City of San Diego to the north and east and National City to the south and east and San Diego Bay to the west. NBSD includes a base population of over 35,000 military and civilian personnel with over 45 tenant activities, including the following major commands: Fleet Training Center, Naval Facilities Engineering Command Southwest (NAVFAC SW), Southwest Regional Maintenance Center, and Naval Supply Center. Personnel support activities at NBSD include Regional Commissary Store, Naval Dental and Medical Clinics, Naval Legal Service Office Trial Judiciary, Environmental Preventative Medicine Unit Five, Personnel Support Detachment, and Navy Resale and Service Support Office. NBSD is homeport to approximately 55 Pacific Fleet ships and provides in-port berthing services for 56 surface force ships and 51 service craft. NBSD occupies 1,049 acres of land and 326 water acres at a site lying east and west of Harbor Drive. The wet

side consists of the Bay front area west of Harbor Drive, while the dry side consists of the community facilities east of Harbor Drive. There are no facilities designated as industrial on the dry side. This portion of the base mostly consists of support facilities such as the Commissary, Navy Exchange (NEX), and living quarters. The wet side is extensively developed and supports waterfront operations, ship berthing and maintenance, station maintenance, training, administration, and logistics functions. Operational facilities include piers, quay walls, small craft berthing facilities, fueling facilities, armories, and waterfront operations buildings. The straight-line map measurement of the shoreline at NBSD is 1.6 miles. NBSD contains twelve berthing piers, a mole pier, two channels, and various quay walls that have a total shoreline measurement of approximately five miles.

#### **1.1.2 BROADWAY COMPLEX**

The Broadway Complex is located in downtown San Diego at 937 North Harbor Drive on the corner of North Harbor Drive and Broadway. It consists of nearly 14 acres with no direct access to San Diego Bay. With only six buildings on site, the Broadway Complex is over 95 percent asphalt parking, with no industrial operations. The Broadway Complex is within the Lindbergh Hydrologic Subarea (908.21) of the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00). The commands located at this compound include the offices of Commander Navy Region Southwest (CNRSW), Personnel Support Activity, Navy Computer and Telecommunications Station, Reserve Readiness Command, and Fleet and Industrial Supply Center. Historically this compound served as a supply depot, but it has operated only minimally in that capacity since the middle 1990s. The site on which the Broadway Complex is located is slated for redevelopment. It is anticipated the Broadway Complex will be demolished and redeveloped within the permit period. The Navy will obtain a permit under and comply with, the California General Construction Storm Water Permit for this project. Broadway Complex has municipal storm water discharges only, with no industrial processes occurring onsite.

#### **1.1.3 MISSION GORGE RECREATIONAL FACILITY (MGRF)**

MGRF also referred to locally as Admiral Baker Field, is located in the city of San Diego along the San Diego River and is within the Mission San Diego Hydrologic Subarea (907.11) of the Lower San Diego Hydrologic Area (907.10) of the San Diego Hydrologic Unit (907.00). The 440-acre complex is located east of

Interstate 15, north of Friars Road, and west of Mission Gorge Road. The complex primarily consists of cultivated or landscaped habitat with various ornamental trees and shrubs planted on the golf course and surrounding areas. Natural habitat onsite includes riparian woodland along the San Diego River and coastal sage scrub adjacent to the golf course on the north and northwestern edges of the property. Most of the natural habitat onsite either occurs within the San Diego River or along very steep slopes (25-50 percent or greater). The majority of the land use at MGRF consists of two 18-hole golf courses and a driving range. Support facilities include a dance pavilion, snack bar, and coffee shop. Other recreational facilities include tennis courts, volleyball courts, a swimming pool, baseball fields, and a recreation vehicle (RV) camping area located on the southwestern edge of MGRF. The primary mission of MGRF is to provide for maximum participation in programs that are designed to enhance physical, mental, and social health of all active duty personnel and their dependents. Both planned and spontaneous sports programs receive priority compensation within this department. MGRF has municipal storm water discharges only (no industrial storm water discharges).

#### **1.1.4 NAVAL MEDICAL CENTER SAN DIEGO (NMCS D)**

NMCS D is located within Balboa Park and occupies 79 acres in Florida Canyon. NMCS D is within the Lindbergh Hydrologic Subarea (908.21) of the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00). The hospital complex is approximately 500,000 square feet and provides service to approximately 3,800 patients on an average day. NMCS D provides medical care to active duty personnel, family members, and retirees. The hospital is one of only two teaching hospitals in the Navy. It provides training for enlisted hospital corpsmen and junior medical officers and nurses. The Medical Center Commander is also responsible for all Navy and Marine Corps medical facilities in California, Nevada, and Arizona. Surface drainage flows to the south and east through catch basins and curb inlets down concrete swales or end of pipe outfalls towards Switzer Creek on Florida Drive and west towards Interstate 5. NMCS D is designated a municipal facility and has municipal storm water discharges only (no industrial storm water discharges).

#### **1.2 NBSD RISK LEVEL DESIGNATIONS AND STORM WATER PROGRAMS**

NBSD's geographic regions are further broken down by Risk Level Designations (RLDs). Municipal areas subject to the SWMP are

areas where no industrial activities occur. These areas are indicated on storm water maps (Figures 1-4) with a pink color coding for the four complexes within NBSD. Non-municipal areas are covered by NBSD Industrial Storm Water Pollution Prevention Plan (SWPPP).

### **1.3 NON-STORM WATER DISCHARGES**

Per the permit, a list of authorized non-storm water discharges is numbered below. The list may be modified if NBSD or the SDRWQCB identifies any of the discharge categories to contain quantities of pollutants that may cause or contribute to an exceedance of a water quality standard(s). If this is the case then it will be identified as a significant source of pollutants, and the category must be addressed as an illicit discharge and prohibited through ordinance, order, or similar means unless the discharge is from a non-anthropogenic source. For a non-anthropogenic source (e.g. rising ground waters) determined to be a significant source of pollutants, NBSD will either prohibit the discharge category or develop and implement appropriate control measures to prevent the discharge of pollutants to the MS4. For any discharge that is not easily categorized according to the list provided, or if in doubt, please contact the NBSD Environmental Office during normal business hours at (619)556-0966/1537, or the NBSD Command Duty Officer at (619)247-8897 for times outside normal business hours.

#### **1.3.1 AUTHORIZED DISCHARGES**

- a. Diverted stream flows;
- b. Rising ground waters;
- c. Uncontaminated ground water infiltration;
- d. Uncontaminated pumped ground water, foundation drains, crawl space pumps and, footing drain discharges;
- e. Springs;
- f. Drinking fountain water and emergency eye wash water;
- g. Atmospheric condensate including refrigeration, air conditioning and compressor condensate;
- h. Flows from riparian habitats and wetlands;

- i. Discharges from potable water sources - not subject to NPDES Permit No. CAG679001 (Hydrostatic Test Water and Potable Water)
- j. Individual residential car washing;
- k. De-chlorinated swimming pool discharges excluding saline swimming pool discharges;
- l. Seawater infiltration where the seawater is discharged back into the Seawater source;
- m. Building fire suppression system maintenance discharges (e.g. sprinkler line flushing) not otherwise regulated by the NPDES Permit No. CAG679001.

### **1.3.2 CONDITIONS OF AUTHORIZATION**

Conditions for Authorized Non-storm Water Discharges identified above are authorized only if all of the following conditions are satisfied:

- a. The non-storm water discharges are not in violation of any SDRWQCB requirement.
- b. The non-storm water discharges are not in violation of any municipal or federal agency ordinance or requirement.
- c. BMPs are implemented for municipal areas to prevent or reduce the contact of non-storm water discharges with significant materials or equipment (NPDES Permit A-8) that would cause discharges to exceed benchmarks or contribute to water quality degradation; and minimize, to the MEP, the flow or volume of non-storm water discharges.
- d. The non-storm water discharges do not contain quantities of pollutants that may cause or contribute to an exceedance of a water quality standard(s).

### **1.3.3 OTHER NON-STORM WATER DISCHARGES**

- a. Fire Fighting Discharges. Emergency fire-fighting flows (i.e., flows necessary for the protection of life or property) do not require BMPs and need not be prohibited (this does not include relief water from the emergency fire suppression system discharged through Graving Dock discharge point NGD-004). Non-Emergency Discharges. The NBSD's Federal Fire Department does not conduct controlled burns on NBSD. Maintenance activities

such as fire hydrant maintenance, hydrostatic testing of fire hoses or other fire equipment related discharges, and possible training discharges, such as those performed at the Training Support Center will follow BMP, MS4 001 (Attachment 6) for Fire Fighting Hydrostatic Testing discharges.

b. Fire Hydrant Flushing. Periodic flushing of fire hydrants is covered under the General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region Order No. R9-2010-0003, NPDES No. CAG679001. Coordination for flushing of fire hydrants is conducted by NAVFAC SW Utilities. Fire Hydrant flushing is a separate maintenance function area from the annual submission of the Storm Water Annual Report and is documented on a log by Utilities and submitted to SDRWQCB annually. NAVFAC SW Utilities may be contacted at 619-556-8946.

c. Utility Vault and Manhole Dewatering Discharges. Often located in municipal areas, these non-storm water discharges, (accumulated water discharged from NBSD utility vaults and manholes) shall comply with all the provisions listed within the Permit and the current NBSD Utility Vault Plan.

d. Incidental Runoff from Landscaped Areas. Incidental runoff is defined as unintended amounts (volume) of water that escapes the area of intended use. Incidental runoff, not controlled by the following requirements, is prohibited:

- Detect leaks (e.g. broken sprinkler heads) and correct the leaks within 72 hours of learning of the leak;
- Properly design and aim sprinkler heads; and
- Eliminate irrigation during precipitation events.

#### **1.4 NBSD ENVIRONMENTAL COMPLIANCE DEPARTMENT**

The NBSD Environmental Compliance Department manages and ensures NBSD maintains compliance with all of the installation environmental permits. The department is comprised of the following environmental media groups: Air, Hazardous Waste (HW)/Resource Conservation and Recovery Act (RCRA), Tanks, National Environmental Policy Act (NEPA), Environmental Management System (EMS) and Water Program personnel. The Installation Environmental Program Director (IEPD) is the lead

representative and manages department personnel. The Water Program consists of an overall Water Program Lead, an MS4 Lead, and an Industrial Facility Lead. The MS4 lead is responsible for developing and updating the SWMP, ensuring the implementation schedule for BMP Tables' Tasks are completed per the timelines set, and ensuring the observations and sampling requirements prescribed in the Monitoring Plan are met. The implementation and mandate to begin these duties is set for November 1, 2015 per the permit. To maintain consistency across the storm water programs, the SWMP was developed against many of the previously established Industrial storm water programs including the SWPPP, the High-Risk Pre-Rain Inspections, and BMP programs. Additionally, programs from other Environmental media groups have been incorporated as is, or modified to ensure maximum coverage and utilization of resources.

## **2.0 BEST MANAGEMENT PRACTICES (BMPs) FOR THE SIX MINIMUM CONTROL MEASURES (MCMs)**

The BMPs included in this SWMP are for MS4 areas and are designed to reduce pollutants in storm water runoff to the technology-based standard of MEP, to protect water quality prevent or reduce the contact of non-storm water discharges with significant materials or equipment and to minimize, to the MEP, the flow or volume of non-storm water discharges. In accordance with 40 CFR 122.44(k), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits.

The Permit requires a description of BMPs, and associated measureable goals, that fulfill the requirements of six MCMs:

1. Public Education and Outreach;
2. Public Participation and Involvement;
3. Illicit Discharge Detection and Elimination;
4. Construction Site Storm Water Runoff Control;
5. Post Construction Storm Water Runoff Control; and
6. Pollution Prevention and Good Housekeeping.

In this section of the SWMP, each MCM category is addressed, starting with NPDES requirements followed by narratives that provide background on the BMPs chosen to achieve each MCM requirement. The tables at the end of each MCM category provide specific BMPs along with their associated tasks, measurable goals, timelines for implementation and staff responsible for the task(s).

### **2.1 MCM 1 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS**

a. Requirements. The Public Education and Outreach MCM addresses how NBSD distributes educational materials and conducts outreach activities concerning the effects of NBSD storm water discharges on local water bodies. These materials and activities inform the employees (military, civilians, contractors, and retailers), patrons (military family members and others with base access), and occupants (those who live on base) on actions and practices they can take to reduce

pollutants in storm water runoff. It aims to provide awareness and knowledge to these target audiences about activities that may have potential adverse effect(s) to water quality so that they can prevent these activities and thereby improve overall water quality.

b. Background. MCM 1 utilizes seven BMPs (identified MCM 1.1 - 1.6) to address the Permit requirements. The BMPs include existing and new programs to inform the target audiences to the MEP. The six BMPs are organized into the following areas:

- MCM 1.1 Municipal Facility Inspections
- MCM 1.2 Environmental and SWMP Training
- MCM 1.3 Education and Outreach Booths
- MCM 1.4 Develop Partnerships
- MCM 1.5 Pollution Prevention Messaging
- MCM 1.6 Physical and Electronic Media Outreach

#### **2.1.1 MCM 1.1 MUNICIPAL FACILITY INSPECTIONS**

Facility visits at municipal facilities are an effective BMP to perform Public Education and Outreach on storm water impacts because they provide one-on-one interaction between environmental staff and the "tenant". The term, tenant, used throughout this SWMP, is defined as the municipal facility point of contact (POC) also known as the building monitor. The tenant at each municipal facility can assist the Water Program and directly distribute helpful materials to employees, staff, and customers to improve awareness and knowledge on storm water quality.

Facility visits will be conducted annually for all municipal designated tenants located on NBSD. The intent of the facility visits is to maintain updated building and POC information, record the facilities storm water structures and runoff flows on maps, and determine baseline needs (environmental training and storm water requirements). This will be catalogued via the standardized Municipal Facility Inspection Form (MFIF - Attachment 1). As part of the facility visit and inspection form, the municipal facility POC is interviewed by Water Program personnel to see whether they attend and/or receive

environmental training, and if they have questions regarding storm water requirements. The interview will provide tenants with an opportunity to ask environmental staff questions, for example, if the tenant needs information on how to dispose waste, the NBSD Environmental Department has prepared and will distribute (upon request) waste disposal information sheets on 46 different types of waste. If the tenant instead requests information on how to conduct turn-in of government items (e.g. printers, metal shelving, etc.), then Standard Operating Procedures (SOPs) and training conducted by NBSD's environmental staff will be provided. These assessments and the associated feedback are designed to enhance the primary objective of improving water quality.

The Municipal Facilities Master Spreadsheet (MFMS - Attachment 5) tracks municipal site visits, interactions with building monitors, and facility inspections performed.

For construction sites, the Water Program personnel will conduct routine inspections to provide oversight, as some construction projects take less than one year, or even six months, to complete. The MFIF form will also be used for these sites. This will incorporate the construction sites into the SWMP program. These routine visits serve the same role as the facility visits to the municipal facilities.

