SAN STORM WATER MANAGEMENT PLAN

June 2015
Amended January 2022

San Diego County
Regional Airport Authority
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San Diego, CA 92138
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www.san.org

SAN DIEGO INTERNATIONAL AIRPORT
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BACK OF COVER

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

INTER-OFFICE COMMUNICATION

Date: June 27, 2003

To: Thella F. Bowens
President/CEO

From: Ted Sexton
Vice President, Operations

Subject: Authorization to Sign National Pollutant Discharge Elimination System (NPDES) Documents

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NPDES Permits (including General NPDES Permits) require submission of various reports and certifications, which must be prepared and signed by a principal executive office or duly authorized representative. A person is a duly authorized representative if: (1) the authorization is made in writing by the executive officer and (2) a copy of the authorization is retained as part of the permit records for each facility. The authorized representative must be the individual or position having overall responsibility for environmental matters.

This is to request your approval, evidenced by your signature below, authorizing the Director of Environmental Affairs for the Authority to serve as the duly authorized representative for purposed of executing all documents related to the NPDES Permit requirements.

Thella F. Bowens
President/CEO
San Diego County Regional Airport Authority

30 June '03
Date

Cc: Paul Manasjan, Director, Environmental Affairs
Zane Gresham, Morris & Foerster

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STORM WATER MANAGEMENT PLAN
FEBRUARY 2022

STATEMENT OF CERTIFICATION

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.

Brendan Reed (Feb 22, 2022 17:16 PST)
Signature

Feb 22, 2022
Date

Brendan Reed
Name

Director of Planning & Environmental Affairs
Title

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EXECUTIVE SUMMARY

Amendment 3 to the San Diego County Regional Airport Authority (Authority) Storm Water Management Plan (SWMP) was developed during the period from October to December 2021, with final updates completed in January 2022. The amendment reflects results reported in the Water Quality Improvement Plan (WQIP) Annual Reports including any strategy adjustments, and updates to the Jurisdictional Runoff Management Program (JRMP) and the Storm Water Pollution Prevention Plan (SWPPP).

The Authority was created by state legislation to operate the San Diego International Airport (SAN), and to lead the regional strategic air transportation planning effort. As of January 1, 2003, the Authority became the new owner and operator of SAN, a role previously held by the San Diego Unified Port District. Because of this transfer of responsibility, the Authority was required to obtain its own coverage under the appropriate permits and to prepare the associated documentation required as part of the National Pollutant Discharge Elimination System (NPDES) permit program of the Clean Water Act.

This SWMP was prepared by the Authority in accordance with the requirements of two NPDES storm water permits:

- California State Water Resources Control Board Water Quality Order No. 2014-0057-DWQ, as amended in 2015 and 2018, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, *General Permit for Storm Water Discharges Associated with Industrial Activities* (Industrial Permit); and

- RWQCB, Order No R9. 2013-0001, as amended by Order No. R9-2015-0001 and R9-2015-0100, NPDES No. CAS0109266, *NPDES and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region* (Municipal Permit).

Pursuant to these permits, this document serves as a SWPPP in terms of the Industrial Permit and a JRMP document in terms of the Municipal Permit. WQIP goals and strategies also have been incorporated into the SWMP, as part of the JRMP. The permits requiring these documents and the relationships between them are shown in Figure ES.1.

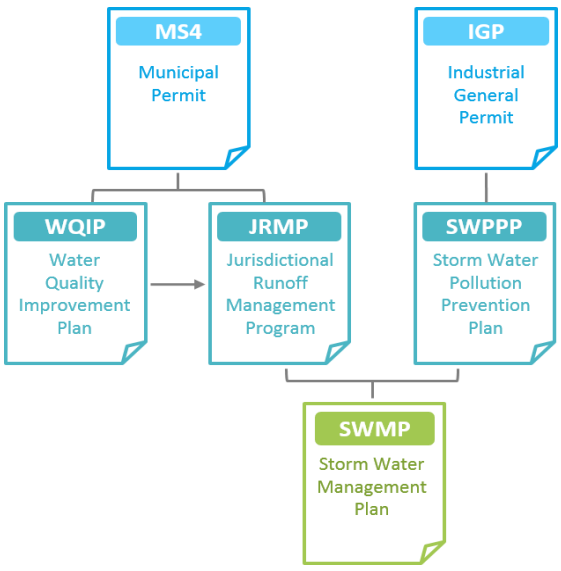

Figure ES 1. Relationship between Permit Required Documents and Storm Water Management Plan

The Authority is subject to the requirements of the Industrial Permit because it operates SAN. Airports that include maintenance, cleaning, and deicing operations require coverage under the permit; however, only those portions of the facility involved with operations associated with industrial activity are required to be addressed. For example, those involved with mechanical repairs, fueling, deicing, etc. The Industrial Permit requires a Permittee to develop a SWPPP for the facility that is covered by the permit, which identifies and evaluates sources of pollutants from the industrial activities at that facility and identifies, describes, and implements best management practices (BMPs) to reduce or prevent the discharge of those pollutants.

The Authority is subject to the Municipal Permit because it owns and operates an MS4 and the RWQCB has determined that coverage under this local permit is the most appropriate method of regulating the Authority's MS4 discharges (rather than coverage under the statewide general small MS4 permit or an individual permit). The Municipal Permit requires an agency listed under the Municipal Permit (Copermittee) to develop comprehensive programs, collectively referred to as a JRMP, to reduce and eliminate the pollutants entering and discharging to its storm drain systems. JRMPs are required to address numerous aspects of a Copermittee's operations, including the management of the lands under its jurisdiction, and approval of development, maintenance, and education. A Copermittee is also required to identify BMPs that must be implemented for the Copermittee's areas and activities, including, among others, industrial, commercial, and construction areas and activities under the Copermittee's jurisdiction.

Because the requirements of the two permits overlap so extensively, the Authority has chosen to address the documentation requirements of the two permits in a single, comprehensive document, namely, this SWMP.

The SWMP addresses the Municipal Permit requirements of the JRMP document by serving as an informational document that provides a written account of the overall program to be conducted by the Authority to comply with the Municipal Permit. It complies with the Industrial Permit requirements of a SWPPP by describing potential pollutant sources, the BMPs implemented to address them, and other Industrial Permit requirements.

The various sections of this document and the permit requirements that they address are summarized below. The organization of these sections is based on a standardized format developed and agreed upon by the Municipal Permit Copermittees and storm water management approaches that have been developed as guidance by the Copermittees, the County of San Diego's Project Clean Water, and the U.S. Environmental Protection Agency. However, compared with the other Copermittees and MS4 communities, the Authority is unique in that it has no residential uses and owns all of the land under its jurisdiction; therefore, this SWMP is different with respect to organization and approach. It has also been adapted to reflect reorganization under the 2013 Municipal Permit and has been updated to incorporate strategies from the WQIP for the San Diego Bay Watershed Management-Area, developed under Provision B of the Municipal Permit.

The SWMP includes the following elements:

- **Executive Summary** – In response to the reporting requirements of the Municipal Permit, the SWMP contains an Executive Summary, which clearly and concisely describes the purpose and major elements of the SWMP.

- **Signed Certified Statement** – The SWMP contains a signed certified statement that addresses the certification requirements of the Industrial Permit and Municipal Permit.

- **Introduction, Section 1.0** – This section briefly describes the Authority and its environmental setting, and provides regional and general vicinity maps and the Authority's legislative background. The section also outlines the component of this SWMP and describes the storm water drainage system at SAN.

- **Administrative and Legal Procedures, Section 2.0** – This section identifies the departments and staff that conduct urban runoff management activities. The purpose of this section is also to identify and describe relevant legal authorities and enforcement tools.

- **Non-Storm Water Discharges/Illicit Discharge Detection and Determination, Section 3.0** – This section addresses Provision E.2 of the Municipal Permit and Section III of the Industrial Permit, including identifying all potential authorized and unauthorized non-storm water discharges, BMPs in place to control or eliminate those discharges, reporting of illicit discharges, spill response and prevention measures, dry weather monitoring, and inspection and enforcement.

- **Development Component, Section 4.0** – This section addresses the Development Planning Component for New Development and Redevelopment requirements in Provision E.3 of the Municipal Permit. It discusses the Authority's development and environmental review processes and the incorporation of storm water management into those processes, and enforcement procedures.

- **Construction Component, Section 5.0** – This section addresses the Construction Component requirements in Provision E.4 of the Municipal Permit, including the description of approval processes, inventory and prioritization of construction activities, implementation of construction BMPs, and inspection and enforcement.

- **Municipal and Commercial Component, Section 6.0** – This section addresses the requirements of the municipal and commercial components in Provision E.5 of the Municipal Permit, including an inventory and prioritization of municipal and commercial activities and areas, characterization of potential pollutant sources from these activities and areas, implementation of BMPs, and inspection and enforcement.

- **Industrial Component, Section 7.0** – This section addresses the requirements of the Industrial Components in Provision E.5 of the Municipal Permit and Sections X.D.1, X.D.2, X.F, X.G.1, X.G.2, and X.H.1 through 4, of the Industrial Permit, including the pollution prevention team, an inventory and prioritization of industrial activities and areas, characterization of potential pollutant sources from these activities and areas, authorized and unauthorized non-storm water discharges, implementation of BMPs, exceedance response actions, and inspection and enforcement.

- **Residential Component, Section 8.0** – There are no residential land uses or activity areas within the Authority's jurisdiction. For this reason, the SWMP contains no discussion of activities conducted by the Authority relative to the Residential Component of the Municipal Permit.

- **Public Participation and Education Component, Section 9.0** – This section addresses the training requirements of the Industrial Permit and the requirements in Provision E.7 of the Municipal Permit. It discusses education for Authority staff, airport tenants, and the public, as well as mechanisms for the public to participate in the implementation of the Authority's SWMP.

- **Fiscal Analysis Component, Section 10.0** – This section addresses the requirements of Provision E.8 of the Municipal Permit, including methods to secure funds for storm water programs, the strategy for developing a Fiscal Analysis, and annual reporting.

- **Effectiveness Assessment Component, Section 11.0** – As required by the Municipal Permit, this section discusses a strategy to assess the effectiveness of the Authority's SWMP through water quality assessments, various levels of program assessment, and program review and modification. It also includes assessments of monitoring results required to fulfill the requirements in Section XII of the Industrial Permit.

- **Reporting, Section 12.0** – This section outlines reporting required by the Municipal Permit, including JRMP and WQIP annual reports and updates, and the Industrial Permit, including Annual and Exceedance Response Action reports.

- **Modifications to the SWMP, Section 13.0** – The section provides the modifications made to the previous SWMP to meet the requirements of the new Municipal Permit and the new Industrial Permit.

- **Conclusions and Recommendations, Section 14.0** – This section is included in response to Municipal Permit Attachment B requirements.

- **References, Section 15.0** – This section provides a list of documents referred to during the preparation of this SWMP.

- **Appendices** – The appendices to the SWMP contain supporting information such as Authority regulations, detailed BMP information, the Authority's BMP Design Manual, and monitoring programs. Of specific relevance to permit requirements, Appendix D (Monitoring Programs) addresses the Monitoring Program requirements of Section X.I of the Industrial Permit and the dry and wet weather monitoring requirements of the Municipal Permit.

TABLES

FIGURES

APPENDICES

Acronym/Abbreviation	Definition
303(d) list or listed	Clean Water Act Section 303(d) list of impaired water bodies
°F	degrees Fahrenheit
ACP	alternative compliance project
ADC	Airport Design and Construction
AFFF	aircraft firefighting foam
Air Ops	Airside Operations
Annual Evaluation	Annual Comprehensive Facility Compliance Evaluation
AOA	aircraft operations area
ARFF	Airport Rescue and Fire Fighting Facility
ASBS	Area of Special Biological Significance
AST	aboveground storage tank
ATCT	Air Traffic Control Tower
Authority	San Diego County Regional Airport Authority
Authority Board	San Diego County Regional Airport Authority Board of Directors
Basin Plan	Water Quality Control Plan for the San Diego Basin
BAT	best available technology economically achievable
BCT	best conventional pollutant control technology
BMP	best management practice
BOD	biological oxygen demand
CASQA	California Stormwater Quality Association
CDO	Cease and Desist Order
CEDEN	California Environmental Data Exchange Network
CEO	Chief Executive Officer
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
COD	chemical oxygen demand
Copermittee	An agency listed under the Municipal Permit Provision B.1
CRDC	Centralized Receiving and Distribution Center
DAR	Duly Authorized Representative
DO	dissolved oxygen
DQO	data quality objective
DSA	disturbed soil area
EIR	Environmental Impact Report
ELG	Effluent Limitation Guideline
ERA	Exceedance Response Action
ERP	Enforcement Response Plan
ESA	Environmentally Sensitive Area
FAA	Federal Aviation Administration
FBO	Fixed-Base Operations
FMD	Facilities Management Department
FOD	foreign object damage
FSF	Fuel Storage Facility
GIS	geographic information system
GPS	Global Positioning System

Acronym/Abbreviation	Definition
GSE	ground support equipment
HA	hydrologic area
HAS	hydrologic sub-area
HU	hydrologic unit
HVAC	heat, ventilation, and air conditioning
IDDE	illicit discharge detection and elimination
Industrial Permit	SWRCB Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities
IPM	integrated pest management
JAL	Japan Airlines
JRMP	Jurisdictional Runoff Management Plan
LEED	Leadership in Energy and Environmental Design
LID	low-impact development
LRP	Legally Responsible Person
MB	method blank
MBAS	Methylene Blue Active Substance
MEP	maximum extent practicable
MS	matrix spike
MS4	municipal separate storm sewer system
MSD	matrix spike duplicate
MSGP	Multi-Sector General Permit
Municipal Permit	RWQCB Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES No. CAS0109266, National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds Within the San Diego Region
MWWD	Metropolitan Wastewater Department
NAICS	North American Industry Classification System
NAL	numeric action level
NEC	No Exposure Certification
NGO	non-governmental organization
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSWD	non-storm water discharge
OWS	oil-water separator
P&EAD	Planning and Environmental Affairs Department
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PDP	Priority Development Project
PGA	pollutant-generating activity
PIT	Project Intake
Port of San Diego	San Diego Unified Port District

Acronym/Abbreviation	Definition
QISP	Qualified Industrial Storm Water Practitioner
QSE	qualifying storm event
QSP	Qualified SWPPP Practitioner
QTA	quick turn-around
RARE	Rare, Threatened, or Endangered Species Beneficial Use
RCC	Rental Car Center
Responsible Party	A San Diego Bay Watershed Management Area Copermittee named in the Municipal Permit Provision B.1
RFF	Remote Fueling Facility
RON	remain-overnight
ROWD	Report of Waste Discharge
RPD	relative percent difference
RWQCB	California Regional Water Quality Control Board, San Diego Region
SAN	San Diego International Airport
SMARTS	Storm Water Multiple Application and Report Tracking System
SIC	Standard Industrial Classification
SPCC	Spill Prevention, Control, and Countermeasure
SSMP	Strategic Stormwater Master Plan
Standard Format	Standardized Format for Jurisdictional Urban Runoff Management Plan
Subchapter N	40 Code of Federal Regulations Chapter I Subchapter N
SUSMP	Standard Urban Storm Water Mitigation Plan
SWAMP	Surface Water Ambient Monitoring Program
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Storm Water Quality Management Plan
SWRCB	California State Water Resources Control Board
TMDL	total maximum daily load
TPH	total petroleum hydrocarbon
TSS	total suspended solids
TTWQ	threat to water quality
UPS	United Parcel Service Co.
USEPA	United States Environmental Protection Agency
UST	underground storage tank
WDID	Waste Discharge Identification
WMA	Watershed management area
WMAA	Watershed Management Area Analysis
WPCP	Water Pollution Control Plan
WQE	Water Quality Equivalency
WQIP	Water Quality Improvement Plan
WTAP	weather-triggered action plan

1.0 INTRODUCTION

1.1 BACKGROUND

The San Diego County Regional Airport Authority (Authority) was established by the California Legislature as a local regional government entity with authority to operate the San Diego International Airport (SAN), a role previously the responsibility of the San Diego Unified Port District (Port of San Diego). Among various other duties, the San Diego County Regional Airport Authority Act (Assembly Bill 93, 2001) provided language in the Public Utilities Code that granted the Authority the responsibility for developing and managing all aspects of the airport facilities that it operates. Relevant sections of the Public Utilities Code were amended by the Legislature in 2002 (Senate Bill 1896) to establish the date on which responsibility for airport management would be transferred from the Port of San Diego to the Authority, to ensure that trusteeship of the lands underlying the airport were retained by the Port of San Diego, and to modify the responsibilities of the Authority. The amendments required the Port of San Diego to execute a 66-year lease with the Authority that transferred title and ownership of all real property interests and improvements, including above and below ground utilities, to the Authority. The legislative amendments also made the Authority responsible for all applications to other governmental agencies and for all approvals, permits, authorizations, or agreements of any kind affecting or relating to the property governed by the lease. As such, the Authority is responsible for managing storm water at the airport and for complying with laws, regulations, and permits related to storm water management activities.

This introductory section outlines the purpose of this document, provides an overview of the Authority and the Authority's obligations to manage storm water runoff at the airport, and presents the environmental setting of the airport.

On January 1, 2003, the Authority became the owner and operator of SAN and was required to obtain coverage under the applicable sections of the National Pollutant Discharge Elimination System (NPDES) permit program of the Clean Water Act and to prepare any associated documentation that was required.

The Port of San Diego was first required to manage storm water runoff at SAN by NPDES Permit No. CAS0108758, which established storm water management requirements through the California Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. 90-42 for the municipal separate storm sewer system (MS4) owned and operated by the County of San Diego, the incorporated cities within San Diego County, and the Port of San Diego. NPDES Permit No. CAS0108758 was first renewed in 2001 by RWQCB Order No. 2001-01. With the creation of the Authority and the transfer of SAN operations to the Authority in January of 2003, the RWQCB determined that the Authority itself was now subject to NPDES Permit No. CAS0108758. As such, the RWQCB amended Order No. 2001-01 and required the Authority to implement the storm water management activities required by the permit and to prepare and submit the appropriate documentation. In August of 2003, the Authority submitted the SAN Storm Water Management Plan (SWMP) as documentation of permit compliance. NPDES Permit No. CAS0108758 was renewed again by RWQCB Order No. R9-2007-0001 in 2007, which specifically named the Authority as a Permittee. The municipal NPDES permit was most recently reissued in 2013 by RWQCB Order No. R9-2013-0001 (NPDES Permit No. CAS0109266), as amended by RWQCB Order No. R9-2015-0001 and R9-2015-0100. The Authority is again named as a Permittee. This document is presented to fulfill the Jurisdictional Runoff Management Plan (JRMP) requirements of this permit.

Since 1992, operations at SAN have also been subject to NPDES Permit No. CAS000001, a state-wide General Permit to Discharge Storm Water Associated with Industrial Activity, established by California State Water Resources Control Board (SWRCB), Water Quality Order No. 91-13-DWQ. Certain activities are defined as "industrial activities' subject to NPDES Permit No. CAS000001, and those defined activities include, among others, aircraft maintenance, cleaning, and deicing operations. Thus, certain activities at SAN require coverage under the permit. The permit requires a Permittee to develop a Storm Water Pollution

Prevention Plan (SWPPP) for the facility that identifies and evaluates sources of pollutants arising from industrial activities and that identifies and describes the best management practices (BMPs) implemented to reduce or prevent the discharge of those pollutants. At that time, the Port of San Diego filed a Notice of Intent (NOI) to comply with NPDES Permit No. CAS000001 (see Appendix A). NPDES Permit No. CAS000001 was subsequently renewed in 1997 by SWRCB Order No. 97-03-DWQ. In September of 2002, with the transfer of SAN from the Port of San Diego to the Authority scheduled for January 1, 2003, the Port of San Diego filed a Notice of Termination from permit compliance for SAN and listed the Authority as the new facility operator (Appendix A). In March of 2003, the Authority filed a NOI to comply with SWRCB Order No. 97-03-DWQ (Appendix A), and in August of 2003 prepared the SAN SWMP to comply with the permit. CAS000001 was most recently renewed in 2014 by SWRCB Order No. 2014-0057-DWQ, which became effective on July 1, 2015. This document is presented to fulfill the SWPPP requirements of this permit.

Presently, as the owner and operator of SAN, the Authority is subject to the requirements of the following two NPDES storm water permits:

- RWQCB Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES No. CAS0109266, *NPDES and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds Within the San Diego Region* (Municipal Permit), and
- SWRCB Water Quality Order No. 2014-0057-DWQ, as amended in 2015 and 2018, NPDES General Permit No. CAS000001, *General Permit for Storm Water Discharges Associated with Industrial Activities* (Industrial Permit).

In regard to Industrial Permit compliance, the primary Standard Industrial Classification (SIC) code for the site is 4581 Airports, Flying Fields, and Airport Terminal Services, and the Waste Discharge Identification (WDID) number for SAN under the Industrial Permit is 937I018035.

1.2 PURPOSE AND OBJECTIVES

As the owner and operator of the MS4 or storm drain system, the Authority is subject to the Municipal Permit and as the operator of SAN, the Authority is also subject to the Industrial Permit.

Required documents of the Municipal Permit are as follows:

- JRMP:
  - A collection of all jurisdictional runoff management operations and activities developed and implemented by the Authority;
  - A comprehensive program to reduce and eliminate pollutants entering and discharging from its storm drains;
  - Required BMPs to eliminate storm water pollution from activities and areas within its jurisdiction, including municipal, industrial, commercial, construction and new development/redevelopment areas and activities; and
  - Public participation and public education programs directed at storm water pollution prevention.
- Water Quality Improvement Plan (WQIP):
  - To target resources to address highest and focused priority water quality issues and not "all pollutants, all of the time" (https://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/wqip.html);

- Developed through collaborative efforts by the Authority with other agencies listed under the Municipal Permit (Copermittees) within the San Diego Bay watershed management area (WMA), which includes Pueblo San Diego, Sweetwater, and Otay, to identify and describe:
  - Highest and focused priority pollutants or water quality conditions and their sources;
  - Goals and strategies to address those pollutants or conditions;
  - Time schedules associated with achieving goals and implementing strategies; and
  - Monitoring and assessment to evaluate progress and adapt program.

Required documents of the Industrial Permit are as follows:

- SWPPP: identifies and evaluates sources of pollutants from industrial activities at SAN and identifies, describes, and implements BMPs to reduce or prevent the discharge of those pollutants.

Because the requirements of the Municipal Permit and the Industrial Permit overlap so extensively, the Authority has chosen to address the documentation requirements of the two permits with a single, comprehensive document, namely this SWMP. As an informational document providing a written description of the overall runoff management program conducted by the Authority, the SWMP addresses the Municipal Permit requirements for a JRMP. The SWMP also complies with the Industrial Permit requirements for a SWPPP, since it also describes potential pollutant sources at SAN and the BMPs implemented to address them.

This document has been prepared to update the June 2015 version of the SWMP in accordance with NPDES Permit No. CAS0109266 (Municipal Permit) as renewed in June 2013 by RWQCB Order No. R9-2013-0001 and amended by Order Nos. R9-2015-0001 and R9-2015-0100, and NPDES Permit No. CAS000001 as renewed in April 2014 by SWRCB Order No. 2014-0057-DWQ, which was effective from July 1, 2015, and amended in 2015 and 2018. The SWMP incorporates storm water management approaches that have been developed as guidance by the Municipal Permit Copermittees, the U.S. Environmental Protection Agency, the California Stormwater Quality Association (CASQA), and others. In addition, this SWMP incorporates the output from several elements of a special project conducted by the Authority in 2005 and 2006 entitled the Storm Drainage System BMP Program, enhanced and updated by strategies and BMPs outlined in the WQIP.

Several completed and ongoing environmental programs at SAN have informed this document, including a hydrology assessment; a hydraulic analysis and tidal surge study; a biannual Site Audit; a chemical emergency response evaluation; a Catastrophic Fuel Release Evaluation; the development of a new Storm Water Sampling Plan for SAN; and a BMP Recommendations Report. Many of the documents produced from these elements of the program are mentioned, discussed, or incorporated into this SWMP, as well as other subsequent documents. Finally, the SAN SWMP seeks to present information in a manner that is intended to facilitate understanding by Authority staff and SAN tenants.

This update to the SWMP meets the requirements of Provision E of the renewed Municipal Permit. The SWMP is intended to reduce the discharge of pollutants from the Authority's MS4 to the maximum extent practicable (MEP) and to prevent urban runoff discharges from the MS4 from causing or contributing to a violation of water quality standards. This update to the SWMP also meets the requirements of the Industrial Permit, including the requirement to implement BMPs that control potential pollutant discharges using best available technology economically achievable (BAT) for toxic and non-conventional pollutants and using best conventional pollutant control technology (BCT) for conventional pollutants.

SWMP ORGANIZATION

The content and organization of the SWMP is based, in large part, on a standardized format developed and agreed upon by the Municipal Permit Copermittees ("Standardized Format for Jurisdictional Urban Runoff

Management Plan" (Standard Format), as submitted to the RWQCB on July 24, 2007) to address sections D, G, H, I.1 and 5, and J.1a of the 2007 Municipal Permit. This standardized format has been modified to include elements of the renewed Municipal Permit; therefore, there are some differences between the original Standard Format and the layout of this document. The content and organization of the SWMP is briefly summarized below.

There are aspects of the SWMP that likely vary significantly from the JRMPs prepared by other Copermittees. These variations are due in part to the unique aspects of the Authority's governance, as well as the airport's unique geographic setting. While these factors will be discussed elsewhere in the SWMP, where applicable, the Authority is unique in comparison to most of the other Copermittees in that: a) the Authority controls all land uses through property leases or use agreements; b) there are no residential uses within the Authority's jurisdictional area; c) there are no hillsides within the Authority's jurisdictional area; and d) the SWMP incorporates SWPPP requirements of the Industrial Permit. The SWMP includes the following elements:

- **Executive Summary** – a clear and concise description of the purpose and major elements of the SWMP.
- **Signed Certified Statement** – a signed statement addressing the certification requirements of both the Industrial Permit and Municipal Permit.
- **Introduction** – an outline of the purpose of the document, an overview of the Authority and the Authority's obligations to manage storm water runoff at the airport, and a presentation of the environmental setting of the airport.
- **Administrative and Legal Procedures** – an identification of all departments and staff that conduct urban runoff management activities. This section also identifies and describes all relevant legal authorities.
- **Non-Storm Water Discharges/Illicit Discharge Detection and Elimination (NSWDs/IDDE)**– an identification of all potential NSWDs, and the BMPs in place to control or eliminate those discharges (as required by Section E.2 of the Municipal Permit and Sections III and IV of the Industrial Permit). Also, a description of mechanisms for reporting illicit discharges, spill prevention and response measures, and inspection and enforcement activities (as required by Section E.2 of the Municipal Permit and Sections X and XI of the Industrial Permit).
- **Development and Planning Component** – a description of the Authority's development and environmental review processes and the incorporation of storm water management elements into those processes (as required by Section E.3 of the Municipal Permit).
- **Construction Component** – a description of the approval processes, methods of generating an inventory and the prioritization of construction activities, the BMPs required to address construction activities, and construction activity inspection and enforcement (as required by Section E.4 of the Municipal Permit).
- **Municipal and Commercial Components** – a description of methods of generating an inventory and prioritization of municipal and commercial activities and areas, characterization of potential pollutant sources from these activities and areas, the BMPs required to address municipal and commercial activities, and inspection and enforcement (as required by Section E.5 of the Municipal Permit).
- **Industrial Component** – a description of methods of generating an inventory and prioritization of industrial activities and areas, characterization of potential pollutant sources from these activities and areas, the BMPs required to address industrial activities, and inspection and enforcement (as required by E.5 of the Municipal Permit). This section also presents the bulk of documentation required by Section X of the Industrial Permit regarding the development and implementation of a SWPPP.

- **Residential Component** – a brief explanation of the non-existent residential land uses or activity areas within the Authority's jurisdiction and the absence of storm water management program elements relative to the Residential Component (Section E.5) of the Municipal Permit.
- **Education and Public Participation Component** – a description of the program elements designed to address both the training requirements of the Industrial Permit and the education requirements of the Municipal Permit (Section E.7). The section discusses education for Authority staff, as well as tenants and the public. Also, a description of the mechanisms in place to enable the public to participate in the implementation of the Authority's SWMP.
- **Fiscal Analysis Component** – a description of the methods to secure funds for storm water programs, program expenditures and budgets, and the strategy for developing standardized fiscal analysis and annual reporting.
- **Effectiveness Assessment** – a discussion of the strategy to assess the effectiveness of the Authority's SWMP through water quality assessments, various levels of program assessment, WQIP assessments, and program review and modification.
- **Reporting** – a description of the reporting requirements under the renewed Municipal Permit and Industrial Permit.
- **Modifications to the SWMP** – an outline of the modifications made since the March 2008 version of the SWMP to meet the requirements of the renewed Municipal Permit and Industrial Permit.
- **Conclusions and Recommendations** – a discussion of any key conclusions or recommendations derived as a result of updating the SWMP in response to the renewed Municipal Permit and Industrial Permit.

1.3 ENVIRONMENTAL SETTING

SAN is located in San Diego County (see Figures 1 and 2) just north of downtown San Diego. The airport covers approximately 661 acres and operates as a domestic and international commercial airport. Airport operations at SAN currently include two main airline terminals, a fixed-base operations (FBO) facility, one main runway area, taxiways, and ancillary support facilities (including an aircraft fuel storage facility, a remote fueling facility, air cargo facilities, ground support facilities and operations areas), a wash-rack, overnight airplane parking areas, and the Airport Rescue and Fire Fighting Facility (ARFF). Figure 3 shows the layout of SAN, including boundaries, major structures, surrounding areas, direction of storm water flow, and surface waters.

SAN is located within the Pueblo San Diego hydrologic unit (908.00) of the RWQCB San Diego Basin Plan (1994). More specifically, SAN is located in the San Diego Mesa hydrologic area (908.20), Lindbergh hydrologic sub-area (HAS 908.21). The climate of the area is typical of the southern California coastal region. The adjacent Pacific Ocean has a moderating effect on temperatures. The average temperature is 71 degrees Fahrenheit (°F) with temperature extremes ranging from 40°F in the winter months to 80°F in the summer months. While the amount of rainfall varies year to year, the San Diego coastal area, has an average annual rainfall of about 11 inches, with the greatest rainfall occurring during the winter months. The rainy season in San Diego is considered to be October through May. Precipitation is sparse during the summer months. Occasionally, strong dry and northeasterly Santa Ana winds descend the mountain slopes to the east producing wind speeds in excess of 50 miles per hour over localized sections of the San Diego Basin, usually below canyons. The highest winds at SAN are in association with the winter and spring storms that invade southern California from the Pacific Ocean. During the summer months, low clouds, known as the "marine layer," are common in the late night and early morning hours due to the proximity to the Pacific Ocean.

Approximately 85 to 90 percent of the SAN property is covered by impervious surfaces consisting mainly of buildings and paved areas. The soils underlying SAN are generally undifferentiated bay deposits and

hydraulic fill material originating from San Diego Bay. The soil is described as undetermined in the Soil Hydrologic Groups map in the San Diego County Hydrology Manual. The elevation of SAN ranges from approximately 10 to 25 feet above mean sea level.

Storm water from SAN drains to San Diego Bay, portions of which are currently on the Clean Water Act Section 303(d) list of impaired water bodies (303[d] listed) for impacts due to polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), chlordane, lindane, indicator bacteria, and metals, as well as benthic community effects and sediment toxicity. The 2010 303(d) list includes copper as a pollutant impacting water quality in the marinas along Harbor Island and PCBs as a pollutant impacting water quality throughout the San Diego Bay. Runoff from the airport commingles with runoff from other sources and discharges into the waters along Harbor Island. There are four Toxic Hot Spots in San Diego Bay, one of which (namely, the Downtown Anchorage, near the foot of Grape Street) is located near outfalls associated with runoff commingled from SAN and other sources. In 2014, this area was the subject of Investigative Order R9-2014-0007, issued by the RWQCB. The SWRCB has designated San Diego Bay in its entirety as having Rare, Threatened, or Endangered Species (RARE) beneficial use in the San Diego Basin Plan (1994). Both the Sweetwater Marsh National Wildlife Refuge and the South Bay Unit of the San Diego National Wildlife Refuge are considered Areas of Special Biological Significance (ASBS), but neither is within close proximity to SAN.

1.4 OVERVIEW OF SITE DRAINAGE AND THE MS4

The majority of surface water runoff from SAN is conveyed via sheet flow into gutters and storm drain inlets. The storm water conveyance system consists of 15 outfall basins. Each basin is comprised of sub-basins that route flow to different sections of the infrastructure. The total system consists of approximately 192,000 linear feet of pipe and approximately 550 inlets discharging through 15 outfalls. Storm drainpipe sizes vary in diameter, according to their location in the storm drain system, from 4 to 84 inches in diameter. Storm water runoff flows from SAN through the storm water conveyance system and discharges through Outfalls 01 through 11 into San Diego Bay to the south of the airport, and Outfalls 12 through 15 into the Navy Boat Channel portion of San Diego Bay to the west. Flow in the majority of the storm drain system is intermittent and dependent on the amount of rainfall and subsequent runoff. Those portions of the MS4 that are closest to San Diego Bay receive seawater infiltration during high tides.

The Authority has completed several improvements to address environmental sustainability, storm water quality, and water conservation. The Centralized Receiving and Distribution Center (CRDC), completed in 2012, helps reduce traffic on the surrounding roadways by centralizing all truck deliveries of food, beverage, retail, and other goods. The Green Build, completed in August 2013, was the largest project in the history of the airport, expanding Terminal 2 with 10 new gates and adding a dual-level roadway for arrivals and departures. This project earned the Authority a Leadership in Energy and Environmental Design (LEED) Platinum certification, making the airport home to the first LEED Platinum certified commercial terminal in the world. The Fixed-Base Operator Complex project, completed in August 2014, constructed a bigger, more environmentally friendly FBO facility and is also expected to achieve LEED Platinum certification. The new developments also include many low-impact development (LID) BMPs, as detailed in the drainage basin descriptions.

