# 6.0 MUNICIPAL AND COMMERCIAL COMPONENT

## 6.1 INTRODUCTION

This section addresses requirements in provisions of the Municipal Permit (Provisions E.5.a-e and E.6) that the Authority has determined are relevant to the municipal and commercial existing development at SAN. Existing development in industrial areas of SAN is addressed in Section 7.0. The provisions of the Municipal Permit require the Authority to:

E.5.a—Annually update a watershed-based inventory of municipal, commercial, and industrial areas and activities that may discharge a pollutant load to and from the MS4. Tables 6-1 and 6-2 and Sections 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8 and 7.0 have been prepared to address this requirement.

E.5.b.(1).(a), (b), and (c).(i)—Designate, implement, and properly operate and maintain pollution prevention methods and BMPs for all municipal, commercial, and industrial areas and activities to address the priorities and strategies in the San Diego Bay WQIP. Sections 6.2.3, 6.3.3, 6.4.3, 6.5.3, 6.6.3, 6.7.3, 6.8.3, and 7.0, and Appendix B have been prepared to address this requirement.

E.5.b.(1).(c).(ii)—Properly operate, inspect, and maintain its MS4s and structural treatment controls. Section 6.2.3 and Appendix B have been prepared to address this requirement.

E.5.b.(1).(c).(iii)—Implement a schedule of operation and maintenance for roads and parking facilities that is designed to reduce pollutant discharges to its MS4s. Section 6.3.3 and Appendix B have been prepared to address this requirement.

E.5.b.(1).(c).(iv)—Implement controls and measures to prevent and eliminate infiltration of sewage from municipal sanitary sewers into MS4s. Section 6.4.3 and Appendix B have been prepared to address this requirement.

E.5.b.(1).(d)—Implement BMPs to reduce pollutants in storm water discharges to the MEP and effectively prohibit non-storm water discharges to MS4s associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal, commercial, and industrial areas and activities. Sections 6.5.3 and 7.0 and Appendix B have been prepared to address this requirement.

E.5.c—Inspect at least 20 percent of its inventoried municipal, commercial, and industrial areas and activities annually and the entire facility once every five years. The Authority must also inspect its facilities as a response to valid public complaints, or as frequently as needed to confirm that the BMPs are being implemented and to reflect the priorities in the WQIP. In addition, the Authority must implement all follow-up actions necessary to comply with the provisions of the Municipal Permit. Sections 6.9 and 7.8.4 have been prepared to address this requirement.

E.5.d and E.6—Enforce its legal authority to ensure compliance with the requirements of this SWMP and the Municipal Permit for all inventoried existing development in accordance with its ERP. Sections 2.3 and 6.10 have been prepared to address this requirement.

E.5.e.(1)—Describe a program to retrofit areas of existing development to address identified sources of pollutants and/or stressors that contribute to the highest and focused priority water quality conditions in the San Diego Bay WQIP. Sections 4.0 and 6.12 and Appendix C have been prepared to address this requirement.

E.5.e.(2).(e)—Collaborate and cooperate with other Copermittees to develop WMA and regional rehabilitation projects that benefit water quality. Sections 4.0 and 6.12 have been prepared to address this requirement.

### 6.1.1 OVERVIEW OF MUNICIPAL AND COMMERCIAL AREAS AND ACTIVITIES

This section outlines the information in the remainder of Section 6.0 that applies to the municipal and commercial source areas under the control of and activities conducted by the Authority at SAN, the associated significant materials that could generate storm water pollutants, and the program implemented to achieve the water quality goals established in the WQIP. The Municipal Permit requires an inventory and discussion of specific municipal and commercial facilities and activities, as well as industrial facilities and activities (discussed in detail in Section 7.0). SAN is in itself a municipal airfield, as discussed below, and includes these facilities: (1) MS4 and associated structural controls; (2) streets and roads; (3) parking facilities; (4) flood control devices and structures; (5) sanitary sewer collection systems; (6) corporate yards; (7) hazardous waste collection facilities; (8) other treatment, storage, or disposal facilities; (9) special event venues; and (10) commercial facilities and areas determined by the Authority to potentially contribute a significant pollutant load to the MS4. SAN no longer has a closed landfill. Sections 6.2 through 6.8 discuss each of these facilities.

Airport operation is also subject to the requirements of the Industrial Permit. Many of the activities classified as municipal activities by the Municipal Permit are also considered to be industrial activities by the Industrial Permit. For this reason, many of the municipal activities discussed in this section are also detailed in Section 7.0, which addresses the Industrial Component. For instance, inspection and maintenance of the storm drain system is discussed in both sections, as are pesticide, herbicide, and fertilizer management and sweeping activities.

The Municipal Permit requires an inventory of all the municipal and commercial areas and activities. Each entry must include a name, location (e.g., address and hydrologic subarea), and description. The description can include the status of the facility (e.g., active or inactive); a statement of whether the business is a mobile business; SIC or North American Industry Classification System (NAICS) code; Industrial Permit NOI or WDID number; identification of pollutants generated or potentially generated by the facility or area; determination of whether the facility or area is adjacent to an ESA; and a statement of whether the facility or area is tributary to and within the same hydrologic subarea as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired. The inventory of municipal and commercial areas and activities at SAN is stored in a Web-based database and is updated annually, as required by the Municipal Permit. This SWMP includes a map showing the locations of the inventoried municipal and commercial areas and activities, watershed boundaries, and water bodies (Figure 3) and is updated annually.

Of the municipal and commercial areas/activities defined by the Municipal Permit, the following are considered to be a high priority in terms of being potential sources of pollutants that contribute to the focused priority water quality conditions for the Authority identified in the WQIP (i.e., copper and zinc in wet weather discharges):

- MS4 and related structures
- Roads

- Parking facilities
- Corporate yards (used for maintenance or storage of materials, waste, equipment, and vehicles)
- Sanitary sewer collection systems
- Hazardous waste collection areas
- Other treatment, storage, or disposal facilities for municipal waste
- Power washing

Table 6-1 presents the inventory of entities conducting municipal and commercial areas and activities at SAN. Table 6-2 presents the inventory of municipal areas and activities at SAN.

Municipal airfields were not included in the list of SAN's Municipal Permit-defined areas because the entire jurisdiction of the Authority is an airfield, and so is subject to the requirements of the Industrial Permit as well as the Municipal Permit. Therefore, this SWMP describes storm water management over the entire airport area. The remainder of Section 6.0 provides detailed information on:

- The storm drain system and associated structural controls (Section 6.2)
- Sweeping of municipal areas, within the discussion of roads, streets, and parking lots (Section 6.3)
- Infiltration from the sanitary sewer system into the storm drain system (Section 6.4)
- Management of pesticides, herbicides, and fertilizers (Section 6.5)
- Special event venues (Section 6.6)
- Power washing (Section 6.7)
- Municipal waste management (Section 6.8)

Section 6.2 provides the most complete description of the municipal and commercial program elements required by the Municipal Permit. Given the overlap between the Municipal Permit and the Industrial Permit, Section 7.0 of the SWMP addresses the Authority's corporate yards; hazardous waste collection areas; other waste storage and disposal facilities; and power washing, ramp scrubbing, and sweeping of industrial airport areas; and further discusses some of the municipal areas listed above. Section 3.0 addresses landscaping activities.