#### **2.1.2 MCM 1.2 ENVIRONMENTAL AND SWMP TRAINING**

NBSD's Environmental Department has an established training program with an average audience of over 300 trainees a year. The training emphasis is on HW however, the main topics (proper management of hazardous materials, proper disposal of HW, and spill clean-up and emergency response procedures) are equally applicable to the storm water program. The training also includes information on EMS and Storm Water. The training is three hours in length, performed monthly, and is required for municipal facility POCs who manage HW permits. As part of the SWMP, the Water Program staff will use the MFIF to determine which tenants attend the monthly environmental training. Facility personnel that do not attend but manage HW, universal waste, or have an interest in the training will be encouraged to attend. The Water Program staff will communicate the dates and locations of training and will ensure that storm water fliers will be distributed at the trainings. In addition, the training will include information on finding out answers to storm water related questions. The intent is to increase overall

environmental awareness that can translate to improved water quality.

Another training initiative that the SWMP will use to improve environmental awareness and knowledge is the Environmental Compliance Assessment, Training, and Tracking System (ECATTS). This system is designed to provide an understanding and awareness of the environmental requirements established by the United States Environmental Protection Agency (EPA), the United States Department of Defense (DOD), and State regulations. ECATTS will be promoted to tenants and contractors working on the base. ECATTS has ten storm water modules pertinent to military base employees, related personnel, NAVFAC SW construction and other construction contractors. Information on ECATTS will be provided to tenants and contractors alike during facility inspections/visits. POCs will be interviewed on whether they have taken ECATTS courses and encouraged to take ECATTS storm water courses as needed for their facility.

#### **2.1.3 MCM 1.3 EDUCATION AND OUTREACH BOOTHS**

NBSD Environmental personnel regularly participate in Environmental Outreach events by displaying and staffing the department's "Go Green" booth at events such as the Gillespie Field Air Show, the Miramar Airshow, Operation Clean Sweep, and the NBSD Safety Fair. The EMS program within the Environmental department is the lead coordinator for these events. They organize involvement with the event facilitators and ensure all fliers and booth materials are stocked and ready for each event. As part of this effort and to quantify the impact of the "Go Green" booth, the Water Program personnel plan to track message exposure by the approximate number of visitors to the booth and/or the number of items given away.

#### **2.1.4 MCM 1.4 DEVELOP PARTNERSHIPS**

The NBSD SWMP aims to develop partnerships in order to leverage existing resources as well as share those resources to address common water quality issues. Contacts with neighbors and partners such as National Steel and Shipbuilding company (NASSCO) will be increased in order to find common areas where NBSD and their partners can work together to address water quality issues.

#### **2.1.5 MCM 1.5 POLLUTION PREVENTION MESSAGING**

One of the key existing outreach programs used to improve water quality at NBSD is the marking and labeling of storm drains. Storm drains marking and labeling are a highly visible source control measure that contains a brief message that the storm drain goes to the bay and prohibits the dumping of improper materials. Storm drains are marked in yellow paint and have placards to inform NBSD tenants, employees, service members, and patrons that the storm drain goes to the bay and not to dump. Over time these markings and placards wear away and become illegible. In an effort to maintain this crucial public awareness BMP, NBSD Environmental staff will conduct surveys of all of NBSD storm drains, and assess the need for service. Pertinent findings will be provided to NBSD Public Works. The storm drains will be inspected annually as part of the annual facility inspection, and with available funding and/or manpower, the storm drains will be stenciled with the appropriate pollution prevention message.

#### **2.1.6 MCM 1.6 PHYSICAL AND ELECTRONIC MEDIA OUTREACH**

Information dissemination within NBSD's Environmental Department is transparent and timely. Facilities with environmental permits are visited on a monthly to annual basis, depending on the permit (more frequently in some cases). For facilities that do not have environmental permits, the SWMP provides coverage to ensure environmental oversight by inspecting (MCM 1.1) municipal facilities at least once per year.

In addition to this face-to-face outreach the NBSD's Commander Naval Installation Command (CNIC) webpage and the NBSD Facebook page will be utilized for information dissemination to key audiences. These websites are accessible to the public making them also accessible to tenants that may have trouble accessing websites that are restricted by the Navy for security reasons. Numerous helpful documents such as the SWMP, fliers, SOPs and other information will be posted on these websites. The Water Program personnel plan to work with the PAO and Information Technology (IT) personnel to track the number of times the webpage(s) have been viewed.

2.1.7 BMP TABLES FOR MCM 1.1 - 1.6

Minimum Control Measure #1: Public Education and Outreach								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 1.1</b> Perform annual municipal facility inspections. Complete Municipal Facility Inspection Form (MFIF - Attachment 1) to include verification of storm water map (feedback corrections as needed). Record site visit into Municipal Facility Master Spreadsheet (MFMS - Attachment 5).	Perform annual municipal facility inspection.	(1) Accomplish annual municipal facility inspections. (2) Complete MFIF for each facility visit. (3) Record facility visit into MFMS. (4) Annotate storm water map changes tracked in MFIF. (5) Update municipal facility POCs for each facility.			x	x	x	(1) NBSD Env, & Facility POC (2 - 5) NBSD Env
	Update storm water maps annually.	(1) Provide map discrepancies for annual map update. (2) Verify that maps are corrected.			x	x	x	(1 - 2) NBSD Env

Minimum Control Measure #1: Public Education and Outreach								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 1.2</b> Provide training to facility POCs to increase environmental and storm water knowledge and awareness. Use training events and POC contact opportunities to distribute storm water awareness materials.	Perform monthly Environmental training focusing on proper handling, disposal of waste with coverage of storm water process BMPs. Provide storm water awareness fliers to training attendees requesting additional storm water information.	(1) Provide monthly training to facility POCs during inspections. (2) Distribute storm water awareness fliers at training events.	x	x	x	x	x	(1 - 2) NBSD Env
	Encourage facility POCs to perform ECATTS storm water training modules.	(1) Determine total number of ECATTS storm water courses taken each FY.			x	x	x	(1) NBSD Env
	Provide training to facility POCs during facility inspections.	(1) Determine tenant's storm water awareness and track training effectiveness with follow-on inspections.				x	x	(1) NBSD Env & Facility POCs

Minimum Control Measure #1: Public Education and Outreach								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 1.3</b> Participate in public outreach events. Provide outreach messaging (posters, fliers, etc) that educate on storm water awareness and knowledge. Distribute storm water awareness materials.	Coordinate outreach event participation, ensure participants and materials are ready.	(1) Appoint staff member to coordinate events, ensure participation, and provide materials for each event.	x	x	x	x	x	(1) NBSD Env
	Track outreach participation and maintain internal booth attendance tally.	(1) Maintain participation in outreach events. (2) Maintain attendance tally for each event.			x	x	x	(1 - 2) NBSD Env
<b>MCM 1.4</b> Communicate with partners/neighbors (i.e. other Metro bases and NASSCO) to improve storm water education and outreach efforts.	Meet with partners and neighbors to determine areas to align public education and outreach goals/efforts.	(1) Track meetings with partners and neighbors. (2) Maintain partner/neighbor interaction. (3) Promote partner developed programs.				x	x	(1 - 3) NBSD Env, and partners/ neighbors

Minimum Control Measure #1: Public Education and Outreach								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 1.5</b> Apply appropriate pollution prevention message and install storm drain markers at high visibility storm drains.	Develop appropriate pollution prevention message. Survey and verify storm water maps storm drain locations and requirements for message and marker.	(1) Develop appropriate message to display on storm drains. (2) Conduct survey of storm drains. (3) Identify storm drains that need message and marker. (4) Maintain maintenance requirements for storm drains.			x	x	x	(1) NBSD Env & PAO (2 - 3) NBSD Env (4) NBSD Env & PW
	Request funding (via US Navy Environmental Portal) for pollution prevention message and markers for storm drains.	(1) Request funding for storm drain message and markers. (2) With available funding, increase properly maintained and marked storm drains from FY 17 to 18.				x	x	(1 - 2) NBSD Env & PW

Minimum Control Measure #1: Public Education and Outreach								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 1.6</b> Develop existing NBSD CNIC and Facebook website to include storm water information. Allow access to Environmental Support link from NBSD Homeport/Facebook page. The Environmental Support link takes viewers to storm water info related to NBSD including spill prevent/report, community involvement, outreach events, and process BMPs.	Incorporate storm water info on CNIC/Facebook webpage. Program webpage to allow viewers to navigate through storm water materials. Monitor number of times the website has been viewed.	(1) Develop content for websites and coordinate it with PAO/ IT. (2) Establish visitor counter for website(s). (3) Review websites annually.			x	x	x	(1 - 3) NBSD Env, PAO, & IT

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## **2.2 MCM 2 PUBLIC INVOLVEMENT AND PARTICIPATION**

a. Requirements. The Public Involvement and Participation MCM addresses how NBSD regularly encourages public participation in the development and implementation of the SWMP, establishes a platform for the public and targets audiences to provide input into the development and implementation of the SWMP, solicits public reporting of suspected illicit discharges via telephone and writing, and implements procedures for the receipt and consideration of oral and/or written public inquires, concerns, and any other information submitted by the public.

b. Background. MCM 2 utilizes four BMPs (identified as MCM 2.1 - 2.4) to address the Permit requirements. These BMPs incorporate both existing and new programs to achieve maximum water quality benefits. The four BMPs are organized into the following areas:

- MCM 2.1 Pre-Rain Actions Involvement
- MCM 2.2 Adopt a Storm Drain Involvement
- MCM 2.3 Promote Participation in Outreach Events
- MCM 2.4 Encourage Public Review of NBSD SWMP

### **2.2.1 MCM 2.1 PRE-RAIN ACTIONS INVOLVEMENT**

The Water Program staff plan to develop a list of facilities that would benefit from, and can take action on Pre-Rain notifications. This supports MCM 2 by increasing facility POC involvement and participation to take action to reduce exposure of materials during forecasted rain events. A facilities' participation will be determined by interviewing the facility POC during the annual inspection. Facilities that have regular exposure to storm water requirements and can implement storm water BMPs prior to a storm, may be brought into the Pre-rain Notification and Inspection process. Tenants would receive emails when there is a forecast of at least a 50% chance of precipitation forecasted by the National Oceanic and Atmospheric Association (NOAA). When the pre-rain email is received, the tenant will take pre-rain actions and fill out the associated pre-rain inspection form (Attachment 4).

**2.2.2 MCM 2.2 ADOPT A STORM DRAIN INVOLVEMENT**

The Water Program staff plan to develop an Adopt a Storm Drain program. This supports MCM 2 by increasing awareness of storm water and the storm water drainage system on base. Facility POCs will be identified by surveying and observing tenant operations, accessible catch basins, and the ability of the tenant to participate in the program. Facilities that have catch basins that can be accessed and who indicate they can take action, as a result of their operational flexibility and available tools, will be brought into the Adopt a Storm Drain program. The Water Program personnel will encourage participation in the program for all facilities to include developing incentive type programs (like recognition awards) to increase participants.

**2.2.3 MCM 2.3 PROMOTE PARTICIPATION IN OUTREACH EVENTS**

The Water Program staff will utilize communications venues like NBSD sponsored websites, and facility inspections to promote outreach events that will encourage public involvement and participation. Use of the internet to advertise public involvement and participation events such as clean-ups and SWMP development will be coordinated through the PAO and the IT Department.

**2.2.4 MCM 2.4 ENCOURAGE PUBLIC REVIEW OF NBSD SWMP**

The Water Program personnel will work with PAO and IT to post the SWMP to the CNIC webpage. The site will enable the public to review its contents and provide feedback. Utilizing outreach BMPs such as facility visits, training and electronic media, NBSD will provide the SWMP and information on the storm water program to promote Public Involvement and Participation.

2.2.5 BMP TABLES FOR MCM 2.1 - 2.4

Minimum Control Measure #2: Public Involvement/Participation								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 2.1</b> Adopt the Industrial storm water program's Pre-Rain Inspection notifications. This includes sending an email to remind facility POCs to conduct "regular housekeeping" and other BMPs when NOAA forecasts a 50% chance or greater for precipitation. A similar notice will be sent to a limited group within the municipal areas.	Identify municipal facilities that can benefit from pre-rain inspections and can take proactive measures that may improve storm water quality. Train facility POCs on action to take for Pre-Rain procedures. Email tenants when NOAA forecasts a chance of precipitation 50% or greater.	(1) Identify municipal POCs to participate in Pre-Rain program. (2) Train facility POC on required Pre-rain actions. (3) Maintain Pre-rain email notifications that were sent to all identified municipal POCs for all NOAA forecasts chance of rain 50% or greater.			x	x	x	(1 - 2) NBSD Env & Facility POCs (3) NBSD Env
<b>MCM 2.2</b> Develop, encourage and identify facility POCs participation in "Adopt a Storm Drain" Program	Encourage facility POCs to participate in an "Adopt a Storm Drain" program. Provide facility POC with information about the "Adopt a Storm Drain" program.	(1) Identify storm drains that each facility POC can adopt. (2) Ask facility POCs to participate in Adopt a Storm Drain. (3) Develop incentives program to encourage facility participation.				x	x	(1 - 3) NBSD Env & Facility POCs

Minimum Control Measure #2: Public Involvement/Participation								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 2.3</b> Utilizing established websites (i.e. MCM 1.6), participate, develop, and advertise on-base and neighborhood community clean-up events.	Work with PAO to identify existing cleanup events and develop way to increase participants (e.g. advertise on websites).	(1) Identify cleanup events (day/time/loc). (2) Promote events.				x	x	(1 - 2) NBSD Env & PAO
<b>MCM 2.4</b> Utilizing established websites (see MCM 1.6) and post SWMP online. Within SWMP, provide a point of contact to enable feedback mechanism from public. Inform tenants during site inspections about SWMP and where they can find it.	Notify Tenants/Patrons via email or face-to-face interaction about SWMP updates and changes.	(1) Coordinate with PAO/IT to allow public comment on SWMP on internet.			x	x	x	(1) NBSD Env, PAO, & IT
	We will encourage public involvement to clean-up areas by attending/participating in public events such as NBSD "Go Green" Booth.	(1) Identify storm water issues that a group effort can address. (2) Develop partners to come together. (3) Provide information during outreach events.					x	(1 - 3) NBSD Env

### 2.3 MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

a. Requirements. The Illicit Discharge Detection and Elimination MCM:

- Addresses how NBSD eliminates illicit discharges into storm water drainage systems;
- Provides a storm sewer system map showing locations of storm water systems outfalls and the names/ locations of all waters of the U.S. that receive discharges from those outfalls;
- Addresses discharge prohibitions;
- Describes the plan to detect and address non-storm water discharges (including illegal dumping) to the MS4 system that are not authorized by a separate NPDES permit;
- Informs target audiences of hazards generally associated with illegal discharges and improper disposal of waste; and
- Addresses the categories of non-storm water discharges or flows as specified in Non-Storm Water Specification IV.G of the NBSD NPDES Order (i.e., authorized non-storm water discharges) only where they are identified as significant contributors of pollutants to the storm water collection system.

b. Background. MCM 3 provides four BMPs (identified MCM 3.1 - 3.4) to address the NPDES requirements. The BMPs build upon existing programs and requirements that are incorporated within other BMPs [i.e. MCM 1.1 (facility visits) and MCM 1.2 (training)]. The four BMPs are organized into the following areas:

- MCM 3.1 Illicit Discharge Detection Hotline
- MCM 3.2 On-base Oil Recycling Program
- MCM 3.3 Storm Water System Maps
- MCM 3.4 Outreach Events (MCM 1.3)

### **2.3.1 MCM 3.1 ILLICIT DISCHARGE DETECTION HOTLINE**

NBSD Environmental Department currently has an illicit discharge and detection hotline in place. Environmental fliers provide an Environmental contact number (619)556-6798/1537 to report discharges during the day and the Command Duty Officer's (CDO's) contact number (619)247-8897 to report discharges during non-working hours. This program further develops the existing platform to address other requirements outlined in the NPDES permit, as well as expand notification to target audiences by working with outreach groups (MCM 2.3/2.4). Additionally, this SWMP program will include data on illicit discharge reporting as a measurable goal.