More recently, the Authority has developed the new Facilities Management Department (FMD) building, operational since June 2020; the Airport Fueling Operations (AFO) area, operational since 2021; and the new cargo facility was completed and occupied by June 2021.

Below is a detailed description of each drainage basin located on the SAN property:

DRAINAGE BASIN 1

In the past, Drainage Basin 1 was occupied by the FBO facility serving general aviation aircraft (as opposed to regularly scheduled commercial passenger airlines). Following the North Side Improvements renovating and moving the FBO, this drainage basin now encompasses just a portion of the FBO public parking lot. Storm water runoff from adjacent properties to the east of SAN, flows in a westerly direction into Drainage Basin 1.

DRAINAGE BASIN 2

Following SAN drainage investigations and map updates, it was determined that Drainage Basin 2 was integrated with Drainage Basin 1, as the flows at the far eastern end of the runway (which contains a storm drain inlet and part of the vehicle service road that circles the perimeter of the airfield) were actually draining to the same outfall in Drainage Basin 1. Drainage Basin 2 in the SWMP maps was removed. Drainage Basin 2 used to include a lavatory waste disposal facility connected to the sanitary sewer, but this facility has been moved to Drainage Basin 8.

DRAINAGE BASIN 3

Drainage Basin 3 includes a portion of the Rental Car Center (RCC) and the FBO. The RCC spans two drainage basins, approximately one third of the parking garage structure is in drainage basin 3, with the remaining two-thirds in Drainage Basin 5. The RCC provides passenger automotive transportation to airport customers at one convenient location; it includes a parking garage that can house up to 5,000 vehicles, a customer service area, and a vehicle service station (quick turnaround [QTA] area). Only light maintenance is performed at the QTA area, activities include washing and fueling vehicles, oil changes, and tire rotations. Fuel, oil, and car wash solution are stored on site to perform vehicle maintenance. The RCC was classified as having no potential pollutant sources because the industrial activities performed on site are under the protected cover of the parking garage structure and pose no threat of exposure to storm water. As a result, they initially obtained a No Exposure Certification (NEC) and had their own ID number. Amendment No. 1 incorporated the RCC under the Authority's WDID number and permit coverage. No sampling occurs in the RCC's operating area because of its previously held NEC. The RCC's NEC ID number was 9 37NEC002567, though this has since been nullified because the RCC is now under the Authority's WDID number. To obtain an NEC from the SWRCB, an industrial site must be able to claim no exposure for eleven categories. These categories include residuals from machinery, materials/products from past activity, material/product loading/unloading, open/deteriorated/leaking containers, waste material, residuals from ventilation, residuals from spills/leaks, material handling equipment, outdoor storage, private roads/railways, and processed wastewater.

The FBO includes two office buildings, 5 hangars used for a passenger area, a cafe, storage for small corporate jets and private aircraft, and an area for aircraft maintenance. Aircraft lavatories are serviced by Signature and the lavatory waste is disposed of at the triturator. New LID BMPs were installed at the FBO as part of the North Side Improvements, including eight sections of permeable pavement with infiltration trenches, five bioswales, and one Contech Stormfilter. It also encompasses parts of the runway, taxiway and least tern nesting areas, and part of the airfield perimeter vehicle service road. Small aircraft are sometimes parked alongside the vehicle service road just south of the FBO. The area also includes aircraft parking and loading/unloading areas, aircraft refueling truck parking, and a vehicle and equipment maintenance shop with a hazardous waste accumulation area.

The FMD Building and parking lot located south of Admiral Boland Way drain to the new capture and re-use system. This development includes an underground concrete structure (cistern) comprised of a 160-foot diameter (retaining 8655 ft^3 of runoff) and existing bioswales that were selected to meet pollutant control requirements. This northside cistern was installed to capture stormwater runoff from the FMD Building and parking lot, and potential offsite storm drain facilities. At full capacity, it is designed to capture runoff from 77.8 acres. Currently it is capturing a maximum of 15.65 acres of runoff from the newly constructed FMD

Building and parking lot until additional cistern connections are installed, thereby increasing the drainage area captured by the system. The northside cistern's captured stormwater will be reused at the RCC car washing facilities. While the cistern connection to the RCC is being developed, the captured runoff in the northside cistern is temporarily being pumped to nearby bioswales at the RCC for retention/infiltration. The cistern overflow drains to Drainage Basin 3. Engineering as-builts are not yet available, but once completed, any changes to drainage basin delineations in the site maps will be updated. South of the new FMD building is an Authority equipment and materials storage area, referred to as the "boneyard," which provides storage for various parts and equipment.

DRAINAGE BASIN 4

Drainage Basin 4 is a small area in the southeastern portion of SAN encompassing parts of the southern taxiway areas and vehicle service road. The drainage basin also includes the nesting area for an endangered species of seabird, the California least tern (*Sterna antillarum browni)*, the RCC bus parking lot, and a taxi vehicle parking area containing multiple proprietary drain inlet filter BMPs. The RCC bus parking lot and the taxi vehicle parking area will be temporarily relocated in August 2022 to prepare for the East Solid and Liquid Waste Facility construction in the area. Taxi vehicle parking will be temporarily relocated to Drainage Basin 5 on the northside, and the RCC bus parking lot will be temporarily relocated to a southern portion of Drainage Basin 4.

DRAINAGE BASIN 5

A large portion of Drainage Basin 5 is utilized for vehicle parking and the RCC. It also encompasses parts of the runway, taxiway, least tern nesting areas, and portions of the vehicle service road. Drainage Basin 5 contains the majority of the operational area for three cargo carriers; the cargo carrier areas include loading/unloading materials, container storage, some vehicle and equipment maintenance, and office space. The southern edge of Drainage Basin 5 now extends to Harbor Drive and contains parking areas (with various newly installed BMPs, such as proprietary drain inlet filter BMPs), and the runway generator area where two 500-gallon diesel aboveground storage tanks (ASTs), a couple of small buildings, and an Authority materials storage area are located. Storm water runoff from adjacent properties to the north of SAN flows in a southerly direction into Basin 5.

DRAINAGE BASIN 5A

The new Airline Support Building (ASB) or cargo facility, having moved from Drainage Basin 7, is now located northeast of the intersection of North Harbor Drive and Liberator Way in drainage basin 5a. The facility includes an approximately 73,600 square-foot, two story warehouse building approximately 30 feet high. It includes outdoor loading and unloading of cargo at the front loading dock. On the back side of the ASB, there is a tenant provisioning truck loading area to supply trucks with food, drinks, or other equipment to take back to the terminals. There are multiple maintenance bays with roll up garage doors where maintenance is conducted indoors. Outdoor material storage includes mail carts, loading racks and other loading accessories such as wood/metal pallets, forklifts and other ground support equipment/vehicles, vehicle parts, and storage of hazardous waste accumulation in covered containers. Most of the hazardous materials are stored indoors within the maintenance/cargo bays. Stormwater runoff is captured into and treated by underground infiltration basins on the front and back side of the ASB. In the event the underground infiltration basins overflow, bypass is directed over a diversion weir and drains to Outfall 5a.

DRAINAGE BASIN 6

The northeastern side of Drainage Basin 6 contains a portion of the operational area for three air cargo carriers; activities performed by the cargo carriers in this area include loading/unloading cargo onto their airplanes, and container storage. Aircraft, vehicle, and equipment fueling, and maintenance are also conducted here. The Aircraft Fuel Storage Facility (FSF) is located on the northwest side of the drainage basin. There are two 1-million-gallon jet fuel ASTs within secondary containment located at the FSF, with an additional three 1-million gallon tanks being built. This facility is equipped with a 12,000-gallon oil-water separator (OWS) plus an 8,000-gallon holding tank to treat fuel spills. There are also jet fuel, diesel, and

gasoline loading and unloading areas with spill containment, an equipment pad with spill containment, gasoline and diesel underground storage tanks (USTs), and a foam equipment building with a 1,500-gallon AST containing a 3% aqueous foam concentrate. Although located on the opposite side of the runway from the FSF, Drainage Basin 6 also includes the airport Remote Fueling Facility (RFF) used to dispense fuel from the FSF to mobile aircraft refueling tanker trucks. The mobile refueling tanker trucks have the capacity to hold from 750 to 15,000 gallons, depending on the size of truck. The fuel reaches the RFF dispensers via an underground pipeline from the FSF. The RFF has four single-position refueler loading islands with spill containment, an OWS, one 3,000-gallon underground reclaimed fuel tank, and a 12,000-gallon capacity blind sump used to capture storm water runoff at the dispenser islands.

Just east of the FSF is the new 7,050 square-foot, one story Airport Fueling Operations (AFO) Building where indoor maintenance of Menzies fuel trucks is conducted. The AFO includes a parking lot, a truck movement area, two fuel truck parking areas that are bermed and sloped towards inlets installed with 100% Trash Capture Filters. A modified storm drain manhole just southwest of the AFO houses a Hydrocarbon Flow Filter (HFF) Oil Stop Valve Manifold System to prevent any unintentional discharges of oil from the fuel parking areas into the storm drain system. Menzies relocated to this new facility in June 2021.

The 90 Day Facility was put into service in 2016 and is the designated storage area for both solid waste and hazardous waste accumulation before waste is properly disposed. The 90 Day Facility is located between the ATCT and CRDC. The CRDC, located west of the ATCT, serves as a central delivery location for food, beverage, retail and other goods. This facility was constructed with several proprietary trench drain filter and grate inlet skimmer BMPs. The ARFF is located to the south of the FSF. The ARFF station participates in fire fighting vehicle and equipment testing at least once per year on a large concrete pad called the north ramp area, just to the east of the ARFF facility. The north ramp area drains through two OWSs. Also located in Drainage Basin 6 are portions of the runway, taxiways, and the vehicle service road. Solid waste from runway rubber removal is disposed of in the dewatering bin, located just east of the ATCT. Wastewater from the runway rubber removal, power washing of sidewalks, daily ramp scrubbing, and aircraft cleaning are disposed in the wash rack located in Basin 8. Solid waste generated by ramp sweeping has been dumped at the lined lowboy immediately southwest of the ATCT. However, the lowboy is being phased out in favor of the dewatering bins near the ATCT. Wastewater generated by ramp sweeping is disposed at the wash rack. A contractor is responsible for disposal of waste and wastewater generated in both the lowboy and the dewatering bin.

This drainage basin also includes the old Commuter Terminal ramp area and parking lots in the southern portion of the drainage basin. The Commuter Terminal now serves as the Authority Administration Building and no longer has flights arriving or departing. The ramp area is used occasionally for aircraft maintenance, equipment storage, and cargo related operations. Near the old Commuter Terminal are 140 and 190 gallon capacity diesel ASTs for the generators. A portion of the old Commuter Terminal ramp drainage is directed towards a storm drain inlet equipped with a 4,000-gallon capacity OWS. The parking lots were constructed with several treatment control and LID BMPs including hydrodynamic separators, permeable asphalt strips, and a high-rate media filter. Storm water runoff from adjacent properties, those to the north of SAN, flows in a southerly direction into Basin 6.

As of January 2021, the Transportation Network Companies (TNC) Lot and Cell Phone Lot that was previously in Drainage Basin 5a has moved over to Drainage Basin 6 and is currently pending relocation to Drainage Basin 14 due to the ongoing construction associated with the Terminal 1 expansion.

DRAINAGE BASIN 7

Drainage Basin 7 is currently undergoing construction for the Terminal 1 expansion project. The south side cargo facility, valet lot, Commuter Terminal short-term parking lot and access road, and the Menzies building were demolished in 2021. The Authority offices, the airport RFF, a vehicle wash rack, and a fuel truck parking area that drains into a 3,000-gallon OWS, are still located in this drainage basin. Menzies

relocated to the new AFO in Drainage Basin 6 in June 2021. In addition, the GSE maintenance, storage and cargo area moved to the new ASB cargo facility located in Drainage Basin 5a in July 2021.

DRAINAGE BASIN 8

The eastern portion of Drainage Basin 8 contains a trash compactor, recycling compactor, and a compost compactor. This area is used by the Authority, the airlines, and other tenants to dispose of trash, recyclables, and compost. The trash compactor, recycling compactor, and compost compactor are located within a bermed area. Drainage in the bermed area is discharged to the sanitary sewer. The Facilities Management Department (FMD) constructed a new sanitary sewer inlet at the bermed area in fall 2018, removed some sections of the old berm and extended the berm to prevent any illicit discharges (from power washing at the trash compactor/recycling compactor bermed area) to reach a storm drain. Additionally, a metal wall was constructed to prevent any overspray leaving the area. Washing is only permitted by FlagShip, which maintains the trash compactor area and washes trash and recycling tippers/bins. All wash water is discharged into the sanitary sewer.

To the north of the trash compacter area is a bermed vehicle and equipment wash rack, which has a closed loop system for collecting and recycling the rinse water, and aircraft lavatory waste disposal area (triturator). Drainage from both areas is directed to the sanitary sewer.

West of the trash compactor area is the Terminal 1 gate and ramp areas and building. Fueling, maintenance, de-icing, lavatory servicing, washing, and loading/unloading of passenger aircraft occur at the main terminal ramp. Approximately 350,000 gallons of jet fuel is brought to the Terminals 1 and 2 ramp area daily by the mobile refueling tankers and loaded by positive lock hose into the aircraft. There is also a 250-gallon diesel AST located on the roof of the terminal building. Aircraft maintenance equipment, vehicles, deicing fluids, hazardous waste accumulation areas, trash dumpsters, parts, and flammable materials storage lockers containing mainly oils and lubricants are stored under overhangs and around jet ways and gates in this area. One 3,000-gallon grease receptacle, plus several grease traps and smaller grease containers, are located next to the Terminal building to trap and/or collect grease from the airport restaurants. The receptacles and traps are linked to the sanitary sewer and are serviced regularly. The wastewater and grease from cleaning of the units are transported off site for processing and disposal to the sanitary sewer or to a landfill.

Drainage Basin 8 also encompasses parts of the runway, taxiway, vehicle service road, a generator and 425 gallon gasoline AST to the north of the vehicle service road on the north side of the runway and southwest of the ARFF facility. This drainage basin is currently under construction to build the proposed new Terminal 1 building and the Terminal 1 parking plaza.

DRAINAGE BASINS 9, 10, 11, AND 14

Runoff from the Terminal 2 access roads, as well as the majority of the terminal building, is captured in four drainage basins: 9, 10, 11, and 14 spanning from the east to the west, where the new dual-level roadway for arrivals and departures has been constructed as part of the Green Build. Drainage Basin 9 also partially includes, the central heating, ventilation, and air conditioning (HVAC) building and power plant building as well as materials and waste storage areas. Drainage Basins 9, 10, and 11 include the Terminal 2 Parking Plaza which was completed in May 2018. Drainage Basins 9, 10, 11, and 14 were revised in January 2022 after reviewing the as-builts for the Terminal 2 Parking Plaza. The small parking lot east of the parking plaza drains to Drainage Basin 11 while the parking area west of the Terminal 2 Parking Plaza drains to Drainage Basin 9. Storm water BMPs were installed in the original Terminal 2 east and west parking lots as part of the Green Build, including an acre of pervious pavers and bioswales, and three high-rate media filters which were retained when the Terminal 2 Parking Plaza was redeveloped on Terminal 2 east parking lot. The Terminal 2 Parking Plaza contains a 7.6-acre capture and reuse facility, known as the Stormwater Reuse Treatment System (SWRTS) that captures 100% of the storm water drainage on the third floor of the Terminal 2 Parking Plaza from an 85th-percentile of the 2-year storm event and routes it to the central HVAC building and power plant building. In the event of overflow, bypass is directed over a diversion weir and

drains within Drainage Basin 10. The system also includes one OWS to serve as a precautionary capture method for leaks and spills prior to runoff entering the capture and reuse facility.

As of January 2022, the TNC Lot and Cell Phone Lot in Drainage Basin 6 is currently pending relocation to Drainage Basin 14 due to the ongoing construction associated with the Terminal 1 expansion. The office buildings for Airport Design and Construction (ADC) in Drainage Basin 14 were relocated to an off-airport parcel by Liberator Way and North Harbor Drive.

DRAINAGE BASIN 12

The Terminal 2 East gate and ramp areas and part of the terminal building are located in Drainage Basin 12 and have very similar activities and storage as in the Terminal 1 gate and ramp areas in Drainage Basin 8 (described above). The Terminal 2 area has one 6,000-gallon and one 5,000-gallon grease receptacle, plus several grease traps. The OWS previously located northwest of Gate 41 is no longer in service. Trash dumpsters are present at Terminal 2 West and in between Terminal 2 West and East. Four emergency generators are located near the terminal areas, with a substation and 500 gallon diesel AST located at the west end of the runway. There are also two 240-gallon diesel ASTs located near Terminal 2.

DRAINAGE BASIN 13

Drainage Basin 13 is a small area in the far northwestern section of SAN, which covers the western end of the taxiway and portion of the vehicle service road. SAN's Engineered Material Arresting System, designed to prevent aircraft overruns, is also in Drainage Basin 13. Storm water runoff from adjacent properties to the north of SAN, flows in a southerly direction into Basin 13.

DRAINAGE BASIN 15

Drainage Basin 15 encompasses the Terminal 2 West gate and ramp areas and part of the terminal building and has very similar activities as Drainage Basin 12. Drainage Basin 15 has one 5,000 gallon and two 2,000 gallon grease receptacles as well as several grease traps located alongside the terminal. A 250-gallon diesel AST is located alongside the terminal building, with an additional 1,000 gallons of diesel storage available within the generator. Drainage Basin 15 also includes aircraft overnight parking and GSE storage area. As part of the Green Build, a high-rate media filter and 1.75 acres of permeable artificial turf were added on the airfield at the far western end of Drainage Basin 15.

OFF-AIRPORT LEASED PARCELS

As of January 2022, the Authority has temporarily leased eight off-airport parcels from the Port of San Diego in coordinated efforts to shift operations and facilities for the Terminal 1 Expansion Project. Three of the parcels are located by Pacific Highway and five are located on Liberator Way or on Harbor Island Drive.

Liberator Way Parcels:

The Authority has leased three parcels, one leased from the Port of San Diego, and two subleased from the Port of San Diego's tenants, Avis and Hertz, respectively. The triangular parcel leased from the Port will contain the new Authority ADC department trailers and the trailers for the Terminal 1 Expansion Joint Venture Team, also known as the Arrive Team, which consists of Turner, FlatIron, and Gensler. The two parcels to the west are combined as the Arrive and ADC employee parking. The triangular parcel drains to Convair Lagoon while the two other parcels drain to outfalls at the East Basin.

Harbor Island Parcels:

The Authority leased from the Port the "elbow" lot located on Harbor Island Drive. In the western half of the lot, ABM, a parking management company, operated in the area up to December 2021. Since then, it has been serving as a construction employee parking lot for the Arrive team contractors. The ABM lot drains north and towards the east to an outfall at the East Basin. The eastern half of the lot is currently operated by

Kirschcohn for their employee parking. Kirschcohn oversees the commercial facilities just east of the Harbor Island Peninsula that are not related to the Authority. The Kirschcohn parking lot drains south to an outfall at the North San Diego Bay.

The parcel north of the "elbow" lot is leased from the Port and is subleased to their tenant, Avis. Avis primarily uses the lot for storage of vehicle overflow from their primary operations located by Liberator Way. The Avis lot drains towards the east, into the East Basin, connecting with Outfall 7.

Pacific Highway Parcels:

The Port of San Diego is subleasing from the Authority a parcel located on Pacific Highway and Sassafras St as their Port of San Diego employee parking lot. The parcel located on Pacific Highway and Palm Street as well as an adjacent lot to the north, located on California Street and W. Laurel St., are leased by the Authority from the Port of San Diego to be used as a consolidated Airport Bus Shuttle Operations Center. Currently there are no operations at these two parcels. Both lots drain towards the west and onto Pacific Highway via scuppers, then drain into curb inlets that ultimately drain to Outfall 1.

2.0 ADMINISTRATIVE AND LEGAL PROCEDURES

This section identifies and describes the Authority departments and staff that conduct and/or oversee activities related to SWMP implementation and urban runoff management. This section also addresses the roles and responsibilities of these departments and individuals as required by Provision E.3.e.(b) of the Municipal Permit and Section X.D.1 of the Industrial Permit. Enforcement response procedures can be defined differently, per Provision E.6.d.(1) of the Municipal Permit, and are described for each component in Sections 3.0, 4.0, 5.0, 6.0, and 7.0 of this SWMP.

2.1 DEPARTMENT ROLES AND RESPONSIBILITIES

In June 2015, the Authority filed an NOI to comply with the Industrial Permit. The Authority has elected to assume a lead role with regard to the Industrial Permit. Airport tenants that conduct industrial activities are also subject to the requirements of the Industrial Permit and must comply with the Authority direction regarding storm water management at SAN. This approach (1) conforms to federal regulations, (2) was the preferred option of the SWRCB, and (3) allows for implementation of consistent storm water pollution prevention measures throughout the entire airport site. This approach provides for consistency in the programs that the Authority has developed and implemented to comply with the requirements of both the Industrial Permit and the Municipal Permit.

Several Authority departments share responsibility for the implementation of the SAN SWMP, specifically: the Planning and Environmental Affairs Department (P&EAD), FMD, the Airside & Terminal Operations (A&TO) Department, the ADC Department, the Aviation Security and Public Safety Department, and the Revenue Generation & Partnership Development Department. The Harbor Police Department is also available to assist with enforcement as necessary. The Directors and key staff members from these departments are integral for efforts to eliminate and reduce pollutants in the storm water that discharges from SAN. Together, they ensure that the Authority complies with the NPDES Permits.

The P&EAD assumes a lead role in performing the following tasks required by the Industrial Permit:

- Conducting meetings with and training of appropriate stakeholders;
- Ensuring the proper implementation of required BMPs;
- Conducting wet and dry season monitoring;
- Conducting wet weather storm water sampling;
- Conducting annual facility inspections of all industrial areas and activities;
- Preparing and submitting an annual report to the RWQCB;
- Uploading the SWPPP section of the SWMP into the Storm Water Multiple Application and Report Tracking System (SMARTS) database;
- Submitting monitoring results onto SMARTS; and
- Revising and updating the SWPPP/SWMP annually, or as necessary.

The P&EAD also assumes a lead role in ensuring that the following tasks are conducted as required by the Municipal Permit:

- Prohibiting all identified illicit discharges;
- Prohibiting and eliminating illicit connections to the MS4;

- Controlling the discharge of spills, dumping, or disposal of materials other than storm water into the storm drain system at SAN;
- Controlling the contribution of pollutants in discharges of runoff associated with industrial and construction activity;
- Requiring compliance with Authority ordinances, permits, contracts, or orders related to storm water management and/or control, and using escalating enforcement mechanisms as necessary to ensure compliance;
- Controlling the contribution of pollutants from one portion of any shared MS4 to another portion of the MS4 through interagency agreements among Copermittees;
- Conducting all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits;
- Requiring the use of BMPs to prevent or reduce the discharge of pollutants into the MS4 to the MEP;
- Requiring and/or preparing documentation of the effectiveness of BMPs implemented to reduce the discharge of pollutants into the MS4 to the MEP;
- Preparing WQIP reports and assessments in coordination with other San Diego Bay WMA Responsible Parties (Responsible Parties);
- Providing the SWMP, WQIP, Annual Reports, and monitoring results to the public; and
- Informing the public of WQIP and SWMP updates and public comment periods or meetings.

The Director of the P&EAD has been duly authorized by the President/Chief Executive Officer (CEO) of SAN as the position having responsibility for overall operation of facilities and activities regulated by the Industrial Permit and Municipal Permit. As such, the Director of the P&EAD signs and certifies all reports and other information required by an NPDES Permit or requested by the United States Environmental Protection Agency (USEPA), SWRCB, or RWQCB.

The FMD conducts many of the municipal activities described in Section 6.0 of this SWMP. The A&TO staff and FMD staff are generally first on scene for spills and other facility maintenance and repair issues. The P&EAD assumes responsibility for determining the need for and reporting, as necessary, any significant incidents of noncompliance to the appropriate agencies. Planning and Noise Division of P&EAD and the ADC are generally responsible for project planning, design, and approval, with assistance as necessary from the P&EAD. The A&TO Department helps the P&EAD coordinate activities with the airport tenants and service providers. The P&EAD and the A&TO Department generally assume responsibility for assisting airport tenants and service providers in maintaining compliance with the Industrial Permit and Municipal Permit. These departments help Authority staff and airport tenants formulate and implement BMPs to prevent storm water contamination from their operational areas/activities.

Table 2-1 presents the departments with roles and responsibilities for implementing various elements of the SAN SWMP. Table 7-1 in Section 7.0 presents the key Authority personnel, listed by department, directly involved with or assisting in the implementation of the SWMP. Figure 8 presents the Authority's organizational chart.

Table 2-1. Authority Departmental Roles and Responsibilities for SWMP Implementation

SWMP Element/Program/Activity	P&EAD – Environmental Affairs	P&EAD - Planning & Noise Mitigation	Facilities Management	Airside & Terminal Operations (A&TO)	Airport Design and Construction	Aviation Security and Public Safety	Harbor Police Department
Administration	P						
Reporting	P	S	S	S	S		
Water Quality Monitoring	P						
Water Quality Sampling	P						
Illicit Discharge Detection and Elimination	P	S	S	S	S	S	
Education and Outreach	P						
Public Participation	P	S		S			
Program Assessment	P						
Fiscal Analysis	P						
Engineering/Design	S				P		
Development Planning/Review/Approval	S	P		S	S		
Construction Inspection/Oversight	P				S		
Municipal Facilities Maintenance/Oversight	S		P				
Airfield Activities Oversight	S			P		S	
Terminal Activities Oversight	S			P		S	
Industrial/Commercial Activities Inspection/Oversight	P		S	S			
Enforcement	P			S	S		S

P= primary responsibility
P&EAD = Planning and Environmental Affairs Department
S = supporting responsibility
SWMP = Storm Water Management Plan

Numerous airport tenants conduct a variety of airport-related support functions at SAN and this SWMP addresses the industrial and commercial activities conducted by these tenants. All tenants and airport service providers with a SIC of air transport or related services are considered Copermittees with the Authority on the Industrial Permit. As such, they play a role in ensuring effective implementation of the SAN SWMP. Tenancy agreements between the Authority and airport tenants contain clauses that require the Airport tenant

to abide by all Authority, local, state, and federal laws and regulations. It is the airport tenants' responsibility to comply with the Industrial Permit and to respond to Authority requests for permit information regarding tenants' facilities, operations, or activities. Each airport tenant or service provider conducting industrial or commercial activities and operations is furnished a copy of this SWMP and is obligated to comply with its requirements. Airport tenants and service providers are also responsible for ensuring that hired contractors or subcontractors comply with the SWMP.

In its management role for the implementation of the SAN SWMP, the Authority ensures that airport tenants comply with the requirements of both the Industrial Permit and the Municipal Permit. Airport tenants that implement their own storm water management programs are still required to comply with the SAN SWMP for operations/activities conducted within the boundaries of SAN.

2.2 LEGAL AUTHORITY

On September 20, 2002, the Authority Board of Directors (Authority Board) adopted Resolution No. 2002-02 amending the Authority Codes to include Section 8.70 to 8.79, known as the "San Diego County Regional Airport Authority Storm Water Management and Discharge Control" and the "Storm Water Code" (Article 8.70). The Authority Codes were further amended by Resolution No. 2018-005 on February 7, 2019.

The Storm Water Code sets forth uniform requirements and prohibitions for dischargers and places of discharge to the storm water conveyance system, and receiving waters, necessary to adequately enforce and administer all laws and lawful standards and orders or special orders, that provide for the protection, enhancement, and restoration of water quality. With respect to environmental and economic considerations, the Authority seeks to reduce pollution entering San Diego Bay from storm water discharges and to protect and promote the public health, safety, and general prosperity of its tenants and the public, and to protect the natural resources and environment by attaining the following objectives as stated in the Storm Water Code:

- Reduce storm water runoff pollution;
- Reduce NSWDs to the storm water conveyance system and receiving waters to the MEP;
- Comply with all federal and state laws, lawful standards, and orders applicable to storm water and urban runoff pollution control;
- Prohibit any discharge that may interfere with the operation of, or cause damage to, the storm water conveyance system, or contribute to the impairment of the beneficial use or violation of a water quality objective of the receiving waters;
- Prohibit illegal discharges and illicit connections to the storm water conveyance system and receiving waters, including prohibiting over-irrigation as an illegal discharge; and
- Develop and implement effective educational outreach programs to educate the public, Authority employees, and tenants on issues of storm water and urban runoff pollution prevention.

The Storm Water Code provides for the prevention, control, treatment, diversion, and regulation of discharges to the storm water conveyance system and receiving waters, through a program of education and enforcement of general and specific prohibitions and requirements. The Storm Water Code applies to all dischargers and places located on property within the Authority's jurisdiction that discharge storm water or non-storm water into any storm water conveyance system or receiving waters. The Authority's President/CEO or his or her designee administers, implements, and enforces the provisions of the Storm Water Code.

Any person violating any of the provisions or failing to comply with the mandatory requirements of the Storm Water Code is guilty of a misdemeanor unless such violation or failure is declared to be an infraction by the Code.

In August 2016, the RWQCB audited the Authority's SWMP to assess whether the Authority storm water management program was in compliance with the requirement of the 2013 Municipal Permit for the active and effective implementation of the over-irrigation prohibition. The 2013 Municipal Permit was significantly changed, compared to previous permits, with the removal of irrigation runoff as a non-prohibited NSWD, provided that it was not identified as a significant source of pollutants, in which case it was required to implement appropriate controls to reduce the discharge of pollutants to the MEP. However, the RWQCB identified NSWDs associated with over-irrigation as a significant source of pollutants to receiving waters, hence included it as a prohibited NSWD in the 2013 Municipal Permit. In the RWQCB Audit Report, they found the Authority had not updated its municipal ordinance to reflect the requirements of the MS4 Permit amended in 2015. In response to the audit report finding, the Authority Board adopted Resolution No. 2018-0053, as outlined above to highlight the prohibition of over-irrigation and identification of over-irrigation as an illegal discharge.

2.2.1 CERTIFICATION OF LEGAL AUTHORITY

Attached at the front of this SWMP is the authorization from the Authority's President/CEO to assign the Director of the P&EAD as the Duly Authorized Representative (DAR) [40 Code of Federal Regulations (CFR) 122.22(b)] i.e., the position having responsibility for overall operation of facilities and activities regulated by the Industrial Permit and Municipal Permit, and a signed, certified statement [40 CFR 122.22(d)] from the DAR, as required by Municipal Permit Attachment B, Provision 1.k. As such, the Director of the P&EAD signs and certifies all reports and other information required by an NPDES Permit or requested by the USEPA, SWRCB, or RWQCB.

2.3 ENFORCEMENT

The Authority's P&EAD staff members (and other appropriate Authority staff members) are required to inspect Authority, airport tenant operations/activities, and construction areas and activities for compliance with all storm water pollution prevention requirements. If an incidence or evidence of noncompliance is observed, the inspector has the authority to enforce storm water pollution prevention requirements by implementing the Authority Storm Water Code. An escalation in enforcement is typically applied by Authority staff to stop and correct incidents of noncompliance, as described below.

Depending on the severity of the violation, enforcement can range from a verbal warning to civil and/or criminal court actions. In addition, if the noncompliance is the result of negligence by Authority staff, the enforcement action may include disciplinary action. If the noncompliance is a result of negligence by a contractor to the Authority, the enforcement action could range from a verbal warning to withholding of contract payment, assessment of fines, civil and/or criminal court actions. The Authority enforcement program seeks to accomplish the following goals:

- Limit environmental impacts resulting from noncompliant activities or conditions;
- Educate the regulated community (Authority staff, airport tenants and service providers, and contractors);
- Promote compliance with laws and regulations;
- Return violators to compliance in a timely manner;
- Initiate and conclude enforcement activities in a timely manner;
- Penalize violators, as appropriate, and deprive violators of any significant benefit gained from violations;
- Prevent any business from having an unfair business advantage through noncompliance; and

- Treat similar airport tenants, service providers, and contractors equally and consistently with regard to the same types of violations.

The Authority employs several enforcement mechanisms and penalties to ensure compliance with its ordinances. The levels of enforcement and associated penalties are typically issued and escalated at the discretion of the enforcement officer with consideration of relevant circumstances regarding the violation.

The P&EAD will conduct follow-up inspections to determine whether corrective actions have been taken in accordance with the corrective action orders, the Authority's ordinances, and the minimum BMP requirements. Escalating enforcement procedures, which provide flexibility in the establishment of appropriate compliance time frames, are implemented as needed. The procedures for escalated enforcement specific to each component are described in their corresponding sections (Sections 3.7, 4.9, 5.6, 6.10, and 7.0). If a significant and/or immediate threat to water quality (TTWQ) is observed, appropriate actions will be taken to require the responsible party to immediately cease the discharge and/or correct the situation.

Sections 2.3.1 through 2.3.9 discuss typical escalating enforcement procedures.

2.3.1 VERBAL WARNINGS

A common initial method of requesting corrective action and enforcing compliance is a verbal warning from the inspector to the responsible party. Verbal warnings are often sufficient to achieve correction of the violation, often while the inspector is present. The inspector will notify the responsible party and the facility/operation supervisor of the violation and will document the violation and the notification to the project supervisor in the inspection file. A specific time frame for correcting the problem and a follow-up inspection date will be documented by the inspector. In judging the degree of severity, the inspector may also take into account any history of similar or repeated violations by the responsible party at this or other sites.

2.3.2 WRITTEN WARNINGS

If the deficiency noted in a verbal warning is not corrected by the next inspection, or if the severity of the violation is such that a verbal warning is not considered sufficient, a written notice will be issued that describes the infraction that is to be corrected, the time frame for correction, and the date for a follow-up inspection. A copy of the notice should be given to the responsible party and facility/operation supervisor and placed in the inspection file. If the violation has been corrected to the satisfaction of the inspector, the inspector will document compliance in the inspection file.