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**Table 6-1. San Diego International Airport Entities Conducting Municipal and Commercial Activities**

| Facility Name | Address | Hydro. Area | SICs | NAICSs | Principal Activity | Bacteria | Gross Pollutants | Metals | Nutrients | Oil & Grease | Organics | Pesticides | Sediments | Trash | Tributary to 303d Hydrologic Subarea?1 | Priority Level |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACE | 3665 North Harbor Dr. Suite #200 San Diego, CA 92101 | 908.0-908.21 | 7521 | 812930 | Parking Lot Management | Yes | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | High |
| FlagShip | 3835 North Harbor Dr. Suite #130 San Diego, CA 92101 | 908.0-908.21 | 4581 | 561720 | Janitorial | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | High |
| High Flying Foods | 3225 North Harbor Dr. San Diego, CA 92101 | 908.0-908.21 | 5812 | 722310 | Food & Beverage | No | No | No | No | Yes | Yes | No | No | Yes | No | Low |
| HMS Host | 3665 North Harbor Dr. San Diego, CA 92101 | 908.0-908.21 | 5812 | 722310 | Food & Beverage | Yes | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Low |
| Mission Yogurt | 3225 North Harbor Dr. San Diego, CA 92101 | 908.0-908.21 | 5812 | 722310 | Food & Beverage | Yes | No | No | No | No | Yes | No | Yes | Yes | Yes | Low |
| Authority | 3835 North Harbor Dr. San Diego, CA 92101 | 908.0-908.21 | 4581 | 488111 | Facility Maintenance | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | High |
| SSP | 3225 North Harbor Dr. San Diego, CA 92101 | 908.0-908.21 | 5812 | 722310 | Food & Beverage | No | No | No | No | Yes | Yes | No | No | Yes | No | Low |

1. San Diego Bay is designated as an ESA.

**Table 6-2. San Diego International Airport Municipal Land Use and Activity Areas**

| Type of Municipal Activity | Facility/Element/Company Name or Description | Priority Level |
|---|---|---|
| MS4 | 1 element (550 inlets and 192,000 linear feet of pipe) | High |
| Roads | 1 element (6 miles total) | High |
| Parking Lots(2) | 14 elements (14 individual parking lots) | High |
| Airside Operations Area(1) | 1 element (ramp/runway) | High |
| Construction Activities | 25 acres (construction areas include the Rental Car Complex) | High |
| Grounds/Landscape | 1 element (approximately 18 acres) | Low |
| Maintenance Storage Areas(1) | Corporate Yard – "Bone Yard" | High |
| | Runway Generator Shop | High |
| Solid Waste Operation(1) | Trash and Recycling Compactor Area | High |
| | Terminal 2 East Trash Compactor | High |
| | North Ramp Airside Sweeping And Scrubbing Waste Accumulation Area | High |
| | Landscape Waste Dumpsters | High |
| Structural Treatment Controls | Below Grade Box Structures | High |
| | Drain Inserts | High |
| | Curb inlet Screen Covers | High |
| | Trench Drain Filters | High |
| | Oil-Water Separators | High |
| | High Rate Media Filters | High |
| | Hydrodynamic Separators | High |
| | Pervious Surfaces | High |
| | Bioswales | High |
| | Modular Wetland Treatment Units | High |
| Buildings | Commuter Terminal | Low |
| | Terminal 1 | Low |
| | Terminal 2 | Low |
| | West Wing (offices) | Low |
| | Truxton Road Offices | Low |
| | Central Plant (HVAC and Power Plant) | Low |
| | FMD (offices) | Low |
| | FMD Shops (maintenance shops) | Low |
| | Procurement Office and Storage Building | Low |
| | Terminal Development Project (offices) | Low |
| | USO/Parking Management Office | Low |

(1) Also considered industrial activities in terms of both the Municipal Permit and the Industrial Permit.

(2) Because of construction activities, the number of parking lots changed during Fiscal Year 2013-2014.

Municipal airfields were not included in the list of SAN's Municipal Permit-defined areas because the entire jurisdiction of the Authority is an airfield, and so is subject to the requirements of the Industrial Permit as well as the Municipal Permit. Therefore, this SWMP describes storm water management over the entire airport area. The remainder of Section 6.0 provides detailed information on:

- The storm drain system and associated structural controls (Section 6.2)
- Sweeping of municipal areas, within the discussion of roads, streets, and parking lots (Section 6.3)
- Infiltration from the sanitary sewer system into the storm drain system (Section 6.4)
- Management of pesticides, herbicides, and fertilizers (Section 6.5)
- Special event venues (Section 6.6)
- Power washing (Section 6.7)
- Municipal waste management (Section 6.8)

Sections 6.2 through 6.8 provide the most complete description of the municipal and commercial program elements required by the Municipal Permit. Given the overlap between the Municipal Permit and the Industrial Permit, Section 7.0 of the SWMP addresses the Authority's corporate yards; hazardous waste collection areas; other waste storage and disposal facilities; and ramp scrubbing, and sweeping of industrial airport areas; and further discusses some of the municipal areas and activities listed above. Section 3.0 addresses landscaping activities.

## 6.2 OPERATION AND MAINTENANCE OF MS4 AND STRUCTURAL CONTROLS

### 6.2.1 BACKGROUND

As required by Provision E.5.b.(1).(c).(ii) of the Municipal Permit, the Authority has implemented a schedule of operation and maintenance activities for its MS4 and related structures to verify proper operation of all its municipal structural treatment controls to reduce pollutants in storm water discharges to or from its MS4s and related drainage structures. Operation and maintenance activities may include, but are not limited to, inspections, cleanings, and proper disposal of materials removed from cleaning of the MS4 and related structures.

The Authority's storm drain system consists of roads with drainage systems, curbs, catch basins, gutters, inlets, culverts, trench drains, and pipes of varying materials and sizes. The structural treatment controls incorporated into the storm drain system by the Authority include 7 OWSs (2 at the north ramp, 1 on old Commuter Terminal ramp, 1 by the American Airlines maintenance area, 1 in the Terminal 2 ramp, 1 at Allied Aviation's area, and 1 by ASIG remote fueling facility), various inlet filters, 15 high-rate media filters (6 Contech StormFilters®, and 7 BioClean and 2 ClearWater BMP Units), 6 grate inlet skimmers, 3 trench drain filters, 3 hydrodynamic separators (Contech CDS), and 12 modular wetland treatment units. Additionally, there are pervious areas made up of artificial turf, pavers, infiltration trenches, asphalt strips, and bioswales. The Authority uses the underground detention basin located at Long-Term Parking Lot 2 and bioswales along the perimeter of the Rental Car Center located at the northern side as flood control devices. The locations of these structural treatment controls, along with an overview of the storm drain system network, are shown in Figure 4.

An update to the Master Drainage Plan is in development because the most recent plan was prepared in 2008, as discussed in Section 4.0 of this SWMP.

## 6.2.2 SOURCE CHARACTERIZATION

As indicated in Table 6-1, the Authority has 192,000 linear feet of storm drain pipe and 550 inlets under its jurisdiction. As a consequence of its function, the storm water conveyance system collects and transports storm water runoff at SAN. To prevent transport of certain pollutants in the runoff, BMPs must be implemented properly and adequate inspections and maintenance of the storm drain system performed. At SAN, pollutants with the potential to enter the storm drain system include sediment, trash and debris, oil and grease, hydrocarbons/fuels, hydraulic fluids, solvents, soap/cleaning fluids, lavatory chemicals and waste, paints, used batteries and battery acid, antifreeze, hazardous wastes (mostly oils), metals, deicing chemicals, herbicides and pesticides, adhesives, rust preventers, aircraft firefighting foam (AFFF), and sealants. Structural treatment controls that are not properly maintained can also be sources of sediment, oil and grease, trash and debris, and other associated pollutants such as metals.