### **2.3.2 MCM 3.2 ONBASE OIL RECYCLING PROGRAM**

The NEX Autoport provides on base oil recycling for all on base patrons and tenants. The SWMP program will verify the continued performance of this public oil recycling program and ensure vehicle maintenance shops are utilizing this service. Additionally, information on this service will be better provided and advertised through other MCM BMPs.

### **2.3.3 MCM 3.3 STORM WATER SYSTEM MAPS**

Storm water system maps have been developed for all four sites within NBSD, and are provided in Figures 1-4. These maps will be updated annually. During the facility inspections (MCM 1.1) the storm water conveyance systems will be compared with current maps to verify accuracy of both their description and location. Corrections and feedback to the maps will be provided as part of annual and semi-annual inspections, allowing the maps to be refined through the inspection process.

### **2.3.4 MCM 3.4 OUTREACH EVENTS (MCM 1.3)**

Through the use of Education and Outreach MCM BMPs 1.1-1.6, NBSD will address requirements for illicit discharge detection and elimination. Increased focus on delivering the right messages about stopping and reporting illicit discharge should increase and improve general awareness, help eliminate pollutants discharged to surface waters and improve storm water quality.

2.3.5 BMP TABLES FOR MCM 3.1 - 3.4

Minimum Control Measure #3: Illicit Discharge Detection and Elimination								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 3.1</b> Develop, provide and promote an Illicit Discharge Hotline.	Provide a number for the public to call and ensure phone is reachable and responsive.	(1) Maintain NBSD Environmental Illicit Discharge program and phone number. (2) Track total calls to phone number. (3) Work with PAO to increase audience and awareness of program.			x	x	x	(1 - 2) NBSD Env & Utilities (3) NBSD Env & PAO
<b>MCM 3.2</b> Public oil recycling and HW turn-in program.	Accept oil and HW from NBSD tenants and patrons.	(1) Verify and maintain Autoport oil recycling service through FY 18. (2) Contact Autoport to determine quantities collected. (3) Inform tenants of service during facility inspections.	x	x	x	x	x	(1 - 2) NBSD Env & NEX Autoport (3) NBSD Env

Minimum Control Measure #3: Illicit Discharge Detection and Elimination								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 3.3</b> Create a better understanding of the storm water conveyance system at NBSD by verifying, and updating outfalls and storm sewer maps. Actively inspect and update outfall and storm sewer condition. Request maintenance funds for storm sewers that are inoperable or need maintenance.	Inventory and create a Storm Sewer System Map of NBSD. Show location of all known storm sewers and outfalls and the names and locations of all waters of the US that receive discharge from those outfalls.	(1) Maintain and review past records showing Illicit Connections/Illicit Discharges and records mapping out storm water conveyance systems. (2) Schedule and track map changes and incorporate semi-annual inspections into this overall effort. (3) NBSD Environmental will conduct semi-annual surveys of 80 outfalls.	x	x	x	x	x	(1 - 3) NBSD Env & PW

Minimum Control Measure #3: Illicit Discharge Detection and Elimination								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 3.4</b> During NBSD Outreach Events (MCM 1.3), provide materials to target audiences on pertinent information regarding the hazards that are generally associated with illegal discharges and improper disposal of waste.	During Outreach Events, distribute NBSD handouts on information regarding the hazards that are generally associated with illegal discharges and improper disposal of waste.	(1) Appoint staff to maintain storm water material (i.e. brochures, fliers) and provide materials to personnel manning booth. (2) Present information at hosted booth during outreach events. (3) Track the number of people visiting booth from FY 16 to FY 18. (4) Provide Pollution Prevention/Storm Water Awareness message during pre-movie commercials for on-base movies. (5) Track the number of movies played during year and approximate number of personnel in attendance.			x	x	x	(1 - 5) NBSD Env & MWR

## 2.4 MCM 4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

a. Requirements. The Construction Site Storm Water Runoff Control MCM addresses how NBSD reduces pollutants in storm water runoff from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activities disturbing less than one acre are included in the program only if it is part of a larger common plan of development that would disturb one acre or more. This program includes the development and implementation of mechanisms to require:

- The development and implementation of mechanisms to require erosion and sediment controls, as well as enforcement mechanisms to ensure compliance;
- Requires construction site operators to implement appropriate erosion and sediment control BMPs;
- Requires construction site operators to control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- Requires procedures for site plan reviews which incorporate consideration of potential water quality impacts;
- Requires procedures for receipt and consideration of information submitted by the public;
- Requires procedures for site inspection and enforcement of control measures; and
- Requires procedures for verifying that the site has existing coverage under the California statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities (the Construction General Permit (CGP)).

b. Background. MCM 4 utilizes two BMPs (identified MCM 4.1 - 4.2) to address the Permit requirements. The BMPs reflect NBSD's (and NAVFAC SW's) intensive oversight of construction projects, and including NEPA an expanded version of a Site

Inspection BMP (MCM 1.1). The two BMPs are organized into the following areas:

- MCM 4.1 NEPA and Construction Project Review
- MCM 4.2 Construction Site Inspections

#### **2.4.1 MCM 4.1 NEPA AND CONSTRUCTION PROJECT REVIEW**

Every construction project performed within NBSD requires extensive oversight to meet all Federal, California and local regulation for multiple requirements (structural, safety, environmental, etc.). This oversight is required for all projects regardless if they are greater or less than one acre. Special requirements for projects greater than one acre are addressed during the NEPA process by the NBSD Environmental Compliance office. All requirements contained within the CGP are reviewed by the NBSD NEPA Planner. For projects smaller than one acre, NBSD incorporates BMPs to reduce erosion and sediment runoff. All final plans to execute a project include the Statement of Work (SOW) where the NEPA process is able to implement requirements for the contractor to execute. The Project Manager and Construction Manager (CM) oversee all requirements that are prescribed within the SOW. These are NAVFAC SW employees whose responsibility is to ensure the Government receives full execution of elements prescribed in the SOW.

#### **2.4.2 MCM 4.2 CONSTRUCTION SITE INSPECTIONS**

As part of the requirements to manage construction projects, the CM is required to ensure environmental requirements are executed. The NAVFAC SW CM provides this oversight weekly. For sites greater than one acre, compliance with the site specific SWPPP is required. For sites less than one acre, compliance with the NBSD BMPs is required. On a semi-annual basis or as required NBSD's Water Program personnel will conduct site inspections (MCM 1.1) to provide further verification and oversight of construction projects.

2.4.3 BMP TABLES FOR MCM 4.1 - 4.2

Minimum Control Measure #4: Construction Site Runoff Control								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 4.1</b> Perform National Environmental Policy Act (NEPA) review of all construction projects.	All NEPA documents are signed by appropriate SMEs and leadership. Prior to construction, determine size and impact of construction project. Implement construction requirements for larger (>1 acre) and smaller (<1 acre) projects. These are provided to the contractor to implement prior to construction.	<p><b>Projects &gt;1 Acre</b> (1) Verify Construction General Permit requirements and Site Specific SWPPPs are assigned.</p> <p><b>Projects &lt; 1 Acre</b> (2) Verify NBSD BMPs for Construction Activities Less Than One Acre of Land are assigned.</p>	x	x	x	x	x	(1 - 2) NBSD PWO, FMS, & Env
<b>MCM 4.2</b> Monitor all construction sites to verify requirements are being implemented.	Perform routine monitoring for all construction activities.	(1) NAVFAC Construction Manager (CM) conducts site visits at least once per week to ensure SWPPP or NBSD Policy is being implemented.	x	x	x	x	x	(1) Const Mgr (CM)
		(2) Conduct routine site visit to ensure SWPPP or NBSD Policy is being implemented.			x	x	x	(2) NBSD Env
		(3) Run semi-annual SMARTS queries for larger sites.			x	x	x	(3) NBSD Env

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## 2.5 MCM 5 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

a. Requirements. The Post-Construction Storm Water Management in New Development and Redevelopment MCM addresses storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre that discharge into the storm water drainage system. Compliance with the permit is accomplished by ensuring that controls are in place that would prevent or minimize water quality impacts, and that are designed to maintain pre-project runoff conditions. Furthermore, this MCM:

- Develops and implements water quality strategies, which include a combination of structural and/or non-structural BMPs appropriate for the facility;
- Develops or uses a mechanism to address post-construction runoff from new development and redevelopment projects;
- Ensures adequate long-term operation and maintenance of water quality BMPs; and
- Maintains and regularly updates an inventory of BMPs installed pursuant to the SWMP.

The BMP inventory shall include:

- The exact location of BMP(s);
- Contact information for the individual or entity responsible for long term BMP operation and maintenance;
- A description of the BMP and the year it was installed;
- Maintenance required for the BMP;
- Actual inspections and maintenance activities that occurred during the reporting year;
- An assessment by the discharger determining if proper operation and maintenance occurred during the year; and
- Actions the discharger has taken, or will take, to address deficiencies, if applicable.

b. Background. MCM 5 incorporates three BMPs (identified MCM 5.1 - 5.3) to address Permit requirements. The BMPs align with the various stages of the construction process. Site inspections retain a critical role in determining the inventory. The three BMPs are organized as follows:

- MCM 5.1 Design and Planning
- MCM 5.2 Construction
- MCM 5.3 Post-Construction

#### **2.5.1 MCM 5.1 DESIGN AND PLANNING**

Under the Energy Independence and Securities Act (EISA) of 2007, the DOD mandated that all projects exceeding 5,000 square feet (~0.1 acres) are required to incorporate Low Impact Development (LID) into their design and execution. This requirement is identified as well in the NEPA process for each project that is conducted on NBSD. The DOD requirement mandates that applicable projects return the site to pre-construction conditions for runoff for everything up to the 95<sup>th</sup> percentile storm event.

#### **2.5.2 MCM 5.2 CONSTRUCTION**

As part of the semi-annual construction site inspections (MCM 1.1), the Water Program personnel will ensure designed LID features are being incorporated into the site as prescribed. The Master Spreadsheet (Attachment 5) will be updated accordingly to include newly constructed facilities in municipal areas.

#### **2.5.3 MCM 5.3 POST-CONSTRUCTION**

As part of the annual site inspection program (MCM 1.1), the NBSD Water Program Inspector will capture LID features for each site. For sites already built, maintenance requirements will be determined by researching through the NBSD Facilities Engineering and Acquisition Division as well the Facilities Maintenance Specialist (FMS). For sites being built, the LID will be captured during the semi-annual inspection.

2.5.4 BMP TABLES FOR MCM 5.1 - 5.3

Minimum Control Measure #5: Post Construction Runoff Control								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>Method A: California General Construction Permit</b>								
<b>MCM 5.1 Design &amp; Planning:</b> It is mandated by DOD Policy (UFC 3-210-10) that construction or expansion of buildings or impervious area exceeding 5,000 Square Feet incorporate LID to reduce runoff to pre-construction (natural) hydrologic conditions for up to the 24-hour 95th percentile storm event. This is part of the NEPA process for all CONST projects on NBSD.	Incorporate LID during the design and planning phase to meet DOD requirements. If applicable, determine the requirements and plan for any recurring maintenance.	(1) Determine size of construction activity. (2) For > 5,000 SF, require LID to meet DOD policy. (3) Verify LID features in design. (4) RFI for maintenance cost. If applicable, request recurring maintenance or service contract to fund future maintenance.	x	x	x	x	x	(1 - 4) NBSD Env, Facilities Engineering & Acquisitions Division (FEAD), Planners, appropriate PM & KO
<b>MCM 5.2 Construction:</b> During routine site inspections, verify LID is being built to design specs.	Monitor construction sites.	(1) Perform routine site visits. (2) Verify LIDs are built per design.			x	x	x	(1 - 2) NBSD Env, FEAD, & CM
<b>MCM 5.3 Post-Construction:</b> Evaluate LID features for effectiveness and maintenance requirements during routine inspections. Evaluate sites for potential future LID implementation.	Monitor sites annually and provide feedback for maintenance or incorporation of new LID.	(1) Record site visit to LID feature in MFMS. (2) Maintenance requirements or LID needs are noted. (3) Coordinate with FMS to generate work request to fund maintenance.			x	x	x	(1 - 3) NBSD Env, & FMS

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## **2.6 MCM 6 POLLUTION PREVENTION/GOOD HOUSEKEEPING**

a. Requirements. The Pollution Prevention/ Good Housekeeping MCM provides facility POCs and applicable target audiences with BMPs that are sufficient to minimize pollutant runoff from on-site operations to the maximum extent possible. This MCM incorporates, by reference, other plans implemented at the Facility (such as the Industrial SWPPP and various process/discharge-specific BMP Plans). This MCM develops and implements operation and maintenance programs that include a training component with the ultimate goal of preventing or reducing pollutant-containing runoff from facility operations. Specific training materials that are available from USEPA, the State, or other organizations, include target audience training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

b. Background. MCM 6 utilizes seven BMPs (identified MCM 6.1 - 6.7) to address the NPDES permit requirements. The BMPs build on existing programs and incorporate other MCM BMPs to meet the requirements. The seven BMPs are organized into the following areas:

- MCM 6.1 Pollution Prevention and Good Housekeeping Facility Inspections
- MCM 6.2 Storm Drain Operability
- MCM 6.3 Assess for Exposed Materials and Properly Dispose
- MCM 6.4 Petroleum Oils and Lubricants (POL) Storage & Management (AST/UST)
- MCM 6.5 Existing Programs (SWPPP)
- MCM 6.6 Dry Weather Monitoring
- MCM 6.7 Enforcement

### **2.6.1 MCM 6.1 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FACILITY INSPECTIONS**

As part of the annual facility inspection program (MCM 1.1), each facility will be assessed to determine which BMPs are most

applicable. The BMPs listed in Section 2, Attachment 6 and others not yet identified will be captured in the MFIF for each facility.

#### **2.6.2 MCM 6.2 STORM DRAIN OPERABILITY**

The NBSD Water Program staff will use a combination of programs "Adopt a Storm Drain" program (MCM 2.2) and the maintenance process via the NAVFAC SW FMS in order to address storm drain operability. Annual facility inspections (MCM 1.1) will help inform the need for this requirement as the storm drains are inspected as part of the facility inspection.

#### **2.6.3 MCM 6.3 ASSESS FOR EXPOSED MATERIALS AND PROPERLY DISPOSE**

During annual facility inspections (MCM 1.1), the NBSD Water Program Inspector will identify exposed pollutant source materials at each facility. On-site training (MCM 1.2) and distribution of education materials will be provided and followed up on to ensure exposed materials are properly disposed.