2.3.3 DISCIPLINARY ACTIONS

If an Authority employee is responsible for the noncompliant activities, the Authority may choose to take disciplinary actions against the employee in accordance with established procedures.

2.3.4 ENFORCEMENT OF CONTRACTS, LEASES, OR USE PERMITS

If a contractor or developer is performing contract work for the Authority, the Authority may use the provisions within the contract to correct noncompliant activities or conditions. The Authority generally adds language into all contracts that gives the right to refuse payment, stop work (without time penalties), or revoke the contract if the contractors' performance does not comply with appropriate permits, laws, regulations, and ordinances. Similarly, for tenant projects, the Authority may use provisions within the lease or use permit to correct noncompliant activities or conditions. This mechanism is typically preferred to other legal actions.

2.3.5 CEASE AND DESIST ORDER

If the deficiency noted in an initial warning is not corrected by the follow-up inspection, or if the severity of the violation is such that a warning is not considered sufficient, a Cease and Desist Order (CDO) may be issued. A warning may be insufficient if, for example, there is a significant and/or immediate TTWQ. CDOs are administrative orders issued to cease and desist all activities that may cause or contribute to a violation and to stop illegal discharges and/or illicit connections. CDOs typically require compliance within a designated time frame and remedial or preventive actions to prevent the violation from recurring. Conditions that might warrant such action include observation of runoff from an industrial or commercial area or activity that is not reasonably controlled by protective measures or observation of a failure in BMPs that results in or potentially results in a release of pollutants to a degree that may substantially degrade water quality.

2.3.6 NOTICE AND ORDER TO CLEAN, TEST, OR ABATE

These are written and/or verbal orders to perform activities listed in the Authority's Storm Water Code. Activities may include development of a SWPPP, BMP implementation, testing, monitoring, and/or mitigation.

2.3.7 FINES

Costs or fines associated with pollution detection and abatement, in addition to other penalties, are the responsibility of the property owner or tenant.

2.3.8 CIVIL AND CRIMINAL COURT ACTIONS

Civil and criminal court actions may be taken under Section 8.76 of the Storm Water Code, the State Porter Cologne Water Quality Act, or the Federal Clean Water Act.

Section 8.76(d) of the Storm Water Code makes a violation either a misdemeanor offense or an infraction, at the discretion of the Executive Director. Infractions are punishable by a fine not to exceed $100 for the first violation and $250 for the second violation of the same provision within a year of the first violation. Third violations are misdemeanor offenses subject to a fine and/or imprisonment.

The Authority may use civil and/or criminal court action under the Porter-Cologne Water Quality Act, the Federal Clean Water Act, or other applicable statute as an enforcement mechanism. Civil and criminal court actions under the State Porter-Cologne Water Quality Act may result in fines ranging from $100 to $15,000 per day per violation and $10 to $20 per gallon of polluted discharge. Penalties under the Federal Clean Water Act may result in fines ranging from $2,500 to $50,000 per day per violation and/or one to three years of imprisonment for first offenders. Repeat offenders face double the penalties.

2.3.9 BONDING REQUIREMENTS AND LIENS

An authorized enforcement official may use any means allowed by law to establish a lien against the owners' or tenants' property or establish bonding requirements to ensure that a violation is corrected and penalties and /or abatement, pollution detection, or administrative costs are recovered.

3.0 NON-STORM WATER DISCHARGES/ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.1 INTRODUCTION

This update to the Authority SWMP is in response to the requirements of the Municipal Permit and Industrial Permit. The Authority prohibits all types of NSWDs into its MS4 unless the discharge is authorized by a separate NPDES permit, or identified as not being a source of pollutants and all appropriate BMPs are implemented to prevent impacts to storm water quality. The Authority is required by both the Municipal Permit and Industrial Permit to eliminate unauthorized or illicit NSWDs. If the Authority identifies an NSWD as a significant source of pollutants to the waters of the United States (receiving waters), both permits require the Authority to prohibit the discharge. Although certain NSWDs are authorized under the Industrial Permit if the Authority, in its SWPPP, (1) identifies the sources of pollution that potentially affect the quality of authorized NSWDs, and (2) describes and ensures the implementation of BMPs to reduce or prevent pollutants in authorized NSWDs using BAT and BCT, the Authority will implement the discharge prohibitions in the Municipal Permit that are deemed stricter than the Industrial Permit, unless a separate NPDES Permit is obtained for certain NSWDs.

Section 3.0 addresses the requirements in Municipal Permit Provisions D.2.b, D.4.b(1), E.2, and E.7.a and Industrial Permit Sections III, IV, VI, X.G.e, X.H.1 and XI.A for NSWDs and IDDE.

The provisions of the Municipal Permit require the Authority to:

- D.2.b—Develop an MS4 Outfall Discharge Monitoring Program to detect discharges from MS4 outfalls during dry weather. The monitoring program requirements include field screening and non-storm water persistent flow monitoring. Section 3.4.4 and Appendix D-2 have been prepared to address this requirement.
- D.4.b.(1)—Assess and report on the effectiveness of the MS4 Outfall Discharge Monitoring Program in effectively reducing, eliminating, or prohibiting NSWDs and illicit discharges, and identify any modifications needed to increase the effectiveness of the program. Section 3.5 and Appendix D-2 have been prepared to address this requirement.
- E.2.a—Establish an IDDE program, in accordance with the WQIP strategies, to actively seek and eliminate illicit discharges and connections to the storm drain system. This program provides a framework for the detection, investigation, follow-up, and elimination of reported violations. The program is designed to be adaptive and to allow the Authority to periodically assess data, re-evaluate areas of concern, and concentrate control methods and corrective actions as necessary in those areas. Municipal Permit Provision E.2.a requires all NSWDs to be treated as an illicit discharge unless the discharge is (1) authorized under a separate NPDES permit, (2) identified as not being a source of pollutants and all appropriate BMPs are implemented to prevent impacts to storm water quality, such as the use of BMPs designed to prevent these discharges from contacting pollutants, reduce the flow or volume of the discharges, or prevent these discharges from reaching the storm drain system. Section 3.2 and Appendix D-2 have been prepared to address this requirement.
- E.2.b—Update its MS4 inventory and drainage area map to include all areas of the MS4 that are owned, operated, or maintained by the Authority; locations of discharge inlets and all outfalls; known connections with other MS4s; any segments of receiving water within the Authority's jurisdiction that are affected by its MS4 discharges; and locations of any outfalls with non-storm water persistent flow, identified during outfall field screening. Authority employees and contractors are encouraged to be vigilant in identifying and reporting illicit discharges and connections during daily activities. Reporting should include a public hotline and email address to receive reports. The Authority should

designate and implement response procedures for illicit discharges to prevent discharges from reaching the MS4, including control of spills, prevention of seepage from sanitary sewers to the MS4, and coordination with other upstream Copermittees to prevent illicit discharges from entering the MS4 within the Authority's jurisdiction. Sections 3.2, 3.3.4, and 3.4 have been prepared to address this requirement.

- E.2.c—Implement a strategy for field screening the MS4 within its jurisdiction to detect NSWDs and connections to the MS4. Section 3.3 and Appendix D-2 has been prepared to address this requirement.
- E.2.d—Develop a timeline and prioritization for responding to reports or observations of NSWDs or illicit discharges, using the criteria detailed in Municipal Permit Provision E.2.d.(1). These criteria include whether or not pollutants are (1) classified as highest or focused priority pollutants in the WQIP; (2) listed on the 303(d) list for the receiving water; (3) used within the Authority's jurisdiction; (4) causing an exceedance to a Numeric Action Level (NAL), or (5) posing a threat to human health or the environment. The Authority must implement investigation procedures to determine the validity of each report, prioritize responses, respond and investigate, attempt to identify the source of the discharge, assess and reclassify discharges if necessary, and maintain records of the report and actions taken. The Authority is also required to implement procedures to eliminate illicit discharges and connections to its MS4 by enforcing its legal authority and implementing the Enforcement Response Plan (ERP) required under Municipal Permit Provision E.6. A summary of the NSWDs and illicit discharges, investigations, and actions to eliminate the discharges must be included in the WQIP. Sections 3.2 and 3.4 have been prepared to address this requirement.

The Industrial Permit requires the Authority to:

- III.—Effectively prohibit all NSWDs, with the exception of those authorized by the Industrial Permit or by other NPDES permits. Section 3.1 has been prepared to address this requirement.
- IV.A—Ensure that all authorized NSWDs, as listed in Industrial Permit Section IV.A, meet the conditions described in Industrial Permit Section IV.B. Section 3.1 has been prepared to address these requirements.
- IV.B—Ensure that any authorized NSWDs do not violate the San Diego Basin Plan, applicable water quality standards, or any applicable Authority ordinance or code, and implement BMPs to reduce or prevent pollutants in authorized NSWDs as well as the flow or volume of those discharges to the MEP, by using BAT/BCT. The Authority should conduct monthly visual observations of authorized NSWDs to ensure effective BMP implementation and report all authorized NSWDs in the Industrial Annual Report. Sections 3.3.4 and 7.5.3 have been prepared to address this requirement.
- VI—Ensure that authorized NSWDs, once they reach receiving waters, do not contribute to water quality impairments, cause exceedances in water quality standards, threaten human health or the environment, or contain pollutants that contribute to overall pollution or public nuisance. Sections 3.3.1 and 7.5.4 have been prepared to address this requirement.
- X.G.e—Evaluate the facility to identify all NSWDs, including their sources and drainage areas. The Authority is required to evaluate all drains connected to the MS4 and describe the process by which all unauthorized NSWDs have been eliminated. The Authority is also required to include in this SWMP the source, quantity, frequency, characteristics, and drainage areas of all NSWDs, and whether they are authorized or unauthorized. Sections 7.7 and 7.8.4.2 have been prepared to address this requirement.
- X.H.1—Implement and maintain a minimum set of BMPs to prevent spills and illicit discharges from entering the storm drain system and to minimize authorized NSWDs. Sections 3.1, 3.2, and 7.7.4 have been prepared to address this requirement.
- XI.A—At least once per month during daylight hours of a dry weather period, visually observe each drainage area, including all industrial operational areas and equipment and material storage areas, for

authorized or unauthorized NSWDs and the associated BMPs and their effectiveness. These monthly visual observations and facility inspections actively seek to detect and eliminate illicit discharges, and help determine the effectiveness of BMPs in minimizing and controlling authorized NSWDs. Sections 3.3.4 and 7.8.4.2, and Appendix D-1 have been prepared to address this requirement.

3.1.1 NON-STORM WATER DISCHARGES

NSWDs are addressed as illicit discharges unless they are identified as a discharge authorized by a separate NPDES permit, or identified as a category of NSWDs or flows that are addressed pursuant to the following requirements from the Municipal Permit Provision E.2:

- NSWDs to the MS4 from the following categories are addressed as illicit discharges unless the discharge has covered or meets the exception criteria under NPDES Permit No. CAG919003 (Order No. R9-2015-0013, as it may be amended or reissued) for discharges to surface waters within the San Diego Region:
  - Uncontaminated pumped ground water;
  - Discharges from foundation drains;
  - Water from crawl space pumps, and
  - Water from footing drains.
- NSWDs from water line flushing and water main breaks to the MS4 are addressed as illicit discharges unless the discharge has coverage under NPDES Permit No. CAG679001 (Order No. R9-2010-0003, as it may be amended or reissued) or NPDES General Permit No. CAG140001 (Order 2014-0194-DWQ, as it may be amended or reissued). This category includes water line flushing and water main break discharges from water purveyors issued a water supply permit by the California Department of Public Health or federal military installations. Discharges from recycled or reclaimed water lines to the MS4 are addressed as illicit discharges, unless the discharges have covered under a separate NPDES Permit.
- NSWDs to the MS4 from the following categories that are addressed as illicit discharges only if the Authority or the RWQCB identifies the discharge as a source of pollutants to receiving water:
  - Diverted stream flows;
  - Rising ground water;
  - Uncontaminated ground water infiltration to MS4s;
  - Springs;
  - Flows from riparian habitats and wetlands;
  - Discharges from potable water sources;
  - Discharges from foundation drains; and
  - Discharges from footing drains.
- NSWDs to the MS4 from the following categories are controlled by the requirements given below through Authority ordinances, codes, or requirements, or similar means. NSWDs to the MS4 from the following categories not controlled by the requirements given below through Authority ordinances, codes, or requirements are addressed as illicit discharges:
  - Air conditioning condensation:
    - The discharge of air conditioning condensation should be directed to landscaped areas or pervious surfaces, or to the sanitary sewer, where feasible.

  - Firefighting discharges to the MS4 are addressed as illicit discharges only if the Authority or the RWQCB identifies the discharge as a significant source of pollutants to receiving waters. Firefighting discharges to the MS4 not identified as a significant source of pollutants to receiving waters, are addressed, at a minimum, as follows:
    - Non-emergency firefighting discharges:
      - Building fire suppression system maintenance discharges (e.g., sprinkler line flushing) to the MS4 are addressed as illicit discharges unless BMPs are implemented to prevent pollutants associated with such discharges to the MS4; and
      - Non-emergency firefighting discharges (i.e., discharges from controlled or practice blazes, firefighting training, and maintenance activities not associated with building fire suppression systems) are addressed by a program, to be developed and implemented by the Authority, to reduce or eliminate pollutants in such discharges from entering the MS4.
    - Emergency firefighting discharges:
      - The Authority will develop and encourage implementation of BMPs to reduce or eliminate pollutants in emergency firefighting discharges to the MS4s and receiving waters within its jurisdiction. During emergency situations, priority of efforts should be directed toward life, property, and the environment (in descending order). BMPs should not interfere with immediate emergency response operations or impact public health and safety.

- If the Authority or RWQCB identifies any category of NSWDs listed under Provisions E.2.a.(1)-(4) as a source of pollutants to receiving waters, the category is prohibited through the Authority ordinances, codes, and requirements and addressed as an illicit discharge. Alternatively, the Authority may propose controls to be implemented for the category of NSWDs as part of the WQIP instead of prohibiting the category of NSWDs, and implement the controls if accepted by the RWQCB as part of the WQIP:
  - Over-irrigation is identified by the RWQCB as a pollutant source to receiving water.
- Where feasible and priorities and resources allow, the Authority reduces or eliminates NSWDs listed under Provisions E.2.a.(1)-(4) into its MS4, unless an NSWD is identified as a discharge authorized by a separate NPDES permit.

3.1.2. SOURCE CHARACTERIZATION AND CONTROL MEASURES

The Authority addresses all NSWDs into the MS4 as illicit discharges, unless the discharge is authorized by a separate NPDES permit, or identified as not being a source of pollutants and all appropriate BMPs are implemented to prevent impacts to storm water quality, such as the use of BMPs designed to prevent these discharges from contacting pollutants, reduce the flow or volume of the discharges, or prevent these discharges from reaching the storm drain system. The Authority conducts regular inspections to ensure that these BMPs are properly and fully implemented. The BMPs required by the Authority for the NSWDs identified above are discussed in this section. Monitoring and reporting of all NSWDs as required by the applicable permits are described in Appendix D-1 and D-2 and Section 12.0.

Potential NSWDs at SAN include these sources: groundwater, water from crawl space pumps and footing drains, air conditioning and cooling plant condensation and mist, landscape irrigation, potable water flushing, eye wash station testing, water fountains, hose bibs, fire hydrant and sprinkler system flushing, non-emergency and emergency firefighting flows, and tidal intrusion into the MS4. The list of source

characterization for each potential NSWD is described below and their compliance with the Municipal Permit or another NPDES Permit.

GROUNDWATER, WATER FROM CRAWL SPACES, AND FOOTING DRAINS

The elevation and proximity of SAN in relation to San Diego Bay creates a relatively shallow groundwater table, generally approximately 10 to 15 feet below the ground surface, with depth to groundwater increasing to the northeast, away from San Diego Bay. Groundwater elevations vary around SAN and fluctuations occur during and following periods of heavy rain. The shallow groundwater tends to infiltrate into below-grade structures at the airport, including utility vaults, below-grade crawl spaces, footing drains, and the storm drain system itself.

While rising groundwater, groundwater infiltration to the MS4, and any water pumped from footing drains above the groundwater table have not been identified as significant sources of storm water pollution by the Authority or the RWQCB, in addition to the standard airport-wide BMPs described in Appendix B, the following common-sense BMPs are generally applicable to these types of NSWDs:

- Verify that the discharge does not originate from an area of known environmental contamination.
- Conduct a visual, olfactory inspection of the discharge to check that the discharge is free of obvious, observable pollutants.
- Prevent the discharge from contacting pollutants in the path of the discharge; and
- Prevent discharges from entering the storm water conveyance system, if possible, by diverting the flow to a landscaped area, a pervious area, an impervious area where the discharge can evaporate, an OWS, or the sanitary sewer.

AIR CONDITIONING AND COOLING PLANT CONDENSATION

Air conditioners are located throughout the Authority and are used for environment and equipment cooling. Condensate is regularly discharged from air conditioners, although most discharge rates are extremely low, and air conditioning condensate in passenger boarding bridges in Drainage Basins 8, 12 and 15 is captured and reused in power washing activities (approximately 60,000 gallons of condensate were captured this way from 15 different passenger boarding bridges during FY 2021). Air conditioner condensate may contact contaminants if allowed to flow through areas where significant materials, oil from parking lots, sediment, trash, and construction debris may potentially be carried into the storm drain system by the discharge.

The cooling plant in the Terminal 2 Parking Plaza (Drainage Basin 9) upgraded as a part of the Green Build construction project includes four electric centrifugal chillers, four cooling towers with condenser water pumps for individual tower bypass, and a primary, secondary, and tertiary chilled water system to improve cooling of the airport terminals. These cooling devices dispense water through mist, evaporation, and blowdown, which may collect on rooftops and adjacent structures. Cooling towers generally evaporate 3 gallons of water per minute for every 100 tons of cooling. Metals and debris from rooftops may potentially be carried into the storm drain system by the condensate mist.

The Terminal 2 Parking Plaza SWRTS opened in June 2018 and captures 100% of the storm water drainage from an 85th-percentile 24-hour storm event that falls on the 7.6-acre parking structure and routes the water to the Central Utility Plant for use in the cooling towers.

In early 2019, the Authority began construction on a storm water capture and reuse system that will capture approximately 80% of average annual storm water runoff from approximately 200 acres of the 661-acre Authority property. Built in 3 phases, the completed capture and reuse system will include an underground and aboveground storm water conveyance system, underground storage facilities, treatment facilities, pump station(s), a distribution system, and underground infiltration facilities. At final build-out, the system will provide a total storage capacity of nine million gallons and allow for capture and reuse or infiltration of

approximately 39 million gallons of storm water per year. The overall goals of the project are to 1) mitigate storm water discharges of zinc and copper into San Diego Bay; 2) develop on-site sources of water to meet on-site non-potable water demand; and (3) integrate flexibility to address long-term storm water liabilities and meet water stewardship goals of the Authority.

Incidental air conditioning and cooling tower condensate has been identified as an illicit discharge only when they are not controlled using the standard airport-wide BMPs requirements described in Appendix B and the following BMPs applicable to air conditioning and cooling plant discharges:

- Monitor and control the amount of blow-down water or water lost to evaporation. To ensure the most efficient use of water, cooling towers can be equipped with automatic blowdown control systems or water flow meters to monitor water loss;
- Keep a log to track the make-up and blowdown quantities, conductivity, and cycles of concentration to detect leaks, excessive blowdown, or deterioration;
- Properly maintain the air conditioners and cooling towers to help reduce the amount of condensate discharged. Monitor water usage in cooling towers to track water loss and efficiency;
- Capture and reuse air conditioning condensate as appropriate; and
- Prevent the discharge from contacting surface pollutants in the path of the discharge.

Prevent discharges from entering the storm water conveyance system, if possible, by diverting the flow to a landscaped area or other pervious surface, an impervious area where the discharge can evaporate, an OWS or other treatment control or LID BMP, or the sanitary sewer.

LANDSCAPE IRRIGATION

Landscape irrigation constitutes a small portion of the potable water usage at SAN, (6 million gallons in 2012, before completion of xeriscaping), due in part to the limited landscape acreage (approximately 18 acres) in Drainage Basins 1, 3, 5, 5a, 6, 8, 9, 10, and 11 and the use of xeriscaping to help reduce the need for irrigation, including planting indigenous and drought-tolerant plants. For example, water-intensive shrubs were replaced with turf and drought-tolerant trees in front of the Terminal 1 check-in building. SAN has also used a satellite water-tracking system to determine the airport's watering needs; this system is expected to save approximately 9 million gallons of water each year. Approximately 2 acres of bioswales and 1.25 acres of bioretention swales were installed as part of SAN's Green Build LID projects. Additional LID features were installed at the Signature Aviation FBO and RCC. Five bioswales were installed at Signature, and six bioretention basins were installed at the RCC. These areas will require additional landscaping and irrigation.

- **Landscape Irrigation**: Over-irrigation was identified by the RWQCB as a pollutant source to receiving water. The Authority prohibits over-irrigation discharges because they have been found to be a source of pollutants such as nutrients, bacteria, pesticides and sediment. The hotline number to report incidents or complete an over-irrigation report is provided on the Environmental Affairs storm water page. Concerns regarding over-irrigation can also be provided on the Authority's contact us page (https://www.san.org/Travel-Info/Contact-Us). BMPs are implemented to prevent these discharges, as outlined below:
  - Utilize native plants to reduce the need for irrigation and fertilization. Perform soil analysis seasonally to determine appropriate fertilization requirements and minimize the use of chemical fertilizers.
  - Apply pesticides, herbicides, and fertilizers as needed and in accordance with manufacturer instructions to maximize the utility of the product and minimize the potential for product residue to contact irrigation runoff. Do not use pesticides or herbicides if a rain event is expected. Do not apply pesticides or herbicides during periods of high wind.

- Combat weeds by hand pulling when feasible. Use herbicides only as a last resort.
- Properly dispose of landscaped materials in the garbage or compost. If immediate disposal is not feasible, store landscaped materials and vegetation debris in areas that are covered or otherwise protected from wind and rain dispersal.
- Avoid exposed soils by revegetating or temporarily covering these areas.
- Do not water during a rain event or at least 48 hours following a rain event.
- Employ water conservation practices, such as:
  - Water a maximum of two days per week.
  - Limit watering days to Mondays and Fridays. Exceptions include:
    - Irrigation with a landscape permit;
    - Erosion control; and
    - Landscape establishment following a disaster.
  - When using a standard sprinkler system, limit watering duration to 5 minutes between the hours of 4:00 pm to 10:00 am from November 1 to May 31 and 6:00 pm to 10:00 am from June 1 to October 31.
  - When available, use recycled or reclaimed water for landscaping purposes.
  - Use automatic sprinkler timers. Automatic sprinklers, when properly set, minimize runoff by turning off the system at the appropriate intervals.
  - Where automatic sprinkler timers are not used, periodically observe the area being watered.
  - Conduct weekly observations to identify and correct damaged sprinkler systems and to adjust sprinkler heads. The landscaped or vegetated LID areas should also be observed for prevention of over-watering and runoff.
  - Assess the soil moisture and depth and utilize the Authority's satellite water-tracking system to determine accuracy of irrigation schedules.
  - Use water delivery rates that do not exceed the infiltration rate of the soil, but instead minimize ponding and runoff and allow water to infiltrate into the soil.
  - If a rain event is predicted, temporarily turn off sprinkler systems or use smart controllers to avoid over-watering and runoff.
  - Avoid overspray outside of the landscaped areas and adjust irrigation systems to prevent overspray, minimize or eliminate runoff, and prevent contact with surface pollutants.
  - Use micro-irrigation systems (e.g., drip irrigation).
  - Use a control nozzle if watering by hand to avoid runoff.
  - Avoid placing, storing, or parking equipment and vehicles in areas being irrigated to minimize the potential for runoff caused by blocking the spray or water delivery patterns. In this way, the potential for inadvertent runoff to contact pollutants is precluded.

POTABLE WATER, HOSE BIBS, AND EYE WASH STATIONS

Each of the airline passenger loading/unloading gates at Terminals 1 and 2 (Drainage Basins 8, 12 and 15) features a potable water supply cabinet with a hose to dispense potable water to the aircraft. Proper use and maintenance of the water cabinets requires potable water to be flushed from the system and if possible, flushed water should be captured for non-potable reuse or reduced to a minimum flushing time onto the ramp area.

- A drinking water fountain was installed outside of the Terminal 2 West baggage claim area. The water is contained and is pumped back through the back-flow system, where it is treated for algae. The water fountain is flushed directly into the sanitary sewer annually.
- Hose bibs are installed around the perimeter of the terminals for connection to hoses. Hose bibs can be locked, and use is limited. These hose bibs provide the opportunity for NSWDs.
- Eye wash stations are located outside most gates along Terminals 1 and 2 for emergency purposes. This equipment requires monthly testing, during which water is released onto the ramp.

Water discharged from these sources may contact contaminants if allowed to flow through areas where significant materials, oil, sediment, trash, and construction debris may potentially be carried into the storm drain system by the discharge. Control measures to address the potential for potable water flushing, drinking water fountain leaks, hose bibs, and eye wash station testing to transport pollutants to receiving waters are described below:

- Minimize flushing time and volume of water released;
- Do not perform flushing activities near storm drains or in a manner that discharges water directly to a storm drain, but rather flush water in a manner and direction that allow the water to pond on the surface and evaporate without ever reaching a storm drain;
- Capture and reuse released potable water, where possible;
- Flush water to a landscaped area, or other pervious surface, if possible; and
- Flush water in a manner and direction that prevents the discharge from contacting surface pollutants in the path of the discharge.

Further BMPs applicable to hose bibs and eye wash stations include the following:

- Lock hose bibs to limit excessive usage;
- Post signs at hose bibs to discourage use;
- Inspect eye wash stations when necessary and release only minimal water so that it evaporates before reaching the storm drain; and
- Inspect eye wash stations and hose bibs for signs of leaking.

FIRE HYDRANT FLUSHING

The City of San Diego Water Department generally maintains the water mains and fire hydrants at SAN. However, Menzies Fuel Farm performs annual flush testing of fire hydrants in its operating area, (Drainage Basin 6) and the Authority FMD responds to minor leaks and breaks throughout the airport. Fire hydrant or fire response system flushing must be addressed as illicit discharges only if the Authority or RWQCB identifies it as a significant source of pollutants, as detailed by the Municipal Permit Provision 2.E.a. It is considered an authorized discharge under the Industrial Permit only if the discharge meets the conditions provided in Section IV.B. Since fire hydrant flushing has the potential to transport pollutants to receiving waters if the discharge is allowed to flow through areas where significant materials, oil, sediment, trash, and

construction debris may potentially be carried into the storm drain system, BMPs will be implemented to reduce or eliminate pollutants in such discharges from entering the MS4. BMPs are implemented to minimize contact between pollutants and flows, minimize the potential for erosion from any nearby landscaped areas, and use treatment control BMPs, where applicable, to treat the discharge to remove pollutants before entering the MS4. The City of San Diego Water Department flushes fire hydrants at SAN once per year. Menzies Fuel Farm's annual flushing activities are performed in a bermed area and nearby storm drains are covered. All wastewater is contained and collected for off-site disposal.

- **Fire Suppression System Installation, Maintenance, and Testing**: Potable water that has been left to stand in a building fire suppression system has a significant potential to carry pollutants, especially over time, as the water tends to stagnate and undergo various physical and chemical changes. As such, the Authority requires the following BMPs be implemented to address the discharge of this type of water:

  - Obtain the proper permit(s) from the City of San Diego Metropolitan Wastewater Department (MWWD) to discharge the water directly to the sanitary sewer.
  - Discharge the water directly into a tanker truck for proper disposal off site.
  - Capture the discharge in a holding tank or lined, bermed area or sump of sufficient capacity to store the water prior to discharge to an on-site sewer under proper permit(s) from MWWD or prior to transferring the water to a tanker truck for proper disposal off site. In addition, berm or block storm drains located close to or within the test area to prevent any risk of seepage into the MS4.
  - Direct flows to nearby landscaped or pervious area to infiltrate or evaporate during dry weather.
  - Direct flows to a contained area and collect using a wet vacuum or equivalent, and properly dispose of collected water. Remove any residue in contained area and do not perform during rain events.

NON-EMERGENCY FIREFIGHTING FLOWS

The ARFF and Menzies Fuel Farm (in Drainage Basin 6), and RCC (in Drainage Basins 3 and 5) are the only facilities at SAN that operate and maintain fire suppression systems and/or perform firefighting activities. Non-emergency firefighting flows at SAN generally fall into two categories: (1) discharges from building fire suppression systems during installation, maintenance, or testing; and (2) discharges of potable water during firefighting practice drills and other exercises. Quantities and frequencies involved are outlined below. Menzies Fuel Farm maintains fire suppression systems surrounding oil storage areas, including the foam-to-water ratio of their equipment (though no foam is released during testing), as described below. Once potable water has been left to stand in building fire suppression systems, the water can become contaminated and serve as a transport mechanism for pollutants. Discharges of potable water from the ARFF equipment during firefighting practice drills and equipment testing have the potential to transport pollutants to receiving waters if the discharge is allowed to flow through areas where significant materials, oil, sediment, trash, and construction debris may potentially be carried into the storm drain system.

Not all the activities conducted at the ARFF station that generate NSWDs are considered non-emergency firefighting flows. Non-emergency firefighting flows that have the potential to transport pollutants to receiving waters include potable water discharged from the ARFF rigs during firefighting practice drills and other exercises. Fire hydrants will be used only to fight fires and to maintain human health and safety. Routine vehicle and equipment cleaning is conducted either at the SAN wash rack or in a nearby permeable area. The RCC has a certified contractor test the sprinkler and FM200 fire suppression system quarterly and annually. The FM200 fire suppression system is installed in the computer room, and a sprinkler system is installed throughout the facility. The Authority requires the implementation of various BMPs to address these types of activities.

The Authority allows non-emergency firefighting equipment testing to be performed, but prohibits the discharge of non-emergency firefighting flows to the MS4. The proper disposal of non-emergency firefighting flows is discussed below:

1) Firefighting Equipment Testing

While firefighting equipment is tested annually at Menzies Fuel Storage Facility (FSF), the test is conducted using water only and the water is discharged into storm drains connected to the on-site OWS. At the FSF foam house, the test ports inside the house are used to test the water-to-foam ratio; however, no foam discharge is created in this process. During all equipment and facility testing, the test area is bermed and all wastewater is collected and disposed of off-site.

Firefighting foam testing is no longer performed by ARFF. ARFF performs its rig water testing once per year north of the north ramp, using approximately 1,000 gallons of water only. Although the entire north ramp drainage area is connected to OWSs, these systems are used only as a back-up fail-safe. The ARFF rig water system testing uses a No Foam System which directly connects to the rigs, bypassing the foam intake, and using only water, with no foam waste. The slit drainage trench is blocked off from the storm drain system by sandbags prior to conducting the water test, allowing the water to be captured in the slit trench, but preventing it from entering the storm drain. All the wastewater is then vacuumed into a tanker truck and properly disposed of to an on-site sanitary sewer under the proper permit from the MWWD.

2) Firefighting Training

Firefighting training typically involves discharges of potable water from the ARFF rigs. These discharges may transport storm water pollutants when allowed to contact contaminants lying in the path of the discharge. As such, in addition to the standard airport-wide BMPs described in Appendix B, the following BMPs are generally applicable to firefighting training discharges:

- Pre-plan training exercises to allow integration of structural BMPs to control runoff;
- Use lower gallon per minute nozzle settings;
- Use fog streams for short durations and change the direction of discharge as frequently as possible;
- Avoid training activities and discharges near storm drains and do not discharge water directly to a storm drain;
- Discharge water in the direction of landscaped or pervious areas whenever possible;
- Discharge water in a manner and direction that allows the water to pond on the surface and evaporate without ever reaching a storm drain;
- Utilize techniques for storm drain inlet protection when possible;
- Remove debris from adjacent curbs or inlets when possible;
- Prior to training, inspect the training area to avoid transporting debris to the storm drain system through flows produced during training;
- Utilize techniques for berming or diking the discharge to allow evaporation whenever possible;
- Utilize techniques for velocity reduction (energy dissipaters) when possible;
- Utilize techniques for sediment control in training whenever possible;
- Discharge water in a manner and direction that maximize either or both the time and/or distance required for the discharge to reach the storm drain system, such that the potential for evaporation is also maximized; and

- Discharge water in a manner and direction that prevents the discharge from contacting surface pollutants in the path of the discharge.

TIDAL INTRUSION

Many of the outfalls from the storm drain system at SAN are submerged during high tides and even during low tides, allowing water from San Diego Bay to travel upstream in the storm water conveyance system. The tidal waters have the potential to transport back downstream to the receiving water any pollutants that have accumulated in the SAN storm water conveyance system. Pollutants from industrial operations, residue from spills of significant materials, construction debris, sediment, and oil from parking lots and streets have the potential to collect in the storm water conveyance system. Tidal intrusion has been identified as a source of water quality impact to receiving waters only when pollutants are allowed to accumulate in the SAN storm water drain system and then be carried downstream by the receding tidal flow. To prevent these potential impacts, the Authority regularly inspects and cleans the storm drain system to reduce potential pollutants from coming into contact with tidal flows. The Authority's monthly inspection program is more fully described in Section 7.8.4. Control measures to address the potential for tidal intrusion to transport pollutants to receiving waters are described below:

- Perform monthly and additional ad hoc inspections of the MS4.
- Perform quarterly inspection of all storm water conveyance systems. Daily, inspect the sump by the trash compactor, OWS near the Menzies fueling facility, and storm drains near the California Least Turn nesting areas.
- Perform annual or as needed cleaning of all OWSs, quarterly or as needed cleaning of underground storm drain pipes, as needed cleaning of drop inlet, curb inlet, trench drains, slit drains, and high priority catch basins located near terminal areas. Additional storm drains are cleaned as needed on the basis of quarterly and ad hoc inspections, monthly, and after each storm event during the wet season.
- Install and maintain screens in front of curb inlets on the southern side of SAN. Additional screens will be installed as necessary.
- Keep accurate logs on cleaning and maintenance of the storm drain system.
- Maintain a clean and waste-free facility by using foreign object damage (FOD) buckets, performing frequent dumpster service, and cleaning all dumpsters, compactors, and trash haulers.