## 6.2.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

The San Diego Bay WQIP includes strategies for reaching water quality goals for copper and zinc in wet weather discharges (the focused priority water quality condition for the Authority). Those strategies that are related to the MS4 and structural treatment controls that the Authority will implement in accordance with the WQIP schedule are (1) determining optimal catch basin inlet inspections and cleanings; (2) developing and maintaining green infrastructure and treatment systems to collect and treat parking lot runoff; 3) providing BMP inspections and enforcement at tenant and high pollutant generating areas; and (4) providing continued training and public education.

### 6.2.3.1 Minimum BMPs

Table 6-3 shows the minimum BMPs for MS4 and structural treatment controls. Descriptions of these BMPs can be found in Appendix B.

**Table 6-3. Minimum BMPs Requirements**

| | |
|---|---|
| SC01 Non-Storm Water Management | SC10 Employee Training |
| SC17 Storm Drain Maintenance | TC01 Treatment Controls |

### 6.2.3.2 Schedule of Maintenance

**MS4**

Storm drain inspections are performed quarterly and before/after the rainy season by FMD. Additionally, over four-fifths of the tenants also perform some storm drain inspections, either sporadically or as part of their own routine facility inspections. A contractor is hired by the Authority to inspect the whole storm water conveyance system annually, to clean the priority storm drains and catch basins quarterly, and to clean the oil water separators, underground storm drain pipes, and catch basins annually. Silts, trash, green waste, and heavy metals removed from the storm drain system are properly disposed and measures are implemented to prevent any waste discharges to receiving waters during these maintenance activities. Screens are installed in front of curb inlets in the southern portion of the Authority's jurisdiction to protect storm drains, and they are easily cleaned by street sweepers.

**STRUCTURAL TREATMENT CONTROL BMPS**

Annual inspections and maintenance of hydrodynamic separators, high-rate media filters, infiltration trenches, artificial turf, and various inlet filters and skimmers are performed by the EAD and a contractor hired by the Authority. Maintenance consists of as needed cleaning. Filter fabric inserts are maintained quarterly, and before and after rain events, with high-priority areas inspected daily. The criteria used for cleaning inlet skimmers, trench drain filters, hydrodynamic separators, and high rate media filters are (1) presence of blockages/obstructions in the inflow pathway, (2) condition of BMP structure and filter media, (3) trash/debris/sediment amount accumulated in BMP, and/or (4) presence of standing water and unpleasant odors in the BMP.

Inspections and maintenance of permeable surfaces, swales, and modular wetlands are done by the landscape contractor and parking lot management contractor hired by the Authority. EAD also performs annual inspections. Maintenance consists of as-needed cleaning. The criteria used for cleaning permeable surfaces, swales, modular wetlands, and infiltration devices are (1) condition of BMP structure and outlet, (2) trash/debris/sediment amount accumulated on BMP or drainage area, (3) presence of standing water after 72 hours of rain event, (4) vegetative cover height and type, (5) presence of erosion, and/or (6) presence of burrowing animals.

Annual inspections of five OWSs are conducted by EAD and FMD. OWSs have an alarm system. If the oil reaches a certain level, or oil leaks to the ground, an alarm goes off. Alarms are checked monthly. Service companies hired by the Authority are contracted to pump out the OWSs on an as-needed basis. The criteria used for cleaning the oil water separators are (1) the amount of sediment at the bottom of the tanks, (2) the amount of oil, grease, and floatables at the top of the tank, and (3) capacity and functionality of the units. The FSF/RFF operator contracts with outside vendors to service the remaining two OWSs and the 12,000-gallon wastewater UST annually.

All the maintenance activities above include proper disposal of sediment, debris, and wastewater removed from the treatment control BMPs, and implementation of measures to prevent waste discharges to receiving waters during these maintenance activities.

## 6.3 OPERATION AND MAINTENANCE OF ROADS AND PARKING FACILITIES

### 6.3.1 BACKGROUND

As required by Provision E.5.b.(1).(c).(iii) of the Municipal Permit, the Authority has implemented a schedule of operation and maintenance for the streets, unpaved roads, paved roads, and parking facilities within the Authority's jurisdiction to minimize pollutants that can be discharged in storm water. This section addresses only road and parking facility sweeping and repair. The Authority's program for ramp sweeping is described in Section 7.7.4.1.

### 6.3.2 SOURCE CHARACTERIZATION

Littering by the general public contributes to trash and debris pollutants in public parking facilities at SAN. Any erosion from landscaped areas within parking lots can be a sediment pollutant source. Fluid leaks from vehicles on roads or in parking facilities are a potential source of pollutants such as oils, fuel, antifreeze, etc. Atmospheric deposition (fallout from automobile emissions and other sources), vehicle use and emissions, asphalt and concrete surfaces, and peeling or crumbling paint from parking lot painting can introduce particulate copper and zinc into the storm drain system at SAN. The physical removal of particulates because of attachment to fine particulates (in particular, the binding of heavy metals from outdoor road and parking lot facility surfaces to fine grain sediment) may lessen the pollutant load transferred to receiving waters.

## 6.3.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

The San Diego Bay WQIP includes strategies for reaching water quality goals for copper and zinc in wet weather discharges (the focused priority water quality condition for the Authority). Strategies that are related to road and parking facility sweeping that the Authority will implement in accordance with the WQIP schedule include (1) determining and implementing optimal street sweeping locations and frequencies to maximize pollutant removal, (2) enhancing street sweeping through equipment replacement, (3) enhancing tenant and high pollutant-generating area BMP inspections and enforcement; and (4) continuing training and public education.

### 6.3.3.1 Minimum BMPs

Table 6-4 shows minimum BMPs for road and parking facility sweeping and repair. Descriptions of these BMPs can be found in Appendix B.

**Table 6-4. Minimum BMPs Requirements**

| | |
|---|---|
| SC01 Non-Storm Water Management | SC10 Employee Training |
| SC12 Outdoor Washdown/Sweeping | SC16 Parking Lots |
| SR01 Spill Prevention, Control, and Cleanup | TC01 Treatment Controls |

### 6.3.3.2 Schedule of Maintenance

#### SWEEPING OF ROAD AND PARKING FACILITIES

The entities responsible for implementing BMPs for parking facilities are the Authority, the parking lot management service provider, the FSF operator, the refueling operator, the Central Receiving and Distribution Center operator, the FBO, and one or two other tenants with parking lots. A contractor is hired by the Authority to sweep all roads in front of the terminals, including the old Commuter Terminal, overpasses leading into and exiting SAN, and the area from McCain Road to Gat P-18 overnight on Mondays through Fridays using a motorized sweeper unit. The debris/sweepings are disposed of at a landfill. The parking lot management contractor sweeps all parking lots once a week and maintains all parking lots owned or leased by the Authority. Sweeping is done manually or by motorized sweeper unit. Additionally, tenants perform sweeping of their parking areas.