#### **2.6.4 MCM 6.4 POL STORAGE & MANAGEMENT (AST/UST)**

NBSD Environmental Compliance Department provides oversight for all Aboveground Storage Tank (AST) and Underground Storage Tank (UST) systems. These systems fall under the HW program and are inspected on a monthly basis. As part of the SWMP facility inspections, these systems will be verified annually to ensure the containment BMPs are in place with closed drainage valves. All facilities that store POLs in a 55-gallon container, or larger, are covered under the NBSD Spill Prevention Control and Countermeasures (SPCC) Plan.

#### **2.6.5 MCM 6.5 EXISTING PROGRAMS (SWPPP, HMBP, MWMP, SPCC, RECYCLING, DLA)**

The NPDES Permit requires an annual review of NBSDs risk level designation (RLD) for each facility. Due to process changes within some facilities RLDs change from industrial to municipal. Municipal facilities that were previously industrial have older SWPPPs that often consist of extensive detail that can be utilized in the development and maintenance of municipal BMPs. For facilities that fall into this category, the SWPPP will be incorporated into the SWMP. Municipal facilities that generate HW, typically pose an increased storm water risk than those that do not. These facilities are covered under site-specific

Hazardous Materials Business Plans, and inspected on a monthly basis by Environmental. The inspections verify that the facility POCs are properly containing, labeling, and disposing of hazardous materials and wastes, and keeping them out of the trash and storm drain system. Material usage is compared to disposal records to ensure accountability.

Municipal tenants that generate medical waste have site-specific Medical Waste Management Plans, and are inspected on a monthly basis by Environmental. These plans describe how medical waste is managed to avoid contact with regular refuse and the storm drain system.

#### **2.6.6 MCM 6.6 DRY WEATHER MONITORING**

The SWMP monitoring program prescribes that 80% of outfalls be inspected semi-annually. If flows are identified the NBSD Water Program personnel performing the inspection are to trace the source. For sources traced to tenants, feedback will be given, and the deficiency will be corrected, so that non-storm water flows can be reduced or eliminated.

#### **2.6.7 MCM 6.7 ENFORCEMENT**

NBSD uses Deficiency Notices (DNs) for internal tracking only. These DNs are issued to tenants that fail to take corrective action in a timely manner. It provides an internal tracking mechanism that enables environmental media programs to focus on repeat offenders as well as providing a track record of maintenance and corrective action. The SWMP will utilize DNs as necessary to ensure tenants maintain BMPs prescribed.

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2.6.8 BMP TABLES FOR MCM 6.1 - 6.7

Minimum Control Measure #6: Pollution Prevention/Good Housekeeping								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 6.1</b> During facility inspections, develop and establish facility specific BMPs for municipal facilities.	Facility specific BMPs are determined for each municipal facility during facility inspection.	(1) Identify facility BMPs and train facility POC on BMPs. (2) Update BMPs during each facility inspection as needed.			x	x	x	(1 - 2) NBSD Env & Facility POCs
<b>MCM 6.2</b> Maintain storm drain operability.	Visually inspect storm drains during facility inspections to ensure they are operable (i.e. not full of sediment or other obstructions).	(1) Identify and track inoperable storm drains in MFMS. (2) Make notifications and track progress to return storm drains to operability in MFMS. (3) Encourage facilities to take ownership of storm drains (i.e. Adopt a Storm Drain) on their site.					x	(1 - 3) NBSD Env, PW, & Facility POCs

Minimum Control Measure #6: Pollution Prevention/Good Housekeeping								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 6.3</b> Assess facility for exposed materials. Coordinate with facility POC, Recycling, DRMO, and HAZWASTE Facility to remove exposed materials.	Conduct annual inspection and work with Environmental media partners to maintain situational awareness for facilities. Coordinate with appropriate facilities to remove exposed materials.	(1) Identify and track status of exposed materials during inspections. (2) Inform facility POC on who to coordinate with to remove exposed materials.			x	x	x	(1 - 2) NBSD Env, Facility POCs, DRMO, Recycling, & HAZWASTE Facility
<b>MCM 6.4</b> Liquid materials storage and management.	Inspect above ground storage tanks monthly to ensure employment of proper storage procedures (e.g. ensure berm valves are closed for containment areas).	(1) Verify that inspections are occurring on a monthly basis.	x	x	x	x	x	(1) NBSD Env
	Municipal facilities that have HW permits are inspected monthly by HW program. HW inspection support proper storm water protection procedures are employed.	(1) Verify that inspections are occurring on a monthly basis.	x	x	x	x	x	(1) NBSD Env

Minimum Control Measure #6: Pollution Prevention/Good Housekeeping								
Best Management Practices	Task	Measurable Goals	BMP Implement Timeline (FY: Oct-Sep)					Staff Responsible
			14	15	16	17	18	
<b>MCM 6.5</b> Incorporate pre-existing SWPPP BMPs for facilities that were previously industrial but now designated as municipal.	Determine all facilities previously assigned as industrial, in the 2013 Storm Water Pollution Prevention Plan, and are currently re-designated as municipal.	(1) Use 2013 SWPPP to identify municipal facilities. (2) Update SWPPPs for municipal facilities and incorporate BMPs to SWMP. (3) Develop BMPs for facilities that do not have an existing SWPPP.			x	x	x	(1 - 3) NBSD Env
<b>MCM 6.6</b> Perform Semi-annual dry weather monitoring.	As part of the SWMP Monitoring Plan, NBSD Environmental monitors 80% of outfalls and traces dry weather flows.	(1) Conduct Semi-Annual outfall inspections. (2) Trace dry weather flows to source and eliminate if possible. (3) Sample unknown/unauthorized flows per the Monitoring Plan.			x	x	x	(1 - 3) NBSD Env
<b>MCM 6.7</b> Issue Deficiency Notices (DN) as required. This enforcement measure can be taken for non-compliance with any and all MS4 requirements.	Perform inspections and issue deficiency notices to be internally monitored as needed.	(1) Conduct Inspections. (2) Issue DNs for facilities that are not taking corrective action. (3) Monitor results internally.	x	x	x	x	x	(1 - 3) NBSD Env

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### **3.0 OBSERVATIONS, MONITORING, AND RECORD KEEPING**

#### **3.1 MUNICIPAL STORM WATER OBSERVATIONS, MONITORING AND RECORDKEEPING**

Per the NPDES Permit No. CA0109169, the requirement to implement observations, monitoring and official record keeping for municipal facilities throughout NBSD will commence on November 1, 2015. NBSD is composed of four separate complexes. Mainside Complex is the primary and largest with piers and facilities to support Naval Ships. The Naval Medical Center San Diego is the DOD's San Diego metro area's primary medical facility. The Broadway Complex is located in downtown San Diego and is the headquarters for CNRSW. The MGRF serves as a recreational complex with two 18-hole golf courses and other recreational facilities.

##### **3.1.1 MUNICIPAL FACILITY INSPECTIONS AND UPDATES**

NBSD will inspect and update municipal facilities, which include both buildings, and outfalls. The MFIF (Attachment 1) will be used for buildings and the Non-Storm Water Visual Observation Form (Attachment 3) will be used for outfalls to update important information (e.g. outfall condition, time of sample/observation, flow observation, POCs, BMPs, etc.) and to verify sites are assessed and noted as necessary. Buildings will be inspected once annually. Building updates will be conducted throughout the course of the year. The Outfall and Monitoring Location Maps (Figures 1-4) will be used to aid the inspection and update process. Outfalls will be inspected twice per year. To the maximum extent possible, municipal outfall inspections will be conducted concurrently with the Annual Comprehensive Site Compliance Evaluation (ACSCE) which is conducted during the 2<sup>nd</sup> quarter of the calendar year and the Quarterly Industrial Facility Visual Inspections (QIFVI) performed during the 4<sup>th</sup> quarter of the calendar year. Coordinating these activities ensures resources will be readily available to conduct sampling as required.

##### **3.1.2 ASSIGNMENT OF REPRESENTATIVE SAMPLING LOCATIONS**

In accordance with Attachment D-III.A of NBSD's NPDES Standard Provisions, samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The prescribed storm water sampling locations prescribed in Table 3 meet these requirements and are representative of the monitored activity for these reasons:

- NBSD's Mainside Complex is the largest in terms of area amongst the four separate NBSD complex locations. (1,049 acres).
- The Mainside Complex's impervious profile (87% is comprised of streets, parking, and roofing [Space and Naval Warfare Systems Command (SPAWAR) Navy Environmental Sustainability Development to Integration Program (NESDI) LID Study]) is representative of NMCSO and the Broadway Complex however their areas, 79 and 15 acres, are significantly smaller.
- MGRF is largely non-representative amongst the NBSD facilities. At 440 acres, this site primarily consists of cultivated or landscaped habitat with various ornamental trees and shrubs planted on the golf course and surrounding areas.
- Mainside Complex shares some unique land characteristics to NMCSO and MGRF with comparable medical facilities to those located on NMCSO as well as a small, approximately 10-acre, golf course within the outfall 70 drainage area of the NBSD proper.
- Funding and logistics to perform sampling are minimized at the Mainside Complex because all storm water samples are collected there.

Wet weather sampling will be done at the outfall locations designated in Table 3 of the monitoring plan. The assigned locations are in accordance with Table E-1 of NBSD's NPDES Permit and performed in accordance with Section IX.B of Attachment E of the NBSD NPDES Permit. Dry weather sampling will be collected as far upstream as possible to get as close to the discharge location as possible. Dry weather locations are dependent on where dry weather discharges are occurring, in which case sampling may occur at any of the four NBSD Complex sites.

### **3.1.3 OUTFALL INSPECTIONS**

Outfall inspections will be performed during dry weather conditions (i.e. at least 72 hours after any rain event) in order to identify outfalls that are flowing or ponding. Eighty outfalls (80% of 99 municipal outfalls located within all parts of NBSD) will be visually inspected two times per year [Regional

NPDES 2.a.(2)(a)(i)]. Table 1 is utilized as a guide for conducting visual observations. The Navy is not a co-permittee under San Diego Regional MS4 NPDES Order NO. R9-2013-0001 but, will utilize the guidance provided in order to promote consistency with other regional small MS4 co-permittees. The Non Storm Water Discharge Visual Observations (Attachment 3) will be utilized to track observations for each outfall visually observed.

**Table 1 - Field Screening Visual Observations for MS4 Outfall Discharge Monitoring Stations<sup>1</sup>**

<b>Field Observations</b>
<ul style="list-style-type: none"> <li>• Station identification and location</li> <li>• Presence of flow, or pooled or ponded water</li> <li>• If flow is present:               <ul style="list-style-type: none"> <li>- Flow estimation (i.e. width of water surface, approximate depth of water, approximate flow velocity, flow rate)</li> <li>- Flow characteristics (i.e. presence of floatables, surface scum, sheens, odor, color)</li> <li>- Flow source(s) suspected or identified from non-storm water source investigation</li> <li>- Flow source(s) eliminated during non-storm water source identification</li> </ul> </li> <li>• If pooled or ponded water is present:               <ul style="list-style-type: none"> <li>- Characteristics of pooled or ponded water (i.e. presence of floatables, surface scum, sheens, odor, color)</li> <li>- Known or suspected source(s) of pooled or ponded water</li> </ul> </li> <li>• Station description (i.e. deposits or stains, vegetation condition, structural condition, observable biology)</li> <li>• Presence and assessment of trash in and around station</li> <li>• Evidence or signs of illicit connections or illegal dumping</li> </ul>

<sup>1</sup>San Diego Regional MS4 NPDES Order NO. R9-2013-0001 Table D-5.

#### **3.1.4 DRY WEATHER SAMPLING**

In accordance with the NBSD NPDES E-33 permit, up to three monitoring locations will be sampled twice per year (see Table 5). Dry weather sampling will be conducted at the first three locations where non-authorized/unknown discharges are observed during the semi-annual dry weather outfall inspections. Dry weather sampling must be conducted at least 72 hours after any rain event. For identified sources, a determination will be made as to whether it is authorized or unauthorized.

Unauthorized sources will be stopped and addressed as necessary. The first set of dry weather sampling will coincide with the ACSCE during the January 1<sup>st</sup> to June 30<sup>th</sup> timeframe. The second set of dry weather sampling will be performed during the 4<sup>th</sup> quarter QIFVIs, conducted between July 1<sup>st</sup> and December 31<sup>st</sup>, in order to better coincide with NBSD's Industrial Storm Water Monitoring Program. This coordination is intended to maximize available resources. Dry weather samples will be taken at the furthest upstream source and in accordance with Field Sampling guidance provided in California's Phase II Small MS4 General Permit (2013-0001-DWQ). The sampling will be conditional, so that if no outfalls are flowing or ponding, then no samples will be collected. Table 2 summarizes the analytical parameters for dry weather flow sample constituent analysis. These constituents are consistent with those provided in the San Diego MS4 Regional NPDES Permit for Analytical Monitoring Constituents for Persistent Flow MS4 Outfall Discharge Monitoring Stations.

**Table 2 - Dry Weather Sampling Constituents<sup>2</sup>**

PARAMETER	UNIT	SAMPLE TYPE	MINIMUM FREQUENCY	REQUIRED ANALYTICAL TEST METHOD
Total Dissolved Solids	mg/L	Grab	Twice Annually	40CFR136
Total Suspended Solids	mg/L	Grab	Twice Annually	40CFR136
Total Hardness	µS/cm	Grab	Twice Annually	40CFR136
Total Phosphorous	mg/L	Grab	Twice Annually	40CFR136
Nitrite	mg/L	Grab	Twice Annually	40CFR136
Nitrate	NTU	Grab	Twice Annually	40CFR136
Total Kjeldhal Nitrogen	mg/L	Grab	Twice Annually	40CFR136
Ammonia	mg/L	Grab	Twice Annually	40CFR136
Cadmium	mg/L	Grab	Twice Annually	40CFR136
Copper	mg/L	Grab	Twice Annually	40CFR136
Lead	mg/L	Grab	Twice Annually	40CFR136

PARAMETER	UNIT	SAMPLE TYPE	MINIMUM FREQUENCY	REQUIRED ANALYTICAL TEST METHOD
Zinc	mg/L	Grab	Twice Annually	40CFR136
Total Coliform	mg/L	Grab	Twice Annually	40CFR136
Fecal Coliform	mg/L	Grab	Twice Annually	40CFR136
Enterococcus	mg/L	Grab	Twice Annually	40CFR136

<sup>2</sup>Dry Weather sampling is dependent on observed water and could be conducted at any of the four sites within NBSD.

### 3.1.5 WET WEATHER SAMPLING

Wet weather storm water sampling will be performed with samples collected in accordance with NBSD Industrial Storm Water Sampling and Analysis guidance (Attachment E-IX.A.3 of NPDES No. CA0109169). Specifically, storm water from three selected locations (see Table 3) will be sampled during each semi-annual period (January - June, and July - December) in the event of a Qualifying Storm Event (QSE). Wet weather flows will be tested for analytical monitoring constituents provided in the Regional MS4 NPDES Permit, summarized in Table 4, for all wet weather sampling locations. For each sample collected, the appropriate data will be filled out on the Storm Water Visual Observation form (Attachment 2). For each sampling location, following two consecutive sample events at a discrete sampling location where parameters are not detected or below the Annual Numeric Action Level (NAL) values, analysis for those parameters may be discontinued.