A full description of BMPs in place at SAN to prevent or eliminate prohibited water discharges is in Appendix B. Examples of the potential sources of prohibited discharges at SAN and corresponding BMPs to prevent them include:

- **Aircraft and Vehicle Washing**: Washing of equipment, vehicles, and aircraft is to be performed at designated wash areas where wash water is collected, recycled, or connected to an approved sanitary sewer connection. The designated wash areas at SAN include the Authority's wash rack and wash bays at the RCC. The wash rack operated by American Airlines was removed in 2016. The Authority's wash rack is sloped; all flow is directed to the sanitary sewer. The Menzies wash rack that was located in Drainage Basin 7 was removed in 2021. Rental vehicles are washed in the RCC's QTA area, located in the parking garage structure. The car washes within the RCC structure have a closed loop system where the water drains to an OWS, is treated using reverse osmosis, and reused within the car wash. Additionally, there is no threat of an unauthorized NSWD because this activity is performed within the RCC structure which is covered and is not exposed to storm water. The use of a control nozzle on all hoses is recommended to minimize the amount of water used.
- **Erosion/Sediment Transport**: The amount of exposed soils at SAN should be minimized to the extent possible. For areas where soil is exposed, temporary erosion and sediment control measures

can be used to minimize erosion of exposed soils and to minimize the potential for sediment transport (i.e., erosion control blankets, mulch, gravel bags, fiber rolls, and silt fences). These temporary BMPs require regular inspection and maintenance or replacement to check their effectiveness.

- **Aboveground Storage Tanks**: All ASTs are equipped with built-in cement secondary containment. ASTs used and maintained by the Authority are inspected daily by FMD and maintenance is performed as needed. The Authority ensures that all tenants perform inspection, maintenance, and safety protocols as required under their Use and Occupancy Permit if their operations require the use of ASTs.
- **Vehicle, Equipment and Material Leaks or Spills**: Preventive employee and tenant training, inspections, and vehicle and equipment maintenance activities are conducted regularly to reduce the potential for leaks and spills. All fuel operators are required to perform monthly testing of all fueling equipment. A full description of the Authority's spill prevention and cleanup program is located in Section 3.2.3. Eleven OWSs serve as a precautionary capture method for leaks and spills. Each installed OWS has an alarm system. If the oil reaches a certain level, or oil leaks to the ground, an alarm goes off. The capacities of the OWSs range from 3,000 to 40,000 gallons, depending on the respective loads anticipated in each area. If a spill occurs and must be diverted to an OWS, the person(s) who caused the spill is (are) responsible for cleaning out the OWS once the spill has been contained and the threat removed. The OWSs are inspected by the P&EAD, and maintenance is conducted as needed.
- **Debris Accumulation**: Sweeping at SAN is conducted using mechanical and regenerative air sweepers. Roadway sweeping is conducted 5 days per week and daily sweeping is conducted within the aircraft operations area, including ramps, parking lots, perimeter roads, and construction areas. Each ramp area is on rotation throughout the week so that terminal and taxiway areas are swept at least once per week. As part of the SAN ramp-walk program, FMD inspects and sweeps up against each building every month.

3.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION

As defined in the Municipal Permit, an illicit discharge is "any discharge to the MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from firefighting activities." Wash water, sediment, spilled chemicals, and other pollutants allowed to enter the storm drain system may contribute to the degradation of the local water quality. Releases from the sanitary sewer or private laterals can allow pathogens, ammonia, detergents, and other contaminants to enter the storm drain system. Over-irrigation can mobilize nutrients, bacteria, pesticides and sediment.

Illicit connections are defined as "…any manmade conveyance or drainage system through which a non-storm water discharge to the storm water drainage system occurs or may occur. Any connection to the MS4 that conveys an illicit discharge…" These connections provide pathways for pollutants to enter the storm drain system. Improperly installed or defective rain diversion systems or devices that release pollutants into the storm drain system will also be considered illicit connections. A complete evaluation and characterization of all NSWDs, their sources, and drainage areas is included in Section 7.7.3.

The IDDE program incorporates several elements of the Authority's storm water management program to develop a comprehensive approach to preventing, detecting, and eliminating illicit discharges. Inspection, maintenance, and enforcement activities contribute to the identification of illicit discharges and the elimination of those detected. Often, when an illicit discharge is detected as a part of an inspection or maintenance program, it can be eliminated before it potentially affects a receiving water. Authority regulations prohibit illicit discharges, including over-irrigation. The Authority code can require a responsible party to conduct abatement activities to eliminate an illicit discharge or allow the Authority to conduct those activities itself at the cost of the responsible party. NSWD and IDDE enforcement programs are discussed below in Section 3.4.

Authority staff and airport tenants play an important role in the detection of illicit discharges. Education and outreach efforts for Authority staff and airport tenants are directed at storm and non-storm water pollution prevention, including the detection and elimination of illicit discharges. Education programs for the Authority staff are described in Section 9.0.

The Authority's dry weather monitoring programs or IDDE components are described in Appendix D-1 and D-2 of this SWMP. The following section discusses those IDDE program elements that are not described in Appendix D-1 and D-2.

3.2.1 PUBLIC REPORTING OF ILLICIT DISCHARGES AND CONNECTIONS

Public reporting mechanisms are an effective way to promote the reporting of illicit discharges. To meet the requirements of Provisions E.2.b.(3) and F.4 of Municipal Permit, the Authority promotes four primary mechanisms for reporting complaints or concerns regarding unauthorized NSWDs: (1) the Authority P&EAD main telephone line (619-400-2782) and webpage (http://www.san.org/Airport-Projects/Environmental-Affairs); (2) the Authority Contact Us webpage (https://www.san.org/Travel-Info/Contact-Us) (3) the SAN public reporting hotline (619-400-2710) and e-mail contact environmental@san.org) for reporting NSWDs and illicit discharges; (4) the County of San Diego storm water hotline (888) 846-0800 and online complaint reporting forum (http://www.projectcleanwater.org/html/complaints.html), and (5) the THINK BLUE Hotline at (619-235-1000) and webpage (www.sandiego.gov/thinkblue) operated by the City of San Diego, which is available Monday through Friday, 8:00 a.m. to 5:00 p.m. and provides a voice mail message for 24-hour access in both English and Spanish. The hotline operators forward complaint information, as appropriate, to the Authority P&EAD for investigation and follow-up. The City of San Diego also offers an online storm water service request help line through which the public can report a violation through cell phone texts or the online mapping tool.

The Authority's SAN Communication Center storm water hotline is a 24-hour telephone line that allows Authority staff and airport tenants to report complaints or concerns regarding landscape runoff, broken sprinklers, or other issues relating to over-irrigation and unauthorized NSWDs. This reporting mechanism is promoted by including the telephone number on the back of SAN Security ID Badges that are issued at SAN. An over-irrigation reporting form is also available on the SAN P&EAD webpage and on the Authority Contact Us webpage (https://www.san.org/Travel-Info/Contact-Us).

Each call or email message that is forwarded to the Authority through these public reporting mechanisms is handled as an incoming complaint and entered into the Web-based database as a unique incoming record. The report includes the date the violation was reported, a description of the violation, its location, the SAN personnel notified, and whether or how the issue was addressed. All reported incidents, along with a description of how each one was investigated and/or resolved, will be summarized in the Annual Report required by the Municipal Permit.

3.2.2 TRASH POLLUTION PREVENTION

Litter and illegal dumping can be significant sources of pollutants if allowed to reach the storm drain. Trash can be transported in runoff and accumulates at storm drains or inlets. As of December 2018, the Authority must comply with the State of California's Trash Order No. R9-2017-0077, which requires the implementation of the Trash Amendments, or Resolution 2015-0019, the Amendment to the Water Quality Control Plan for Ocean Waters of California to Control Trash, and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The Trash Order prohibits trash from entering waterways via the storm water conveyance system. In response to the Trash Order, the Authority has increased street sweeping, launched education programs on trash/litter/FOD,

and installed devices on storm drains to help prevent these materials from entering the storm drain system. The Authority's FOD Management Plan (Appendix J) helps ensure compliance with the Trash Order.

A central element of the Trash Order is a land-use based compliance approach that targets high trash-generating areas. Within this are two alternative compliance tracks:

- Track 1: Permittees install, operate, and maintain a network of certified Full Capture Systems to capture trash in the storm drains, located in priority land use areas for municipal systems, and the entire facility for industrial and commercial permit holders.
- Track 2: Permittees install, operate, and maintain any combination of controls (structural and/or institutional) anywhere in their jurisdiction as long as they can demonstrate that their system performs as well as Track 1 (i.e., Full Capture Systems Equivalency).

The Authority chose to implement Track 1 based on analysis of the priority land use areas, multiple NPDES permit requirements, and anticipated projects to address the water quality goals and objectives at SAN set forth in the San Diego Bay WQIP.

The Authority's compliance with Federal Aviation Administration (FAA) regulations prohibits trash and debris from being present in the aircraft operations area and thus prevents trash from reaching the MS4. The FOD Program is consistent with the Trash Order's outright prohibition of trash and debris for areas subject to Industrial General Permit requirements.

SAN currently implements the following measures aligned with the FAA regulations and guidance:

- Designation of a FOD program manager to oversee implementation and adherence to the FOD Program.
- Prohibition of any dumping or littering of trash within the Authority's jurisdiction, as follows from the Authority Code Article 7: Safety and Security (https://www.san.org/airport-authority/codes-policies):
  - Authority Code §7.41 (a). It shall be unlawful for any person to dump any material or throw garbage, offal, rubbish, litter, sewage, refuse, or foreign material of any kind upon any lot, tract of land, street, alley, lane, court, sidewalk, or place under the jurisdiction of the Authority without the written permission of the Authority's Executive Director or his or her designee (the "Executive Director").
  - Authority Code §7.41 (b). It shall be unlawful for any occupant, lessee, tenant, or licensee of any premises within said area to place, or allow to be placed, or allow to remain on any premises within said area such garbage, offal, rubbish, litter, sewage, refuse, or foreign material of any kind without the written permission of the Executive Director.
- Regulation of litter, refuse, and FOD generated by airport staff, tenants, and contractors through the Authority Rules and Regulations document (Sections 2.3, 3.4.9, and 4.3 of Attachment 3 of the FOD Management Plan, updated in 2018), as follows:
  - No person shall transport litter or refuse without covering the materials being transported;
  - All tenants providing receptacles for litter or refuse shall provide adequate covers to ensure against any leaking, dripping, sifting or otherwise escaping of any materials;
  - Every person depositing garbage, debris, or refuse in any unauthorized location shall clean up the deposited material immediately in an effective manner;
  - All tenants shall keep their leased areas and adjacent areas clean and free of rubbish and trash;

  - Every person with access to the aircraft operations area shall keep the aprons, ramps, and grounds of SAN free of all FOD;
  - Every tenant providing a trash container at SAN (e.g., cans, dumpsters, compactors) shall ensure that the container is covered, checked frequently, and emptied as necessary to prevent spillover of trash; and
  - No person shall establish a break area (tables, chairs, trash can, etc.) on the ramp without prior approval from the Authority.

- Daily self-inspections for identification and removal of FOD—the Authority's Airport Safety Self-Inspection Checklist is provided in Attachment 3 of the FOD Management Plan.
- Removal of FOD from the airport environment once FOD is detected.
- Provision of FOD buckets for continuous "clean-as-you-go" debris collections at all terminal loading areas.
- Weekly sweeping of each terminal and taxiway with a mechanical sweeper.
- Power washing and vacuuming activities at least quarterly or as-needed to capture trash and debris.
- Monthly inspections to identify potential pollutants, including identifying FOD and ensuring that trash cans and dumpsters are covered.
- Interaction with staff and tenants during monthly inspections to identify and discuss trash issues.
- Ramp walks every month, alternating between Terminal 1 and Terminal 2 to inspect for and remove FOD.
- Annual storm water and spill (including trash spill) training for all staff and tenant management, highlighting trash issues as a potential storm water pollutant.
- Annual FOD prevention training curricula for Authority personnel.
- Evaluation of the amount and kind of FOD during characterization studies.
- Maintenance of FOD documentation for program design and assessment.

The Authority's Web-based database will be employed to track incidents of intentional littering or dumping. During monthly visual observations, inspectors will identify (if known) the illegal dumping hot spots, patterns and types of occurrences, mode of dumping, reporting mechanism, and known or suspected source or responsible party in the Web-based database. If large amounts of debris are found in a tenant's operational area, a warning is provided, and the tenant has three days to address the issue.

3.2.3 SPILL PREVENTION, REPORTING, AND RESPONSE

The Authority has programs and procedures to prevent, respond to, contain, and clean up all sewage and other spills that may impact the storm drain system, as required by Provision E.2.b.(4) of the Municipal Permit. Many of the same programs and procedures are implemented as a requirement of Section X.H.1.c of the Industrial Permit. Potential pollution sources were evaluated, and descriptions are included in Section 7.7.3.

3.2.3.1 Spill Prevention

SANITARY SEWERS

As discussed in Section 6.4 of the SWMP, the Authority's preventive and corrective sanitary sewer maintenance programs focus heavily on those areas of known problems or concerns. Known problem areas typically consist of the lines immediately downstream of food services, which have a tendency to be

impacted by grease. For all locations, the Authority provides for or requires the food service provider (as a requirement of the lease) to conduct the minimum of annual routine monitoring, inspection, and cleaning. Wastewater from restaurants moves through three grease interceptors before entering the sanitary sewer system. Grease interceptors are maintained and cleaned every 1 to 2 months. When system malfunctions do 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 Authority maintenance crews or food service provider, as appropriate. If appropriate, the infrastructure component is referred for repair or replacement by maintenance crews. Larger, more complex issues generally become recommendations for capital improvement projects as part of the Authority budget planning and approval process (Section 10.0).

OTHER SPILLS

Refueling and equipment maintenance activities utilize jet fuel, aviation gas, automotive fuel, hydraulic oils, oil, deicing fluids, degreasers, and other solvents. Because of the intensity of use, there is a higher possibility of significant spills of jet fuel. Jet fuel is stored in ASTs at the FSF and distributed via pipeline to the RFF. The USEPA requires facilities with "an aggregate aboveground oil storage capacity greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons" (USEPA, 2015) to develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan. Every tenant who must file a SPCC Plan with the USEPA is also required to file a copy with the P&EAD. Tenants must also contract a hazardous materials emergency response and cleanup services provider and provide the information to the SAN Communication Center and the P&EAD. Aircraft fueling is performed by a fleet of fuel trucks (containing several hundred gallons of fuel) operated by two refueling operations. The fuel trucks operate on the ramp areas of the main terminals, the FBO building, the air cargo area, and the overnight aircraft parking areas. The Authority requires the implementation of spill response BMPs, secondary containment, frequent inspection and maintenance of vehicles, equipment, and storage containers, and proper labeling and dating of material containers. Spills from tenants are reduced through the required use of BMPs, education, and enforcement of relevant regulations for the storage and usage of hazardous materials.

3.2.3.2 Spill Reporting

In the event of a spill, the responsible party (Authority staff or airport tenant) is required to contact SAN Communication Center (619-400-2710) in all cases, and ARFF if the spill (1) presents a fire hazard, (2) is an immediate human health hazard, (3) is over 10 feet in length or 50 square feet in area, (4) has a source that is continuous, and/or (5) cannot be cleaned immediately. If a vehicle or equipment spill or leak reaches a storm drain or inlet, and cannot be controlled or cleaned with on-site personnel and equipment, the person(s) causing the spill must report it to SAN Communication Center, the Harbor Police, the National Response Center, and the State of California Office of Emergency Management Agency. If the Authority determines that the incident endangers human health or the environment, then the Authority will provide verbal notification to the RWQCB within 24 hours from the time that the Authority becomes aware of the circumstances. The verbal report will include any unanticipated bypass or upset that exceeds any applicable effluent limitations and any violation of a maximum daily discharge limitation for pollutants listed in the permit to be reported within 24 hours. Within 5 days of the time that the Authority becomes aware of the circumstances, the Authority will provide the RWQCB with a written submission containing a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, whether the noncompliance has not been corrected, and the anticipated amount of time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Authority will include a summary of the spill, its source, and the elimination procedures in the WQIP Annual Report, which includes a JRMP Annual Report form, as required by Provision F.3.b.(3) of the Municipal Permit. Any instances of noncompliance will be identified and explained in the Industrial Annual Report Compliance Checklist, as required by Section XVI.B.2 of the Industrial Permit.

3.2.3.3 Spill Response

Each tenant, contractor, or Authority staff member responsible for any spill of sewage or other material is also responsible for immediately responding to that spill. Immediate response to a spill helps to prevent an unauthorized release to the storm drain system and to prevent further contamination of storm water runoff due to spill residuals on the surface. The appropriate spill response includes carrying out appropriate notification procedures, stopping the source of the spill, containing the spill, implementing the proper cleanup procedures, immediately and properly disposing of the spilled materials and other items used for the cleanup, and maintaining records.

Each facility/operation that utilizes, stores, and/or generates hazardous materials is responsible for creating spill response procedures and ensuring that their employees are properly trained in those procedures. The Municipal and Industrial Permits require the preparation of spill response procedures, and those procedures are described below and in the "Spill Prevention, Control, and Cleanup" BMP (SR01) provided in Appendix B. Each airline tenant is responsible for maintaining spill response equipment in its terminal gate area. Spill response equipment includes absorbent materials, shovels, brooms, gloves, and other necessary items. In addition to spill response equipment maintained by the airline tenants and the fuel vendors, the Authority has established, and strategically located on the airfield, four spill response trailers with an adequate inventory of spill response equipment to respond to any spills, including a worst-case incident. Authority staff and airport tenant education and outreach efforts highlight the existence and intended use of these spill response trailers.

SMALL SPILL CLEANUP PROCEDURES

Small spills of jet fuel, automotive fuel, hydraulic oil, lube oil, or lavatory wastes are generally efficiently cleaned up using bulk absorbent material. Absorbent is used as a dike to prevent spill migration into the storm drain system and is also used to absorb any ponded material. All waste sorbent and waste material should be stored in a Department of Transportation-approved drum that is properly labeled with the contents, generation date, and facility contact information.

LARGE SPILL CLEANUP PROCEDURES

In the case of a large spill, the responsibility for initial action remains with the party responsible for the spill. In the case of a large fuel or sewage spill, a systematic and controlled response is especially vital. The following procedures can be used as guidelines for responding to a large spill of fuel or petroleum products, and sewage spills. These activities should be performed as appropriate considering the details of the spill:

- Stop the source:
  - Shut off valves on aircraft or refueler trucks;
  - Install plugs in ruptured tanks or valve fittings;
  - Relocate leaking vehicle to nearby area of secondary containment; and
  - Transfer fuel into other vessels, tanker trucks, etc.
- Perform notifications:
  - Tenants contact SAN Communication Center (619-400-2710) and SAN Rescue and Firefighting Facility (619-231-5204);
  - Harbor Police (619-686-8000); and
  - National Response Center (800-424-8802 or 202-267-2675), as necessary or required by law.
- SAN Operations Contact:

  - Authority P&EAD (619-400-2782);
  - California Department of Fish and Game/Office of Spill Prevention and Response 24-hour hotline (916-445-9338) or CalTip line (888-334-2258), as necessary or required by law;
  - State of California Office of Emergency Management Agency (800-852-7550 or 916-845-8911);
  - U.S. Coast Guard (619-683-6495), as necessary or required by law;
  - RWQCB (619-516-1990), as necessary or required by law; and
  - USEPA Office of Emergency Services (800) 300-2193, as necessary or required by law.
- Contain and absorb the spill:
  - Prevent the spill from reaching the storm drain.
  - Turn on emergency shutoff valves if they are installed in the nearby storm drains.
  - Create dikes with absorbent or other material.
  - Plug storm drain inlets with rubber mats and tarps and collect ponded materials by vacuum truck, drum-mounted vacuum, squeegee roller, or other means. If the spill is too large to control or if it reaches the storm drain, the person responsible for the spill should immediately contact a Hazardous Materials Contractor.
- Protect San Diego Bay, as necessary, by installing barrier booms and/or absorbent booms at the storm drain outfall and monitoring outfall for signs of release.
- Ensure that emergency diversion to a storm drain is conducted only on the north ramp or the Terminal 2 West ramp where the storm drains have approved separation devices. The responsible party must clean and remove the spilled fluids from the separation device once the spill has been controlled and the surrounding area has been cleaned.
- Make follow-up notifications and submit reports, as necessary, to agencies necessary or required by law.

INCIDENT COMMAND SYSTEM IMPLEMENTATION

Several Authority staff members have been trained in the application of incident command systems for large-scale emergency incidents, such as a large fuel or sewage spill. The responsible party may voluntarily relinquish control of spill response responsibilities to a federal, state, or local agency appropriately prepared to respond, and the responsible party should not hesitate to do so when requested by such an agency. In situations where the release threatens public safety and property damage by fire, explosion, or vapor levels, or if structural collapse is imminent, the SAN ARFF Department has overall authority to control response actions. Only after the immediate threat to life and property has been abated and the ARFF has relinquished exclusive site control will the responsible party enter the incident command system structure. The incident command system will be used to apply control in any emergency response where multiple agencies are involved. Where appropriate, the responsible party may be requested to participate in various aspects of the incident command system.

3.3 DRY WEATHER MONITORING PROGRAMS

The Authority conducts or participates in urban runoff monitoring programs to meet the requirements of both the Industrial Permit and the Municipal Permit. Several of these programs help to identify NSWDs and illicit discharges and their potential sources within the Authority's jurisdiction. The Authority can also utilize the data collected through monitoring efforts to identify and eliminate illicit discharge sources.

As required by Provision B of the Municipal Permit, the Authority is collaborating with the County of San Diego, Port of San Diego, and the cities of Chula Vista, Coronado, Imperial Beach, La Mesa, Lemon Grove, National City, and San Diego (collectively, the San Diego Bay WMA Responsible Parties) to develop, implement, and report on the San Diego Bay WQIP, which includes goals and strategies to reduce pollutant discharges from MS4 outfalls in the San Diego Bay WMA during wet and dry weather. The monitoring programs described below were developed to prevent NSWDs to the MS4 and to meet water quality goals outlined in the WQIP. In addition, the dry weather visual observations as required by the Industrial Permit, are carried out monthly to identify sources of NSWDs, BMP implementation, and elimination and reduction of NSWDs, including over-irrigation.

The following urban runoff monitoring programs were developed to meet the requirements of Provision D of the Municipal Permit. The monitoring programs implemented at SAN by the Authority are described in Appendix D-2.

3.3.1 RECEIVING WATER MONITORING

As required by Provision D.1 of the Municipal Permit, the Copermittees developed a receiving water monitoring program to characterize the long-term trends in receiving water quality and determine whether management strategies are effective. The long-term receiving water monitoring station designated by the Copermittees is the Sweetwater River Mass Loading Station. This site has been monitored by the Copermittees since 2001 because it represents the conditions and water quality of the WMA. Field observations, field measurements, laboratory analytical chemistry, and toxicity testing are conducted at this site during three dry weather events each year. In addition, bioassessment and hydromodification monitoring events are each conducted once during the Municipal Permit term in accordance with the requirements in the Municipal Permit. Section 5.3 of the WQIP provides further information about the monitoring program.

3.3.2 REGIONAL MONITORING

The Copermittees are required to participate in regional monitoring programs, including the Storm Water Monitoring Coalition and Southern California Bight 2013 Regional Monitoring programs. The Copermittees have chosen to participate in the Southern California Bight 2013 Regional Monitoring Program, Storm Water Monitoring Coalition Stream Survey, Hydromodification Regional Monitoring Program, and San Diego County Beach Water Quality Monitoring Program.

3.3.3 SEDIMENT QUALITY MONITORING

The Copermittees will perform sediment quality monitoring in accordance with the requirements of the Municipal Permit Provision D.1.e.(2). A Sediment Monitoring Plan is included in the WQIP.

3.3.4 MS4 OUTFALL MONITORING

Under Provision D.2 of the Municipal Permit, the Authority will monitor MS4 outfalls during dry weather to assess MS4 outfall discharges for their potential contributions to receiving water quality and to assess the effectiveness of jurisdictional urban runoff management programs. Detailed information about jurisdictional and regional MS4 outfall monitoring programs is provided in the San Diego Bay WQIP, and the Authority's program is described additionally in Appendix D-2.

The Authority has developed a Dry Weather Analytical Monitoring Program to encompass both Industrial and Municipal Permit requirements for monitoring dry weather discharges. The dry weather monitoring activities conducted at SAN are summarized below and described in further detail in Appendix D-1 and D-2.

SELECTION OF OUTFALLS

Two major outfalls within the Authority's jurisdiction have been selected. These two outfalls are tidally influenced and cannot be screened safely at the outfall. Therefore, nearby upstream locations were selected as proxies to provide adequate coverage of the entire drainage areas of those two outfalls. The monitoring locations were selected as far downstream as possible to capture as many areas with industrial activities and sources of potential illicit discharges as possible and to provide adequate coverage of those storm drain lines. The storm drain system outfall monitoring locations have been added to the existing dry weather monitoring locations, along with additional locations in new or redeveloped drainage areas, or those added to comply with new Industrial Permit requirements. Monitoring locations were established to isolate particular land uses, drainage areas, and areas of concern on the basis of historical data.

A storm drain system map was created in geographic information system (GIS) 10.8 to depict the storm drain system, the 15 drainage basins, and the monitoring locations. The storm drain system map is used in source investigations and satisfies the requirements of Provision E.2.b.(1). of the Municipal Permit. During the dry weather monitoring, the storm drain system map is checked for accuracy, and corrections and changes are made accordingly.

DRY WEATHER MS4 OUTFALL DISCHARGE FIELD SCREENING

The Authority conducts dry weather field screening and analytical monitoring in accordance with Provision D.2 of the Municipal Permit to identify water quality problems that may result from any of the NSWDs described in Sections 3.1. Field screening will be conducted at the 2 major MS4 outfalls within the Authority's jurisdiction, as well as at 20 compliance locations and outdoor industrial equipment and storage areas to identify any unauthorized and authorized NSWDs, as required under the Industrial Permit (Section XI.A.1.a).

NON-STORM WATER PERSISTENT FLOW MS4 OUTFALL DISCHARGE MONITORING

Observations and analytical data will be collected twice annually at each outfall monitoring station experiencing persistent flow, if any, during dry weather periods to detect which NSWDs impact receiving water quality. Appendix D-2 of this document describes the MS4 outfall monitoring program. Field monitoring and laboratory analysis procedures, including a list of constituents, equipment required, and quality assurance measures are included in Appendix D-1.

INDUSTRIAL DRY WEATHER VISUAL OBSERVATIONS

The Authority conducts monthly visual observations of all drainage areas within SAN for the presence of unauthorized NSWDs and any authorized NSWDs and their sources, as described in Section 7.8.4.2. As a prohibited or unauthorized NSWD, over-irrigation will be inspected for during these dry weather visual observations. The objective of the monthly inspections is to identify sources of NSWDs and to check that BMPs are being properly implemented and are effective, and to prevent or eliminate unauthorized discharges.

3.3.5 SPECIAL STUDIES

The Municipal Permit, Provision D.3.a.(1), requires Copermittees to select special studies to fill in data gaps and provide further information for better management and elimination of pollutants. The Municipal Permit specifically requires:

- At least two special studies related to highest priority water quality conditions for each WMA; and
- One special study to address the pollutants and/or stressors impacting receiving waters within the San Diego region.

The Authority will take part in regional special studies identified in the WQIP, Section 5.3. The Authority will also implement a source identification special study specific to its Focused Priority Conditions.

The Authority will implement a source identification study to determine the potential pollutant-generating activities and areas that contribute the highest concentrations of copper and zinc as part of a special study required under Provision D.3.a.(1) of the Municipal Permit. As part of this study, the Authority will prepare and analyze a report characterizing copper and zinc and the activities and areas that are potential sources. The report will help the Authority target sources of these constituents and develop actions to eliminate or minimize the source activity. A Source Identification Monitoring Plan will also be prepared. The monitoring plan will support the identification of pollutant-generating activities, quantify the potential loadings from particular activities or areas, and prioritize sources of discharge(s).

3.4 FOLLOW-UP AND ENFORCEMENT

Source investigations are conducted by the Authority when an illicit discharge is detected or suspected, and the source of the illicit discharge is not readily identifiable. The purpose of these investigations is to locate the source of an illicit discharge so that necessary measures required to eliminate the illicit discharge can be implemented. This section has been prepared to meet the requirements in Provision E.2.d of the Municipal Permit. Section 3.4.3 provides a detailed description of the Authority's ERP.

3.4.1 FOLLOW-UP SOURCE INVESTIGATION PROCEDURE

The Authority will encourage staff, contractors, and developers to assist in identifying and reporting illicit discharges and connections to SAN Communication Center if observed during daily activities. The investigation action criteria for dry weather monitoring results were developed by the Copermittees and are provided in Appendix D-2. Additionally, the Municipal Permit now includes non-storm water action levels. Within two business days of receiving dry weather field screening or laboratory results that exceed any action levels, the Authority will conduct an investigation to identify the source or provide a rationale for why the discharge does not pose a TTWQ and does not require further investigation. The trash assessment information collected may also provide the Authority with useful information in regard to problem areas or activities. Source investigations will typically be conducted by the Authority's P&EAD monitoring personnel. In some cases, other on-site Authority personnel may conduct a source investigation. If a source investigation reveals an upstream source outside of SAN's jurisdiction, the Authority will notify and work with responsible Copermittees to eliminate the source.

In some cases, the mere existence of flows in a portion of the storm drain system or the noticeable increase in dry weather flows at a certain location may trigger a source investigation. The Authority's monitoring personnel will use their judgment and experience in making these and similar decisions in the field on the basis of site-specific observations. The steps taken to identify and eliminate an illicit discharge are described in Appendix D-2.

Follow-up investigations are typically conducted by the Authority under the following circumstances:

- Report of an illicit or suspected illicit discharge and over-irrigation reports through the SAN hotline, to the Communication Center, or to P&EAD;
- Exceedance of field or analytical action levels;
- Ceasing of the discharge prior to arrival at the point of observation or during a source investigation, and inability to determine the source without the discharge;
- Insufficient information produced during source investigations to locate the source or provide enough evidence to identify a responsible party;

- An order issued by the Authority to a responsible party and a follow-up investigation necessary to ensure that the responsible party has complied with the required abatement actions; and
- An area or activity identified as having a high potential for the occurrence of an illicit discharge and, therefore, periodic follow-up visits to ensure that future discharges are rapidly identified and eliminated.

3.4.2 DOCUMENTATION AND REPORTING

Source investigations should be documented using photographs, detailed notes on observations, completed field observation sheets when applicable, discussions or decisions made, and other information relevant to the investigation. This information could be useful for future investigations and for possible future resolution of illicit discharges for which sources were unidentified. Documentation is also used in support of enforcement actions. The Authority will document and keep a record of the investigation in the Authority's Web-based database. The investigation summary (included in the WQIP Annual Report) will include:

- The location of the violation, the hydrologic subarea, the impacted receiving water body, the point of discharge from the MS4;
- The initial source of information which triggered investigation;
- The date and method through which the information was received;
- The date of the investigation;
- The corrective action or enforcement procedures implemented;
- If any follow-up investigations were conducted and the dates and results of each investigation;
- The identified or suspected source of the discharge;
- Any known or suspected incidents that may relate to the source of the discharge; and
- Final results of the investigation.

If a source could not be identified after a thorough investigation, a complete report will still be generated and will include a plan to improve the investigation procedure if the same discharge is observed or reported in the future. If the discharge reoccurs and the source is still unidentified through source investigations, the discharge will be considered an illicit discharge and the SWMP will be updated to evaluate the common and suspected sources of the illicit discharge.

If the source of an illicit discharge is considered natural in origin and conveyance, the discharge and source will be documented and all data and evidence in support of this conclusion will be provided to the RWQCB to demonstrate that the discharge is natural and does not require further investigation.

Sampling for field screening or laboratory analysis should be done when deemed appropriate by the investigator. In many cases, once the source is identified, the makeup of the illicit discharge can be determined by a survey of the source and, therefore, analysis may not be necessary. However, in other cases, analysis of samples may be evidence to support enforcement actions.

All documentation and other information relevant to source investigations should collected by or be turned over to the P&EAD. The department will handle, retain, and track files pertaining to the various illicit discharge investigations, and whether or not a responsible party has been identified. The department will also determine whether the discharge is an isolated incident that will be addressed through enforcement procedures, or whether the category of discharge should be prohibited as an illicit discharge, as specified in Provision E.2.a.(6) of the Municipal Permit.

A summary of the NSWDs and illicit discharges and connections identified during investigations will be included in the WQIP Annual Report in accordance with the requirements of Provision F.3.b.(3) of the Municipal Permit. Additional details on information that will be provided in the WQIP Annual Report are included in Section 12.1. In summary, the illicit discharge and source investigation section of the report will include:

- The known or suspected sources causing or contributing to the highest priority water quality conditions within the WMA;
- BMPs or additional programs implemented to address these sources;
- Education programs implemented to notify the public of the sources of discharge;
- Frequency and description of inspections implemented to determine if the source(s) has(have) been eliminated;
- Enforcement actions and/or incentives implemented to eliminate the source(s); and
- The optional strategies that the Authority plans to implement to prohibit NSWDs and illicit discharges in accordance with Municipal Permit Provision B.3.b.