#### ROADS AND PARKING FACILITIES REPAIRS AND IMPROVEMENTS

Inspection of parking lots, roads, and curbs is continuous. Minor repairs in parking lots are performed by the parking lot management service provider. However, major maintenance work would likely be contracted out by the Authority. Construction projects of one acre or larger would be subject to the CGP. The Authority is responsible for any repairs to the roads, other than minor repairs to parking lots, and conducts those repairs or replacement as follows:

- Outdoor repairs and construction are avoided during rain events or during any period for which the National Weather Service is forecasting a 50 percent chance of precipitation. Sealants should not be applied if rainfall is predicted during the application or curing period.

- Storm drain inlets and manholes must be protected during outdoor repairs and construction. Storm drain inlets, including slit trenches, within 10 yards of the work area must be covered with spill pads and/or mats or otherwise protected to prevent discharges of solid and liquid materials and waste to the storm drain system. Storm drain inlet protection devices will be regularly inspected for proper installation and condition by those persons performing the work and will be removed when it is no longer needed.

- Run-on and runoff controls will be put in place to direct flow away from work areas and erodible materials by using silt fence, fiber rolls, and gravel bags. Run-on and runoff controls will be regularly inspected for proper installation and condition by those persons performing the work and will be removed when it is no longer needed.

- Before onset of a rain event or when not actively being used, stockpiles of "cold mix" asphalt (premixed aggregate and asphalt binders), dry-powder concrete mixing products (such as Readymix and Portland cement), and/or basic materials (e.g. fly ash, stucco, or lime) will be laid on top of and covered with plastic or other relevant material and protected with a temporary perimeter sediment barrier.

- Stockpiles of soil, and/or debris, and/or rubble will be covered and protected with a temporary perimeter sediment barrier when not actively being used and before the onset of a rain event.

- Materials are to be stored inside buildings or sheds or on containment pallets. Chemicals and fluids are to be stored indoors or in watertight containers on secondary containment.

- Slurry, waste, and debris generated by pavement and concrete cutting activities will be collected/vacuumed immediately, properly disposed of, and prevented from entering the storm drain system.

- Work sites will be kept clean at all times to prevent loose materials and contaminants from leaving work area or discharging into storm drain system. Dry cleanup methods (e.g., vacuuming, sweeping, dry rags) will be used. Use of hoses is restricted to the alleviation of safety or sanitation hazards only, per City of San Diego permanent mandatory water restrictions. All water hoses will be equipped with positive shutoff type nozzles, and any wash water will be prevented from entering the storm drain system and disposed of properly. The Authority EAD should be contacted prior to any washing activities.

- All waste will be disposed of properly. The site will be policed for litter daily and all litter will be disposed of properly in covered waste containers.

- All products used to clean surfaces must be approved for use by the EAD (619-400-2782) prior to application.

- Temporary sanitation facilities must have secondary containment and be located away from drainage courses, inlets, and traffic circulation. Temporary sanitation facilities will be regularly inspected for leaks and spills and facilities will be cleaned and replaced when necessary. Facilities that are no longer needed will be removed.

- Equipment will be maintained in good working condition to minimize leaks and drips. Equipment will have drip protection (e.g., drip pans or plastic sheeting) available at designated areas for storage, fueling, and maintenance. Designated areas are away from drainage courses and inlets.

- Spill cleanup materials will be readily available at the work area.

- All spills will be cleaned up immediately, provided that it is safe to do so. Workers are trained in spill response procedures.

- Equipment and vehicles will be cleaned offsite.

- If tools, equipment, and/or vehicles coated with concrete material are to be cleaned onsite, then concrete washout facilities will be provided and maintained. Alternatively, liquid waste can be contained in buckets or drums with tight-fitting lids for transport and proper disposal offsite.

- Concrete washout facilities may be above or below grade, but designated areas must be at least 50 feet away from storm drains, water bodies, and open ditches. Facilities will be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations. Facilities can be a temporary pit or bermed area lined to prevent discharge to ground or surrounding area. Concrete washout from concrete pumper bins can be washed into trucks and discharged into concrete washout facilities or be properly disposed of offsite.

- Facilities will be cleaned or replaced when the washout is 75 percent full or when there is damage (e.g., torn liner or evidence of leaks). Facilities will be maintained to provide a holding capacity with a minimum freeboard of 4 inches for above-grade facilities and 12 inches for below-grade facilities. Maintaining facilities should include removing and disposing of hardened concrete and returning facilities to a functional condition. No overflow from concrete washouts is permitted. Onsite washout facilities will be covered during rain events. All concrete washout debris will be disposed of properly. Holes, depressions, or other ground disturbances caused by the removal of the facilities will be backfilled and repaired.

**STRUCTURAL TREATMENT CONTROL BMPS**

Many green infrastructure, LID, or treatment control BMPs listed in Section 6.2.1 have been incorporated into parking lots, including inlet filters, high rate media filters, hydrodynamic separators, porous pavement, bioswales, and modular wetland treatment units. They are inspected and maintained as described in Section 6.2.3.2.

## 6.4 PREVENTION OF INFILTRATION FROM SANITARY SEWER TO MS4

### 6.4.1 BACKGROUND

The Authority does not own or manage a municipal sanitary sewer system. The City of San Diego MWWD provides municipal sanitary sewer service to SAN. However, the Authority is responsible for those portions of the onsite sanitary sewer system that connect to the MWWD system. As a result, the Authority has implemented controls to prevent and eliminate infiltration of sewage from sanitary sewers into the storm drain systems, as required by Provision E.5.b.(1).(c).(iv) of the Municipal Permit. These controls are implemented through thorough routine inspection and preventive maintenance of the sanitary sewer system and inspection of the storm drain system. In general, these measures will also identify issues related to the municipal sanitary sewer system operated by MWWD. Issues related to the municipal sanitary sewer system will be reported to and resolved in coordination with MWWD. FMD and FDD oversee a thorough programmed maintenance process for inspection, maintenance, repair, and upgrade of physical plant structures at SAN, including the sanitary sewer system.

Fats, oils, and grease can clog sanitary sewer pipes, which can create overflows. Regular pickup of waste grease from food and beverage vendors and using grease traps can prevent fats, oils, and grease from entering into the sanitary sewer and thereby removing a contributing factor of sewage seepage into the MS4. FMD oversees the management of 19 grease traps with sizes ranging from 25 to 50 gallons to 3,000 gallons. Most of these grease traps are located on the airside or inside Terminals 1 and 2 and can be above or below ground. Each grease trap has three baffles in sequence to process wastewater before it exits into the sanitary sewer.

### 6.4.2 SOURCE CHARACTERIZATION

Infiltration from sanitary sewers to the storm drain system may be caused by several factors, including a lack of structural integrity. Most infiltration scenarios are the result of spills, leaks, and overflows. Spills, leaks, and inadequate overflow control response and containment can result in the following potential pollutants: metals, sediments, nutrients, bacteria, organics, and oxygen-demanding substances.

## 6.4.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

The constant surveillance at SAN includes the routine daily inspection of the airport terminals, runways, and airside operations by the Airside Operations Supervisors. These inspections are one element of the Illicit Discharge Detection and Elimination program, because any environmental issues are both reported to the EAD and captured in the Airside Operations' daily log, and are then entered into the Authority's Web-based database.