**Table 3 - Wet Weather Sampling Locations**

LOCATION	DESCRIPTION	NAVY ID DISCHARGE POINT	RECEIVING WATER
NBSD Dryside	Discharge Point 72	72	Chollas Creek
NBSD Dryside	Discharge Point 70	70	Chollas Creek
NBSD Dryside	Medical Clinic (Bldg. 3300) Catch Basin	54	Paleta Creek

**Table 4 - Wet Weather Sampling Constituents**

PARAMETER	UNIT	SAMPLE TYPE	MINIMUM FREQUENCY	REQUIRED ANALYTICAL TEST METHOD
Total Dissolved Solids	mg/L	Grab	One storm per semiannual period	40CFR136
Total Suspended Solids	mg/L	Grab	One storm per semiannual period	40CFR136
Turbidity	mg/L	Grab	One storm per semiannual period	40CFR136
Total Hardness	mg/L	Grab	One storm per semiannual period	40CFR136
Total Organic Carbon	mg/L	Grab	One storm per semiannual period	40CFR136
Dissolved Organic Carbon	mg/L	Grab	One storm per semiannual period	40CFR136
Sulfate	mg/L	Grab	One storm per semiannual period	40CFR136
Methyl Blue Active Substances.	mg/L	Grab	One storm per semiannual period	40CFR136
Total Phosphorus	mg/L	Grab	One storm per semiannual period	40CFR136
Nitrite	mg/L	Grab	One storm per semiannual period	40CFR136
Nitrate	mg/L	Grab	One storm per semiannual period	40CFR136
Total Kjeldhal Nitrogen	mg/L	Grab	One storm per semiannual period	40CFR136
Ammonia	mg/L	Grab	One storm per semiannual period	40CFR136
Arsenic	mg/L	Grab	One storm per semiannual period	40CFR136
Copper, Total Recoverable	mg/L	Grab	One storm per semiannual period	40CFR136
Zinc, Total Recoverable	mg/L	Grab	One storm per semiannual period	40CFR136

PARAMETER	UNIT	SAMPLE TYPE	MINIMUM FREQUENCY	REQUIRED ANALYTICAL TEST METHOD
Lead Total Recoverable	mg/L	Grab	One storm per semiannual period	40CFR136
Cadmium	mg/L	Grab	One storm per semiannual period	40CFR136
Chromium	mg/L	Grab	One storm per semiannual period	40CFR136
Iron	mg/L	Grab	One storm per semiannual period	40CFR136
Nickel	mg/L	Grab	One storm per semiannual period	40CFR136
Selenium	mg/L	Grab	One storm per semiannual period	40CFR136
Thallium	mg/L	Grab	One storm per semiannual period	40CFR136
Total Coliform	mg/L	Grab	One storm per semiannual period	40CFR136
Fecal Coliform	mg/L	Grab	One storm per semiannual period	40CFR136
Enterococcus	mg/L	Grab	One storm per semiannual period	40CFR136

**3.1.6 SAMPLING FREQUENCY**

Table 5 outlines the wet and dry weather sampling schedule for the duration of NBSD NPDES permit expiring October 31, 2018. Sampling may occur at any time during the allotted timeframe but each sampling event shall not occur any sooner than four weeks apart.

**Table 5 - Sampling Schedule**

YEAR	WET AND DRY WEATHER SAMPLING SCHEDULE
2015	November 1 - December 31
2016 - 2018	1 <sup>st</sup> Set: January 1 – June 30
2016 - 2018	2 <sup>nd</sup> Set: July 1 – December 31

**3.1.7 ANNUAL REPORTING**

Wet and dry weather analytical results will be submitted to SDRWQCB as part of the Storm Water Annual Report due by September 1<sup>st</sup> of each year. The first Annual Report to include this information will be the 2016 Annual Report submitted on September 1, 2016.

#### 4.0 CERTIFICATION STATEMENT

##### 4.1 CERTIFICATION OFFICIAL SIGNATURE

"This plan fulfills the requirements of NBSD Order R9-2013-0064, NPDES CA0109169. 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."

---

MARK A. EDSON  
Installation Environmental Program  
Director

---

Date

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**FIGURE 1**  
**NAVAL BASE SAN DIEGO (NBSD)**  
**STORM DRAIN MAP**

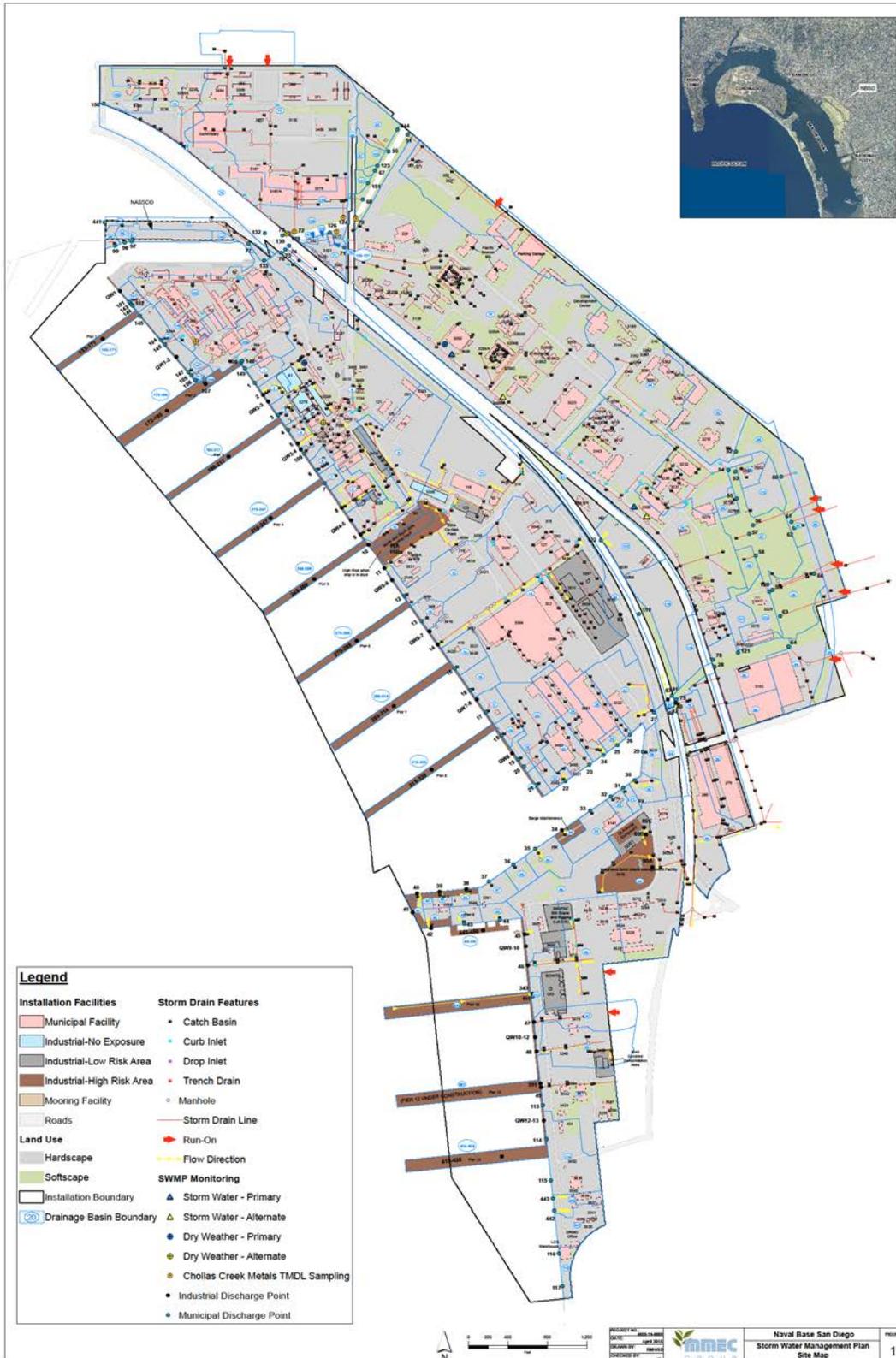


Figure 1

**FIGURE 2**  
**NAVAL MEDICAL CENTER SAN DIEGO (NMCS D)**  
**STORM DRAIN MAP**



Figure 2

**FIGURE 3  
BROADWAY COMPLEX  
STORM DRAIN MAP**

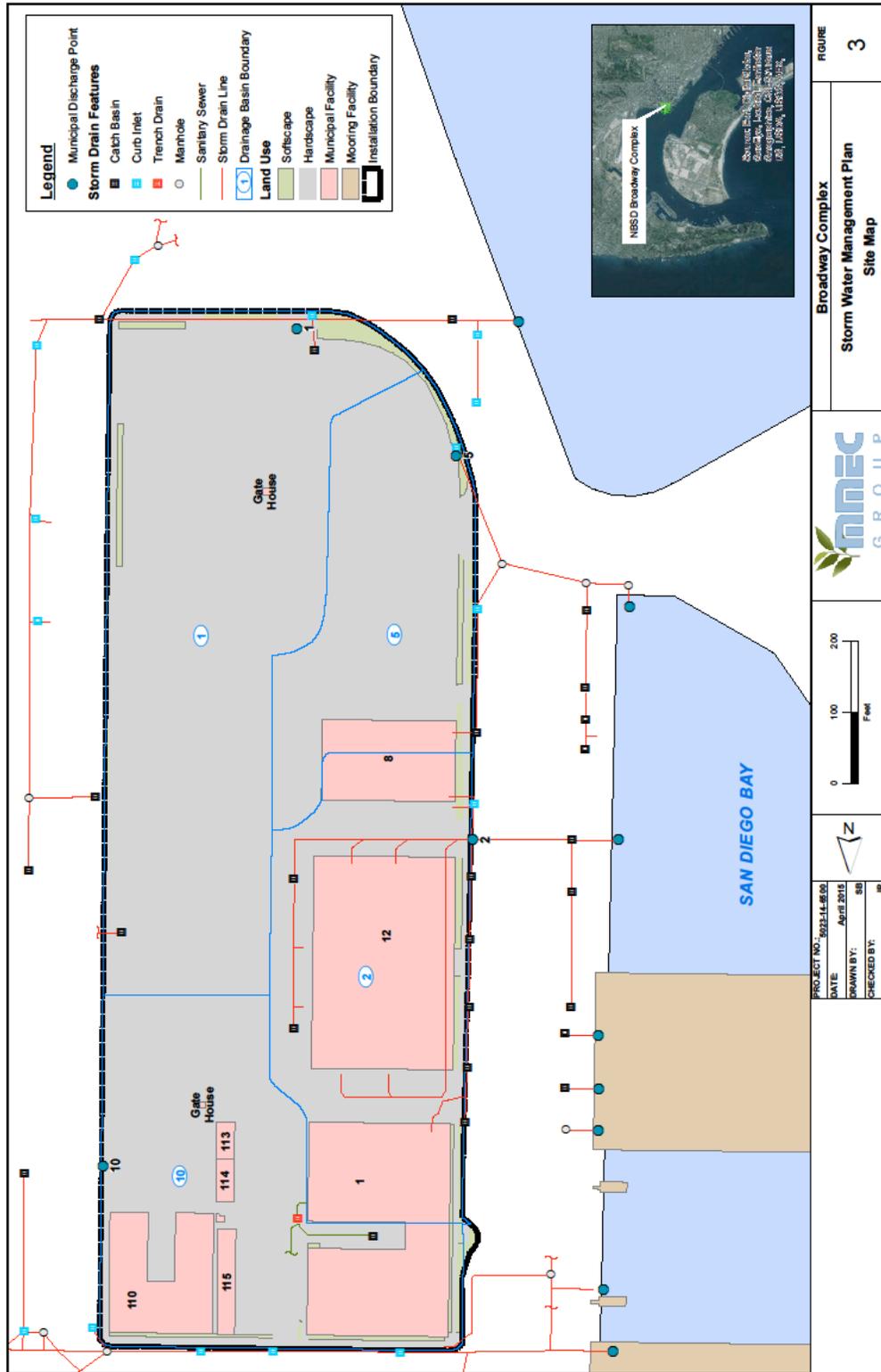


Figure 3

**FIGURE 4**  
**MISSION GORGE RECREATION FACILITY (MGRF)**  
**STORM DRAIN MAP**

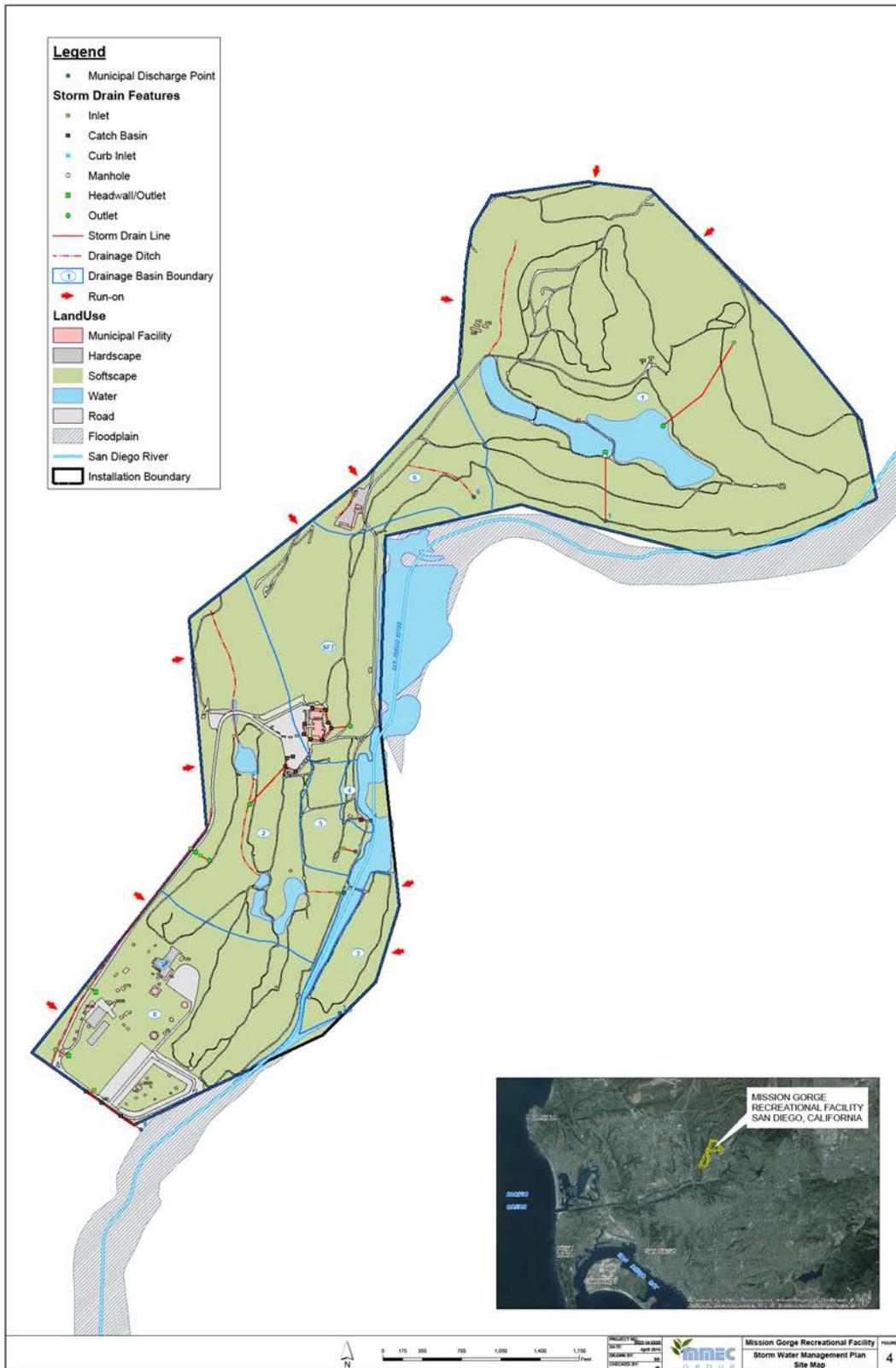


Figure 4

**ATTACHMENT 1**

**MUNICIPAL FACILITY INSPECTION FORM (MFIF)**

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**NBSD MUNICIPAL SITE INSPECTION FORM (ANNUAL SURVEY)  
 STORM WATER MANAGEMENT PLAN – MUNICIPAL STORM SEWER SYSTEM (MS4)**