3.4.3 ENFORCEMENT

The Authority is authorized to enforce prohibitions of illicit discharges and illicit connections and to ensure that the requirements for authorized NSWDs are met to maintain compliance with the Municipal and Industrial Permits, the Authority Rules and Regulations, the Storm Water Code (Article 8), this SWMP, and any contracts and leases. As required by Provision E.6 of the Municipal Permit, the Authority has established an ERP to enforce its legal authority to achieve compliance and respond to reports of violations or noncompliance with the above documents. Provision E.1.a. of the Municipal Permit requires the Authority to prohibit illicit discharges, including over-irrigation, and connections to the MS4, control the discharge of spills, dumping, or dumping of materials other than storm water into the MS4, control through interagency agreements the contribution of pollutants from one portion of the MS4 to another, utilize enforcement mechanisms, and carry out inspections and monitoring of tenants, contractors, developers, and employee operations and activities to ensure compliance. Municipal Permit Provision E.6 requires the use of necessary escalating enforcement measures and should be in compliance with the strategies in the WQIP. The Authority is authorized to inspect and, if necessary, issue corrective actions, notifications, or written warnings or fines appropriate to the level of violation.

The Authority has increased tenant BMP inspections from quarterly to monthly. Ad hoc inspections are also performed. Inspections will focus on pollutant generating areas and activities, and tenants will be encouraged to improve and increase BMP implementation through a graphic scoring system developed every two years. A detailed list of BMPs evaluated during tenant inspections is included in Appendix B.

Violations are determined based on noncompliance with Authority rules and regulations, permit requirements, provisions in the Storm Water Code, or applicable laws and regulations. Any violations noted during a site inspection by the P&EAD inspector will be discussed on site if appropriate personnel are available, be reported as outlined in Section 3.4.2, and be recorded in the Web-based database. Immediate action will be taken to stop or control active prohibited discharges, spills, or obvious illicit discharges. Issues concerning over-irrigation are directed to FMD to address. FMD are available on a 24/7 basis to respond to over-irrigation incidents. Field screening and monitoring of other NSWDs, as outlined in Appendix D-2, will be conducted to prioritize responses and follow-up investigations. The inspection report will detail the corrective actions required, the timeframe in which corrective actions must be completed, and any enforcement actions issued.

The enforcement mechanisms used by the Authority are listed below. The Authority generally obtains compliance using the first four mechanisms listed. The remaining enforcement mechanisms can be used, as

necessary, to increase the severity of penalties and to compel compliance as soon as possible. Violations are required to be corrected within a minimum of 30 days after the violations are identified, or prior to the next predicted rain event, whichever is sooner. If the responsible party requires more than 30 days to correct the violation, the rationale must be described in the Authority's Web-based database and approved by P&EAD.

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 and approvals;
7) Administrative and criminal penalties;
8) Bonding requirements; and
9) Liens.

The Authority's ERP for IDDE 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. The Authority has the discretion to initiate or escalate enforcement using any enforcement mechanism available, depending on the nature of the violation or discharge, the effect on water quality, and the degree of cooperation or response time of responsible parties. Further information on enforcement activities used by the Authority is provided in Section 2.3. The general escalated enforcement process is outlined below:

- Enforcement Level 1 is initiated by the findings of a BMP deficiencies. The issues will be documented in the Web-based database so that the responsible party and interested parties are notified of the violation. The responsible party can then notify the inspector via the Web-based database when the corrective action has been completed. Corrective actions are expected to be completed within 30 days. Photos of the corrective action should be uploaded to the web-based database within 30 days, or the agreed upon timeframe, if longer. The web-based database generates a date associated with each photo, which reflects the photo's upload date. If the finding is not corrected after the first reinspection, a Notice of Violation is issued to escalate enforcement, which may include an order to clean, test, or abate. Upon the second reinspection, if the finding is still not corrected the issues will be directed to Airline Relations for escalated enforcement.
- Enforcement Level 2 is initiated when the noncompliant activity or violation may impact water quality, human health, or the environment (i.e., prohibited discharge). A written notice to clean, test, or abate, and/or a CDO is used to initiate enforcement and compliance is expected within 24 hours. If a CDO is issued, the recipient must cease and desist all activities that cause or contribute to illegal discharges or remove illicit connections. A notice and order to clean, test, and abate is a written or verbal order to perform the activities listed in the Authority's Storm Water Code. If the violation is not corrected Airline Relations will be notified for escalated enforcement. Penalties and fines may be issued if the notice to clean, test, or abate and/or the CDO are ineffective and the violation continues. Additionally, the Authority or tenants may be subject to a meeting with the Director of the P&EAD to discuss the reasons for failing to comply and the means of resolving the issue.

If the noncompliance resulted in a spill or discharge, the party responsible for the discharge is responsible for conducting cleanup measures appropriate to the degree of the spill or discharge, or if needed, for contacting the appropriate emergency response or cleanup contractor. Enforcement tools are being built into the Authority's Web-based database, whereby over-irrigation and other illicit discharges will be automatically identified as an issue for Level 2 escalated enforcement.

Contractors and developers are required to abide by the Authority documents, permits, rules, and regulations while working within airport operational areas. The Authority may use provisions within the contract to correct any noncompliant activities. The Authority may also employ this mechanism for tenants that are under lease or use permits.

3.5 MONITORING PROGRAM ASSESSMENTS

The following assessments will be conducted in accordance with the requirements outlined in the Municipal Permit, Provision D.4.

RECEIVING WATER ASSESSMENTS

The Copermittees will assess the condition of receiving water quality, including a review of data collected during long-term receiving water monitoring, regional monitoring programs, and sediment quality monitoring. These assessments will be included in the Report of Waste Discharge (ROWD), as required under Provision F.5.b of the Municipal Permit. Additional information on receiving water assessments is provided in Section 5.3 of the WQIP.

NON-STORM WATER MS4 OUTFALL DISCHARGE ASSESSMENTS

The Authority will review the data collected during the MS4 outfall discharge monitoring programs at least once during the term of the Municipal Permit. Assessments of the data collected during the MS4 Outfall Receiving Water Monitoring Program will be made to assess the overall effectiveness of the IDDE program. These assessments will be included in the WQIP Annual Report (Provision F.3.b.(3) and ROWD. Additional information on MS4 outfall assessments is provided in Section 5.3 of the WQIP.

SPECIAL STUDIES ASSESSMENTS

The Authority will work with the other Copermittees to assess the effectiveness of the special studies established regionally and within each WMA. The Copermittees will report the results of the special studies assessments and identify any necessary modifications to the WQIP. Additional information on regional monitoring program and special studies effectiveness assessments is provided in Section 5.3 of the WQIP.

3.6 ILLICIT DISCHARGE DETECTION AND ELIMINATION COMPONENT PROGRAM REVIEW AND MODIFICATION

The Authority has reserved this section to identify and document future changes to the IDDE Component of the SWMP. In an effort to support the iterative approach and adaptive management process of the WQIPs, updates will be made to the WQIP as the IDDE programs are modified in response to findings during effectiveness assessments. As required under the Municipal Permit Provision B.5, the WQIP will be assessed during preparation of the ROWD. New sources of NSWDs and illicit discharges may be discovered through the approaches described in Section 3.0. The WQIP goals and strategies to meet required pollutant reductions may need to be modified as a result of findings or reports made during these programs. Section 13.0 of this SWMP details the program modifications made to the March 2008 version of the SWMP to bring this document into compliance with the renewed Municipal Permit.

- Updates were made to the NSWDs/IDDE Component, Section 3 in December 2017 and January 2019 to incorporate over-irrigation prohibitions and add details on the FOD Management Program at SAN. The outline of potential NSWDs at SAN were reorganized in Sections 3.1.1 – 3.1.2.
- Updates were made to the escalated enforcement levels in the Enforcement Section of the NSWDs/IDDE Component, Section 3 in January 2022.

4.0 DEVELOPMENT AND PLANNING COMPONENT

4.1 INTRODUCTION

Section 4.0 of this SWMP addresses requirements in Provisions E.3.a through E.3.f of the Municipal Permit that the Authority has determined are relevant to the Development and Planning Component. As listed below, these Provisions require the Authority to:

- B.3.b.(4).(b)—Develop a list of candidate projects as part of the Watershed Management Area Analysis (WMAA) that could be used as alternative compliance options in place of implementing on-site structural BMPs for Priority Development Projects (PDPs). Project applicants may choose to fund, contribute funds to, or implement one of the candidate projects identified in the WMAA. Section 4.6 was prepared to address this requirement.
- E.3.a.—Require all development projects within SAN's jurisdiction to implement general BMP requirements and specific source control and LID BMPs, where applicable and feasible, into the planning process. Section 4.5.1 and Section 4.5.2 were prepared to address this requirement.
- E.3.b— Determine which development projects fall under the Municipal Permit's definition of a PDP and require the implementation of on-site structural BMPs. The previous Standard Urban Storm Water Mitigation Plan (SUSMP) in Appendix C has been replaced with the BMP Design Manual for BMP design, development, and implementation in accordance with Provision F.2.b (update occurred in February 2016).
- E.3.c.(1)—Ensure that PDPs implement structural BMPs that meet the type and performance requirements of the Municipal Permit. Section 4.5.3 and Appendix C were prepared to address this requirement.
- E.3.c.(2) —Require implementation of on-site BMPs for PDPs to manage hydromodification impacts. As discussed in Section 4.5; however, the Authority PDPs are exempt from this requirement, because storm water runoff from Authority PDPs discharges to an enclosed embayment.
- E.3.c.(3)—Consider the allowance for PDP applicants to propose and fund, contribute funds to, or implement an alternative compliance project (ACP) that has or has not been identified in the WMAA. Section 4.6 was prepared to address this possibility.
- E.3.c.(4)—Submit proof of the mechanism under which ongoing long-term maintenance of all structural BMPs will be conducted. Section 4.5.3 and Appendix C were prepared to address this requirement.
- E.3.c.(5)—Verify that infiltration BMPs do not cause or contribute to an exceedance of applicable groundwater quality objectives. Infiltration BMPs must meet the design criteria required in the Municipal Permit. Section 4.5 was prepared to address this requirement.
- E.3.d—Develop a BMP Design Manual to replace the SUSMP and implement the new manual within 180 days of completion. Section 4.7 was prepared to address this requirement. The SUSMP was followed until it was replaced by the BMP Design Manual in February 2016 (Appendix C), which was updated in January 2022.
- E.3.e—Implement an approval, verification, and inspection program that requires structural BMPs on all PDPs and confirms that the BMPs are designed, constructed, and maintained to remove pollutants in storm water to the MEP. Section 4.8 was prepared to address this requirement.

- E.3.f—Implement an ERP to enforce the legal power of the Authority to achieve compliance with the requirements of the Municipal Permit, as applicable, for all development projects. Section 4.9 has been prepared to address this requirement.

4.2 LAND USE PLANNING

During the Authority's land use planning and project review process, and prior to project approval and/or permit issuance for all PDPs, the Authority prescribes the requirements necessary for project improvement to ensure that discharges of pollutants from the project and to the MS4 will be prevented, eliminated, or reduced to the MEP; will not cause or contribute to a violation of water quality standards; and will comply with Authority ordinances, and the Municipal Permit. The Authority's planning and development project review process incorporates appropriate storm water management controls into standard conditions of approval, use permits, lease agreements, and other project approval mechanisms, as outlined below.

4.2.1 MASTER PLAN

A Master Plan for SAN was adopted by the Authority Board on May 1, 2008. The Master Plan documents the Authority's planning process for SAN and provides guidance for development of the airport to meet continued passenger, cargo, and operations growth. The goal of the Master Plan is "to provide a financially and environmentally responsible guideline for future Airport development that will accommodate forecast aviation demand and remain adaptable to either a short-term or long-term future for the existing Airport site based on the results of the Airport Site Selection Program" (San Diego County Regional Airport Authority, 2008). All Development Projects implemented as a result of the Master Plan are subject to this SWMP.

The Authority prepared the SAN Master Plan to guide the development of SAN to the year 2030. The project's main components are:

- Ten new jet gates at Terminal 2: Addition of 10 gates to accommodate more travelers. (Completed in 2013.)
- Additional parking for remain-overnight aircraft: Additional parking for remain-overnight (RON) aircraft to increase the efficiency of airport operations by eliminating the need to taxi aircraft from one side of the runway to the other. (Completed in 2013.)
- Second-level roadway at Terminal 2: A second-level roadway to provide separate departure and arrival areas at Terminal 2 and so relieve the previous congestion associated with the dual arrival and departure location. (Completed in 2013.)
- Parking structure: A new structure to provide additional options for passengers and greeters to park their vehicles for short-term trips. (Completed in 2018.)
- Taxiway improvements on the northern and southern sides: Taxiway improvements to increase the flow of aircraft traffic by efficiently lining up aircraft waiting to take off.
- SAN Park Pacific Highway: Reconstruction and relocation of the SAN Park Pacific Highway. (Completed in 2014.)
- Access road: Construction of a new access road for easier access to North Area facilities. (Completed in 2015.)
- New general aviation facilities: Replacement of the general aviation facilities with new terminals, hangars, access roads, and aprons on 12.4 acres of SAN property. (Completed in 2013.)
- Reconstruction of taxiways: Reconstruction of Taxiways C and D with new apron hold pads and taxiways.

- North Side building improvements: Construction of new, enhanced buildings to improve operations, including a Receiving and Distribution Center and a rental car operation and storage facility. (Completed in 2016.)
- Roadway improvements: Expansion of current roadways to improve traffic and access to the northern side of the airport (Completed in 2016).

SDCRAA released its Environmental Impact Report (EIR) in September 2019 with an addendum in March 2021, describing specific improvements to SAN to meet demand through 2050. The EIR is a comprehensive study of all potential impacts on the environment resulting from proposed improvements to SAN, project alternatives, and enhancements to travel experiences for San Diego County residents and visitors. It ensures that actions being taken are in the best interest of surrounding communities and the environment. The EIR covers potential impacts on aesthetics, air and water quality; archaeological and historical issues; impacts on endangered species, the coastal zone, wetlands, and coastal resources; toxic and hazardous waste issues; potential noise and light pollution; and all cumulative effects on the environment as well. As part of the California Environmental Quality Act (CEQA), the EIR is an objective, full-disclosure report meant to inform the public about any and all possible impacts on the environment and to seek input on alternatives to reduce the impacts. The EIR is available to the public on the SAN website at http://www.san.org/Airport-Projects/Environmental-Affairs.

The Authority's Strategic Stormwater Master Plan (SSMP) was a 3-part study that begun in 2015 and was intended to develop a comprehensive airport-wide strategic master drainage plan that includes evaluations of storm water quantity, quality, reuse, and recommended infrastructure. Phase II of the SSMP (2017) first identified storm water capture and reuse as a feasible means to address several storm water quality and quantity concerns. The SSMP/Capture and Reuse Project was finalized August 10, 2018, and represents the third and final phase (Phase III) of the SSMP. The analysis detailed in Phase III of the SSMP was performed to verify the conclusions of the Phase II SSMP (2017) and to further develop and validate the design of the system. As outlined in Phase III, the required size for each underground storage tank depends largely on the following parameters: 1) rainfall quantity, 2) tributary area, 3) runoff volumes, 4) required storage capacity, 5) pumping/discharge rates, and 6) overflow rates.

In the WQIP Fiscal Year 2018 annual report, storm water capture and reuse was updated from being an optional strategy to a jurisdictional strategy. In 2018, the Terminal 2 Parking Plaza SWRTS opened and captures 100% of the rainfall runoff from an 85th-percentile 24-hour storm event that falls on the 7.6-acre parking structure and routes the water to the Central Utility Plant for use in the cooling towers. In early 2019, the Authority began construction of a storm water capture and reuse system that will capture approximately 80% of average annual storm water runoff from approximately 200 acres of the 661-acre Authority property, when completed.

SUSTAINABILITY POLICY

On November 13, 2017, the Authority officially signed the Airports Sustainability Declaration, which is a voluntary and non-binding agreement that calls for airports to develop, implement and expand initiatives to improve the sustainability and resilience of airports and their surrounding communities.

The Authority adopted its Sustainability Policy (Policy 8.31) on February 7, 2008 and updated the policy on January 3, 2019. The Sustainability Policy reviews SAN's primary organizational strategies and sustainability goals, describes ways in which these goals are being met currently at SAN, and evaluates areas where there is room for improvement. The Sustainability Policy commits the Authority to these sustainable practices:

- Affirm commitment to regulatory compliance, continuous improvement, accountability and transparency in environmental, social and economic performance through the development of formal sustainability reports on a regular basis;

- Actively participate in local and regional sustainability partnerships and strongly encourage and promote sustainable practices both in the aviation industry and the region;
- Proactively address greenhouse gas emissions and the impacts of climate change through SAN operations, planning and development decisions;
- Review and evaluate all new programs and projects in terms of addressing all three pillars of sustainability, in a balanced, holistic and measurable approach;
- Analyze the life cycle operating costs and impacts of the Authority's facilities, operations and services, using a Total Cost of Ownership approach to determine project feasibility economic sustainability;
- Adopt the standards set forth by the United States Green Building Council's LEED and/or other green design and construction standards as guiding criteria for achieving sustainable design in the development and remodeling of SAN facilities;
- Apply the three pillars of sustainability, LEED, and other green construction criteria as a significant factor when reviewing tenant development/redevelopment projects and provide incentives to encourage sustainable design features;
- Develop language within all new leases, agreements and contracts that supports the Authority's sustainability initiatives;
- Require the Authority's lessees and contractors to comply with the terms and conditions of their agreements pertaining to sustainability;
- Establish a work environment that maximizes the Authority's employee assets and stimulates an atmosphere of innovation, productivity, pride, and a personal commitment to sustainability; and
- Take a leadership role in sustainability initiatives that strengthen the social well-being and community relationships with visitors, Airport stakeholders and the public the Authority serves.

Section 4.3.3 describes how sustainability goals are incorporated into new and redevelopment efforts. Annual Sustainability Reports that highlight activities and accomplishments in the 5 strategic areas of focus (Community, Customer, Employee, Financial and Operational) are publicly available at http://sustain.san.org/.

4.2.2 SOURCE CHARACTERIZATION

Pollutants found or expected in SAN runoff can vary according to land use, as indicated by Table 4-1.

Table 4-1. Anticipated and Potential Pollutants Generated by Land Use Type at SAN

Priority Project Category	General Pollutant Categories								
	Sediment	Nutrients	Heavy Metals	Organic Compounds	Trash and Debris	Oxygen-Demanding Substances	Oil and Grease	Bacteria and Viruses	Pesticides
Commercial Development	P(1)	P(1)	X	P(2)	X	P(5)	X	P(3)	P(5)
Industrial	X		X	X	X	X	X		
Automotive Repair Shops			X	X(4)(5)	X		X		
Restaurants					X	X	X	X	P(1)
Parking Lots	P(1)	P(1)	X		X	P(1)	X		P(1)
Fueling Facilities			X	X	X	X	X		
Streets, Roads	X	P(1)	X	X(4)	X	P(5)	X	X	P(1)

X = anticipated

P = potential

(1) A potential pollutant if on-site landscaping exists.

(2) A potential pollutant if the project includes uncovered parking areas.

(3) A potential pollutant if land use involves food or animal waste products.

(4) Including petroleum hydrocarbons.

(5) Including solvents.

4.3 DEVELOPMENT PROJECT REVIEW PROCESS

All development projects at SAN undergo a review as part of the project approval process, as described below. This SWMP requires that all development projects provide BMPs to minimize to the MEP the introduction of pollutants of concern to the storm water conveyance system that may significantly impact receiving waters. The Authority's environmental review process ensures a comprehensive evaluation of water quality and cumulative impacts, identifies appropriate measures to avoid, minimize, and mitigate those impacts, and ensures sustainable design features and LEED criteria are incorporated, where possible, into development projects. As part of this process, the P&EAD evaluates the project application to ensure that all applicable documentation has been submitted. All project documents must be submitted to the proper departments for verification and approval, as described in the sections below.

4.3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The Authority staff members use the CEQA and the CEQA Guidelines to evaluate projects for approval. CEQA requires that the Authority first evaluate the effects of the proposed project on the environment through an initial environmental review. All phases of project planning, implementation, and operation are considered in the environmental review. The CEQA Guidelines, issued by the State of California Governor's Office of Planning and Research contain the "Environmental Checklist Form" (Appendix G), which is a model checklist for use in determining whether the effects of a proposed project on the environment are exempt, mitigatable, or significant. The Authority has adopted the checklist as part of its environmental review process. The checklist is incorporated into an assessment of the environmental impacts of the project, for which the Authority prepares a brief report as necessary with the project description, location, environmental setting, potential for impacts, and ways to mitigate significant impacts, if any and as applicable. The initial environmental review is used by the Authority to assess whether to prepare a Negative Declaration, Mitigated Negative Declaration, or EIR.

A Negative Declaration or Mitigated Negative Declaration is prepared if it is determined that there is no potential for significant impacts or if the project proponent revises the project to include BMPs or other enforceable conditions that will mitigate any identified significant impacts, respectively. The Negative Declaration or Mitigated Negative Declaration includes a description of the project, project name, legal description, project applicant, and findings.

Alternatively, an EIR is prepared if the Authority determines that the project may have a significant effect (as defined by CEQA) on the environment. Projects that clearly require an EIR may skip the initial environmental assessment and be moved directly to the EIR process. An EIR describes the project, analyzes its significant environmental effects (including water quality impacts), discusses ways to mitigate or avoid the effects, and incorporates public comments.

The Authority's approval to execute a development project is typically a discretionary act. The Authority also coordinates with federal agencies (typically the Federal Aviation Administration) on the review process under the National Environmental Policy Act.

Authority staff in the Airport Planning and Noise Mitigation Department use the following questions pertaining to hydrology and water quality to evaluate the potential storm water impacts of any particular project.

Would the Project:

- Violate any water quality standards or waste discharge requirements?

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?
- Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?
- Result in an increase in pollutant discharges to receiving waters, considering water quality parameters such as temperature, dissolved oxygen, turbidity, and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment nutrients, oxygen-demanding substances, and trash)?
- Result in significant alteration of receiving water quality during or following construction?
- Result in increased impervious surfaces and associated increased runoff?
- Create significant adverse environmental impact on drainage patterns because of changes in runoff flow rates or volumes?
- Be a tributary to an already impaired water body as listed on the 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?
- Be a tributary to environmentally sensitive areas (ESAs) (e.g., RARE beneficial use areas, ASBS, etc.)? If so, can it exacerbate already-existing sensitive conditions?
- Have a potentially significant environmental impact on surface water quality of either marine, fresh, or wetland waters?
- Have a potentially significant adverse impact on groundwater quality?
- Cause or contribute to an exceedance of applicable surface water or groundwater receiving water quality objectives or degradation of beneficial uses?
- Impact aquatic, wetland, or riparian habitat?

4.3.2 APPLICATION OF CALIFORNIA COASTAL ACT

Discretionary projects proposed at SAN may require a coastal development permit in conformance with the California Coastal Act. If the Authority determines that a project requires a coastal development permit, an application is prepared and submitted to the California Coastal Commission. The California Coastal Act contains water quality and watershed-related policies with which coastal development projects must comply. The Authority proposes project alternations or mitigation measures to be consistent with these policies for development projects that require a coastal development permit, which are then reviewed, revised as appropriate, and approved by the Coastal Commission.

4.3.3 SUSTAINABILITY

The Authority intends for all new construction at SAN to be LEED certified. The Authority is committed to building and operating sustainably, and strives to protect the wide variety of natural resources that exist at SAN's location on San Diego Bay. In terms of reducing impacts from storm water to the MEP, all development projects during the review process need to demonstrate their commitment to the following goals:

- Reducing waste and recycling;

- Conserving water;
- Lowering their impact on air quality;
- Using sustainable building methods (applying LEED criteria); and
- Promoting green infrastructure.

Design and construction incorporate "green" design principles, such as use of LID BMPs, as outlined in the following section and Appendix C, and use recycled materials and renewable resources. Most construction material waste from development projects is recycled and reused on site. The Authority has developed language in new leases, agreements, and contracts that supports the Authority's sustainability initiatives and requires lessees and contractors to comply with all terms and conditions of their agreements pertaining to sustainability.

4.3.4 POST-CONSTRUCTION STORM WATER MANAGEMENT

The Authority developed a SUSMP under the previous Municipal Permit for projects that are determined to be PDPs. According to Provision E.3.d of the 2013 Municipal Permit, the SUSMP (now replaced by the BMP Design Manual under the 2013 Municipal Permit) continued to be implemented by the Authority until the new BMP Design Manual was developed in February 2016. The Authority worked with other Copermittees to develop the new regional Model BMP Design Manual in compliance with Provision E.3.d of the Municipal Permit. Once it was approved by the RWQCB, the Authority replaced the previous Authority SUSMP with the Authority 2016 BMP Design Manual, which is based on the Model BMP Design Manual but tailored to meet the requirements of the Authority (see Appendix C). The BMP Design Manual was updated in January 2022. A summary of the changes made can be found in Section 4.6.

The Authority's previous SUSMP described procedures to identify pollutants and conditions of concern for each PDP. To properly classify pollutants of concern, each PDP had to identify the receiving waters to which the project would discharge, list any and all pollutants for which the receiving waters were impaired using the most recent 303(d) list, and then compare the list of pollutants for which the receiving waters were impaired with the pollutants anticipated to be generated by the project. The Authority also had to evaluate each PDP for conditions of concern (that is, conditions with the potential to permanently impact downstream channels and habitat integrity). The Authority could, if required, request a drainage report to include all or a subset of the following items to conduct its evaluation: the relevant hydrologic and environmental factors, geotechnical concerns and mitigation measures, a field reconnaissance to observe and report downstream conditions and the area's susceptibility to erosion or habitat alteration, and rainfall runoff characteristics from the project area developed for 2-year and 10-year frequencies. The Authority's previous SUSMP was included in older versions of this SWMP in Appendix C, but has now been replaced with a BMP Design Manual in Appendix C, as mentioned above.

4.3.5 TENANT AND AUTHORITY DEVELOPMENT PROJECTS

The BMP Design Manual addresses updated on-site post-construction storm water requirements for Standard Projects and PDPs, and provides updated procedures for planning, preliminary design, selection, and design of permanent storm water BMPs based on the performance standards presented in the Municipal Permit (see Section 4.7 below and Appendix C). The BMP Design Manual guides project applicants, for both Authority and tenant developments, including the representatives responsible for preparation of the Storm Water Quality Management Plans (SWQMPs), and P&EAD personnel responsible for review of these plans.

New development and redevelopment projects are conducted by two major categories of project proponents: projects conducted by tenants of the airport (hereafter referred to as "tenant projects") and projects conducted by the Authority itself (hereafter referred to as "Authority projects" or "capital projects"). The Authority has a different project approval process for each of these two project proponent categories and these differences are reflected in the Authority BMP Design Manual project review and approval processes.

The Authority BMP Design Manual approval process, including roles and responsibilities of Authority departments, is described below and in Appendix C for both tenant and Authority projects.

4.3.5.1 Tenant Projects

Whenever an airport tenant desires to make surface or subsurface improvements or perform new construction, reconstruction, modification, or demolition, the tenant must submit a request for approval to the A&TO Department prior to commencing work. The request must be accompanied by plans and specifications that indicate the nature and extent of the proposed work and conform to Authority policies and all relevant laws, ordinances, rules, and regulations. The plans may include references to specific sections or parts of the Uniform Building Code or other applicable codes, ordinances, or laws. The A&TO Department, in conjunction with the ADC, assigns a project manager to evaluate the project application for completeness and to coordinate technical review with the other Authority departments. The P&EAD must determine whether the BMP Design Manual requirements are applicable to the project, as described in Section 1.2 of the BMP Design Manual. For both Standard Projects and PDPs, in order for the project application to be considered complete, the project proponent must submit a SWQMP with the project application in accordance with the Authority BMP Design Manual describing how the project will meet the Manual requirements. The P&EAD reviews the finalized project plans and documents to ensure that all environmental requirements are met.

The approval of a SAN tenant project becomes part of the lease or part of a use and occupancy permit once all documents in the project application have been approved. Any CEQA mitigation measures or conditions of approval required by the review process of these departments become part of the lease or use permit and may be adopted by the Authority Board as a CEQA Mitigation Monitoring and Reporting Program. Sustainability and LEED criteria commitments are also incorporated. Authority review does not substitute for any other required applicable City, County, or Federal development permits. Written approval must be obtained from the Authority before development may begin, regardless of the scope of work.

4.3.5.2 Authority Projects

Whenever an Authority department desires to make surface or subsurface improvements or to perform new construction, reconstruction, modification, or demolition, the project sponsor, proponent, or manager must submit appropriate information to the Authority's Executive Team. The Authority's Executive Team evaluates each development project on the basis of its financial funding capacity and prepares a development program with the accepted projects. The P&EAD, Planning and Noise Mitigation Division assesses the environmental impacts of the program. P&EAD must determine whether the current BMP Design Manual requirements are applicable to the project, as described in Section 1.2 of the BMP Design Manual. For both Standard Projects and PDPs, in order for the project submittal to be considered complete, the submittal must include a SWQMP in accordance with the Authority BMP Design Manual describing how the project will meet the Manual requirements. Once reviewed by the relevant Authority departments, the development program is submitted to the Authority Board for approval. The Authority Board evaluates the development program and determines whether the program will be included as part of the Authority's budget. Any mitigation measures or conditions of approval required by the review process of these departments become part of the project design, contract, and/or implementation and are formalized, as necessary, as a CEQA Mitigation Monitoring and Reporting Program adopted by the Authority Board at the time of project approval. Again, commitments to sustainability or LEED initiatives are also incorporated into the project design and contracts.

4.4 PRIORITY DEVELOPMENT PROJECTS

PDPs are defined as proposed land development projects for which the Authority must impose specific requirements and structural BMPs. PDPs at SAN are further described in the Authority's BMP Design

Manual (Appendix C). Municipal Permit Provision E.3.b includes the following criteria for determination of a PDP:

- New development projects that create 10,000 cumulative square feet or more of impervious surfaces;
- Redevelopment projects that create and/or replace 5,000 cumulative square feet or more of impervious surface if the existing site has 10,000 square feet or more of impervious surfaces;
- New or redevelopment projects that create 5,000 cumulative square feet or more of impervious surfaces for use by restaurants, parking lots, and streets, roads, highways, and freeways; hillside development projects are not applicable to SAN;
- New and redevelopment projects that create or replace 2,500 cumulative square feet or more of impervious surfaces which discharge directly to an ESA;
- New development projects that support automotive repair shops or retail gasoline outlets;
- New or redevelopment projects that disturb one or more acres of land and are expected to generate pollutants post-construction; and
- Some development projects may be exempt from being defined as a PDP by the Authority if they meet one or more of the following conditions:
  - New or retrofit paved sidewalks that are designed to divert storm water runoff to vegetated or permeable areas, be hydraulically disconnected from impervious streets or roads, or include permeable pavements or surfaces in accordance with USEPA Green Streets guidance; and
  - Retrofitting or redevelopment of existing paved alleys, streets, or roads that are designed in accordance with the USEPA Green Streets guidance.

As stated in Section 4.3.4, the definitions of a PDP contained in the new BMP Design Manual (adopted in February 2016 and updated in January 2022) are now followed, replacing the old PDP definitions in the previous SUSMP document.

4.5 BEST MANAGEMENT PRACTICES

The Authority requires that all development projects ensure that pollutant discharges and runoff flows are reduced to the MEP and that receiving water quality objectives are not violated. Proposed new development projects are required to incorporate BMPs into project plans in order to obtain approval. As required by Municipal Permit Provision E.3.a.(1), all development project plans must incorporate BMPs that remove pollutants from runoff as close to the source as possible and that do not create a nuisance or pollution associated with vectors. All development projects are required to implement source control and LID BMPs. Structural BMPs are required for any development projects which meet the requirements in Provision E.3.b. of the Municipal Permit, as discussed below.

4.5.1 SOURCE CONTROL BMPS

Source control BMPs are designed to reduce the contact between pollutants and storm water runoff and include land use and planning practices designed to reduce the potential for contamination at the source of pollution. Detailed source control BMPs are included in Appendix B and in the BMP Design Manual in Appendix C.

The Authority, as required by Provision E.3.a.(2) of the Municipal Permit, requires the following source control BMPs for all development projects where applicable and feasible:

- Prevention of illicit discharges to the MS4;

- Storm drain system stenciling and signage;
- Protection of outdoor material storage, trash storage, and work areas from rainfall, run-on, runoff, and wind dispersal; and
- Minimization of pollutant generation.

4.5.2 LOW-IMPACT DEVELOPMENT BEST MANAGEMENT PRACTICES

LID BMPs incorporate natural landscapes or resources and engineered, small-scale hydrologic controls into new or redevelopment projects to mimic pre-development hydrologic conditions, thereby reducing runoff and pollutants carried to the MS4. Instructions for identifying and implementing LID BMPs, also referred to as Site Design BMPs, are included in the BMP Design Manual (Appendix C). The Authority, as required by Provision E.3.a.(3) of the Municipal Permit, requires the following LID BMPs to be implemented for all development projects where applicable and feasible:

- Preserve or restore natural reservoirs and drainage corridors;
- Implement buffer zones for natural water bodies where feasible, or other buffers such as access restrictions where buffer zones for natural water bodies are not feasible;
- Conserve natural areas, vegetation, and soils within the development project footprint.
- Minimize the width of streets, sidewalks, and parking lot aisles as feasible, considering public safety;
- Minimize the impervious footprint;
- Minimize soil compaction to landscaped areas;
- Disconnect impervious surfaces with interspersed pervious areas;
- Implement landscaped or pervious areas to enhance infiltration, retention, and treatment of runoff;
- Implement collection areas or devices located at, or close to, the point where storm water initially meets the ground;
- Implement permeable materials in low-traffic areas where feasible;
- Incorporate native or drought-tolerant landscaping; and
- Harvest or reuse precipitation to both reduce runoff and minimize water usage.

4.5.3 STRUCTURAL BMPS

Development and redevelopment projects determined to be a PDP must include plans to implement structural BMPs in addition to the Source Control and LID BMPs, to meet the structural BMP performance requirements of Provision E.3.c of the Municipal Permit. There are special considerations for redevelopment PDP projects, namely that if they result in the creation or replacement of impervious surface in an amount less than 50 percent of the surface area of the previously existing development, then the structural BMP performance requirements apply only to the creation or replacement of impervious surface and not to the entire development. However, if the redevelopment results in creation or replacement of impervious surfaces greater than or equal to 50 percent of the surface area, structural BMP performance requirements apply to the entire development.