The Authority must implement controls identified in the SAN SWMP that have been designed to limit infiltration into the storm water conveyance system from the sanitary sewer system and to prevent and respond to sewage spills.

### 6.4.3.1 Minimum BMPs

Table 6-5 shows the minimum BMPs to prevent or minimize infiltration from the sanitary sewer to the MS4. Descriptions of these BMPs can be found in Appendix B.

**Table 6-5. Minimum BMPs Requirements**

| | |
|---|---|
| SC01 Non-Storm Water Management | SC10 Employee Training |
| SC11 Lavatory Service Operation | SC17 Storm Drain Maintenance |
| SR01 Spill Prevention, Control, and Cleanup | |

### 6.4.3.2 Schedule of Maintenance

A contractor is hired by the Authority to perform maintenance on small grease traps every month and large grease traps every two to three months. Grease is vacuumed out and rinsed into a storage tank for proper disposal. Additionally, a contractor hired by the Authority picks up grease from commercial tenants one to three times per week for proper disposal. Grease is either picked up in lined buckets or extracted from grease containers to be stored in a storage tank and later collected for processing at an offsite facility once a month. When sanitary sewer system malfunctions occur, such as stoppages, the cause of the problem is investigated and analyzed. Maintenance schedules are then adjusted accordingly. If necessary, repairs are initiated by the FMD or the commercial tenants, as appropriate.

For aircraft sewage, the waste is emptied from the aircraft into mobile lavatory trucks and then into the sewer system at the triturator via a connection hose. If there are spill incidents, the Airside Operations Department or the EAD documents the incident, requests corrective actions if necessary, and monitors implementation of any required corrective actions.

In the event that any infiltration from the sanitary sewer into the storm drain system is observed or suspected, the Authority will investigate the source of the sewage. The Authority will conduct any required maintenance or repair on the onsite lateral lines, and issues related to the municipal sanitary sewer system main lines will be reported to the MWWD. The Authority will coordinate with the MWWD, as necessary.

## 6.5 MANAGEMENT OF PESTICIDES, HERBICIDES, AND FERTILIZERS

### 6.5.1 BACKGROUND

As required by Provision E.5.b.(1).(d) of the Municipal Permit, the Authority is required to reduce pollutants in storm water discharges to the MEP and prohibit non-storm water discharges associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal and commercial facilities and areas to the storm drain system, and implement BMPs. Important municipal and commercial areas and activities associated with these potential pollutants at SAN include municipal facility structures and buildings, landscaped areas, and commercial areas and activities. This section and Section 7.7.3 discuss these potential pollutant sources and the BMPs implemented by the Authority to reduce or eliminate impacts of pollutants on the storm drain system.

The FMD maintains approximately 18 acres of environmentally friendly landscaping. The landscaped areas include a variety of indigenous and drought-tolerant plants, shrubs, and ground cover. The various plants, shrubs, and ground cover were chosen because they are drought tolerant, generate smaller amounts of plant litter and debris, and require less fertilizer, pesticide, and herbicide to maintain than do other exotic species. All of the green waste collected from landscape maintenance activities is recycled into mulch and compost. The Authority uses a satellite water-tracking system called Weather Track to automatically adjust watering based on weather conditions. This system is expected to save approximately 9 million gallons of water each year.

The Authority operates 2 acres of bioswales and 1.25 acres of bioretention swales in the northern side of SAN that have been installed in the last three years as part of the Green Build LID projects. The Authority also operates 6 small pet-service animal relief areas on the southern side of Terminal 2.

### 6.5.2 SOURCE CHARACTERIZATION

The Authority and commercial tenants generally use pesticides and/or herbicides to control pests and weeds. Although the use of pesticides and herbicides at SAN does not result in significant discharges to the ground, during rainfall events, pesticide and herbicide residuals that accumulate at the application sites can be washed into the storm drain system. However, based on the small quantities used at SAN and recent sampling results, this activity appears to have little potential for impacting storm water discharge.

### 6.5.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

The FMD has implemented an integrated pest management (IPM) program designed for landscaping services that encourages methods of pest control that use natural processes and chemicals and that limits the need for manmade biocides. The IPM program promotes the use of native plant species in the landscaped areas and around structures/buildings to (1) control pests without the need for pesticides and herbicides; (2) help minimize the application of fertilizers; and (3) limit the need for irrigation. In addition to encouraging minimal use of manmade biocides, the IPM program also ensures that the FMD uses and disposes of these chemicals properly. The FMD also maintains a minimal inventory of these chemicals as part of the IPM program. To reduce waste, the department strives to purchase only the amounts of these chemicals that are needed. Any unused fertilizers, pesticides, and herbicides are disposed of properly. The department files a "Monthly Summary Pesticide Use Report" with the State of California Department of Pesticide Regulation that states the amount of pesticides or herbicides used during the period. A copy of the report is also provided to the EAD.

The Authority has implemented an IPM program designed for food and beverage services that encourages methods of pest control that use mechanical and cultural controls to limit or remove the need for chemical controls such as manmade biocides. The IPM program uses cultural controls to target pest attractants such as food, water, and shelter using sanitation practices, education, and communication. Examples of cultural

controls include housekeeping within work areas, proper food storage, handling of food wastes, prevention of standing water, cleaning and drying of drains and mops, storage areas with clearance away from floor and walls, stock rotation, sealing of any penetrations (including replacing ceiling tiles), closing of outside doors, and maintenance of ventilation screens in good condition. Mechanical controls target building entry and repair to create physical barriers such as door sweeps or rubber trims, seal holes and cracks around piping and exterior walls, replace screens for windows and doors used for ventilation, install caps for open pipes, and apply traps (e.g., bait stations, snap traps, and glue boards). These controls are enforced with education and regular inspections. The Authority has partnerships with other organizations to continuously make improvements in their own and other IPM programs.

#### 6.5.3.1 Minimum BMPs

Table 6-6 describes the minimum BMPs for the management of pesticides, herbicides, and fertilizers. Descriptions of these BMPs can be found in Appendix B.

**Table 6-6. Minimum BMPs Requirements**

| | |
|---|---|
| SC01 Non-Storm Water Management | SC06 Outdoor Loading/Unloading of Materials |
| SC07 Outdoor Material Storage | SC09 Building and Grounds Maintenance |
| SC10 Employee Training | SC18 Housekeeping |
| SC19 Safer/Alternative Products | SR01 Spill Prevention, Control, and Cleanup |

#### 6.5.3.2 Schedule of Maintenance

The FMD stores small amounts of these materials in storage lockers at the runway generator area east of the old Commuter Terminal. FMD and EAD routinely inspect the pesticide, herbicide, and fertilizer storage areas, report required maintenance to FMD, and follow the IPM program. Commercial tenants do not store these materials at SAN. Landscaping contractors do bring in and apply small amounts of pesticides and herbicides in their activities. Commercial food and beverage tenants do not use pesticides. A janitorial contractor hired by the Authority is used to implement IPM mechanical controls, power wash, and handle municipal waste.

## 6.6 MANAGEMENT OF SPECIAL EVENT VENUES

### 6.6.1 BACKGROUND

As required by Provisions E.5.b of the Municipal Permit, the Authority requires the designation, implementation, and proper operation and maintenance of minimum BMPs for special events that are expected to generate significant trash and litter. Provision E.5.(c) of the Municipal Permit requires the Authority to inspect municipal and commercial areas and activities. This section discusses the potential pollutant sources and BMPs implemented to mitigate pollutant transport to the storm drain system from special event venues.