Installation \_\_\_\_\_ Bldg \_\_\_\_\_ NPDES Permit # CA0109169  
 Primary Tenant \_\_\_\_\_ POC \_\_\_\_\_ Phone# \_\_\_\_\_  
 FMS \_\_\_\_\_ Facility Mission \_\_\_\_\_ Email \_\_\_\_\_ Outfall# \_\_\_\_\_

**Site Physical Characteristics** Y/N/NA/Other (see comments)

- 1. Number of Storm Drains. [ ]
- 2. Low Impact Development Onsite. (LID)? [ ]
- 3. Are there maintenance activities performed outdoors? [ ]
- 4. Number Of Trashcans, recycling bins and dumpsters onsite. [ ]
- 5. Are fueling processes performed outdoors? [ ]
- 6. Authorized Water discharges on-site? [ ]
- 7. Does Site store hazardous materials/waste outside? [ ]
- 8. Does Site have USTs/ASTs/and/or containment areas? [ ]
- 9. Is there an Oily Water Separator onsite? [ ]

**Site POC Information**

- 10. Site personnel attended Environmental Training? [ ]
- 11. Bldg. perimeter area cleaned and how often? (See comments) [ ]
- 12. Site has been given Environmental Programs POCs Tri-Fold #35? [ ]
- 13. Bldg. perimeter inspected prior to rain events? [ ]
- 14. Storm drains maintained clean? [ ]
- 15. Is Storm Water Pollution Prevention Plan Onsite (SWPPP)? [ ]
- 16. Site personnel understand Storm Water fundamentals? [ ]

**Site Inspection**

- 17. Outside areas clean? [ ]
- 18. Any accumulated sediment? [ ]
- 19. Any vehicles or equipment leaking? [ ]
- 20. Are recycling and municipal solid waste bins closed? [ ]
- 21. Are potential storm water pollutants stored outside managed properly? [ ]
- 22. Are spills properly managed? [ ]
- 23. Were any unauthorized discharges observed? [ ]
- 24. Was Environmental Deficiency Notice (DN) Issued [ ]

**Comments**

**Corrective Action Follow-Up**

Inspector's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTACHMENT 2**  
**STORM WATER DISCHARGE**  
**VISUAL OBSERVATIONS FORM**

STORM WATER DISCHARGE VISUAL OBSERVATIONS

Base Name: \_\_\_\_\_  
pH Meter No.: \_\_\_\_\_ pH Meter Calibration Date: \_\_\_\_\_

<b>Outfall No.</b>		<b>Flow?</b>		<b>Standing H<sub>2</sub>O?</b>		<b>Clarity:</b>		<b>Color:</b>		<b>Odor:</b>		<b>Temperature (°C):</b>		<b>pH:</b>	
<b>Time:</b>		<b>Rainfall:</b>		<b>Yes</b> <input type="checkbox"/>		<b>Clear</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>Analyst:</b>			
<b>Inaccessible?</b>	<input type="checkbox"/>	<b>Drizzle</b> <input type="checkbox"/>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>None</b> <input type="checkbox"/>	<b>Cloudy</b> <input type="checkbox"/>	<b>Green</b> <input type="checkbox"/>	<b>Petroleum</b> <input type="checkbox"/>	<b>Analyzed within 15 mins?</b>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Comments:</b>		<b>Explain Below</b>	
<b>If so, why?</b>	<input type="checkbox"/>	<b>Light</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Oily Sheen</b> <input type="checkbox"/>	<b>Susp. Solids</b> <input type="checkbox"/>	<b>Brown</b> <input type="checkbox"/>	<b>Musty</b> <input type="checkbox"/>	<b>Ammonia</b> <input type="checkbox"/>							
<b>Hazardous</b>	<input type="checkbox"/>	<b>Heavy</b> <input type="checkbox"/>		<b>Sewage</b> <input type="checkbox"/>		<b>Yellow</b> <input type="checkbox"/>	<b>Rotten eggs</b> <input type="checkbox"/>								
<b>Secure</b>	<input type="checkbox"/>			<b>Foam</b> <input type="checkbox"/>											
<b>Tidal</b>	<input type="checkbox"/>			<b>Leaves/Grass</b> <input type="checkbox"/>											
				<b>Trash</b> <input type="checkbox"/>											

<b>Outfall No.</b>		<b>Flow?</b>		<b>Standing H<sub>2</sub>O?</b>		<b>Clarity:</b>		<b>Color:</b>		<b>Odor:</b>		<b>Temperature (°C):</b>		<b>pH:</b>	
<b>Time:</b>		<b>Rainfall:</b>		<b>Yes</b> <input type="checkbox"/>		<b>Clear</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>Analyst:</b>			
<b>Inaccessible?</b>	<input type="checkbox"/>	<b>Drizzle</b> <input type="checkbox"/>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>None</b> <input type="checkbox"/>	<b>Cloudy</b> <input type="checkbox"/>	<b>Green</b> <input type="checkbox"/>	<b>Petroleum</b> <input type="checkbox"/>	<b>Analyzed within 15 mins?</b>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Comments:</b>		<b>Explain Below</b>	
<b>If so, why?</b>	<input type="checkbox"/>	<b>Light</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Oily Sheen</b> <input type="checkbox"/>	<b>Susp. Solids</b> <input type="checkbox"/>	<b>Brown</b> <input type="checkbox"/>	<b>Musty</b> <input type="checkbox"/>	<b>Ammonia</b> <input type="checkbox"/>							
<b>Hazardous</b>	<input type="checkbox"/>	<b>Heavy</b> <input type="checkbox"/>		<b>Sewage</b> <input type="checkbox"/>		<b>Yellow</b> <input type="checkbox"/>	<b>Rotten eggs</b> <input type="checkbox"/>								
<b>Secure</b>	<input type="checkbox"/>			<b>Foam</b> <input type="checkbox"/>											
<b>Tidal</b>	<input type="checkbox"/>			<b>Leaves/Grass</b> <input type="checkbox"/>											
				<b>Trash</b> <input type="checkbox"/>											

<b>Outfall No.</b>		<b>Flow?</b>		<b>Standing H<sub>2</sub>O?</b>		<b>Clarity:</b>		<b>Color:</b>		<b>Odor:</b>		<b>Temperature (°C):</b>		<b>pH:</b>	
<b>Time:</b>		<b>Rainfall:</b>		<b>Yes</b> <input type="checkbox"/>		<b>Clear</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>Analyst:</b>			
<b>Inaccessible?</b>	<input type="checkbox"/>	<b>Drizzle</b> <input type="checkbox"/>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>None</b> <input type="checkbox"/>	<b>Cloudy</b> <input type="checkbox"/>	<b>Green</b> <input type="checkbox"/>	<b>Petroleum</b> <input type="checkbox"/>	<b>Analyzed within 15 mins?</b>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Comments:</b>		<b>Explain Below</b>	
<b>If so, why?</b>	<input type="checkbox"/>	<b>Light</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Oily Sheen</b> <input type="checkbox"/>	<b>Susp. Solids</b> <input type="checkbox"/>	<b>Brown</b> <input type="checkbox"/>	<b>Musty</b> <input type="checkbox"/>	<b>Ammonia</b> <input type="checkbox"/>							
<b>Hazardous</b>	<input type="checkbox"/>	<b>Heavy</b> <input type="checkbox"/>		<b>Sewage</b> <input type="checkbox"/>		<b>Yellow</b> <input type="checkbox"/>	<b>Rotten eggs</b> <input type="checkbox"/>								
<b>Secure</b>	<input type="checkbox"/>			<b>Foam</b> <input type="checkbox"/>											
<b>Tidal</b>	<input type="checkbox"/>			<b>Leaves/Grass</b> <input type="checkbox"/>											
				<b>Trash</b> <input type="checkbox"/>											

<b>Outfall No.</b>		<b>Flow?</b>		<b>Standing H<sub>2</sub>O?</b>		<b>Clarity:</b>		<b>Color:</b>		<b>Odor:</b>		<b>Temperature (°C):</b>		<b>pH:</b>	
<b>Time:</b>		<b>Rainfall:</b>		<b>Yes</b> <input type="checkbox"/>		<b>Clear</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>None</b> <input type="checkbox"/>		<b>Analyst:</b>			
<b>Inaccessible?</b>	<input type="checkbox"/>	<b>Drizzle</b> <input type="checkbox"/>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>None</b> <input type="checkbox"/>	<b>Cloudy</b> <input type="checkbox"/>	<b>Green</b> <input type="checkbox"/>	<b>Petroleum</b> <input type="checkbox"/>	<b>Analyzed within 15 mins?</b>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Comments:</b>		<b>Explain Below</b>	
<b>If so, why?</b>	<input type="checkbox"/>	<b>Light</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Oily Sheen</b> <input type="checkbox"/>	<b>Susp. Solids</b> <input type="checkbox"/>	<b>Brown</b> <input type="checkbox"/>	<b>Musty</b> <input type="checkbox"/>	<b>Ammonia</b> <input type="checkbox"/>							
<b>Hazardous</b>	<input type="checkbox"/>	<b>Heavy</b> <input type="checkbox"/>		<b>Sewage</b> <input type="checkbox"/>		<b>Yellow</b> <input type="checkbox"/>	<b>Rotten eggs</b> <input type="checkbox"/>								
<b>Secure</b>	<input type="checkbox"/>			<b>Foam</b> <input type="checkbox"/>											
<b>Tidal</b>	<input type="checkbox"/>			<b>Leaves/Grass</b> <input type="checkbox"/>											
				<b>Trash</b> <input type="checkbox"/>											

Note: Observations of an item in one of the shaded boxes require a cursory investigation lasting no longer than 10 minutes be performed to determine the source. Note possible sources in the comments box.

Inspector Signature and Title \_\_\_\_\_ Date \_\_\_\_\_ Form W-10 Rev Oct 2013

**ATTACHMENT 3**  
**NON-STORM WATER DISCHARGE**  
**VISUAL OBSERVATIONS FORM**

NON-STORM WATER DISCHARGE VISUAL OBSERVATIONS (OUTFALLS)

Activity: \_\_\_\_\_

<b>Outfall No.</b>	<b>Staining:</b> None <input type="checkbox"/>	<b>Flow rate (gpm):</b>	<b>Sludge:</b>	<b>Floatables:</b>	<b>Clarity:</b>	<b>Color:</b>	<b>Odor:</b>	<b>Source of Unexpected Obs?</b>	<b>Comments:</b>
<b>Time:</b>	None <input type="checkbox"/>	0 (standing) <input type="checkbox"/>	None <input type="checkbox"/>	None <input type="checkbox"/>	Clear <input type="checkbox"/>	None <input type="checkbox"/>	None <input type="checkbox"/>		
<b>Design:</b>	Oily <input type="checkbox"/>	0.25 trickle <input type="checkbox"/>	Sed./Mud <input type="checkbox"/>	Oily Sheen <input type="checkbox"/>	Cloudy <input type="checkbox"/>	Green <input type="checkbox"/>	Petroleum <input type="checkbox"/>		
Pipe <input type="checkbox"/>	Paint <input type="checkbox"/>	0.5 <input type="checkbox"/>	Organic <input type="checkbox"/>	Sewage <input type="checkbox"/>	Opaque <input type="checkbox"/>	Brown <input type="checkbox"/>	Musty <input type="checkbox"/>		
Channel <input type="checkbox"/>	Concrete <input type="checkbox"/>	1 <input type="checkbox"/>	Other <input type="checkbox"/>	Foam <input type="checkbox"/>	Susp. Solids <input type="checkbox"/>	Yellow <input type="checkbox"/>	Ammonia <input type="checkbox"/>		
Box Culvert <input type="checkbox"/>	Residue <input type="checkbox"/>	2 <input type="checkbox"/>	Leaves/Grass <input type="checkbox"/>			Red <input type="checkbox"/>	Rotten eggs <input type="checkbox"/>		
Catch Basin <input type="checkbox"/>	Algae <input type="checkbox"/>	3 <input type="checkbox"/>				Other <input type="checkbox"/>	Sour milk <input type="checkbox"/>		
Sheet Flow <input type="checkbox"/>	Water? <input type="checkbox"/>	4 <input type="checkbox"/>					Other <input type="checkbox"/>		
Condition? <input type="checkbox"/>	Yes <input type="checkbox"/>	> 5 <input type="checkbox"/>							
	No <input type="checkbox"/> Stop <input type="checkbox"/>								
	Rock <input type="checkbox"/>								

<b>Outfall No.</b>	<b>Staining:</b> None <input type="checkbox"/>	<b>Flow rate (gpm):</b>	<b>Sludge:</b>	<b>Floatables:</b>	<b>Clarity:</b>	<b>Color:</b>	<b>Odor:</b>	<b>Source of Unexpected Obs?</b>	<b>Comments:</b>
<b>Time:</b>	None <input type="checkbox"/>	0 (standing) <input type="checkbox"/>	None <input type="checkbox"/>	None <input type="checkbox"/>	Clear <input type="checkbox"/>	None <input type="checkbox"/>	None <input type="checkbox"/>		
<b>Design:</b>	Oily <input type="checkbox"/>	0.25 trickle <input type="checkbox"/>	Sed./Mud <input type="checkbox"/>	Oily Sheen <input type="checkbox"/>	Cloudy <input type="checkbox"/>	Green <input type="checkbox"/>	Petroleum <input type="checkbox"/>		
Pipe <input type="checkbox"/>	Paint <input type="checkbox"/>	0.5 <input type="checkbox"/>	Organic <input type="checkbox"/>	Sewage <input type="checkbox"/>	Opaque <input type="checkbox"/>	Brown <input type="checkbox"/>	Musty <input type="checkbox"/>		
Channel <input type="checkbox"/>	Concrete <input type="checkbox"/>	1 <input type="checkbox"/>	Other <input type="checkbox"/>	Foam <input type="checkbox"/>	Susp. Solids <input type="checkbox"/>	Yellow <input type="checkbox"/>	Ammonia <input type="checkbox"/>		
Box Culvert <input type="checkbox"/>	Residue <input type="checkbox"/>	2 <input type="checkbox"/>	Leaves/Grass <input type="checkbox"/>			Red <input type="checkbox"/>	Rotten eggs <input type="checkbox"/>		
Catch Basin <input type="checkbox"/>	Algae <input type="checkbox"/>	3 <input type="checkbox"/>				Other <input type="checkbox"/>	Sour milk <input type="checkbox"/>		
Sheet Flow <input type="checkbox"/>	Water? <input type="checkbox"/>	4 <input type="checkbox"/>					Other <input type="checkbox"/>		
Condition? <input type="checkbox"/>	Yes <input type="checkbox"/>	> 5 <input type="checkbox"/>							
	No <input type="checkbox"/> Stop <input type="checkbox"/>								
	Rock <input type="checkbox"/>								