Structural BMPs must be designed to retain on-site pollutants contained in the volume of storm water runoff produced from a 24-hour, 85th percentile storm event (design capture volume). Additional information on structural BMP design, implementation, verification, and maintenance is contained in the BMP Design

Manual in Appendix C. If BMPs that retain full design capture volume are considered technically infeasible, the following alternatives may be implemented:

- Biofiltration BMPs may be designed with the appropriate hydraulic loading rate to maximize storm water retention and pollutant removal; to prevent erosion, scour, and channeling within the BMP; and to be sized according to the requirements in the BMP Design Manual.
- If biofiltration is not technically feasible, then flow-through treatment control BMPs can be used to treat runoff, mitigate for the design capture volume not reliably retained on site, and meet the size and design requirements in the BMP Design Manual to remove pollutants from storm water to the MEP. Flow-through treatment control BMPs should be ranked with high or medium pollutant removal efficiencies for the expected pollutants of concern, and a feasibility analysis should be conducted by the Authority if the flow-through BMP has low removal efficiency.

If the project proponent chooses to implement infiltration BMPs to meet the structural BMP requirements, the infiltration device(s) must not cause or contribute to an exceedance in applicable groundwater quality objectives and must meet the following design criteria, according to Provision E.3.c.(5) of the Municipal Permit, unless the project proponent demonstrates that one or more of the criteria are not necessary to protect groundwater:

- Runoff must undergo pre-treatment prior to infiltration;
- Pollution prevention and source control BMPs must be implemented at a level appropriate to protect groundwater quality;
- Infiltration BMPs must be adequately maintained to remove pollutants in storm water to the MEP;
- The vertical distance from the base of the infiltration BMP to the seasonal high groundwater mark must be at least 10 feet; this vertical distance criteria can be reduced in cases where the groundwater basins do not support beneficial uses (as is the case at SAN), as long as groundwater quality is maintained;
- The soil through which infiltration will occur must have physical and chemical characteristics adequate for proper infiltration durations and treatment of runoff for the protection of groundwater for beneficial uses; and
- The development will not occur in areas of industrial, light industrial, or other activities that pose a high TTWQ, unless source control BMPs are implemented to prevent exposure or the runoff from these activities is treated or filtered to remove pollutants prior to infiltration.

The BMP Design Manual provides instructions for selecting, sizing, and designing infiltration BMPs.

In accordance with Municipal Permit Provision E.3.c.(2)(d)(ii), the Authority is exempt from the Municipal Permit requirement to implement hydromodification BMPs to manage post-project runoff conditions at SAN, because storm water runoff from the airport discharges to an enclosed embayment (namely, San Diego Bay). This is further discussed in the WMAA, which is included in the San Diego Bay WQIP.

4.6 BMP DESIGN MANUAL

As described in Section 4.3.4, the Authority continued to use the SUSMP previously contained in Appendix C until the new BMP Design Manual was developed and replaced it (the new Appendix C). All development projects (Standard Projects and PDPs) are required to minimize the introduction of pollutants of concern to the storm water conveyance system to the MEP to reduce any significant impacts on the receiving water. This objective can be most effectively achieved by using a combination of Site Design, Source, and treatment or structural control BMPs. The Authority's BMP Design Manual (Chapter 4) describes the selection and design criteria for the Source Control and LID BMPs (required for all development projects),

and the additional treatment control or structural BMPs required to be implemented at PDPs (Chapters 5-7). For PDPs, the Authority's BMP Design Manual outlines the method for selecting structural storm water BMPs to be used on the project to maximize the removal of the pollutant(s) of concern identified on the project site, and per Municipal Permit requirements.

The Authority is implementing the BMP Design Manual, replacing the previous SUSMP requirements, as from February 2016 onwards, to continue to address post-construction urban runoff pollution from new development, priority development, and redevelopment projects. The following changes required by the new Municipal Permit Provisions E.3.d.(1) through (5) have been incorporated into the BMP Design Manual:

- Updated procedures to determine the nature and extent of storm water BMP requirements for potential development and redevelopment projects, including all applicable source control, LID, and structural BMPs; design procedures and requirements for structural BMPs; and any requirements specific to phased projects for both private development (tenant) and public improvement (Authority) projects;
- Updated procedures for identifying the expected pollutants and conditions of concern, based on receiving water quality; pollutants or conditions that cause or contribute to the highest priority water quality conditions identified in the WQIP; the land use type of the project and the pollutants associated with the land use; and the pollutants predicted to be present at the site;
- Updated performance requirements and procedures for designing structural BMPs;
- Long-term maintenance criteria for each structural BMP listed in the BMP Design Manual; and
- Alternative compliance criteria, if permitted, for PDPs.

Updates to the BMP Design Manual made in January 2022 include criteria for alternate BMP usage, changing the language of "Street Tree" to "Tree Well," credit volumes and maintenance for Tree Wells, changing the language of "EAD" to "P&EAD," maintenance overviews and siting criteria for BMPs in Appendix E of the Design Manual, the addition of Large Trash Generating Facilities and Amended Soils to the list of BMPs in Appendix E of the Design Manual, and design parameters, sizing factors, and modeling approaches for Hydromodification Management.

4.6.1 STORM WATER QUALITY MANAGEMENT PLAN

Standard Projects and PDP projects that are subject to the BMP Design Manual must submit a SWQMP to P&EAD. The SWQMP will replace the Urban Storm Water Mitigation Plan previously required by the SUSMP. The SWQMP for all developments must demonstrate how source control and site design (or LID) BMPs have been incorporated and implemented. The SWQMP for PDPs must also include the following information:

- Documentation of the planning and decision process for structural BMP selection;
- Calculations used for design of structural BMPs that demonstrate that applicable performance standards have been met;
- General operation and maintenance requirements of the selected structural BMPs; and
- Maintenance mechanisms and responsibilities selected for long-term operation and maintenance of the structural BMPs.

Standard Projects, or projects that are not defined as a PDP and are not subject to PDP requirements, as well as PDPs, will submit checklists that verify that all source control and site design BMPs have been considered and implemented when feasible and include copies of all relevant plan sheets that demonstrate BMP implementation. The following checklist templates are included as appendices in the BMP Design Manual to be used in development of both a Standard Project and a PDP SWQMP:

- Applicability of Permanent, Post-Construction Storm Water BMP Requirements;
- Project Type Determination Checklist;
- Site Information Checklist for Standard (or PDP) Projects;
- Source Control BMP Checklist; and
- Site Design BMP Checklist.

The P&EAD evaluates the project SWQMP as part of the initial project review process to ensure that the project plans comply with BMP Design Manual and Municipal Permit requirements.

PDP BMP IMPLEMENTATION AND OVERSIGHT

PDP and structural BMP verification and inspection are conducted by the Authority to ensure that all design, construction, and maintenance requirements have been met.

4.7 STRUCTURAL BMP APPROVAL AND VERIFICATION

All PDP applications must meet the structural BMP performance requirements of Provision E.3 of the Municipal Permit, as outlined in the BMP Design Manual. Prior to occupancy of each PDP, P&EAD, together with a project proponent engineer, inspects each structural BMP to verify that it has been constructed in compliance with all specifications, plans, permits, and ordinances, and records verification and approval of the structural BMPs in the Web-based database. Initial BMP verification inspections are separate from the regular operation and maintenance inspections for each BMP.

4.7.1 PDP INVENTORY

The Authority has incorporated a development inventory into the Web-based database for tracking and approval of all developments including PDPs. If applicable, the SWQMP can be uploaded and the type and location of structural BMPs can be recorded in the database. The database currently includes, or will be updated to include, the project PDP, address and hydrologic subarea, descriptions of structural BMPs (if applicable), date(s) of construction, responsible parties for construction and structural BMP maintenance, BMP maintenance inspection dates and results, and corrective actions taken and associated resolutions, when applicable.

PDPs with structural BMPs are prioritized for inspection and follow-up as shown in Table 4-2.

Table 4-2. PDP Prioritization Criteria

PDP Priority	Authority Criteria
High	PDPs with expected pollutants that are listed as highest or focused priority pollutants for the Authority in the San Diego Bay WQIP.
Low	PDPs with expected pollutants that are not listed as highest or focused priority pollutants for the Authority in the San Diego Bay WQIP.

PDP = Priority Development Project
WQIP = Water Quality Improvement Plan

The Authority reserves the right to revise its methodology for determining PDP inspection priority for any project as necessary. P&EAD considers the following additional factors when revising PDP structural BMP inspection priorities, as follows:

- Receiving water quality;

- Number and sizes of structural BMPs;
- Likelihood of operation and maintenance issues of structural BMPs;
- Land use and expected pollutants generated; and
- Compliance record.

4.7.2 PDP STRUCTURAL BMP MAINTENANCE VERIFICATIONS AND INSPECTIONS

The Authority's approval of a development project includes the requirement to properly operate and maintain any structural BMPs that are constructed. The P&EAD verifies annually that structural BMPs are adequately maintained and continue to operate effectively to remove pollutants in storm water to the MEP. This verification is accomplished through inspection or self-certification.

Structural BMPs constructed by the Authority as part of a capital improvement project are maintained by the P&EAD contractor. The P&EAD inspects and the P&EAD contractor maintains these structural BMPs in accordance with the manufacturer's recommendations. The P&EAD records inspections and records maintenance of these BMPs done by the P&EAD contractor. Before October 1 of each year, the P&EAD inspects all structural BMPs.

Structural BMPs constructed by tenants are generally maintained by tenants, unless the Authority has assumed responsibility under the terms of the tenant's lease or some other mechanism. Structural BMPs constructed by tenants are either inspected by P&EAD annually before October 1 or the tenant is allowed to self-certify inspection and maintenance. Structural BMPs associated with PDPs designated high priority by the Authority will not be eligible for self-certification and will be inspected by P&EAD directly. Tenants who have been authorized by P&EAD to perform their own inspections and maintenance of structural BMPs are required to submit documentation and self-certification that inspection and maintenance were performed prior to October 1.

Any decision to increase the frequency of inspections of structural BMPs will be made by P&EAD on a case-by-case basis and will be dependent on the type of operations occurring outdoors at the PDP, type of BMPs installed, frequency of storms, and past experience from inspecting structural BMPs.

4.8 ALTERNATIVE COMPLIANCE PROGRAM

The Municipal Permit allows the Copermittees to implement an alternative compliance program in lieu of structural control BMPs for a PDP on an individual jurisdictional level, if they so choose. Provision E.3.c.(3) of the Municipal Permit and Section 1.8 of the Authority's BMP Design Manual in Appendix C outline the requirements and conditions for establishing such programs. Provision E.3.c.(3)(b) also allows the Authority to approve a PDP that proposes to fund, contribute to, or implement an ACP, provided that the Authority determines that implementation of the ACP will have a greater overall water quality benefit for the WMA than fully complying with the performance requirements of Provision E.3.c.(1) on site, and is subject to the requirements described in Provisions E.3.c.(3)(a)(ii)-(viii).

The Authority's BMP Design Manual, updated February 2016 and in this Amendment 3, addresses post-construction urban runoff pollution from new development and redevelopment projects, including Section 1.8, which outlines possible pathways for an alternate compliance program at SAN. As previously described, all proposed ACPs must prepare a SWQMP (which should include construction plans and water quality credits earned under the alternative compliance program) for review and approval by the Authority. In order to determine those credits, in December 2015, the RWQCB issued a Water Quality Equivalency (WQE) Guidance Document that provides standards and guidelines to determine whether a proposed ACP would achieve a water quality benefit that is greater overall than a PDP. This Guidance Document states that "credit systems require review and acceptance by the RWQCB prior to their implementation." In 2018, the Authority began development of a Credit Trading Framework with the purpose of providing a framework for

implementing water quality credit trading at SAN, and the program was approved by the RWQCB in July 2020. The Credit Trading Framework has been incorporated into the Airport's stormwater management Web-based database.

The Authority's WQE Credit Trading Framework relies on the WQE Guidance Document as a basis for outlining the methods that project applicants and the Authority can use to bank, track, and trade water quality credits for development projects within the SAN jurisdiction. Water quality credits are calculated per the Region 9 WQE Guidance Document and can be used to partially or wholly satisfy pollutant control requirements for a proposed PDP through an ACP. The types of credits to be traded by the Authority per the WQE Guidance Document are storm water pollutant control credits (water quality credits).

4.9 DEVELOPMENT AND PLANNING ENFORCEMENT

All project proponents involved in development or improvement planning are responsible for ensuring that project applications meet the requirements of the Municipal and Industrial Permits, Authority Rules and Regulations, Storm Water Code (Article 8), SWMP, BMP Design Manual, project permits and approvals, and contracts and leases. As required under Provision E.6 of the Municipal Permit, the Authority has developed an ERP to enforce its legal authority to achieve compliance. This section describes the ERP as it applies to development and planning projects at the SAN.

Violations are determined on the basis of noncompliance with established codes, regulations, permits, and approvals for development projects at the SAN. The enforcement mechanisms used by the Authority are listed below. The Authority generally obtains compliance using the first four mechanisms listed here. The remaining escalated enforcement mechanisms can be used, as necessary, to increase the severity of penalties and to compel compliance as soon as possible:

- Verbal and written warnings;
- Written notices of violation;
- Written notices to clean, test, or abate;
- Order to cease and desist;
- Fines;
- Denial or revocation of permits and approvals;
- Administrative and criminal penalties;
- Bonding requirements;
- Liens; and
- Program review and modification.

The Authority's ERP for development and planning activities have two levels of enforcement. The general enforcement process is outlined as follows:

- Enforcement Level 1 is initiated if a project moves forward with construction or development activities before the project application has been approved or in a manner that has not been approved or if the responsible party fails to perform and document BMP inspections or self-verification inspections. The developer or responsible party is issued an email notification of the finding through the Authority web-based database to initiate enforcement. Corrective actions are expected to be submitted within 30 days of the verbal or written notice and/or verified through the first re-inspection. The Authority or tenants must document the corrective action taken by responding to P&EAD through the Authority's 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 within 30 days of the initial inspection. P&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.

- Enforcement Level 2 is initiated when a prohibited off-site 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 Airline Relations will be notified for escalated enforcement. Penalties and fines may be issued if the notice to clean, test, or abate and/or the CDO are ineffective and the violation continues. Additionally, the Authority or tenants may be subject to a meeting with the Director of the P&EAD to discuss the reasons for failing to comply and the means of resolving the issue.

4.10 DEVELOPMENT AND PLANNING MODIFICATIONS

The Authority has reserved this section to identify and document changes made to the Development Planning Component of the SWMP. Section 13.0 of this SWMP details 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. Changes are listed below:

- The previous SUSMP in Appendix C has been replaced with the BMP Design Manual in February 2016, and language in this section has been updated accordingly.
- Standard Projects and PDP projects subject to the BMP Design Manual must submit a SWQMP to the P&EAD. The SWQMP replaced the Urban Storm Water Mitigation Plan previously required by the SUSMP, as of February 2016.
- The following checklist templates are included in the BMP Design Manual to be used in development of a Standard Project and a PDP SWQMP: Applicability of Permanent, Post-Construction Storm Water BMP Requirements, Project Type Determination Checklist, Site Information Checklist for Standard (or PDP) Projects, Source Control BMP Checklist, and Site Design BMP Checklist (see Appendix C). This design manual was updated in January 2022.
- Updates were made to Section 4, the Development and Planning Component, in January 2019 and January 2022, following finalization of the Strategic Master Drainage Plan, change in the storm water capture and reuse WQIP strategy from an optional to a jurisdictional strategy, and finalizing the Airport Development Project (Terminal 1 Expansion) EIR.
- The discussion of Alternative Compliance, Section 4.8, has been updated in January 2019 and in January 2022.
- The previous BMP Design Manual in Appendix C has been replaced with the updated BMP Design Manual in January 2022, and language in this section has been updated accordingly.
- Updates were made to the escalated enforcement levels in the Development and Planning Enforcement Section of the Development and Planning Component, Section 4 in January 2022.

5.0 CONSTRUCTION COMPONENT

5.1 INTRODUCTION

This update to the Authority SWMP is in response to the requirements of the 2013 Municipal Permit. All Copermittees are required to reduce discharges of pollutants in storm water from construction sites to the MEP and to effectively prohibit NSWDs from construction sites into the MS4.

The SWMP update process included internal meetings and a workshop to incorporate comments from key stakeholders. Municipal Permit Provision F.2.a encourages the Authority "to seek public and stakeholder participation and comments early and often during the development of this document." Final proposed updates must be submitted to the RWQCB concurrently with the submittal of the final WQIP for various watersheds. Section 5.0 has been revised to include the San Diego Bay WQIP strategies and goals submitted to the RWQCB in June 2015.

This section addresses the requirements in Municipal Permit Provisions E.4 and E.7.a that are relevant to the construction component. As listed below, these provisions require the Authority to:

- E.4.a—Require the development of a pollution control plan, a construction BMP plan, and/or an erosion and sediment control plan prior to obtaining a permit to begin construction. The Authority must confirm that the plans achieve full compliance with (1) local ordinances; (2) the Municipal Permit; and (3) the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ) (the Construction General Permit [CGP]). Section 5.4 has been prepared to address this requirement.
- E.4.b—Maintain an inventory of all construction sites and identify all construction sites within its jurisdiction that represent a high threat to downstream surface water quality. The Authority is required to maintain and update, at least quarterly, a watershed-based inventory of all construction projects that have been issued a local permit that allows ground-disturbing or soil-disturbing activities that can potentially generate pollutants in storm water runoff. The Authority is also required to identify all construction sites within its jurisdiction that represent a high threat to downstream water quality. These designations must consider site locations within a hydrologic subarea where sediment is known or suspected to contribute to high-priority water quality conditions identified in the WQIP; sites within the same hydrologic subarea and tributary to a 303(d)-listed waterway; sites adjacent to, or discharging to, a receiving water within an ESA; or other sites determined by the Authority or the RWQCB as a high TTWQ. Section 5.2 has been prepared to address this requirement.
- E.4.c—Implement, or require the implementation of, effective BMPs to reduce discharges of pollutants into storm water from construction sites to the MEP and to effectively prohibit NSWDs from construction sites into the MS4. These BMPs must be site-specific, seasonally appropriate, and construction-phase appropriate. Section 5.3 has been prepared to address this requirement.
- E.4.d—Inspect construction sites to require and confirm compliance with local permits and the Municipal Permit. Priority for site inspections must consider TTWQ pursuant to Provision E.4.b. Inspections must be planned and conducted at the appropriate frequency for each phase of construction. Based upon inspection findings, the Authority must implement follow-up actions to confirm site compliance. Construction inspections must assess compliance with applicable permits, BMP implementation and maintenance, and the adequacy and effectiveness of BMPs. Construction inspections must make visual observations of NSWDs, sediment and construction material discharges, and illicit connections. All violations and necessary corrections must be documented in accordance with the ERP. All inspections at all inventoried construction sites must be tracked and recorded. These records must be retained electronically or in tabular form and be available to the RWQCB upon request. The inspections must include site name, date, and rainfall data since last inspection,

description of violations or findings, explanatory comments, description of enforcement actions, and resolution of problems with the date that each was resolved. Section 5.5 has been prepared to address this requirement.

- E.4.e—Enforce its legal authority established pursuant to Municipal Permit Provision E.1 for all its inventoried construction sites, as necessary, to achieve compliance with requirements of the Municipal Permit in accordance with the ERP. Section 5.6 has been prepared to address this requirement.
- E.7.a.(3)—Promote and encourage the development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water to the MEP, prevent controllable NSWDs from entering the MS4, and protect water quality standards in receiving waters. The public education program must be implemented in accordance with the strategies in the WQIP and must include, at a minimum, appropriate education and training measures for specific target audiences, such as construction site operators. Section 5.7 has been prepared to address this requirement.

5.1.1 SOURCE CHARACTERIZATION

The construction component of the SWMP addresses demolition, grading, excavation, clearing, and structure and road construction, which can disturb soil and/or produce materials that can transport trash, debris, sediment, and other pollutants to the storm water conveyance system. Construction grading and clearing can expose underlying soil, making it susceptible to erosion from rainfall, wind, or improper water use. Natural vegetation root structures normally stabilize underlying soil and increase infiltration, which typically decreases storm water runoff volume and velocity. Excess sediment that is eroded in the absence of vegetation at a construction site is considered a pollutant because it degrades aquatic life by interfering with photosynthesis, respiration, growth, and reproduction.

Sediment particles eroding from construction sites can provide a substrate to which other pollutants can attach (e.g., trace metals, hydrocarbons, conventional pollutants, pesticides, and coliform bacteria). In addition, construction materials and waste can have significant detrimental effects on downstream receiving waters if they are not properly handled and contained. The magnitude of the storm water impacts depends on the nature of construction activities, climatic conditions, site conditions, material- and waste-handling protocols, and appropriately implemented and maintained BMPs. After construction is completed, an increase in impervious surface coverage can have a lasting negative impact on drainage patterns, runoff velocities and downstream erosion, and downstream drainage systems and natural waterways. The impacts of development and associated BMPs to reduce them are outlined in Section 4.0.

Sources of construction pollutants identified by the Authority include any existing or future construction sites at SAN. Designated minimum construction BMPs, as outlined in Section 5.3, are required to be implemented at all construction sites. When necessitated by project- or site-specific characteristics, construction phasing, and/or the season, additional BMPs will also be required. The minimum BMPs, as well as any required additional project-specific BMPs, are intended to reduce the discharge of trash, debris, sediment, and other pollutants from the site to the MEP and to prevent the site from causing or contributing to a violation of water quality standards.

5.2 CONSTRUCTION SITE INVENTORY AND TRACKING

5.2.1 SITE INVENTORY

The Authority maintains an inventory of completed and active construction projects at the SAN. The inventory exists in a Web-based database management system maintained by the P&EAD. The database manages, and tracks completed, ongoing, and upcoming construction projects. Project information is initially entered into the database during the project intake (PIT) process, described in Section 5.4.

The database records the following specific details required by the Municipal Permit and other pertinent information for each project:

- Project name and location (by address and/or by latitude and longitude);
- Owner's name, address, telephone number, and email address;
- Contractor's name, address, telephone number, and email address;
- Project manager's name, address, telephone number, and email address;
- Construction manager or site superintendent's name, address, telephone number, and email address;
- Qualified SWPPP Developer's name, address, telephone number, and email address;
- Qualified SWPPP Practitioner's (QSP's) name, address, telephone number, and email address;
- Start and completion dates;
- Size of the site;
- Approximate disturbed soil area (DSA);
- TTWQ designation;
- Required inspection frequency;
- Copy of the SWPPP or Water Pollution Control Plan (WPCP);
- Date on which the SWPPP or WPCP was received by the P&EAD;
- Date on which the SWPPP or WPCP was approved by the P&EAD;
- WDID number, if any; and
- Minutes and notes from any pertinent pre-bid, pre-construction, or construction progress meetings.

The database is also used to track:

- Current construction phase;
- Inspections; and
- Ongoing enforcement actions.

The Municipal Permit requires that the Authority also record the hydrologic subarea in which each project lies, so that a watershed-based inventory can be maintained. However, this hydrologic information is not recorded in the Authority's database, because all construction projects at the SAN lie in the same watershed (namely, the Pueblo San Diego hydrologic unit, San Diego Mesa hydrologic area, Lindbergh hydrologic sub-area [908.21]).

The Municipal Permit requires the construction site inventory to be updated at least quarterly. The database of construction projects at the SAN can provide up-to-the-minute information about completed and ongoing construction projects and suffices as the updated inventory, or it can be used to produce an electronic or hard-copy report at any time.

5.2.2 THREAT TO WATER QUALITY

Municipal Permit Provision E.4.b.(2), requires that "each Copermittee must identify all construction sites within its jurisdiction that represent a high threat to downstream surface water quality." Like other Copermittees, the Authority refers to "threat to downstream surface water quality" as "threat to water quality." Factors to consider when designating high TTWQ must include:

- Whether the site is located within a hydrologic subarea where sediment is known or suspected to contribute to the highest priority water quality conditions identified in the WQIP;
- Whether the site is located within the same hydrologic subarea and tributary to a water body segment listed as impaired for sediment on the 303(d) list;
- Whether the site is located within, directly adjacent to, or discharging directly to a receiving water within an ESA; and
- Whether it is another site determined by the Copermittees or the RWQCB to be a high TTWQ.

ESAs are areas that include 303(d)-listed impaired water bodies, areas designated as an ASBS, State Water Quality Protection Areas, water bodies designated with the RARE beneficial use, areas designated as preserves or their equivalents under the Multiple Species Conservation Program, and any other equivalent area identified by the Copermittees.

In considering the factors used to identify the TTWQ, the Authority notes that:

1) There are currently no hydrologic subareas identified in the San Diego Bay WQIP where sediment is known to contribute to, or is suspected of contributing to, the highest priority water quality conditions.
2) The Authority's jurisdiction does not lie in a hydrologic subarea and is not tributary to a 303(d)-listed water body segment that is currently listed as impaired for sediment.
3) Only one of the six criteria for an ESA applies to the discharges from the Authority's jurisdiction: if a particular construction site is directly adjacent to or discharging directly into San Diego Bay because the bay is designated with RARE beneficial use in the Water Quality Control Plan for the San Diego Basin (2012, Table 2-3). Note that most of the runoff from the Authority's jurisdiction does not drain directly into San Diego Bay, but rather is commingled with runoff from other jurisdictions, including the City of San Diego, the Port of San Diego, and the United States Marine Corps.

The Authority has determined that construction projects subject to the CGP are considered high TTWQ. Given all of the above, the Authority has developed a two-tiered methodology for determining the TTWQ of any particular construction project. This methodology is presented in Table 5-1.

Table 5-1. Level of Threat to Water Quality Criteria

TTWQ	Authority Criteria
High	Site is directly adjacent to or discharging directly to San Diego Bay without commingling runoff from another jurisdiction (i.e., within Drainage Basins 12 or 15); or Site is subject to the CGP and does not qualify for an erosivity waiver from the CGP.
Low	Site is not directly adjacent to nor discharging directly to San Diego Bay (i.e., is not within Drainage Basins 12 or 15); and Site is not subject to the CGP because of the size of the DSA or because it qualifies for an erosivity waiver from the CGP.

As stated in the Municipal Permit, either the Copermittee or the RWQCB may unilaterally determine that a particular construction project should be identified as a high TTWQ for reasons not listed above. It is possible that a project that is initially identified by the Authority as a low TTWQ could become a high TTWQ site merely because an erosivity waiver expires before the project is completed. In addition, as the San Diego Bay WQIP and the 303(d) list are updated, the Authority will revise its TTWQ determination methodology as necessary. Table 5-2 presents the inventory of planned and active construction sites as of January 2022.

Table 5-2. Inventory of Planned and Active Construction Sites as of January 2022

#	Sponsor	Project Name	Project Description	Start Date	Priority
1	San Diego Fuel Consortium	CIP#17036 (TI) Addition of 3 Fuel Storage Tanks	Installation of 3 additional above-ground fuel tanks.	Began construction in October 2020. Ongoing.	Low
2	Authority	CIP#104231 Northside Apron Improvements	New airfield cargo ramp (associated with new cargo facility).	Planning Phase as of January 2021.	High
3	Authority	CIP#104205 Widen Sassafras Street Intersection	Widen East side of Sassafras & Pacific Highway Intersection.	Planning Phase as of January 2021.	High
4	Authority	CIP #413001 NT1	Construct a new Terminal 1 encompassing aircraft arrivals, parking plaza, and airport access road.	Began construction in November 2020. Ongoing.	High
5	Authority	CIP #411001 ADP Airside Improvements	T1 apron, Taxiway A, East RON apron, shift Taxiways B and B6, onside grading and utility work.	Began construction in January 2022.	High
6	Authority	CIP #414002 SDIA Administration Building	4-story admin building, AC paved parking lot, concrete walks, plazas, utilities.	Began construction in January 2022. Ongoing.	High

Table 5-2. Inventory of Planned and Active Construction Sites as of December 2021 (continued)

#	Sponsor	Project Name	Project Description	Start Date	Priority
7	Authority	CIP #104274A West Solid Waste Facility	2,800 square-foot canopy enclosure for separate food, recycling, and non-recycling waste streams.	Began construction in June 2021. Ongoing.	High
8	Authority	CIP #104249A West Refueler Loading Facility	Five fueling bays to replace existing truck fueling rack in conflict with T1 construction.	Began construction in June 2021. Ongoing.	High
9	Authority	CIP#104274 East Solid and Liquid Waste Facilities	Includes 2,800 square-foot canopy enclosure for separate food, recycling, and non-recycling waste streams.	Began construction in June 2021. Ongoing.	High

5.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

Each construction site must be protected by an effective combination of site planning, erosion, and sediment controls; materials and waste management controls; and other BMPs to prevent or reduce the discharge of storm water pollution and to prohibit NSWDs from construction sites to the MEP. Effectiveness depends on properly implementing and maintaining these BMPs. This section designates the BMPs required for all construction sites at the SAN, depending on their applicability to the activity at hand.

5.3.1 GENERAL BMP REQUIREMENTS

All projects and construction activities are required to implement construction BMPs. The project proponent must identify the construction BMPs to be implemented in accordance with the performance standards in this section. For projects disturbing one acre or more, the construction BMPs must be identified in a SWPPP in accordance with the CGP. For projects disturbing less than one acre, a WPCP is required, because all projects require some form of BMP plan per Municipal Permit Provision E.4.a to identify the pollution prevention measures that will be taken during construction.

It is the responsibility of the project proponent to ensure the proper selection, installation, and maintenance of appropriate BMPs. Storm water BMPs for construction sites typically require frequent maintenance to maintain effectiveness. BMPs may require relocation, revision, and re-installation, particularly as project phases change. Therefore, the project proponent for any construction project within the Authority's jurisdiction must retain a dedicated qualified person, specifically a QSP as defined in the CGP (even if the project is not subject to the CGP). The QSP must be on the construction site daily to evaluate site conditions with respect to storm water pollution prevention planning and implementation of the SWPPP or WPCP and the BMPs.

All construction project proponents and contractors are required to ensure that the QSP conducts and documents self-inspections of the project site on a weekly basis. (Note that the CGP has additional inspection requirements that must be met.) Documentation of self-inspections must record, among other information as discussed in Section 5.5, the date, time, the condition of the BMPs, the effectiveness of the BMPs, and the need for changes to either the SWPPP or WPCP, or the BMPs, or both. Documentation must be kept on site and made available for inspection by the Authority upon request.

The primary purposes of self-inspections are to ensure that:

- The owner/contractor takes full responsibility for managing storm water pollution caused by the project site's construction activities;
- Storm water BMPs are properly documented, implemented, and functioning effectively; and
- BMP maintenance (e.g., sediment removal) and repair needs are identified and addressed.

BMPs must be installed in accordance with an industry-recommended standard or in accordance with the requirements of the CGP. More information about BMPs is provided in the CASQA Stormwater BMP Handbook Portal: Construction.

BMP requirements differ, depending upon the type of the project, the topography of the site, and the season (i.e., the rainy wet season from October 1 through April 30, or the dry season, from May 1 through September 30).

5.3.2 PERFORMANCE STANDARDS

The Authority will evaluate the adequacy of the project proponent's construction site management for storm water pollution prevention, including BMP implementation. These evaluations will be based on performance standards for storm water BMPs, which include:

- Pollution prevention measures designed so that there is no increase of project-related pollution (including sediment) in runoff from the site;
- Prevention of slope erosion; and
- Mitigation of runoff discharge velocity to less than or equal to pre-construction levels.

A site is considered inactive if construction activities have ceased for a period of 14 or more consecutive calendar days. At any time of year, an inactive site must be fully protected from erosion and discharges of sediment. It is also the project proponent's responsibility (for both active and inactive sites) to implement a plan to address all potential NSWDs.

Regardless of inspections conducted by the Authority, project proponents are required to prevent any construction-related materials, wastes, spills, or residues from entering a storm water conveyance system. More detailed performance standards that each project will be evaluated against are captured as part of the Project Intake (PIT) process, described in Section 5.4.2.

5.3.3 MINIMUM REQUIREMENTS

The following requirements are the minimum standards for a construction site. Additional BMPs may be required to comply with the performance standards detailed in Section 5.4.2. The P&EAD may further amend these requirements on a case-by-case basis.

The minimum BMPs must be implemented unless the justification for their exception is submitted and approved during the SWPPP or WPCP review process (e.g., projects that will not be using concrete and therefore will not generate concrete waste). The justification must be documented in the SWPPP or WPCP, and annotated on the PIT process form. Such exceptions to the minimum BMPs can be approved only by the P&EAD.

The Authority's designated set of minimum BMPs for use at all construction projects, regardless of the project's TTWQ (unless approved by the Authority as not applicable, as described above) are presented in Table 5-3.

Table 5-3. Designated Minimum BMPs for All Construction Projects

BMP Category, CASQA Identification Number,(1) and Title	
Erosion Control BMPs:	
EC-1–Scheduling	EC-16–Non-Vegetative Stabilization
EC-15–Soil Preparation	
Temporary Sediment Control BMPs:	
SE-1–Silt Fence	SE-7–Street Sweeping and Vacuuming
SE-5–Fiber Rolls	SE-10–Storm Drain Inlet Protection
SE-6–Gravel Bag Berm	SE-13–Compost Socks and Berms
Wind Erosion Control BMPs:	
WE-1–Wind Erosion Control	
Temporary Tracking Control BMPs:	
TC-1–Stabilized Construction Entrance and Exit	
Non-Storm Water Management BMPs:	
NS-1–Water Conservation Practices	NS-9–Vehicle and Equipment Fueling
NS-3–Paving and Grinding Operations	NS-12–Concrete Curing
NS-6–Illicit Connection/Discharge	NS-13–Concrete Finishing
Waste Management and Materials Pollution Control BMPs:(2)	
WM-1–Material Delivery and Storage	WM-5–Solid Waste Management
WM-2–Material Use	WM-8 Concrete Waste Management
WM-3–Stockpile Management	WM-9–Sanitary/Septic Waste Management
WM-4–Spill Prevention and Control	

Note that some BMPs may be not applicable to certain construction projects, such as one with no use of concrete.