### 6.6.2 SOURCE CHARACTERIZATION

The size of several parking lots, along with the general public's familiarity with the location, makes SAN a potential venue for large special events. Although rare, some large events (such as the Rock-n-Roll Marathon) have made use of the Authority's parking areas. Potential pollutants of concern generated by large special events are trash, litter, and debris.

## 6.6.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

### 6.6.3.1 Minimum BMPs

Table 6-7 describes the minimum BMPs for the management of special event venues. Descriptions of these BMPs can be found in Appendix B.

**Table 6-7. Minimum BMPs Requirements**

| | |
|---|---|
| SC01 Non-Storm Water Management | SC06 Outdoor Loading/Unloading of Materials |
| SC08 Waste Handling and Disposal | SC09 Building and Grounds Maintenance |
| SC10 Employee Training | SC11 Lavatory Service Operation |
| SC12 Outdoor Washdown/Sweeping | SC16 Parking Lots |
| SC18 Housekeeping | SR01 Spill Prevention, Control, and Cleanup |

### 6.6.3.2 Additional Controls

Special events sponsored/coordinated by Authority staff and/or tenants are required to implement the BMPs listed above. If the special event sponsors/coordinators are not Authority staff or tenants, they must generally obtain Authority approval in the form of a "use permit." The conditions of the "use permit" typically include fencing and barricades as necessary to delineate the event area; appropriate signage regarding recycling, trash disposal, and storm water pollution prevention; an adequate number of recycling containers and trash cans; portable restrooms, as necessary; an adequate number of onsite event management staff to monitor and control trash and litter; an adequate number of onsite event staff to promptly clean up after the event; and street sweepers, as necessary.

## 6.7 POWER WASHING

## 6.7.1 BACKGROUND

As required by Provisions E.5.b.(1) of the Municipal Permit, the Authority requires the designation, implementation, and proper operation and maintenance of minimum BMPs for power washing to prevent pollutants from entering the storm drain system. Provision E.5.(c) of the Municipal Permit requires the Authority to inspect municipal and commercial areas and activities. This section discusses the potential pollutant sources and BMPs implemented to mitigate pollutant transport to the storm drain system from power washing activities.

## 6.7.2 SOURCE CHARACTERIZATION

Power washing is performed by janitorial services for the health and safety of passengers, visitors, and tenants. Power washing is done in high-volume areas of foot traffic or in waste collection and storage areas to remove debris, grime, stains, and odors from concrete sidewalks and metal storage bins areas. Wastewater generated from power washing can collect and direct pollutants to storm drains if BMPs are not applied correctly. Potential pollutants of concern are metals, trash and debris, sediments, oil and grease, bacteria, and floatables.

## 6.7.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

### 6.7.3.1 Minimum BMPs

Table 6-8 describes the minimum BMPs to control pollutants from power washing activities. Descriptions of these BMPs can be found in Appendix B.

**Table 6-8. Minimum BMPs Requirements**

| | |
|---|---|
| SC01 Non-Storm Water Management | SC08 Waste Handling and Disposal |
| SC10 Employee Training | SC12 Outdoor Washdown/Sweeping |
| SC18 Housekeeping | SR01 Spill Prevention, Control, and Cleanup |

### 6.7.3.2 Schedule of Maintenance

A contractor hired by the Authority power washes the terminal smoking areas and baggage claim sidewalks five times and the trash compactor area, dumpster areas at Terminal 1 and between Terminal 2 East and West, and grease container areas once a week. Another contractor hired by the Authority power washes the dumpsters and trash compactors quarterly and as needed. Collected air conditioning condensate is used for pressure washing operations at the rate of 80 to 100 gallons per day. Before starting the pressure washing operation, all runoff areas are identified and storm drains are protected with berms or mats. All trash, debris, and cigarette butts are swept up and removed. The path that the water will run is determined and the water is funneled using berms and bags into the vacuum/reclaim system. Pressure washers are equipped with water recollection and filtration systems for direct reuse. All wastewater is disposed of in the sanitary sewer.

## 6.8 MUNICIPAL WASTE MANAGEMENT

## 6.8.1 BACKGROUND

As required by Provisions E.5.b.(1) of the Municipal Permit, the Authority requires the designation, implementation, and proper operation and maintenance of minimum BMPs for municipal waste management that are expected to generate pollutants. Provision E.5.(c) of the Municipal Permit requires the Authority to inspect municipal and commercial areas and activities. This section discusses the potential pollutant sources and BMPs implemented to mitigate pollutant transport to the storm drain system from the collection, storage and transport of municipal waste.

The Authority implemented a single-stream recycling program in 2002, which has resulted in a 10-fold increase in recyclables collected, and therefore a reduction in the volume of waste generated. Additionally, commercial tenants are encouraged to participate in the food waste composting program. Participating tenants were given training in compost segregation and had their compost initially tested for contamination. Compost is collected and delivered to an offsite facility run by the City of San Diego commercial food waste composting program.

## 6.8.2 SOURCE CHARACTERIZATION

Municipal waste is generated from all kinds of users at SAN, from the public to employees and commercial tenants involved with food and janitorial services, as well as other tenants. Waste collection is in the form of bins, dumpsters, compactors, storage tanks, and grease traps. Potential pollutants of concern are trash and debris, landscape wastes, medical wastes, food wastes, oil and grease, degreasers, recyclables, metals, bacteria, and nutrients.

## 6.8.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

### 6.8.3.1 Minimum BMPs

Table 6-9 describes the minimum BMPs for the management of municipal waste. Descriptions of these BMPs can be found in Appendix B.

**Table 6-9. Minimum BMPs Requirements**

| | |
|---|---|
| SC06 Outdoor Loading/Unloading of Materials | SC08 Waste Handling and Disposal |
| SC10 Employee Training | SC18 Housekeeping |
| SR01 Spill Prevention, Control, and Cleanup | |

### 6.8.3.2 Schedule of Maintenance

Bins and dumpsters are placed throughout SAN to separate municipal waste into trash, recyclables, and food waste. A contractor is hired by the Authority to pick up, sort, and deliver municipal waste to the dumpsters and/or compactors regularly. The Authority contracts for pick-up and haul of municipal waste from compactors and dumpsters to an offsite facility one to three times a week. Drivers inspect the conditions of dumpsters and compactors daily and report any needed repair/replacement weekly. The food waste compactor is cleaned when serviced. The Authority has an e-recycling program where pickup of e-waste generated by tenants is quarterly. Pickup and disposal of grease is described in Section 6.4.3.

## 6.9 FACILITY INSPECTIONS

The EAD inspects all municipal and commercial areas and activities to ensure compliance with Authority Rules and Regulations, Storm Water Code (Article 8), this SWMP, the Municipal and Industrial Permits, other permits and approvals, and contracts and leases. This section discusses the processes and procedures for these inspections. In addition to these inspections, FMD and tenants conduct their own inspections as part of their routine facility activities.