<b>Outfall No.</b>	<b>Staining:</b> None <input type="checkbox"/>	<b>Flow rate (gpm):</b>	<b>Sludge:</b>	<b>Floatables:</b>	<b>Clarity:</b>	<b>Color:</b>	<b>Odor:</b>	<b>Source of Unexpected Obs?</b>	<b>Comments:</b>
<b>Time:</b>	None <input type="checkbox"/>	0 (standing) <input type="checkbox"/>	None <input type="checkbox"/>	None <input type="checkbox"/>	Clear <input type="checkbox"/>	None <input type="checkbox"/>	None <input type="checkbox"/>		
<b>Design:</b>	Oily <input type="checkbox"/>	0.25 trickle <input type="checkbox"/>	Sed./Mud <input type="checkbox"/>	Oily Sheen <input type="checkbox"/>	Cloudy <input type="checkbox"/>	Green <input type="checkbox"/>	Petroleum <input type="checkbox"/>		
Pipe <input type="checkbox"/>	Paint <input type="checkbox"/>	0.5 <input type="checkbox"/>	Organic <input type="checkbox"/>	Sewage <input type="checkbox"/>	Opaque <input type="checkbox"/>	Brown <input type="checkbox"/>	Musty <input type="checkbox"/>		
Channel <input type="checkbox"/>	Concrete <input type="checkbox"/>	1 <input type="checkbox"/>	Other <input type="checkbox"/>	Foam <input type="checkbox"/>	Susp. Solids <input type="checkbox"/>	Yellow <input type="checkbox"/>	Ammonia <input type="checkbox"/>		
Box Culvert <input type="checkbox"/>	Residue <input type="checkbox"/>	2 <input type="checkbox"/>	Leaves/Grass <input type="checkbox"/>			Red <input type="checkbox"/>	Rotten eggs <input type="checkbox"/>		
Catch Basin <input type="checkbox"/>	Algae <input type="checkbox"/>	3 <input type="checkbox"/>				Other <input type="checkbox"/>	Sour milk <input type="checkbox"/>		
Sheet Flow <input type="checkbox"/>	Water? <input type="checkbox"/>	4 <input type="checkbox"/>					Other <input type="checkbox"/>		
Condition? <input type="checkbox"/>	Yes <input type="checkbox"/>	> 5 <input type="checkbox"/>							
	No <input type="checkbox"/> Stop <input type="checkbox"/>								
	Rock <input type="checkbox"/>								

Inspector Signature and Title \_\_\_\_\_

Date \_\_\_\_\_

Form W-11 Rev. Sep 2008

**ATTACHMENT 4**

**PRE-RAIN VISUAL INSPECTION CHECKLIST**



**ATTACHMENT 5**

**MUNICIPAL FACILITY MASTER SPREADSHEET (MFMS)**

**MUNICIPAL FACILITY MASTER SPREADSHEET (MFMS)**

ACTIVITY	BUILDING # / OUTFALL #	INSPECTION FORM #	SCHEDULE / FREQUENCY	OPERATION / SHOP / DISCHARGE LOCATION	NOV 10-21-15 to 11-20-15	DEC 11-21-15 to 12-20-15	JAN 12-21-14 to 01-20-16	FEB 01-21-15 to 02-20-16	MAR 02-21-15 to 03-20-16	APR 03-21-15 to 04-20-16	MAY 04-21-15 to 05-20-16	JUN 05-21-15 to 06-20-16	JUL 06-21-15 to 07-20-16
NBSD Broadway Complex	1	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD Broadway Complex	8	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD Broadway Complex	12	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD Broadway Complex	110	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD Broadway Complex	113	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD Broadway Complex	114	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD Broadway Complex	115	W-MS4-1	ANNUAL, NBSD	Broadway Complex						14			
NBSD NMCSD	14	W-MS4-1	ANNUAL, NBSD	NMCSD					22				
NBSD	17	W-MS4-1	ANNUAL, NBSD	SWRMC					22				
NBSD	20	W-MS4-1	ANNUAL, NBSD	SWRMC					22				
NBSD	36	W-MS4-1	ANNUAL, NBSD	SWRMC Admin.					22				
NBSD	37	W-MS4-1	ANNUAL, NBSD	SWRMC Diesel Repair					22				
NBSD	40	W-MS4-1	ANNUAL, NBSD						23				
NBSD	45	W-MS4-1	ANNUAL, NBSD	MWR Water Front Café							25		
NBSD	56	W-MS4-1	ANNUAL, NBSD	NLSO, PSD, Legal, RLSO,							22		

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ACTIVITY	BUILDING # / OUTFALL #	INSPECTION FORM #	SCHEDULE / FREQUENCY	OPERATION / SHOP / DISCHARGE LOCATION	NOV 10-21-15 to 11-20-15	DEC 11-21-15 to 12-20-15	JAN 12-21-14 to 01-20-16	FEB 01-21-15 to 02-20-16	MAR 02-21-15 to 03-20-16	APR 03-21-15 to 04-20-16	MAY 04-21-15 to 05-20-16	JU 05-21 -15 to 06-20-16	JUL 06-21-15 to 07-20-16
NBSD	57	W-MS4-1	ANNUAL, NBSD	CNRSW Force Protection, NCIS, NMCI, LCS, RITSC							22		
NBSD	58	W-MS4-1	ANNUAL, NBSD	ATGPAC							22		
NBSD	62	W-MS4-1	ANNUAL, NBSD	Coast Gaurd and ASIR NAVAIR							28		
NBSD	71	W-MS4-1	ANNUAL, NBSD	NBSD Theatre, MWR Deployed Forces, Deron 23							22		
NBSD	72	W-MS4-1	ANNUAL, NBSD	Chief MA, CO/XO, NAVBASE ADMIN.							22		
NBSD	74	W-MS4-1	ANNUAL, NBSD	LCS CLASSRON							22		
NBSD	76	W-MS4-1	ANNUAL, NBSD	Ship Eng, Techs, Compressor Shop							22		
NBSD	77	W-MS4-1	ANNUAL, NBSD	SWRMC Ship Engineering					23				
NBSD	82	W-MS4-1	ANNUAL, NBSD	NAVFAC Ship To Shore					23				
NBSD	86	W-MS4-1	ANNUAL, NBSD	SWRMC Transportation			23		23				
NBSD	88	W-MS4-1	ANNUAL, NBSD						23				
NBSD	91	W-MS4-1	ANNUAL, NBSD	SWRMC Safety and Finance							25		

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ACTIVITY	BUILDING # / OUTFALL #	INSPECTION FORM #	SCHEDULE / FREQUENCY	OPERATION / SHOP / DISCHARGE LOCATION	NOV 10-21-15 to 11-20-15	DEC 11-21-15 to 12-20-15	JAN 12-21-14 to 01-20-16	FEB 01-21-15 to 02-20-16	MAR 02-21-15 to 03-20-16	APR 03-21-15 to 04-20-16	MAY 04-21-15 to 05-20-16	JU 05-21 -15 to 06-20-16	JUL 06-21-15 to 07-20-16
NBSD	116	W-MS4-1	ANNUAL, NBSD	FLC, Classron, PHIBGRU-3, FISC					24				
NBSD	118,119	W-MS4-1	ANNUAL, NBSD	PSD NAVFAC					24				
NBSD	121	W-MS4-1	ANNUAL, NBSD	NAVFAC FEAD, PWO					24				
NBSD	127	W-MS4-1	ANNUAL, NBSD	ATGPAC					24				
NBSD	148	W-MS4-1	ANNUAL, NBSD	NAVFAC Compressor Bldg. and Switching Station							25		
NBSD	150	W-MS4-1	ANNUAL, NBSD	Port Ops EOC					24				
NBSD	151	W-MS4-1	ANNUAL, NBSD	Security					25				
NBSD	152	W-MS4-1	ANNUAL, NBSD	NAVY College					25				
NBSD	153	W-MS4-1	ANNUAL, NBSD	Training Support Center SD					25				
NBSD	221	W-MS4-1	ANNUAL, NBSD	Enlisted Club Rec. Yard					25				
NBSD	223	W-MS4-1	ANNUAL, NBSD	MWR Olde Gym					25				
NBSD	259	W-MS4-1	ANNUAL, NBSD	Family Service Center					25				
NBSD	261	W-MS4-1	ANNUAL, NBSD	Family Advocacy Center					29				
NBSD	262	W-MS4-1	ANNUAL, NBSD	SPAWAR					29				
NBSD	263	W-MS4-1	ANNUAL, NBSD	Family Service Center					29				
NBSD	265	W-MS4-1	ANNUAL, NBSD	DTS Afloat Focus Group					29				

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ACTIVITY	BUILDING # / OUTFALL #	INSPECTION FORM #	SCHEDULE / FREQUENCY	OPERATION / SHOP / DISCHARGE LOCATION	NOV 10-21-15 to 11-20-15	DEC 11-21-15 to 12-20-15	JAN 12-21-14 to 01-20-16	FEB 01-21-15 to 02-20-16	MAR 02-21-15 to 03-20-16	APR 03-21-15 to 04-20-16	MAY 04-21-15 to 05-20-16	JU 05-21 -15 to 06-20-16	JUL 06-21-15 to 07-20-16
NBSD	268	W-MS4-1	ANNUAL, NBSD	SARP					29				
NBSD	270	W-MS4-1	ANNUAL, NBSD	NMC Relief					29				
NBSD	271	W-MS4-1	ANNUAL, NBSD	SPAWAR					1				
NBSD	272	W-MS4-1	ANNUAL, NBSD	NAVFAC SW Utilities					1				
NBSD	273	W-MS4-1	ANNUAL, NBSD	NEPMU-5					1				
NBSD	277	W-MS4-1	ANNUAL, NBSD	CNRSW Chapel							27		
NBSD	279	W-MS4-1	ANNUAL, NBSD	DDDC MTIS					1				
NBSD	280	W-MS4-1	ANNUAL, NBSD	SWRMC					1				
NBSD	291	W-MS4-1	ANNUAL, NBSD	NAVFAC SW					1				
NBSD	292	W-MS4-1	ANNUAL, NBSD						2				
NBSD	330	W-MS4-1	ANNUAL, NBSD	CNRSW Chaplins Office							27		
NBSD	333	W-MS4-1	ANNUAL, NBSD	NAVFAC Shop Storage					2				
NBSD	357	W-MS4-1	ANNUAL, NBSD	NAVFAC SW					2				
NBSD	371	W-MS4-1	ANNUAL, NBSD						2				
NBSD	372	W-MS4-1	ANNUAL, NBSD						3				
NBSD	384	W-MS4-1	ANNUAL, NBSD	Telephone Offices NCTS							22		
NBSD	391	W-MS4-1	ANNUAL, NBSD						3				
NBSD	392	W-MS4-1	ANNUAL, NBSD						3				
NBSD	399	W-MS4-1	ANNUAL, NBSD	DDDC					4				

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ACTIVITY	BUILDING # / OUTFALL #	INSPECTION FORM #	SCHEDULE / FREQUENCY	OPERATION / SHOP / DISCHARGE LOCATION	NOV 10-21-15 to 11-20-15	DEC 11-21-15 to 12-20-15	JAN 12-21-14 to 01-20-16	FEB 01-21-15 to 02-20-16	MAR 02-21-15 to 03-20-16	APR 03-21-15 to 04-20-16	MAY 04-21-15 to 05-20-16	JU 05-21 -15 to 06-20-16	JUL 06-21-15 to 07-20-16
NBSD	548	W-MS4-1	ANNUAL, NBSD	MWR					4				
NBSD	1134	W-MS4-1	ANNUAL, NBSD	CNRSW Religious Education							27		
NBSD	1220	W-MS4-1	ANNUAL, NBSD	SWDIV 1220							10	20	
NBSD Admiral Baker Site	2,3,4,5,6,7,8,9,10,11,15,16,17,18,21,22,114,115,116,117,120,122,123,124,126,127,128,139,142,146,147,148,149,151,152,153,173,174,175,176,177,178,179,3351,3586,3603,3604	W-MS4-1	ANNUAL, NBSD	Admiral Baker Golf Course								20	
NBSD	3116	W-MS4-1	ANNUAL, NBSD	SWRMC Water Front Ops, BUMED Dental Services							28		
NBSD	3142	W-MS4-1	ANNUAL, NBSD	TPU Brunton Hall BEQ							28		
NBSD	3149	W-MS4-1	ANNUAL, NBSD	CNSP Applied Instruction Simulation							28		
NBSD	3031	W-MS4-1	ANNUAL, NBSD						4				
NBSD	3137	W-MS4-1	ANNUAL, NBSD	Indoor Range, ATG							22		
NBSD	3141	W-MS4-1	ANNUAL, NBSD	NSGA BOQ CBH					4				
NBSD	3143	W-MS4-1	ANNUAL, NBSD	Training Support Center SD					7				
NBSD	3144	W-MS4-1	ANNUAL, NBSD	BOQ CBH					7				
NBSD	3149	W-MS4-1	ANNUAL, NBSD	CNSP Applied Instruction					7				
NBSD	3150	W-MS4-1	ANNUAL, NBSD	BOQ CBH					7				

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NBSD	3155	W-MS4-1	ANNUAL, NBSD	NEX , HandClasp, FISC, DDDC					8				
NBSD	3160	W-MS4-1	ANNUAL, NBSD	NEX Gas Satation					8				
NBSD	3187	W-MS4-1	ANNUAL, NBSD	SATO Commercial Travel					8				
NBSD	3187a	W-MS4-1	ANNUAL, NBSD	NEX					8				
NBSD	3202	W-MS4-1	ANNUAL, NBSD	Mercer Hall					9				
NBSD	3210	W-MS4-1	ANNUAL, NBSD	Anchors					9				
NBSD	3213	W-MS4-1	ANNUAL, NBSD	NAVFAC SW Shops					9				
NBSD	3223	W-MS4-1	ANNUAL, NBSD	Bowling Alley					9				
NBSD	3229	W-MS4-1	ANNUAL, NBSD	NAVFAC Tool Rm.					10				
NBSD	3230	W-MS4-1	ANNUAL, NBSD	NBSD Dryside Dental					10				
NBSD	3231	W-MS4-1	ANNUAL, NBSD	NBSD Dryside Dental					10				
NBSD	3232	W-MS4-1	ANNUAL, NBSD	NBSD Dryside IH					10				
NBSD	3266	W-MS4-1	ANNUAL, NBSD	Seelf Help SEE Bee's					11				
NBSD	3270	W-MS4-1	ANNUAL, NBSD	MWR Restroom					11				
NBSD	3278	W-MS4-1	ANNUAL, NBSD	SWRMC Production Family					11				
NBSD	3279	W-MS4-1	ANNUAL, NBSD	MWR Field House					11				
NBSD	3280	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities					14				