(1) Details of the Authority's minimum BMPs are in the CASQA Stormwater BMP Handbook Portal for Construction at https://www.casqa.org/resources/bmp-handbooks. BMPs must be employed to industry standards, as outlined in the CASQA *Construction Handbook*.

(2) For sites with pre-existing soil contamination issues, BMP WM-7, Contaminated Soil Management, must be added to the SWPPP or WPCP.

The 2007 Municipal Permit (Order No. R9-2007-0001) indicated that erosion prevention is to be "used as the most important measure for keeping sediment on site during construction, but never as the single method." Sediment controls should be used as a "supplement to erosion prevention for keeping sediment on site during construction." BMPs at each construction site must be site-specific, seasonally appropriate, construction-phase appropriate, and implemented year-round, as applicable. Year-round requirements include, but are not limited to:

- Erosion control BMPs must be installed and maintained to comply with detailed performance standards from Section 5.4.2.
- Perimeter protection BMPs must be installed and maintained to comply with detailed performance standards from Section 5.4.2.
- Sediment control BMPs must be installed and maintained to comply with detailed performance standards from Section 5.4.2.

- BMPs to control sediment tracking must be installed and maintained at entrances and exits to comply with detailed performance standards from Section 5.4.2.
- Materials needed to install standby BMPs necessary to completely protect the exposed portions of the site from erosion and to prevent sediment discharges must be stored on site. Areas already protected from erosion through implementation of physical stabilization or established vegetation stabilization BMPs (as described below) are not considered to be "exposed" for purposes of this requirement.
- Deployment of physical or vegetation erosion control BMPs must begin as soon as grading and/or excavation has been completed for any portion of the site. The project proponent may not continue to rely on the ability to deploy standby BMP materials to prevent erosion of areas where grading has been completed.
- All slopes must be protected and stabilized during rain events.
- All vegetation erosion control must be established prior to the rainy season to be considered as a BMP.
- A disturbed area that is not completed but is not being actively graded must be fully protected from erosion if left idle for 14 or more calendar days. The ability to deploy standby BMP materials is not sufficient for these areas; BMPs must actually be deployed.
- A washout area must be designated and maintained for materials such as concrete, stucco, paint, caulking, sealants, and drywall plaster.
- Materials and wastes must be stored in properly protected, designated storage areas.
- Trash and debris must be removed and properly stored or disposed of daily.
- Storage, service, cleaning, and maintenance areas for vehicles and equipment must be identified and protected accordingly.
- Materials for spill control and containment must be stockpiled on site.
- NSWDs must be eliminated or controlled to the MEP.

In addition to the minimum BMPs listed above, construction projects must select and implement additional BMPs, when necessary, to sufficiently address all anticipated activities at the site throughout the project's duration and phases. For sites with pre-existing soil contamination issues, BMP WM-7, Contaminated Soil Management, must be added to the SWPPP or WPCP.

5.3.4 ADDITIONAL REQUIREMENTS FOR HIGH TTWQ CONSTRUCTION SITES

The P&EAD may, as part of the project approval process, require incorporation of multiple BMPs in each of the required minimum BMP categories to provide "multiple lines of defense" for high-TTWQ construction sites. Construction projects determined to be high-TTWQ sites also must incorporate the following requirements into the SWPPP or WPCP for the project.

Project proponents for high TTWQ construction projects must:

- Implement a weather-triggered action plan (WTAP) as necessary. The QSP is responsible for monitoring the weather and for ensuring that the WTAP is implemented as needed. The five-day weather forecast will be monitored daily and a WTAP will be developed whenever there is a 40 percent or greater chance of precipitation forecast over the next five days by the National Weather Service. The WTAP must outline any necessary additional BMPs to be implemented prior to a rain event, the person responsible for implementing additional BMPs, any changes required in the construction schedule, any changes required in the activities underway for the particular construction phase, a listing of the types of tradesmen and subcontractors active on the construction site, and their

relevant contact information. The WTAP must be deployed/activated whenever the National Weather Service forecasts the chance of precipitation as 50 percent or greater at any time in the next 48-hour period.

High-TTWQ construction projects discharging directly to San Diego Bay will:

- Use high-performance erosion control methods, such as bonded fiber matrix or anchored erosion control blankets, on all exposed soils;
- Ensure at least two lines of defense for sediment control where site drainage is directed to an inlet that conveys flow to San Diego Bay, with each line of defense designed to independently control sediment to the MEP;
- Fully protect stockpiles and locate them as far from any inlets as possible; and
- Ensure that no flow concentration points are present that could scour soil or overwhelm erosion and sediment control measures.

5.4 PROJECT APPROVAL PROCESS

All construction projects at the SAN undergo the review described below, as part of the project approval process. This section describes the steps that will be taken to require and verify the implementation of the designated minimum BMPs at all construction sites. The detailed content and organization of this section reflect the specific processes used by the Authority.

Section 4.0 of this SWMP outlines the process for approving development or improvement projects carried out by the Authority or airport tenants. In short, the P&EAD receive project information for evaluation and review to assess environmental impacts. The conditions of approval for an airport tenant project become part of the lease or use permit. Conditions of approval for the Authority's own projects are incorporated into the planning, design, and contracting as the project goes before the Authority Board for approval. This process leads to the identification and imposition of the construction and post-construction BMPs required for the project. In general, conditions of approval require the project proponent and project management team to prepare a construction site SWPPP or WPCP, depending upon the size and type of the project, as described below. These plans are reviewed and approved by the P&EAD.

5.4.1 POLLUTION PREVENTION PLANNING

To facilitate both the preparation and review of construction project SWPPPs, the Authority has developed two templates that are required to be used by project proponents. One template is for a SWPPP in accordance with the CGP and the other template is for a WPCP for those projects not subject to the CGP.

The templates are designed to ensure that the specific information that the Authority requires to be in a SWPPP or WPCP for construction at the SAN are addressed. The templates include:

- The minimum BMPs required to be implemented at all construction sites (including BMP cut sheets from CASQA, illustrating proper installation); and
- A checklist for additional BMPs to be selected on a per-project basis, depending on specific site characteristics, the season or the likelihood of rainfall, and the construction phases.

5.4.2 PROJECT INTAKE

Once the project proponent or project management team has developed the requisite SWPPP or WPCP, it is submitted to the P&EAD for review and approval. The P&EAD has developed a PIT process to obtain the information needed in reviewing the plans for any construction project at SAN.

In addition to providing a signed copy of the WPCP or certified SWPPP, the project proponent or project management team must provide the following information on the PIT form (Appendix G):

- Project name and location (by address and/or by latitude and longitude);
- Owner's name, address, telephone number, and email address;
- Contractor's name, address, telephone number, and email address;
- Project manager's name, address, telephone number, and email address;
- Construction manager's or site superintendent's name, address, telephone number, and email address;
- QSP's name, address, telephone number, and email address;
- WDID number (for projects subject to the CGP);
- Qualified SWPPP Developer's name, address, telephone number, and email address (for projects subject to the CGP);
- Start and completion dates;
- Size of the site;
- Approximate DSA in acres;
- Project proponent's self-assessed level of TTWQ, based on whether:
  - The site is directly adjacent to or discharging directly to San Diego Bay;
  - The site is subject to the CGP and does not qualify for an erosivity waiver from the CGP;
- A list of any minimum BMPs required by the Authority that do not apply to the project, because the BMP is related to activities that are not expected to occur;
- A list of any minimum BMPs required by the Authority that will not or cannot be implemented on the project and the justification for their exception, with the justification included in the SWPPP/WPCP;
- A description of how the project has been scheduled so that grading in the wet season is avoided or minimized;
- A description of how the project has been scheduled so that the areas to be cleared and graded are minimized to only the portion of the site that is necessary for construction;
- A description of how the project has been scheduled so that the exposure time of DSAs is minimized;
- A description of the measures put in place to ensure that the maximum DSA stated in the SWPPP/WPCP is not exceeded;
- A description of how active slopes will be stabilized prior to a rain event;
- Confirmation that any pre-existing soil contamination issues will be addressed by appropriate safety measures and BMPs; and
- Confirmation that the provisions have been addressed in the SWPPP or WPCP to begin deployment of physical or vegetation erosion control BMPs as soon as grading and/or excavation has been completed for any portion of the site.

For construction projects that are self-assessed to be high-TTWQ construction projects, the project proponent or project management team must also provide:

- Confirmation that the provisions have been addressed in the SWPPP or WPCP to implement a WTAP as necessary.

For construction projects that are self-assessed to be high-TTWQ construction projects discharging directly to San Diego Bay, the project proponent or project management team must also provide:

- Confirmation that provisions for the use of high-performance erosion control methods (such as bonded fiber matrix or anchored erosion control blankets) on all exposed soils have been addressed in the SWPPP or WPCP;
- Confirmation that provisions have been addressed in the SWPPP or WPCP to ensure that there are at least two lines of defense for sediment control where site drainage is directed to an inlet that conveys flow to San Diego Bay and that each line of defense is designed to independently control sediment to the MEP;
- Confirmation that stockpiles are fully protected and located as far from any inlets as possible; and
- Confirmation that provisions are in the SWPPP or WPCP to ensure that no flow concentration points are present that could scour soil or overwhelm erosion and sediment control measures.

The P&EAD uses the PIT process to verify (as required by the Municipal Permit) that those projects subject to the CGP have obtained coverage.

Once the PIT form and the SWPPP or WPCP are submitted, the P&EAD has 14 days to review the documents. The P&EAD will either approve or reject the SWPPP or WPCP, and the information on the PIT process form. If a plan is rejected, the project proponent or project management team will be advised as to the reasons for rejection. The project cannot begin construction until approved by the P&EAD.

5.5 CONSTRUCTION SITE INSPECTIONS

The P&EAD inspects all construction sites to monitor and enforce compliance with the Authority's ordinances, permits, approvals, the Municipal Permit, and this SWMP. This section discusses the processes and procedures for these inspections.

5.5.1 INSPECTION FREQUENCY

The Municipal Permit requires the Authority to establish the inspection frequency for construction projects on the basis of the TTWQ designation, the phase of construction, and WQIP highest water quality priorities. However, there are several issues related to the operation of an airport in an urban center in close proximity to San Diego Bay that led the Authority to establish a year-round weekly inspection frequency for all construction projects at the SAN, regardless of their TTWQ designation.

5.5.2 INSPECTION CONTENT

The inspection by the P&EAD includes (1) a review of the SWPPP or WPCP and associated documentation, and (2) a site walk to observe the correlation of project documentation with actual field conditions and the adequacy and effectiveness of the BMPs being implemented. Required documentation of SWPPP or WPCP implementation includes updated site layout plans and figures, and weekly self-inspection reports. If the project is subject to the CGP, then the inspection will also include a review of SWPPP supporting documentation, such as reports for other required inspections (e.g., rain event, etc.), plan amendments, personnel training records, and runoff monitoring results, as applicable. The objectives of the construction site inspection are to:

- Assess compliance with the Authority's permits, approvals, applicable ordinances, rules, and regulations related to pollution prevention, including the implementation and maintenance of applicable BMPs;
- Assess BMP adequacy and effectiveness;

- Observe actual NSWDs;
- Observe actual or potential discharge of sediment and/or construction-related materials from the site;
- Observe actual or potential illicit connections; and
- Verify coverage under the CGP (when applicable).

The 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); (2) a copy of the PIT process form with which to review and verify the contents of the SWPPP or WPCP; and (3) a camera, to document site conditions.

After reviewing the documentation associated with the project, including the inspection history and compliance status, the inspector evaluates conditions across the entire site, including:

- The perimeter;
- Run-on and discharge points;
- Materials, equipment, and waste storage areas;
- Storm drain inlets;
- Access roads;
- Outside perimeter of the site (including nearby storm drain inlets);
- All active and inactive areas; and
- Supplies of BMPs stored on site in readiness for a rain event.

5.5.3 INSPECTION TRACKING AND RECORDS

The P&EAD inspector documents the results of the inspection, including any issues identified (such as inadequate implementation or maintenance of required BMPs, inadequate SWPPP or WPCP documentation, and missing inspection records) via the Web-based database management system, described in Section 5.2. When issues are identified, the inspector can also capture images and location information (such as GPS coordinates) that can be stored in the inspection database system. The Web-based database allows the P&EAD to effectively and efficiently share the inspection results with the project proponent and the project management team. The database records the information from all inspections and re-inspections.

At a minimum, the inspection records include:

- The project site name, location (address and hydrologic subarea), and WDID number (if applicable);
- The inspection date;
- The approximate amount of rainfall since last inspection;
- A description of problems observed with BMPs and an indication of need for BMP additions, repairs, or replacements, along with any scheduled re-inspection, and date of such re-inspection;
- Any other specific inspection comments, which must, at a minimum, include rationales for the allowance of longer compliance timeframes, if any;
- A description of enforcement actions issued in accordance with the Authority's SWMP ERP; and
- Confirmation that issues noted during the inspection have been resolved and the date of resolution.

While on site, the P&EAD inspector will discuss the results of the inspection with the project proponent or project management team and the project-dedicated QSP. The project proponent and project management team receive the inspection report in an email or as a hard copy. The project proponent and/or project management team accesses the Web-based database to view additional inspection detail and to provide information (text, maps, and pictures) about how and when issues have been resolved. The P&EAD inspector uses the information in the database provided by the project proponent or project management team to confirm compliance, request further action, or escalate enforcement.

5.6 CONSTRUCTION SITE ENFORCEMENT

5.6.1 ENFORCEMENT RESPONSE PLAN FOR CONSTRUCTION SITES

All construction activities undertaken in the Authority's jurisdiction are required to maintain compliance with the Authority Rules and Regulations, Storm Water Code (Article 8), SWMP, the Municipal Permit, the CGP (if applicable), project 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 construction activities at SAN. In accordance with the Municipal Permit, the ERP has been updated concurrently, with submittal of the final San Diego Bay WQIP in June 2015, so that the ERP aligns with WQIP strategies.

Any findings or violations noted during a site inspection by the P&EAD inspector will be discussed on site with the project proponent or project management team and the project-dedicated QSP. The P&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 inspection database (and include photographs, GPS, or other location information, as applicable).

The Authority requires that corrective actions must be started immediately and be completed prior to the next predicted rain event or within a maximum of 72 hours, whichever is sooner. Depending on the nature of the finding, some corrective actions may take longer to complete. In those cases, the project proponent will provide an explanation to the P&EAD inspector and a suggested timeframe for completion, which the P&EAD inspector will either agree upon or reject and provide a preferred timeframe. (Note: corrective actions must be completed within 24 hours for Enforcement Level 2 violations, as described below.) The project proponent or project management team must document the corrective action taken by responding to P&EAD through the Web-based database. Project proponents and project management teams who cannot complete corrective actions in the time required must explain in detail, through the Web-based database, the specific causes of delay, and must propose a new schedule for compliance. The P&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 inspection 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) Order to cease and desist (stop work orders);

5) Fines;

6) Denial or revocation of permits and approvals;

7) Administrative and criminal penalties;

8) Bonding requirements; and

9) Liens.

The Authority's ERP for construction has two levels of enforcement. 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 project proponent or project management team to control or correct the finding or violation. The general enforcement process is as follows:

- Enforcement Level 1 is initiated by the finding of a BMP deficiency in the BMP categories of general housekeeping, waste management, non-storm water management issues, erosion controls, sediment controls, tracking controls, run-on and runoff controls, and plan implementation (e.g., lack of self-inspections or documentation thereof, lack of ongoing training or documentation thereof, or failure to adequately update the SWPPP or WPCP to reflect site conditions). A verbal warning and written notification of the finding are used to initiate enforcement and corrective actions are expected to be observed during a re-inspection after 7 days. Photos of the corrective action should be date-stamped to show completion within 72 hours, or the agreed upon timeframe, if longer. If the finding is not corrected upon re-inspection, a written notice of violation is issued to escalate enforcement and compliance is expected within 5 days. 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, and compliance is expected within 2 days. Continued failure to correct the violation in the time allowed will result in a mandatory meeting between the project proponent or project management team and the Director of the P&EAD and/or Vice President of Development to discuss the reasons for failing to comply and the means of resolving the issue.
- Enforcement Level 2 is initiated when a prohibited off-site discharge occurs. A written notice to clean, test, or abate, and/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 upon re-inspection, the project proponent or project management team must attend a mandatory meeting with the Director of the P&EAD and/or Vice President of Development to discuss the reasons for failing to comply and the means of resolving the issue.

In accordance with Municipal Permit Provision E.6.e, the Authority will notify the RWQCB in writing or email within five days of issuing an escalated enforcement action between levels to a site that it has designated as a significant TTWQ. A construction site that poses a significant TTWQ as a result of violations or other noncompliance with its permits and applicable ordinances, regulations, rules, and the requirements of the Municipal Permit is considered by the Authority to be any site at which there has been any spill, release, or discharge of sewage, petroleum, or a hazardous material listed in accordance with 40 CFR Parts 117 or 302 that enters the storm water conveyance system and that is not fully contained and cleaned up and/or that reaches San Diego Bay. (40 CFR Part 117 addresses the determination of such quantities of hazardous substances that may be harmful pursuant to Section 311(b)(3) of the Clean Water Act. 40 CFR Part 302 addresses the designation, reportable quantities, and notification requirements for the release of substances designated under Section 311(b)(2)(A) of the Clean Water Act.)

Penalties for violations, including failure to correct a finding or violation, generally include (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

P&EAD and/or Vice President of Development; and (5) monetary penalties. The Authority may exercise its 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.

5.6.2 RE-INSPECTIONS

The enforcement process requires project proponents or project management teams to take corrective actions within a specified time period. To confirm that corrective actions have been completed effectively and on time, findings or violations typically require re-inspection by P&EAD within one to seven days, depending on the nature of the issues, whether or not escalated enforcement is being pursued, and the type and level of enforcement. The following are the general time periods for re-inspection by P&EAD associated with each level of enforcement:

- Enforcement Level 1 requires a re-inspection within 7, 5, or 2 days; and
- Enforcement Level 2 requires a re-inspection within 1 day (24 hours).

Re-inspections are also documented in the inspection database in the same manner as are regularly scheduled inspections.

5.7 EDUCATION AND TRAINING

5.7.1 EDUCATION

Municipal Permit Provision E.7 requires that the Authority implement a public education and participation program in accordance with the WQIP to promote and encourage the development of programs, management practices, and behaviors that reduce the discharge of pollutants to the MEP, effectively prohibit NSWDs from construction sites into the MS4, and protect water quality standards in receiving waters. The Authority's public education program includes appropriate education and training measures for specific target audiences, such as those involved in construction activity at SAN, including Authority management and staff, project proponents, planners and reviewers, contractors, construction site managers, and on site personnel. The Authority's storm water construction education focuses on construction activities and their relationship to urban runoff impacts on water quality. The Authority has developed internal and external outreach programs to present the following objectives to this audience, as appropriate:

- Federal, state, and local water quality laws and regulations that apply to construction projects;
- Methods to minimize impacts on receiving water quality resulting from construction;
- The connection between project implementation decisions and short- and long-term water quality impacts; and
- Methods to integrate the consistent application of reasonable and effective BMPs, pollution prevention strategies, and BMP requirements into the Authority's construction management process.

The construction education program uses available guidance mechanisms, BMP information, and training programs to create the awareness of (1) pollution-causing activities related to construction sites, and (2) methods used to minimize these pollutants. This program is designed to address the following primary objectives:

- Provide useful guidance in developing outreach and training programs that will support the successful implementation of the Authority SWMP and the project-specific SWPPP/WPCP;
- Encourage participation by all construction personnel; and

- Maximize consistency in information and help adapt education and outreach to the appropriate construction personnel, raising their knowledge and awareness of the issues related to storm water and urban runoff.

5.7.2 TRAINING

The Authority uses formal and informal training mechanisms to educate construction personnel about storm water pollution prevention and BMPs. The most comprehensive training is provided annually to Authority management and staff. This training involves classroom training at a divisional level for the ADC (including Project Managers and Construction Managers) and the P&EAD staffs.

The annual training provides construction project proponents, project managers, inspection staff, and other relevant persons with an understanding of the following topics:

- Federal, state, and local water quality laws and regulations applicable to construction and grading activities;
- Municipal Permit and CGP requirements, as applicable;
- Water quality impacts of land development and control measures to address them;
- The connection between construction activities and water quality impacts (e.g., impacts from land development and urbanization and impacts from construction-related material such as sediment);
- Proper implementation of erosion and sediment controls and other BMPs to minimize the impacts on receiving water quality resulting from construction activities;
- The Authority's construction SWPPP review, inspection, and enforcement policies and procedures;
- Compliance construction site inspections and self-inspections;
- Preventive maintenance;
- Spill response, containment, and recovery;
- Current advancements in BMP technologies; and
- Prohibited discharges to the MS4 and the Authority's IDDE program.

The annual training may be a joint effort between the P&EAD and ADC staffs to emphasize the relationships among the requirements of the Municipal Permit, the CGP, the SWMP, the SWPPP or WPCP, and the specific project plans and contract documents. Continuous training may also include in-house presentations, emails, joint field-walk inspections, new-hire reviews, and training programs put on by outside agencies.

The P&EAD and ADC will also provide or support training directed at the contractors and subcontractors working on construction projects underway within the Authority's jurisdiction. Such project- and site-specific training will address the Authority's storm water pollution prevention policies, procedures, and expectations. Training for contractors and subcontractors may be conducted during:

- Pre-bid, pre-construction, and ongoing project progress meetings;
- On-site inspections, tailgate safety and training meetings, and site visits;
- Seasonal training sessions to emphasize the expectations for an upcoming dry or wet season; and
- Refresher training sessions conducted by the P&EAD every six months for projects scheduled to last more than one year.

The Authority may also use the following educational mechanisms to provide training to the construction activity audience:

- Development and distribution of BMP guidance for specific construction activities;
- Workshops;
- Community meetings;
- Posters, pamphlets, and flyers;
- Educational videos;
- Authority newsletter articles;
- Airport tenant notices and advisories;
- Website updates;
- Outreach to business associations; and
- Participation in joint outreach efforts (e.g., the Think Blue campaign).

When feasible, the Authority will help sponsor outreach to and/or training of representatives from other municipal and quasi-governmental agencies, private construction, and the development industry. It is also anticipated that those business communities and trade associations related to construction activities will train their colleagues in response to their own experiences related to preventing construction storm water pollution within the Authority's jurisdiction.

Finally, the Authority employs enforcement actions that require supplemental education in response to violations and noncompliance issues at construction sites. The enforcement process and the Director of P&EAD will dictate when and how often additional education is required. The following resources are examples of the types of education and training that might be required through the enforcement process:

- Free online training courses without certifications, but with self-documentation of completion:
  - www.dot.ca.gov/hq/construc/stormwater/interactive.html, and
  - www.dot.ca.gov/hq/construc/stormwater/swppp_training.html.
- Online training courses with certifications:
  - www.waterboards.ca.gov/water_issues/programs/stormwater/training.shtml,
  - www.owp.csus.edu/courses/stormwater-bmp.php, and
  - www.ieca.org/education.
- Registration and attendance at a conference relating to storm water and erosion control:
  - www.stormcon.com/preconference.html,
  - www.casqa.org/events, and
  - www.ieca.org/conference/annual/ec.asp.
- Subscriptions to a journal on erosion control, construction, or similar topics:
  - http://www.erosioncontrol.com/EC/EChome.aspx.

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 NSWDs 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; and
- 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); and
- 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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- 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); and
- 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

The Authority's storm drain system consists of roads, 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 or tenants include:

- Eleven (11) Oil/Water Separators (OWS);
- Four (4) Contech StormFilters, and one (1) Contech Jellyfish Filter;
- Two (2) Curb Inlet Boxes and two (2) Drop Inlet Filters;
- Two (2) Bio Clean Round Curb Inlet Skimmer Box;
- Six (6) Bio Clean Grate Inlet Skimmer Boxes;
- Twenty-Eight (28) ClearWater BMP Unit Inlet Filter;
- One (1) Bio Clean Water Polisher;
- Three (3) Trench Drain Filters;
- Eight (8) Subsurface Infiltration Basins;
- One (1) Infiltration Trench;
- Twelve (11) Permeable Surface Locations (permeable pavement, asphalt strips);
- Three (3) Hydrodynamic Separators (one (1) Contech CDS and two (2) Aquashield Aqua-Swirl HDS);
- Sixteen (16) Bio Clean Modular Wetland System;
- Twelve (12) Biofiltration Areas (bioswale, biofilter, bioretention basins);
- One (1) Underground Detention Basin;
- One (1) Artificial Turf Infiltration;
- One (1) Oldcastle/Kristar PerkFilter Unit;
- Five (5) CleanWay MetalZorbs;
- Four (4) Activated Alumina Filter Bags (including three as trench drain filters);
- Two (2) Biochar Booms;
- Twenty-Two (22) REM Triton Inlet Filters;
- One (1) HFF Oil Stop Valve; and
- One (1) Cistern.

The Authority uses underground detention basins at the Economy Parking Lot and at the RCC Bus Parking Facility. The locations of these structural treatment controls, along with an overview of the storm drain system network, are shown in Figure 4.

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?	Priority Level
ACE	3665 North Harbor Dr. Suite #200 San Diego, CA 92101	908.0-908.21	7521	812930	Parking Lot Management	No	Yes	No	No	Yes	Yes	No	No	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
Avis	851 Harbor Island Dr, San Diego, CA 92101	908.0-908.21	7521	812930	Parking Lot Management	No	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Low
Cartwright	3225 North Harbor Dr. San Diego, CA 92101	908.0-908.21	7342	561710	Facility Pest Control	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	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	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	No	Low

Table 6-1. San Diego International Airport Entities Conducting Municipal and Commercial Activities (continued)

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?	Priority Level
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
Kirschcohn	851 Harbor Island Dr, San Diego, CA 92101	908.0-908.21	7521	812930	Parking Lot Management	No	Yes	No	No	Yes	Yes	No	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	Yes	No	Yes	No	Yes	Yes	Yes	Low
SP Plus	3225 North Harbor Dr. San Diego, CA 92101	908.0-908.21	4173	488490	Bus Terminal Operation	No	Yes	No	No	Yes	No	No	No	Yes	Yes	Low
SSP	3225 North Harbor Dr. San Diego, CA 92101	908.0-908.21	5812	722310	Food & Beverage	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	High

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	78 acres (approximately)	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 Compactors	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
	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
	Detention Basin	High
	Infiltration Trenches/Infiltration Beds/Infiltration Basins	High
	Artificial Turf Infiltration	High
	Modular Wetland Treatment Units	High
	Capture And Reuse Cistern	High
Buildings	Administration Building (Former Commuter Terminal)	Low
	Terminal 1	Low
	Terminal 2	Low
	Truxton Road Offices	Low
	Central Plant (Heating, ventilation, and air conditioning building and Power Plant)	Low
	FMD (offices)	Low
	FMD Shops (maintenance shops)	Low
	Procurement Office and Storage Building	Low
	ADC Trailers	Low
	Air Traffic Control Tower	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.

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

P&EAD is responsible for inspecting and cleaning the storm drains. Drop inlet, curb inlet, trench drains, and slit drains are inspected quarterly and are cleaned on an as-needed basis. The P&EAD contractor inspects the whole storm water conveyance system, and cleans the OWSs, underground storm drain pipes, and catch basins on an annual basis. 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. The storm drain cleaning contractor is responsible for all waste disposal. The P&EAD has contracted for maintenance of the following drains on the tarmac: Solid waste trash compactor on the south side of the fence (SUMP), Menzies facility OWS (storm drain goes into OWS), and the least tern area oval storm drains. All of these are inspected quarterly. During the rainy season they are cleaned on a quarterly basis and before the start of the rainy season. During the dry season they are cleaned on an as-needed basis. Additionally, five tenants also perform some storm drain inspections, either sporadically or as part of their own routine facility inspections. All tenants monitor operations to prevent

illicit discharges to the MS4. 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 the structural treatment control BMPs identified in Section 6.2.1 are performed by the P&EAD, and a contractor hired by the Authority. Maintenance consists of as needed cleaning. Filter fabric inserts are inspected quarterly and maintained as needed, and before and after rain events. 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. P&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 the four Authority owned OWSs are conducted by P&EAD and FMD. The OWS at the former Menzies area in Drainage Basin 7 is pending removal. Construction and demolition of that area is ongoing for the Terminal 1 expansion project. If the oil in an OWS 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 OWSs 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 and the RCC each contracts with outside vendors to service the remaining six OWSs (2 OWSs at the FSF/RFF and 4 OWSs at the RCC) 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, including landscaped areas 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, and landscaping maintenance. The Authority's program for ramp sweeping is described in Section 7.7.4.1.

FMD maintains approximately 18 acres of environmentally friendly landscaping within or adjacent to parking lots. 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 WeatherTrak to automatically adjust watering based on weather conditions. This system is expected to save approximately 9 million gallons of water each year.

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. In addition, over-irrigation in parking lot landscaped areas can mobilize nutrients, bacteria, metals, and pesticides. 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 and maintenance of landscaped areas 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, and maintenance of landscaped areas. Descriptions of these BMPs can be found in Appendix B.

Table 6-4. Minimum BMPs Requirements

SC01 Non-Storm Water Management	SC09 Building and Grounds Maintenance
SC10 Employee Training	SC12 Outdoor Washdown/Sweeping
SC16 Parking Lots	SC19 Safer/Alternative Products
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 Administration Building (old Commuter Terminal), overpasses leading into and exiting SAN, and the area from McCain Road to Gate 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 P&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 P&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 off site.
- If tools, equipment, and/or vehicles coated with concrete material are to be cleaned on site, 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 off site.
- 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 off site.
- 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. On-site 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.

LANDSCAPED AREAS: XERISCAPING, WATER CONSERVATION AND SUSTAINABILITY PROGRAM

Maintenance on landscaped areas is performed by the Authority FMD and for specific needs, a contractor. Several landscaped areas are maintained by tenants at the FBO and the RCC. The Authority prohibits over-irrigation. To assist with preventing over-irrigation, the Authority has deployed a weather tracking system, which collects and analyzes data from multiple weather stations to determine watering needs, and shuts off irrigation when rainfall is forecasted or detected. Additionally, the Authority and FMD have designated personnel to ensure systems are functioning as designed. FMD staff are available 24/7 to respond to over-irrigation incidents. An over-irrigation hotline is set up using the Communication Center 619-400-2710 hotline number, and through routine maintenance and inspection. For incidents where over-irrigation issues cannot be resolved immediately, FMD will shut down the entire irrigation system within an hour. Corrective actions are performed within 12-24 hours of the time of notification. Water conservation measures are practiced as much as possible. The Authority embraces xeriscaping, or drought-tolerant landscaping, and drip-irrigation watering systems that both cut down on water usage and prevent the occurrence of over-irrigation. FMD and their contractor(s) are trained in proper pesticide, herbicide, and fertilizer use, avoiding contact with rainfall and irrigation. Specific BMPs for landscaped areas include the following:

- The use of pesticides, herbicides, and fertilizers will be minimized and used according to directions. Less harmful/toxic products should be considered to replace ones currently used.
- An Environmentally Preferable Purchasing Program will be developed to minimize the purchase of products containing hazardous ingredients, to maximize the purchase of alternative products that pose less risk to employees and environment, and to maximize the purchase of products containing recycled materials.

- Residual landscape waste including grass trimmings, leaves, sticks, etc. will be recycled or composted as much as possible or disposed of appropriately.
- Plant native vegetation for proper xeriscaping management and landscaping to reduce irrigation needs. Hand-weeding will be performed where practical.
- Temporary stockpiled materials such as soil, rocks, or other landscaping materials or waste will be removed at the end of the day or placed away from watercourses and drainage inlets. Stockpiled materials will be bermed and covered to prevent material releases to the storm drain.
- Irrigation will not occur during forecasted rain events and 48 hours following a rain event.
- Irrigation systems and landscaped areas will be periodically inspected and maintained to prevent prohibited over-irrigation and leaks.
- Irrigation will be based on the satellite water-tracking system to reach proper levels of soil moisture applicable for landscaping, and City water restriction guidelines will be followed.
- Landscaped areas will be irrigated using timed sprinkler system, handheld water container, or a hand-held hose equipped with positive shut-off nozzle. Over-irrigation is strictly prohibited. New technologies and practices to conserve water will be experimented.
- If rain is expected or occurring, pesticides will not be used, mixed, or prepared for application near storm drains. Pesticides will only be applied when wind speed is low.
- Over-irrigation of landscaped areas is prohibited.
- For areas of exposed soil, the areas of exposed soil will be landscaped, re-vegetated or will have erosion and sediment controls installed.
- Sidewalks and pavements will be cleaned using dry methods or reclaimed water before applying irrigation water to prevent any residual materials or spills to the storm drain. Wash water will be properly captured and disposed of.

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 on-site 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 ADC 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 IDDE program, because any environmental issues are both reported to the P&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 Best Management Practices

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 off-site 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 & Terminals Operations

Department or the P&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 on-site 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 NSWDs associated with over-irrigation and 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 landscaped areas and maintenance activities conducted by FMD are described in Section 6.3.

The Authority operates 2 acres of bioswales and 1.25 acres of bioretention swales in the northern side of SAN that have been installed recently as part of the Master Plan 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. Over-irrigation is prohibited to prevent the mobilization of pesticides and herbicides to the storm drain system.

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, including avoiding their use during irrigation and 48 hours before and after rain is forecast. 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 P&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, and in 2016, won the IPM Achievement Award from the California Department of Pesticide Regulation.

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 Administration Building (former Commuter Terminal). FMD and P&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. Pesticides, herbicides, and fertilizers are not used or prepared for application when rain or irrigation is expected or occurring. Pesticides will only be applied when wind speed is low.