## 6.9.1 INSPECTION FREQUENCY

The Municipal Permit requires the Authority to establish the inspection frequency for municipal and commercial areas and activities on the basis of the potential for non-storm water discharges and pollutant discharge in storm water and should reflect the priorities set forth in the WQIP. The frequency of inspections must also be appropriate to confirm that BMPs are being implemented to reduce the discharge of pollutants in storm water, effectively prohibit non-storm water discharges, and respond to public complaints. Based on these factors, and the required inspection frequency under the Industrial Permit, the Authority conducts monthly inspections of all municipal and commercial areas and activities, an annual comprehensive inspection, and unscheduled as-needed inspections of all Authority areas. Inspections are performed during daylight hours. Based on inspection findings, the Authority implements all follow-up actions necessary to require and confirm compliance with Authority Rules and Regulations, Storm Water Code (Article 8), this SWMP, the Municipal and Industrial Permits, other permits and approvals, and contracts and leases. Follow up action can include, but is not limited to, (1) education and outreach, (2) requirement to perform corrective actions, (3) re-inspection, (4) enforcement action, and (5) capital improvement projects. Follow-up actions are in accordance with the ERP as described in Section 6.10. Investigations from inspections of municipal and commercial areas and activities that determine whether any subsequent structural improvements need to be made will be brought forth through the capital improvement program, as described in Sections 4.0 and 6.12 and Appendix C of this SWMP. The Authority Board budget approval process is described in Section 10.0.

### 6.9.2 INSPECTION CONTENT

The inspection by the EAD includes (1) a review of the SWMP, any associated documentation, and the Authority's web-based database; and (2) an onsite visit to determine the actual field conditions. Review of the SWMP and the database can include past monthly and maintenance inspection reports, past annual comprehensive reports and site audits, SWMP appendices, and other supporting documents. The objectives of the inspection include:

- Visual inspection for the presence of actual non-storm water discharges
- Visual inspection for the presence of actual or potential discharge of pollutants
- Visual inspection for the presence of actual or potential illicit connections
- Verification that the description of the municipal and commercial areas and activities has not changed
- Assessment of compliance with this SWMP and the Authority's rules and regulations and code related to non-storm water and storm water discharges and runoff
- Assessment of the implementation of designated BMPs
- Verification of coverage under the Industrial Permit (if applicable)
- Documentation of follow-up and/or enforcement actions taken in accordance with the ERP if problems or violations are found

The EAD inspector carries the following forms and equipment during the inspection: (1) a tablet or cellular telephone, with a backup paper inspection form in case of technical difficulties, to be completed during the inspection (see Appendix G), and (2) a camera, to document site conditions.

After reviewing the documentation associated with the tenant or municipal area, including the inspection history and compliance status, the inspector evaluates conditions for that site, including:

- MS4 (storm drain inlets and basin areas)
- Materials, equipment, and waste storage areas
- All municipal and commercial areas and activities
- BMPs

Any non-storm water discharges and potential illicit discharges observed are followed up on and/or sampled through the dry weather monitoring programs described in Section 3.6 and Appendices D-1 and D-2 of this SWMP. The program includes designated monitoring locations and frequencies, field screening/sampling procedures, data interpretation techniques, and follow-up investigation and reporting procedures.

Inspection content for industrial users is described in Section 7.8.4 of this SWMP.

### 6.9.3 INSPECTION TRACKING AND RECORDS

The EAD inspector documents the results of the inspection, including any issues identified, via the Web-based database maintained by EAD. When issues are identified, the inspector can also capture images and location information (such as GPS coordinates) that can be stored in the Web-based database. The Web-based database allows the EAD to effectively and efficiency share the inspection results with the Authority and tenants, so that prompt corrective actions can be taken, and inspection results, corrective actions, and any follow-up inspections can be documented.

At a minimum, the inspection records include:

- Name and location of the facility or area
- Inspection and re-inspection date(s)
- Inspection method (e.g. onsite, drive-by, etc)
- Observations and findings from the inspection
- Description of any problems or violations found during the inspection
- Description of any enforcement actions issued in accordance with the ERP
- The date that problems and violations were resolved

The EAD inspector can discuss the results of the inspection with the Authority employee or tenant while onsite, on the phone, or in email or hard copy form. The Authority and tenants have access to the Web-based database to view additional inspection details and can provide information (text, maps, and pictures) regarding how and when issues have been resolved. The EAD inspector uses the information in the database provided by the Authority employees and tenants to confirm compliance, request further action, or escalate enforcement activities.

### 6.9.4 MAINTENANCE INSPECTIONS

Both the Authority EAD and the FMD inspect the storm drain system as part of their routine facility inspections. Several airport tenants also perform some MS4 and associated structure and/or parking lot inspections, either sporadically or as part of their own routine facility inspections. Airport tenants also share in maintaining the storm drains by working to prevent dirt, trash and other pollutants from entering the storm drain system. FMD performs the inspections and maintenance of certain sections of the sanitary sewer system (such as the grease traps and receptacles described in Section 6.4.1). The following standard procedures will be incorporated into maintenance and cleaning activities of all MS4 and structural treatment controls, road and parking facilities, and sanitary sewers, as applicable:

- Appropriate records will be kept for all maintenance activities. The inspection and waste removal records contain the following information as appropriate:
  - Date and time of the inspection
  - Name of the inspector
  - Items inspected
  - Location of facility inspected or cleaned
  - Condition of facility

- Overall amount (estimated in volume or dry weight) of material removed
- Type(s) of materials removed
- Disposal site(s)
- Problems noted
- Illegal/illicit connection detected
- Corrective action required
- Date corrective action was taken
- Photographs
- Additional field notes
- Drawings and maps

Records of maintenance inspections and activities can be found at the EAD or FMD.

Additional items to be investigated for maintenance of structural treatment control BMPs are in Section 6.2.3. Those items can be, but are not limited to, (1) condition of the BMP, filter media, or outlet; (2) trash/debris/sediment/floatables/oil and grease amount accumulated in the BMP; (3) presence of standing water and unpleasant odors in the BMP; (4) presence of blockages/obstructions in the inflow pathway; (5) vegetation cover height and type; or (6) presence of erosion or burrowing animals.

For MS4 maintenance and cleaning activities, appropriate disposal of the waste removed pursuant to applicable laws will be incorporated into the maintenance and cleaning activities. If wastes are suspected of containing hazardous materials, they will be sampled to determine any special handling and/or disposal needs. Non-emergency storm drain system facility repairs and construction will generally be scheduled to take place between May 1 and September 30 (dry season). Emergency repairs will be completed on an as-needed basis, regardless of time of year.

For MS4 and sanitary sewer maintenance and cleaning activities, appropriate practices will be implemented to ensure that maintenance and cleaning activities will not discharge wastes into the downstream storm drain system. The practices include gravelbagging/berming, capture of any runoff from cleaning activities, use of material beneath waste piles to prevent seepage of liquids, covering of waste piles to prevent water or wind transport of wastes, and blockage of downhill drainages and inlets to prevent entry of maintenance or cleaning wastes. If appropriate, the infrastructure component is referred for repair or replacement by maintenance crews or commercial tenants. Larger, more complex issues generally become recommendations for capital improvement projects as part of the Authority budget planning and approval process (described in Section 10.0). Sewer line improvements are the responsibility of MWWD.

For roads and parking facilities maintenance and cleaning activities, the Authority's Storm Water Code (see Appendix F of this SWMP) in Section 8.74 requires the Authority, or any persons owning or operating parking lots or impervious surfaces used for similar purposes, to clean the areas frequently and thoroughly and to prevent discharge of pollutants to the storm drain system by removing sweepings and debris.