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NBSD	3281, 82, 83, 84, 85	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities					14				
NBSD	3290, 91	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities					14				
NBSD	3292	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities					14				
NBSD	3294	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities Fire Fighting					15				
NBSD	3300	W-MS4-1	ANNUAL, NBSD	NBSD Dryside Clinic					15				
NBSD	3301	W-MS4-1	ANNUAL, NBSD	NEX Fleet Exchange					15				
NBSD	3303	W-MS4-1	ANNUAL, NBSD	Morale Welfare Recreation - Admin					15				
NBSD	3304	W-MS4-1	ANNUAL, NBSD	NBSD Automated Storage					16				
NBSD	3317	W-MS4-1	ANNUAL, NBSD	MWR Raquetball Court					16				
NBSD	3321	W-MS4-1	ANNUAL, NBSD	Port Ops, Admin			23		16				
NBSD	3322	W-MS4-1	ANNUAL, NBSD	FISC HAZMAT					16				
NBSD	3322, 3483, 3581	W-MS4-1	ANNUAL, NBSD	DLA Compound			23		17				
NBSD	3335	W-MS4-1	ANNUAL, NBSD	Security Dog Kennel					17				
NBSD	3337	W-MS4-1	ANNUAL, NBSD	MWR Auto					17				
NBSD	3343, 3480	W-MS4-1	ANNUAL, NBSD	Port Ops, Admin			23		17				
NBSD	3350	W-MS4-1	ANNUAL, NBSD	NBSD Security Gate 13							28		

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NBSD	3355	W-MS4-1	ANNUAL, NBSD	NAVFAC Utilities						21			
NBSD	3361	W-MS4-1	ANNUAL, NBSD	NAVFAC Electrical Sub Stations						21			
NBSD	3362	W-MS4-1	ANNUAL, NBSD	Donnelly Hall						21			
NBSD	3363	W-MS4-1	ANNUAL, NBSD							21			
NBSD	3379	W-MS4-1	ANNUAL, NBSD	NEX Home Store						21			
NBSD	3382, 83	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities						22			
NBSD	3404	W-MS4-1	ANNUAL, NBSD	Anchors						22			
NBSD	3405	W-MS4-1	ANNUAL, NBSD	NEX Bruergers Bagels							28		
NBSD	3407, 08, 09	W-MS4-1	ANNUAL, NBSD	NCTS AT&T						22			
NBSD	3410	W-MS4-1	ANNUAL, NBSD							22			
NBSD	3412, 13, 14, 15	W-MS4-1	ANNUAL, NBSD	TSC Training Facilities						22			
NBSD	3416	W-MS4-1	ANNUAL, NBSD	NBSD Career Counselor						23			
NBSD	3420	W-MS4-1	ANNUAL, NBSD	NAVFAC Utilities						23			
NBSD	3421	W-MS4-1	ANNUAL, NBSD	NEX Rice King						23			
NBSD	3424	W-MS4-1	ANNUAL, NBSD	SWRMC Production Equipment						23			
NBSD	3432	W-MS4-1	ANNUAL, NBSD	NAVFAC Covered Lumber						23			
NBSD	3436	W-MS4-1	ANNUAL, NBSD	PAO/Info. Center							22		

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NBSD	3461, 68, 69	W-MS4-1	ANNUAL, NBSD	CNRSW Sunday School Mtg.							25		
NBSD	3478	W-MS4-1	ANNUAL, NBSD	DLA DDDC						24			
NBSD	3485	W-MS4-1	ANNUAL, NBSD	NAVFAC Electrical Switching Station							6		
NBSD	3486	W-MS4-1	ANNUAL, NBSD	NEX Mini Mart							6		
NBSD	3492	W-MS4-1	ANNUAL, NBSD	SCI Temp Office							6		
NBSD	3494	W-MS4-1	ANNUAL, NBSD	NAVFAC SW Pest Control Shop							6		
NBSD	3495	W-MS4-1	ANNUAL, NBSD	NAVFAC SW Utility Service							6		
NBSD	3509, 10, 11	W-MS4-1	ANNUAL, NBSD	NAVFAC Transportation, Admin and - Car Wash			23			24			
NBSD	3519	W-MS4-1	ANNUAL, NBSD	NAVFAC Records						24			
NBSD	3522	W-MS4-1	ANNUAL, NBSD	NAVFAC Covered Lumber						24			
NBSD	3523, 24	W-MS4-1	ANNUAL, NBSD	NAVFAC Maintenance Bldgs.						25			
NBSD	3526	W-MS4-1	ANNUAL, NBSD	NAVY Lodge						25			
NBSD	3532	W-MS4-1	ANNUAL, NBSD	Morale Welfare Recreation - Print						25			
NBSD	3533	W-MS4-1	ANNUAL, NBSD	Training Support Center SD						25			

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NBSD	3534	W-MS4-1	ANNUAL, NBSD	NAVFAC Code 500				3	25				
NBSD	3535	W-MS4-1	ANNUAL, NBSD	CBMU-303					2				
NBSD	3536	W-MS4-1	ANNUAL, NBSD	CBMU-303				21	3				
NBSD	3538	W-MS4-1	ANNUAL, NBSD	CBMU-303					4				
NBSD	3546	W-MS4-1	ANNUAL, NBSD	Fleet Logistics Center				21	7				
NBSD	3552	W-MS4-1	ANNUAL, NBSD	MWR Storage					8				
NBSD	3554	W-MS4-1	ANNUAL, NBSD	SWRMC Storage Bldg			23		9				
NBSD	3579	W-MS4-1	ANNUAL, NBSD	NAVFAC Utility					10				
NBSD	3585	W-MS4-1	ANNUAL, NBSD	MWR PEB Bldg					11				
NBSD	3593	W-MS4-1	ANNUAL, NBSD	Coast Guard							28		
NBSD	3601, 02	W-MS4-1	ANNUAL, NBSD	CDU Divers					14				
NBSD	3615	W-MS4-1	ANNUAL, NBSD	NBSD Security Gate #6							26		
NBSD	Solar City Project	W-MS4-1	as required									2	
NBSD	Bayside natural gas lines dryside project.	W-MS4-1	as required									26	
NBSD	Recycling center Yard treatment system construction	W-MS4-1	as required									16	
NBSD	P-800 Dryside Construction Project	W-MS4-1	as required									26	

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NBSD	17	W-MS4-1	ANNUAL, NBSD	SWRMC					17				
NBSD	444	W-11	SEMI-ANNUAL	Chollas		24			23				
NBSD	51	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	50	W-11	SEMI-ANNUAL	Chollas		24			23				
NBSD	123	W-11	SEMI-ANNUAL	Chollas		24			23	15			
NBSD	67	W-11	SEMI-ANNUAL	Chollas		24			23				
NBSD	151	W-11	SEMI-ANNUAL	Chollas		24			23				
NBSD	68	W-11	SEMI-ANNUAL	Chollas		24			23				
NBSD	70	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	71	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	124	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	126	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	128	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	72	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	73	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	129	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	130	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	131	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	132	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	74	W-11	SEMI-ANNUAL	Chollas		23			23				

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NBSD	75	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	76	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	77	W-11	SEMI-ANNUAL	Chollas		23			23				
NBSD	133	W-11	SEMI-ANNUAL	Chollas		23			24				
NBSD	102	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	97	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	98	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	99	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	101	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	143	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	144	W-11	SEMI-ANNUAL	Waterfront		24			24				
NBSD	145	W-11	SEMI-ANNUAL	Waterfront		23			24				
NBSD	104	W-11	SEMI-ANNUAL	Waterfront		23			24				
NBSD	146	W-11	SEMI-ANNUAL	Waterfront		23			24				
NBSD	147	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	105	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	106	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	108	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	148	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	149	W-11	SEMI-ANNUAL	Waterfront		23			23				

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NBSD	1	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	3	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	4	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	109	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	6	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	7	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	8	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	12	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	13	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	14	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	15	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	16	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	17	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	18	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	19	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	20	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	21	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	22	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	23	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	24	W-11	SEMI-ANNUAL	Waterfront		23			23				

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NBSD	25	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	26	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	29	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	30	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	31	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	32	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	33	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	35	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	36	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	37	W-11	SEMI-ANNUAL	Waterfront		23			23				
NBSD	43	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	44	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	45	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	111	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	113	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	114	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	115	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	443	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	442	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	116	W-11	SEMI-ANNUAL	Waterfront		24			23				

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NBSD	117	W-11	SEMI-ANNUAL	Waterfront		24			23				
NBSD	27	W-11	SEMI-ANNUAL	Paleta					23				
NBSD	81	W-11	SEMI-ANNUAL	Paleta									
NBSD	79	W-11	SEMI-ANNUAL	Paleta									
NBSD	82	W-11	SEMI-ANNUAL	Paleta									
NBSD	84	W-11	SEMI-ANNUAL	Paleta									
NBSD	78	W-11	SEMI-ANNUAL	Paleta									
NBSD	28	W-11	SEMI-ANNUAL	Paleta									

Attachment 5

**ATTACHMENT 6**

**MS4 BEST MANAGEMENT PRACTICES (BMPs)**

**MS4 BEST MANAGEMENT PRACTICES**

BMP 003	Perform Regular Cleaning
BMP 007	Place Trash Receptacles at Appropriate Locations
BMP 009	Train Employees to Properly Dispose of Wastes
BMP 015	Recycle
BMP 023	Place Portable Rubber Mats over Storm Drain Inlets
BMP 026	Routinely Clean Catch Basins
BMP 027	Stencil Signs on Storm Drain Inlets
BMP 031	Conduct Refresher Courses in Operating and Safety Procedures
BMP 033	Check Vehicles and Equipment for Leaks
BMP 047	Conduct Maintenance within a Building or Covered Area
BMP 061	Employ Proper Handling Procedures to Transport Materials and Waste
BMP 071	Keep Tanks, Piping, and Valves in Good Condition
BMP 077	Vacuum Particulate Wastes from Sanding or Painting Operations
BMP 092	Properly Dispose of Sediment Generated by Cleaning Sanitary Sewer Lines
BMP 110	Regularly Inspect and Maintain Storm Water Conveyance Systems
BMP 111	Regularly Inspect and Test Equipment
BMP 113	Conduct Personnel Training Regarding the SWPPP
BMP 115	Store Containers Inside Secondary Containment
BMP 116	Control Dust and Particulates
BMP 117	Do Not Pour or Deposit Waste into Storm Drains
BMP 118	Routinely Report Any Observed Non-Storm Water Discharges
MS4 001	Fire Hose Hydrostatic Testing and Fire Hydrant Flushing

**ATTACHMENT 7**

**MS4 STORMWATER SOLUTIONS**

**MS4 STORMWATER SOLUTIONS**

1. Administration and Support
2. Automotive Repair and Maintenance
3. Facility Maintenance, Painting, and Surface Prep
4. Food Establishments
5. Golf Course and Landscaping
6. Process Wastewater Discharges
7. Residential and Bachelor Quarters
8. Retail Exchange and Commissary
9. Warehousing and Loading Areas

**ATTACHMENT 8**

**ACTION MATRIX**

Action matrix will be included in the final SWMP.

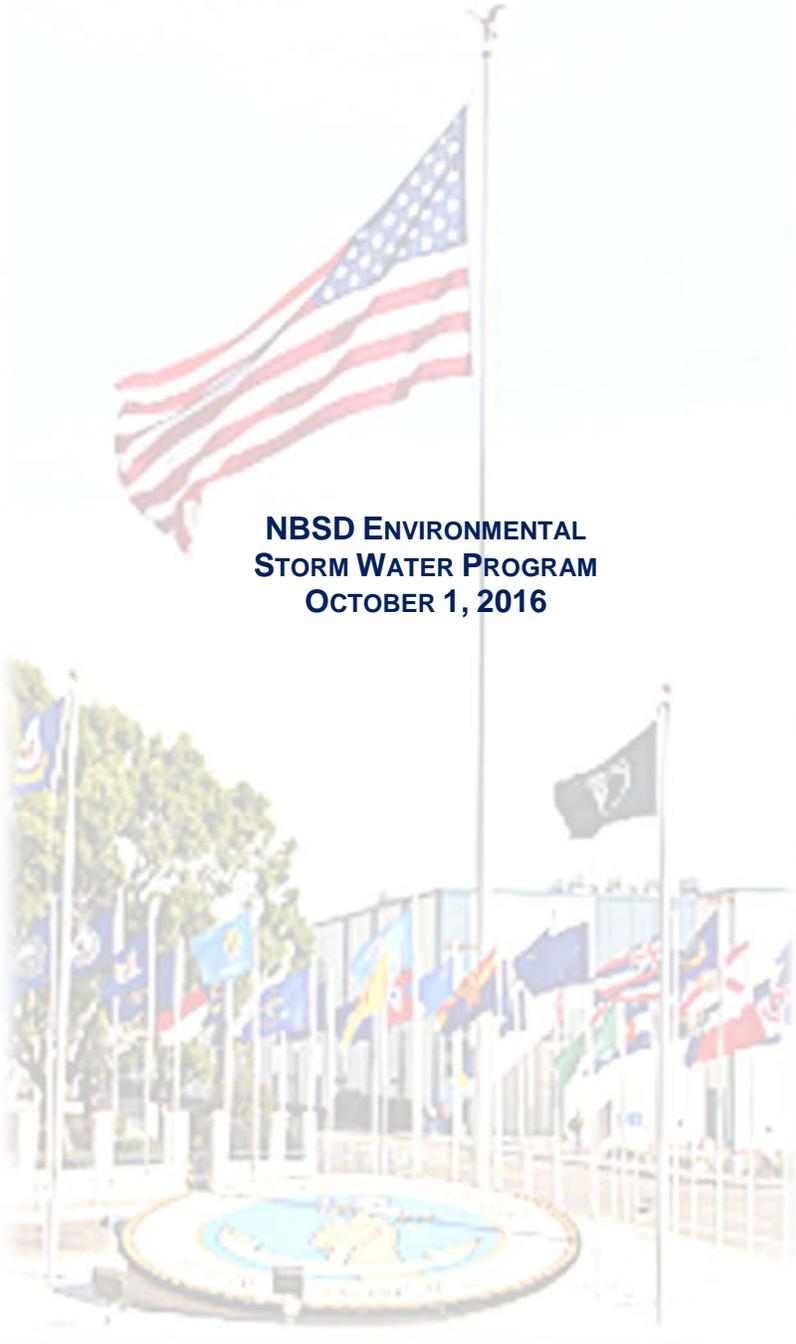
**ATTACHMENT 9**

**SWMP REVISIONS/SUMMARY OF CHANGES**

**SWMP REVISIONS/SUMMARY OF CHANGES**

REVISION	REVISED BY	DATE
The Zone Inspection Schedule does not match dates annual facility inspections were performed and has been removed from SWMP.	Anthony Yamat	July 1, 2016
Updated phone number to the NBSD Environmental office.		
Revised annual facility inspection form for construction inspection applicability.		
Inserted MFMS and provided a better definition of its purpose and contents throughout the SWMP.		
MCM tables were revised to accurately reflect text changes in the main body.		
Changed Navy ID discharge point for the Medical Center catch basin to 54 from 78 for accuracy.		
Action matrix included as an Attachment to the SWMP.		

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**NBSD ENVIRONMENTAL  
STORM WATER PROGRAM  
OCTOBER 1, 2016**