## 6.10 ENFORCEMENT RESPONSE PLAN

All municipal and commercial areas and activities undertaken in the Authority's jurisdiction are required to maintain compliance with the Authority Rules and Regulations, Storm Water Code (Article 8), this SWMP, the Municipal and Industrial Permits, other permits and approvals, and contracts and leases. Provision E.6 of the Municipal Permit requires each Copermittee to develop an ERP to enforce its legal authority to achieve compliance. Each component of the ERP must describe the enforcement response approaches that will be

used to compel compliance. The description must include the protocols for implementing progressively stricter enforcement responses ("escalating enforcement").

This section describes the ERP as it applies to municipal and commercial areas and activities at SAN. In accordance with the Municipal Permit, the ERP has been updated concurrently, with submittal of the final San Diego Bay WQIP, so that the ERP aligns with WQIP strategies.

Any findings or violations noted during a site inspection by the EAD inspector will be discussed onsite or via the Web-based database with the Authority employee or tenants. The EAD inspector will discuss the issues and the inspection report will detail the corrective actions required and the timeframe in which corrective actions must be completed. Findings and violations will be described and recorded in the Web-based database (and will include photographs and other information, as applicable).

The Authority requires that corrective actions be started immediately and be completed prior to the next predicted rain event or within a maximum of 30 days, whichever is sooner. Depending on the nature of the finding, some corrective actions may take longer to complete. In those cases, the Authority employee or tenants will provide an explanation to the EAD inspector and a suggested timeframe for completion, which the EAD inspector will either agree upon, or will reject and provide a preferred timeframe. (Note: corrective actions must be completed within 24 hours for Enforcement Level 2 violations, as described below.) The Authority or tenants must document the corrective action taken by responding to EAD through the Web-based database. The Authority or tenants who cannot complete corrective actions in the time required must explain in detail through the Web-based database the specific causes of delay and propose a schedule for compliance. EAD has the sole discretion to grant an extension or pursue escalated enforcement. All corrective actions, as well as the time periods allowed and dates of actual completion, are recorded in the Web-based database.

The enforcement mechanisms used by the Authority are listed below. The Authority generally obtains compliance using the first four mechanisms listed here. The remaining enforcement mechanisms can be used, as necessary, to increase the severity of penalties and to compel compliance as soon as possible.

1) Verbal and written warnings

2) Written notices of violation

3) Written notices to clean, test, or abate

4) Orders to cease and desist (stop work orders)

5) Fines

6) Denial or revocation of permits, approval, and occupancy

7) Administrative and criminal penalties

8) Bonding requirements

9) Liens

The Authority's ERP for municipal and commercial areas and activities has two main levels of enforcement, with escalating enforcement measures utilized as necessary on a case by case basis, using the professional judgment of the Authority inspector. Enforcement is initiated and escalated by standard mechanisms for each level. The Authority has the discretion to initiate or escalate enforcement using any enforcement mechanism available, depending on the nature of the concerns, existing site and weather conditions, and actions by the Authority or tenants to control or correct the violation. The general enforcement process is outlined below:

- Enforcement Level 1 is initiated by the findings of a BMP deficiency in the BMP categories outlined in Appendix B, as appropriate for the particular activity or area being inspected. Also, a lack of SWMP implementation also initiates Level 1 enforcement. A verbal and/or written notification of the finding is used to initiate enforcement and corrective actions are expected to be observed during a reinspection after 30 days. Photos of the corrective action should be date-stamped to show completion within 30 days, or the agreed upon timeframe, if longer. If the finding is not corrected, a written notice of violation is issued to escalate enforcement. Upon the second re-inspection, if the finding is still not corrected, a second written notice of violation is issued, which may include an order to clean, test, or abate. Continued failure to correct the violation in the time allowed will result in a mandatory meeting between the Authority or tenants and the Director of the EAD to discuss the reasons for failing to comply and the means of resolving the issue.

- Enforcement Level 2 is initiated when a prohibited offsite discharge occurs. A written notice to clean, test, or abate, or an order to cease and desist (stop work order), is used to initiate enforcement and compliance is expected within 24 hours. If the violation is not corrected, the Authority or tenants must attend a mandatory meeting with the Director of the EAD to discuss the reasons for failing to comply and the means of resolving the issue.

Penalties for violations including failure to correct a finding or violation generally range as follows: (1) submittal of a written report that outlines the cause of the violation and the actions taken to prevent or minimize a reoccurrence of the violation; (2) attendance at a relevant training session and documentation of such; (3) attendance at an Authority-sponsored or presented relevant training session; (4) attendance at a mandatory meeting between the project proponent or project management team and the Director of the EAD; and (5) monetary penalties. The Authority may exercise the discretion to use any and all penalties available, depending on the nature of the concerns and actions by the project proponent or project management team to control or correct the violation.

### 6.10.1 RE-INSPECTIONS

The enforcement process requires the Authority or tenants to take corrective actions within a specified time period. To confirm that corrective actions have been completed effectively and on time, Authority employee or tenant corrective actions taken for findings or violations will be reviewed by EAD in the database and if needed, re-inspections will be performed. Re-inspections are also documented in the Web-based database in the same manner as are regularly scheduled inspections.

## 6.11 EDUCATION AND STAFF TRAINING

All Authority staff members attend an annual mandatory SWMP training session plus other trainings at meetings and other events, or as a result of enforcement proceedings, to cover items such as prohibited discharges, inspections, spill response, good housekeeping, implementation of minimum and other BMPs, and recordkeeping procedures. This annual training program is run by EAD. In addition, FMD staff members attend an annual mandatory training session on proper pesticide and herbicide storage, application, and disposal. For additional details on staff training, see Section 9.1.2 of this SWMP.

## 6.12 RETROFITTING AND REHABILITATION AREAS OF EXISTING DEVELOPMENT

The Authority has developed a program to retrofit areas of existing development within its jurisdiction when redevelopment and new development occurs, to address identified sources of pollutants and/or stressors that contribute to the highest priority water quality conditions in its WMA. The Authority will identify those areas of existing development that are candidates for retrofitting where feasible. These candidates may be used to reduce pollutants and/or stressors that contribute to the highest and focused priority water quality conditions. If retrofitting projects are deemed infeasible to address the highest and focused priority water quality conditions in the WQIP, the Authority will collaborate and cooperate with other Responsible Parties

in the WMA to identify, develop, and implement regional retrofitting projects adjacent to and/or downstream from the Authority's areas of existing development. For additional details on the program to retrofit areas, see Section 4.0 and the BMP Design Manual in Appendix C of this SWMP.

There are no streams, channels, and/or habitats in areas of existing development within the Authority's jurisdiction. Therefore, Municipal Permit Provision E.5.e.(2) is not addressed in this SWMP.

## 6.13 MUNICIPAL COMPONENT EFFECTIVENESS ASSESSMENT

The Authority has developed internal and external effectiveness assessment programs to evaluate the Authority staff, Board, and tenant compliance with water quality issues. The Authority's Effectiveness Assessment component is described in Section 11.2 of this SWMP.

## 6.14 MUNICIPAL COMPONENT PROGRAM REVIEW AND MODIFICATION

The Authority has reserved this section to identify and document future changes to the Municipal Component of the SWMP. Section 13.0 of this SWMP addresses the program modifications made to the March 2008 version of the SWMP to bring this document into compliance with the renewed Municipal and Industrial Permits.