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 on-site event management staff to monitor and control trash and litter; an adequate number of on-site 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
SC09 Building and Grounds Maintenance	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 weekly 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 continuous increase in recyclables collected, therefore diverting these materials from the landfill. In 2015, composting was implemented in all Authority breakrooms and all food and beverage concessions to divert food waste from landfill. Tenants and employees were trained in compost separation and had their compost initially tested for contamination. Compost is collected and delivered to an off-site facility run by the City of San Diego commercial food waste composting program. Tons of food waste diverted from the landfill through composting efforts continues to increase each year.

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. Further separation of materials include cardboard, wood, and metal to keep them out of the landfill and recycling bins. A contractor is hired by the Authority to pick up, sort, and deliver municipal waste from various points throughout the Airport to the dumpsters and/or compactors multiple times a day. The Authority contracts for pick-up and haul of municipal waste from compactors and dumpsters to an off-site facility at least once a day, seven days a week. Drivers inspect the conditions of dumpsters and compactors daily and report any needed repair/replacement. The waste hauler also conducts weekly cleaning of the compactor areas, ensuring a clean facility and space. The food waste compactor is cleaned when serviced, which is approximately twice a week. The Authority has an electronic recycling program by which e-waste generated by tenants can be dropped off twice a year at the Sustainability Fairs. Pickup and disposal of grease is described in Section 6.4.3.

6.9 FACILITY INSPECTIONS

The P&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 NSWDs 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 NSWDs, 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 P&EAD includes (1) a review of the SWMP, any associated documentation, and the Authority's Web-based database; and (2) an on-site 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 NSWDs;
- Visual inspection for the presence of actual or potential discharge of pollutants;
- Visual inspection for the presence of actual or potential illicit connections and illicit discharges;
- 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 NSWDs and storm water discharges and runoff;
- Assessment of the implementation of designated BMPs;
- Verification of coverage under the Industrial Permit (if applicable); and
- Documentation of follow-up and/or enforcement actions taken in accordance with the ERP if problems or violations are found.

The P&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; and
- BMPs.

Any NSWDs and potential illicit discharges observed are followed up on and/or sampled through the dry weather monitoring programs described in Section 3.3 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 P&EAD inspector documents the results of the inspection, including any issues identified, via the Web-based database maintained by P&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 P&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. on-site, 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; and
- The date that problems and violations were resolved.

The P&EAD inspector can discuss the results of the inspection with the Authority employee or tenant while on site, 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 P&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

The Authority P&EAD inspects 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; and
- Drawings and maps.

Records of maintenance inspections and activities can be found at the P&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 gravel-bagging/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 P&EAD inspector will be discussed on site or via the Web-based database with the Authority employee or tenants. The P&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 within 14 days to the Authority's Web-based database, or prior to the next predicted rain event, whichever is sooner. Escalated enforcement mechanisms can be enforced if corrective action is not completed within 30 days. 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 P&EAD inspector and a suggested timeframe for completion within 30 days of the initial inspection, which the P&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 P&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. P&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; and
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. The issues will be documented in the Web-based database so that the responsible party and interested parties are notified of the violation. The responsible party can then notify the inspector via the Web-based database when

the corrective action has been completed. Corrective actions are expected to be completed within 30 days. Photos of the corrective action should be uploaded to the web-based database within 30 days, or the agreed upon timeframe, if longer. The web-based database generates a date associated with each photo, which reflect the photo's upload date. If the finding is not corrected after the first reinspection, a notice of violation is issued to escalate enforcement, which may include an order to clean, test, or abate. Upon the second reinspection, if the finding is still not corrected the issues will be directed to Airline Relations for escalated enforcement.

- Enforcement Level 2 is initiated when the noncompliant activity or violation may impact water quality, human health, or the environment (i.e., prohibited discharge). A written notice to clean, test, or abate, and/or a CDO is used to initiate enforcement and compliance is expected within 24 hours. If a CDO is issued, the recipient must cease and desist all activities that cause or contribute to illegal discharges or remove illicit connections. A notice and order to clean, test, and abate is a written or verbal order to perform the activities listed in the Authority's Storm Water Code. If the violation is not corrected Airline Relations will be notified for escalated enforcement. Penalties and fines may be issued if the notice to clean, test, or abate and/or the CDO are ineffective and the violation continues. Additionally, the Authority or tenants may be subject to a meeting with the Director of the P&EAD to discuss the reasons for failing to comply and the means of resolving the issue.

The Authority reserves the right to supplement enforcement with any additional 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 P&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 P&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 P&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, Authority 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.

- Updates were made to the Municipal and Commercial Component, Section 6 in January 2019, following the designation of additional minimum BMPs, as well as addition of specific BMPs for preventing over-irrigation.
- Table 6.1 was updated in January 2022 to reflect current commercial tenants and commercial related activities and potential generated pollutants.
- Table 6.2 was updated in January 2022 for municipal land uses and activity areas.
- The list of structural control BMPs was updated in January 2022 in Section 6.2.1.
- The structural treatment control BMP section in 6.2.3.2 was also updated in January 2022 with the current number of tenants performing storm drain inspections and the number of active OWS at the airport.
- Section 6.10 was updated in January 2022 for municipal and industrial escalated enforcement measures.

7.0 INDUSTRIAL COMPONENT

7.1 INTRODUCTION

This section addresses the Industrial Permit requirements, Provision E.5 (Existing Development Management) of the Municipal Permit as it pertains to industrial facilities, and relevant strategies for industrial discharges outlined in the San Diego Bay WQIP.

Many sources were consulted in preparing this section, including Authority plans and regulations as well as state and federal plans and permits. Authority regulations utilized include the SAN Rules and Regulations and the Authority's Storm Water Code. The state and federal permits, plans, and regulations consulted include the 2012 Water Quality Control Plan for the San Diego Basin, the California 2010 Integrated Report 303(d) List/305(b) Report, hazardous waste regulations and permits, and air quality regulations and permits.

In general, Section 7.0 addresses most of the requirements outlined in the Industrial Permit for industrial dischargers. Additional information is included in Appendix A, Appendix B, Appendix D.1, Appendix E, Figures 3 through 7, and other sections of the SWMP as noted in this section. As listed below, the sections of the Industrial Permit require the Authority to:

- II—Obtain coverage under the Industrial Permit by submitting all Permit Required Documents through SMARTS. As a facility discharging storm water associated with industrial activity to San Diego Bay, a water body of the United States, SAN had to certify and submit a NOI by July 1, 2015. All changes or terminations of Industrial Permit coverage and required reports will be submitted through SMARTS. Facilities previously operating at SAN under a separate WDID number have been integrated into the SAN SWPPP through SWPPP Amendment No.2. The appropriate Change of Information (COI) has been submitted through SMARTS, and the affected tenants submitted their NOT documents. Section 7.2 has been prepared to address this requirement.
- III—Prohibit all discharges of storm water to waters of the United States, except as authorized by the Industrial Permit or the Municipal Permit. All NSWDs are prohibited, except those designated as authorized by the NPDES permits. Both storm water discharges and NSWDs are prohibited if they contain pollutants that cause or threaten to cause pollution, contamination, or nuisance. Other discharge prohibitions, including those stated in regional or statewide water quality control plans and federal regulations, are also enforced. Section 7.5.1 has been prepared to address this requirement.
- IV—Prohibit NSWDs, except for certain authorized classes, provided that these authorized NSWDs (1) do not otherwise violate regional or statewide water quality control plans or the Authority's Storm Water Code or Rules and Regulations; (2) have appropriate BMPs in place, as outlined in this document; (3) are visually inspected monthly; and (4) are reported by the Authority in the Industrial Annual Report. Section 7.5.2 has been prepared to address this requirement.
- V—Implement BMPs using BAT and BCT to reduce or prevent discharge of pollutants in industrial storm water runoff. The Authority will comply with any applicable Federal Storm Water Effluent Limitation Guidelines (ELGs) outlined in USEPA regulations in 40 CFR Chapter I Subchapter N (Subchapter N). The Authority will comply with any applicable total maximum daily loads (TMDLs). Section 7.5.3 has been prepared to address this requirement.
- VI—Ensure that industrial storm water discharges and NSWDs do not cause or contribute to the exceedance of a water quality standard in the receiving water (San Diego Bay), do not adversely affect human health or the environment, and do not contain pollutants in quantities that threaten to cause pollution or public nuisance. Section 7.5.4 has been prepared to address this requirement.
- VII—Comply with any incorporated TMDL-specific requirements, once the Industrial Permit is amended to incorporate any TMDLs applicable to the Authority. New dischargers applying for coverage under the Industrial Permit are also required to comply with special regulations associated

with 303(d)-listed impairments in the receiving water. However, the Authority is not classified as a new discharger. Section 7.5.3 has been prepared to address this requirement.

- VIII—If discharging to the ocean, comply with the California Ocean Plan. According to the definitions outlined in the California Ocean Plan, the Authority discharges to an enclosed bay; therefore, the California Ocean Plan requirements are not applicable. Section VIII is not addressed in this plan.
- IX—Ensure appropriate training. Section 7.6 has been prepared to address this requirement.
- X—Prepare a SWPPP. This section of the Authority's SWMP (Section 7.0), and other applicable sections or appendices, as indicated in this section, comprise the Authority's SWPPP as required by the Industrial Permit. Required components of the SWPPP include (1) facility name and contact information; (2) a site map; (3) a list of industrial materials; (4) a description of potential pollutant sources; (5) an assessment of potential pollutant sources; (6) minimum BMPs; (7) advanced BMPs, if applicable; (8) a monitoring implementation plan; (9) an Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation); and (10) the date that the SWPPP was initially prepared and date of each subsequent revision. A copy of this SWPPP will be maintained with the Planning and Environmental Affairs Department (P&EAD) and is available on the Authority's webpage. The locations of required SWPPP elements are provided in Appendix A. Most of the SWPPP requirements are addressed in Section 7.7.
- XI—Conduct monitoring, including monthly dry weather visual observations of each drainage area, wet weather visual observations during each wet weather sampling event, and wet weather sampling four times per year during qualifying storm events (QSEs). Sampling results will be compared with numeric action levels (NALs) as outlined in the Industrial Permit. Sections 7.8.3 and 7.8.4 and Appendix D-1 have been prepared to address this requirement.
- XII—Respond to NAL exceedances in a given year by escalating to a Level 1 status and conducting a Level 1 Exceedance Response Action (ERA) evaluation and report. The evaluation and report will be completed by or with the assistance of a Qualified Industrial Storm Water Practitioner (QISP). Respond to continuing NAL exceedances by escalating to a Level 2 status and completing a Level 2 ERA Action Plan. This Action Plan will be followed by a Level 2 ERA Technical Report the following year. Section 7.9 has been prepared to address this requirement.
- XIII—Comply with regulations for inactive mining operations. This section does not apply to the Authority and is not addressed in this plan.
- XIV—Choose to form a Compliance Group with other dischargers of the same industry type. The Authority has elected not to join a Compliance Group, and Section XIV is not addressed in this plan.
- XV—Complete an Annual Evaluation. Section 7.10.1 has been prepared to address this requirement.
- XVI—Complete an Annual Report and submit via SMARTS. Section 7.10.2 has been prepared to address this requirement.
- XVII—File for a conditional exclusion to the Industrial Permit if there is no storm water exposure to industrial activities. The Authority does not intend to file for a conditional exclusion because of no exposure, and so Section XVII is not addressed in this plan. The new RCC operated by Conrac Solutions (Conrac) had applied for and received approval for a NEC (because their industrial operations are conducted indoors/undercover). However, the RCC has now been incorporated into the Authority's SWPPP and no longer requires an NEC.
- XVIII—Comply with additional regulations applicable to facilities handling plastic materials. The Authority does not handle plastic materials as described in Section XVIII, and therefore this section is not addressed in this plan.

- XIX—Recognize the RWQCB's authority to review and enforce the Authority's compliance with the Industrial Permit.
- XX and XXI—Be subject to various special and standard conditions. Violations of the Industrial Permit are subject to a civil penalty not to exceed $37,500 per calendar day of such violation.

The Municipal Permit requires that the Authority, as a Copermittee, establish, maintain, and enforce its legal authority to manage existing developments within its jurisdiction, including industrial developments. For enforcement, the Authority considers existing industrial leaseholders to be existing development. Per Provision E.5 of the Municipal Permit, the Authority will inventory and track all industrial developments, designate a minimum set of BMPs for all inventoried industrial developments, and inspect all industrial developments at a minimum of once every five years. The monthly inspections required by the Industrial Permit will supersede this municipal inspection requirement. The Authority will also retrofit and rehabilitate areas of existing development that are identified sources of pollutants or stressors that contribute to the focused priority water quality condition for the Authority jurisdiction. This is discussed in Section 6. The Municipal Permit requirements pertaining to industrial discharges are generally addressed in Section 7.7.

7.2 OBTAINING PERMIT COVERAGE

The Authority maintains coverage for industrial activities and industrial tenants under both the Industrial Permit and the Municipal Permit. The Authority has elected to assume a lead role concerning the Industrial Permit. Airport tenants who conduct industrial activities are also subject to the Industrial Permit requirements and must comply with the Authority's direction regarding storm water management at SAN. This approach (1) conforms to federal regulations, (2) was the preferred option of the SWRCB, and (3) allows for the implementation of consistent storm water pollution prevention measures throughout the entire airport site. This approach provides consistency in the programs that the Authority has developed and implemented to comply with the requirements of both the Industrial Permit and the Municipal Permit.

7.2.1 OBTAINING INDUSTRIAL PERMIT COVERAGE

The Authority obtained regulatory coverage under the 2014 Industrial Permit by filing an NOI through SMARTS by July 1, 2015. All Permit Required Documents for the NOI were certified and submitted by the Vice President of Development, Jeffrey Woodson, as the Legally Responsible Person (LRP) at the time. The LRP is now Brendan Reed, Director of the P&EAD. The NOI submittal included:

10) The NOI, signed Electronic Authorization Form, and signed certification statement;
11) A site map (provided in Figure 3);
12) This document as the SWPPP; and
13) Annual fees for coverage (established through regulation adopted by the SWRCB and subject to change).

The complete requirements of the NOI are described in Attachment D of the Industrial Permit. All future documents related to the Industrial Permit required to be submitted via SMARTS will be certified and submitted by the Director of P&EAD or his DAR.

7.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP, as part of the SWMP, will be available to all Authority employees, tenants, contractors, and vendors during all hours of facility operation through the Authority's internal electronic network (Intranet) and/or on the Authority's webpage.

This SWPPP was implemented on July 1, 2015. Additional amendments have been developed and implemented as follows: Amendment No.1 - January 24, 2016, Amendment No. 2 – November 15, 2016,

Amendment No. 3 – March 17, 2017, Amendment No.4 – December 27, 2017, Amendment No. 5 – January 26, 2019, Amendment No. 6 – December 27, 2019, Amendment No. 7 - December 31, 2020, Amendment No. 8 – January 31, 2022.

7.4 POLLUTION PREVENTION TEAM

The Authority's Pollution Prevention Team is primarily composed of members of the P&EAD and FMD, as well as their designated outside consultants. A full list of staff responsible for implementing the SWPPP is provided in Table 7-1. Figure 8 presents the Authority's organizational chart. The following key roles within the Authority perform essential roles in SWPPP implementation and monitoring:

- Director, P&EAD: The Director of the Authority's P&EAD is the LRP for implementing the SWPPP. The LRP will certify and submit all reports on the SMARTS website. The LRP is responsible for signing and certifying all permit-related documents and managing the day-to-day implementation of the SWPPP. In the event of the LRP's extended absence, the DAR within the P&EAD will manage the industrial storm water program.
- Manager, P&EAD: The P&EAD Manager will serve as the DAR and is responsible for managing the day-to-day implementation of the SWPPP. Duties include conducting meetings with and training of appropriate stakeholders, ensuring proper implementation of required BMPs, directing staff and consultants in performance of wet and dry season monitoring and wet weather storm water sampling, overseeing annual facility inspections of all industrial areas and activities, preparing annual reports for submittal to the RWQCB, submitting monitoring results onto SMARTS, and revising and updating the SWMP as necessary.
- Staff, P&EAD: All members of the P&EAD, from Senior Environmental Specialist to Environmental Assistant level, are responsible for the implementation of the SWPPP. Staff-level individuals are responsible for performing inspections, implementing training programs, observing and recording daily implementation of required BMPs, requiring corrective actions for BMP deficiencies, developing or directing the development of reports, and enforcing BMP implementation. All members of the P&EAD are tasked to recognize and report tenant and staff failures to implement required BMPs.
- FMD: The Authority's FMD is responsible for implementing minimum BMPs in common areas and Authority property not otherwise covered under another leasehold. Department supervisors are responsible for remediating any BMP deficiencies identified in common use and Authority areas during inspections and recording corrective actions taken.
- A&TO, Security, and Public Safety Department: The Authority Airside Operations & Terminals Operations Department is generally the first point of contact for tenant and staff reporting of spills. The Airside & Terminals Operations Department generates a daily log of any reported spills, leaks, and other actual and potential discharges; this log is included in the Authority's Web-based database so that the records are immediately available upon request.
- Tenant Environmental Program Managers: All tenants are required to implement minimum BMPs to prevent storm water pollution as a condition of their leasehold. Tenant environmental managers will be responsible for remediating any BMP deficiencies identified in their tenant areas during inspections and recording corrective actions. The managers in charge of environmental program implementation are identified in the Tenant Summary Sheets in Appendix E.
- Airport Design and Construction (ADC) Department and P&EAD: These two departments are generally responsible for project planning, design, and approval. ADC and P&EAD will be responsible for the design of Industrial and Municipal Permit-compliant treatment control BMPs.
- A&TO and Revenue Generation and Partnership Development Departments: These two departments, in collaboration with P&EAD, are generally responsible for helping tenants properly implement the

BMPs required in this SWMP. Both departments may be consulted if escalated enforcement of BMPs is required.

Table 7-1. Authority Key Personnel Responsible for SWMP Implementation

Department	Title	Responsible Individual
Planning and Environmental Affairs	Director	Brendan Reed
	Manager	Cara Nager
	Manager	Chad Reese
	Manager	Ralph Redman
	Manager	Ted Anasis
Facilities Management	Director	David LaGuardia
	Facilities Management Manager	Andrew Hoge
	Fleet Manager	Jonathan Mason
Airside & Terminal Operations (A&TO)	Director	Jeff Rasor
	Manager, Airside Operations	Dean Robbins
	Duty Managers	Mark Hander
		Steve Duboce
		Brianna Kincaid
		Mario Caldera
		Mark Chewiwie
		Adella Ramos
		Mark Taylor
		Rodrigo Rendon
		Eric Smith
		Blake Matheson
		Jimmy Vazques
		Wayne Thomas
	Manager, Terminal Operations	Amiel Porta
	Customer Relations Manager	Maggie Hartnett
	Customer Service Coordinator	Colm Marmion
	Senior Terminal Operations Coordinator	Scott La Rocco
	Terminal Operations Coordinators	Francois Kovakoul
		Eric Van Pelt
		Nadya Vedepo
		Ellie Ambler
	Construction Project Coordinator	Mitesh Patel
	Airport Properties Operations Coordinator	Suzanne Roybal
Aviation Security & Public Safety	Director	Clint Welch
	Manager, Emergency Preparedness & Public Safety	Susie Preiser

Table 7-1. Authority Key Personnel Responsible for SWMP Implementation (Continued)

Department	Title	Responsible Individual
	Manager, Aviation Security & Law Enforcement	Cameron Burkel
Airport Design & Construction	Director	Bob Bolton
	Senior Program Manager	Chris George
	Program Manager	Ajay Babla
	Program Manager	Shohreh Belardi
Revenue Generation and Partnership Development	Director	Jim DeCock
	Program Managers	TBD
		TBD

7.5 STORM WATER AND AUTHORIZED NON-STORM WATER DISCHARGE REQUIREMENTS

In general terms, any discharge of materials other than storm water is prohibited under both the Industrial Permit and the Municipal Permit. Section 7.5.1 discusses these discharge prohibitions in more detail, and Section 7.5.2 lists those classes of NSWDs that are authorized. Storm water and authorized NSWDs are subject to effluent limitations. These limitations can be either technology-based, requiring the discharger to implement a certain minimum technology to control pollutants, or water-quality-based, requiring discharges to meet either numeric or narrative receiving water quality standards. Technology-based effluent limitations are discussed in Section 7.5.3. Receiving water limitations and water quality standards are discussed in Section 7.5.4.

7.5.1 DISCHARGE PROHIBITIONS

The following storm water discharges or NSWDs are always prohibited:

- Discharges that cause or threaten to cause pollution, contamination, or nuisance as defined in Section 13050 of the Water Code are prohibited;
- Discharges that violate discharge prohibitions contained in the San Diego Basin Plan are prohibited; and
- Discharges that contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Sections 110.6, 117.21, or 302.6 are prohibited.

7.5.2 INDUSTRIAL NON-STORM WATER DISCHARGES

The Municipal Permit effectively prohibits all NSWDs through implementation of the IDDE Program discussed in that portion of Section 3.2 of the SWMP (included in Attachment 1 of the SWPPP), unless they are authorized through another NPDES permit. The following NSWDs are prohibited unless authorized by a separate NPDES permit, or they must be addressed pursuant to the requirements from the Municipal Permit Provision E.2 as identified in Section 3.1.1 and 3.1.2:

- Fire prevention system flushing/testing;
- Potable water sources and system flushing/testing;
- Drinking water fountains;
- Air conditioning, refrigeration, and compressor condensate;
- Uncontaminated natural springs, groundwater, and foundation and footing drainage;
- Tidal intrusion; and
- Incidental windblown mist from cooling towers.

Further discussion of NSWDs and their associated BMPs is provided in that portion of Section 3.0 of the SWMP (presented in Attachment 1 of the SWPPP).

7.5.3 INDUSTRIAL EFFLUENT LIMITATIONS

The Authority meets the Industrial Permit Section V effluent limitations by employing BMPs that meet the BAT and BCT standard, as appropriate. The BAT standard generally applies to industrial discharges of toxic and nonconventional pollutants, while the BCT standard applies to conventional pollutants, including biological oxygen demand (BOD), total suspended solids, fecal coliform, pH, and oil and grease. The Authority's required BMPs are further outlined in Section 7.7 and in Appendix B.

The Authority is not subject to storm water ELGs in Subchapter N because no pavement de-icing occurs at SAN and because the Authority is not a new discharger.

Additionally, there are no TMDLs applicable to the Authority, so the Authority is not subject to any TMDL specific requirements. If the Authority does become named in a TMDL, this SWPPP will be amended to incorporate the TMDL.

7.5.4 RECEIVING WATER LIMITATIONS FOR INDUSTRIAL DISCHARGES

The Authority's storm water discharges and NSWDs will not cause or contribute to an exceedance of any applicable water quality standard in San Diego Bay, including standards set forth in the Basin Plan.

Industrial storm water discharges and NSWDs will not adversely affect human health or the environment or contain pollutants in quantities that threaten to cause pollution or public nuisance.

7.6 TRAINING QUALIFICATIONS

Per 2014 Industrial Permit requirements, the Authority designated a QISP to complete an approved SWRCB training course and register as a QISP in SMARTS, following QISP training development by the SWRCB when the Authority entered Level 1 discharger status, as described in Section 7.9. The QISP trained appropriate team members and performed the duties related to ERAs, as described in Section 7.9. The SWPPP was modified to reflect this designation. Whenever the Authority is in baseline status (i.e., no NAL exceedances), additional training by a QISP will not be required.

All engineering work subject to the Professional Engineer's Act (California Business and Professions Code Sections 6700-6799) and required by the Industrial Permit will be performed by a California licensed professional engineer. A professional engineer will certify hydrologic calculations for any new volume-based treatment control BMPs installed at SAN after July 1, 2015, per Section X.H.6.a of the Industrial Permit. Additionally, according to Provision E.3.d of the 2013 Municipal Permit, compliance with the BMP Design Manual is also required. The BMP Design Manual addresses on-site post-construction storm water requirements for Standard Projects and PDPs and provides updated procedures for planning, preliminary design, selection, and design of permanent storm water BMPs based on the performance standards presented in the Municipal Permit (see Appendix C).

7.7 STORM WATER POLLUTION PREVENTION PLAN COMPONENTS

7.7.1 BACKGROUND

As an industrial discharger, the Authority has developed Section 7.0 and other associated sections or appendices of the SWMP as its SWPPP. Per Section X.A of the Industrial Permit, the Authority's SWPPP contains the following elements:

- Facility name and contact information;
- Site map;
- List of industrial materials;
- Description of potential pollutant sources;
- Assessment of potential pollutant sources;
- Minimum BMPs;
- Advanced BMPs, if applicable;
- Monitoring Implementation Plan;
- Annual Evaluation; and
- Date that the SWPPP was initially prepared and the date of each SWPPP amendment.

A checklist of required SWPPP elements and their locations is provided in Appendix A. Section 7 of the SWMP contains most of the required SWPPP elements.

The Municipal Permit also requires identifying and describing existing industrial facilities or areas as part of the Authority's JRMP. Most of the elements required under the Municipal Permit are already provided as a requirement of the SWPPP under the Industrial Permit. Specifically, Provision E.5.a of the Municipal Permit states that the JRMP must include the following elements for industrial facilities:

- Name and location, including hydrologic subarea and address, if applicable;
- Status of facility or area as active or inactive;
- Identification if a business is a mobile business;
- SIC code or NAICS code, if applicable;
- Industrial Permit NOI and/or WDID number, if applicable;
- Identification of pollutants generated and potentially generated by the facility or area;
- Whether the facility or area is adjacent to an ESA;
- 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; and
- An annually updated map showing the location of inventoried existing development, watershed boundaries, and water bodies.

Table 7-4 presents an inventory of industrial sites and sources at SAN. Based on this inventory of existing facilities, the Municipal Permit calls for prioritizing known or suspected sources of pollutants contributing to the highest or focused priority water quality conditions identified in the San Diego Bay WQIP. The WQIP identifies metals as the focused priority water quality condition in the Authority jurisdiction, and both Industrial Tenant Operational Areas and Industrial Airport Operational Areas (i.e., runways and taxiways) are identified as high-priority sources of metals (Responsible Parties, 2015). Strategies identified in the WQIP to address industrial sources of metals include enhanced tenant inspections, optimization of runway rubber removal, and increased frequency of sweeping runways, taxiways, and ramp areas.

Per Provision E.1.a of the Municipal Permit, the Authority must establish legal authority to control pollutants' contribution in discharges from industrial facilities within its jurisdiction, including those with existing coverage under the Industrial Permit. The Authority has legal authority over all land uses within its jurisdiction through property leases or use agreements. A complete discussion of the Authority's legal authority is provided in Section 2.2 of the SWMP (included in Attachment 1 of the SWPPP).

7.7.2 FACILITY INFORMATION

SAN is owned and operated by the Authority. The primary economic activity of SAN is as an airport; therefore, the primary SIC Code is 4581. Other secondary SIC codes associated with the activities of SAN and its industrial tenants include the following:

- 4512 Air Transportation, Scheduled;
- 4513 Air Courier Services;
- 4522 Air Transportation, Non-scheduled;
- 5171 Petroleum Bulk Stations and Terminals; and
- 4173 Terminal and Service Facilities for Motor Vehicle Passenger Transportation.

SAN covers approximately 663 acres and is located in the Pueblo Hydrologic Unit (HU 908.00), San Diego Mesa Hydrologic Area (HA 908.20), and Lindbergh Hydrologic Sub-Area (HSA 908.21). Storm water from SAN drains to San Diego Bay, designated as an ESA, with portions contained in the 303(d) list. Certain areas of San Diego Bay are subject to TMDLs; however, SAN does not directly drain to these areas. A complete discussion of the facility drainage is provided in Section 7.7.2.2 of this plan and can be viewed on the site map (Figure 3).

Table 7-2 provides the basic facility information for SAN, including name, address, contact information, SIC code, hydrologic subarea, and WDID number.

Table 7-2. SAN Industrial Facility and Facility Discharge Information

Industrial Facility Information	
Facility Name	San Diego International Airport (SAN)
Facility Operator	San Diego County Regional Airport Authority
Facility Address	3225 N. Harbor Dr., San Diego, CA 92101
Facility Mailing Address	PO Box 82776, San Diego, CA 92138
Latitude	32.7337
Longitude	-117.1933
Legally Responsible Person (LRP)	Brendan Reed, Director of Planning and Environmental Affairs
Facility Contact	Cara Nager
Contact Email	cnager@san.org
Contact Telephone	(619) 400-2790
Qualified Industrial Storm Water Practitioners (QISPs)	Amanda Archenhold, Nancy Phu
Scheduled Facility Operating Hours	6:30 a.m.-11:30 p.m., 365 days per year
Industrial Facility Discharge Information	
Primary Standard Industrial Classification (SIC) Code	4581 (Airports, Flying Fields, and Airport Terminal Services)
Waste Discharge Identification (WDID)	9 37I018035
Hydrologic Unit (HU)	908 (Pueblo)
Hydrologic Sub Area (HSA)	908.21 (Lindbergh)
Receiving Water Body	San Diego Bay
Facility Status	Active
Mobile Discharger?	No
Discharges to Environmentally Sensitive Area (ESA)?	Yes (San Diego Bay)

7.7.2.1 Facility Operations

The primary operation of SAN is as a domestic and international commercial airport. Airport operations at SAN currently include two main airline terminals, a FBO facility, one main runway area, taxiways, ancillary support facilities (including an aircraft fuel storage facility, a remote fueling facility, air cargo facilities, ground support facilities, and operations areas), one wash rack (operated by the Authority; the wash rack operated by the tenant Menzies was removed in 2021), overnight airplane parking areas, and the ARFF.

7.7.2.2 Descriptions of Drainage Areas and Existing Drainage

The storm water conveyance system at SAN consists of 15 drainage basins. To be consistent with historical naming conventions at the airport, these drainage basins are named Basins 1 through 15. In 2018, drainage basin 2 was removed and drainage basin 5a was added. Of the 15 basins at SAN, 10 contain industrial activities, namely Basins 1, 3, 5, 5a, 6, 7, 8, 12, 13, and 15. A full description of the drainage areas is provided in Section 1.4 of the SWMP presented in Attachment 1.

Storm water from SAN drains to San Diego Bay, portions of which are currently 303(d) listed for impacts due to PCBs, PAHs, chlordane, lindane, indicator bacteria, and metals, as well as benthic community effects and sediment toxicity. The 2010 303(d) list includes copper as a pollutant impacting water quality in the marinas along Harbor Island and bacteria impacting water quality at Spanish Landing. Runoff from the airport commingles with runoff from other sources and discharges into Harbor Island's waters, including near Spanish Landing. In its entirety, San Diego Bay is also 303(d) listed as impacted by PCBs.

There are two TMDLs established in San Diego Bay, namely dissolved copper impacting Shelter Island Yacht Basin and indicator bacteria impacting Shelter Island Shoreline Park. Runoff from the airport does not discharge in close proximity to these areas of San Diego Bay.

There are four Toxic Hot Spots in San Diego Bay, one of which (namely, the Laurel Hawthorn Central Embayment) is located near outfalls associated with runoff commingled from SAN and other sources. Several technical investigations prompted by Investigative Orders issued by the RWQCB are currently being conducted to determine the source of pollution in this area. The SWRCB has designated San Diego Bay in its entirety as having RARE beneficial use in the Basin Plan (2011 update). Both the Sweetwater Marsh National Wildlife Refuge and the South Bay Unit of the San Diego National Wildlife Refuge are considered ASBS, but neither is within close proximity to SAN.

7.7.2.3 Storm Water Run-On from Off-Site Areas and Non-Industrial Areas

Basins 1, 3, 4, 5, 6, 8, and 13 have been identified as potentially receiving run-on from off-site areas. Basins 1, 3, and 4 receive storm water run-on from adjacent properties to the south and east of SAN. Basins 5, 6, 8, and 13 receive storm water run-on from adjacent properties to the north and west of SAN.

There are no identified areas of run-on from non-industrial drainage basins within SAN to industrial drainage basins. There are, however, identified areas of run-on from non-industrial source areas within the industrial drainage basins. Basins 3, 4, 5, 6, 8, 12, and 13 contain areas of natural soil and fill that are exposed to rainwater. Runoff from these areas may reach the storm drains in the corresponding drainage areas. These areas are outlined in Figure 3. Basins 3, 6, 7, 8, and 15 contain non-industrial roof runoff that comingles with industrial runoff before reaching the storm drains. Basins 1, 3, 4, 5, 5a, 6, 8, 12, 13, and 15 contain portions of the vehicle perimeter road or vehicle parking areas; runoff from these areas may comingle with industrial runoff. As of January 2022, there is active construction in Basins 4, 5, 6, 7, and 15. Construction runoff is addressed in Section 5.0 of the SWMP.

7.7.2.4 Geology and Groundwater

Approximately 90 percent of SAN property is covered by impervious surfaces consisting mainly of buildings and paved areas. The soils underlying SAN are generally undifferentiated bay deposits and hydraulic fill material originating from San Diego Bay. The soil is described as undetermined in the Soil Hydrologic Groups map in the San Diego County Hydrology Manual. The elevation of SAN ranges from approximately 10 to 25 feet above mean sea level.

7.7.3 POTENTIAL POLLUTANT SOURCES

Entities conducting industrial activities as listed in Attachment A of the Industrial Permit are subject to the Industrial Permit and Provision E.5 of the Municipal Permit. There are 27 tenants conducting industrial activities, plus the Authority itself as operator of the airport and the ARFF (the Authority includes the ARFF facility, which is the airport's firefighting facility and is indicated separately to assign its particular activity), for a total of 29 entities conducting industrial activities that could contribute a significant pollutant load to the storm drain system. These 29 entities and the type of industrial activity into which they have been categorized are listed in Table 7-3. The location of these 29 entities on the airport is shown in Figure 3 and Figures 5 through 7.

The Authority site maps shown in Figure 3, and Figures 5 through 7 depict the facility boundaries; the outline of all storm water drainage basins within the facility boundaries; portions of the drainage basins impacted by run-on from surrounding areas; direction of flow within each drainage basin; nearby surface water bodies; and areas of soil erosion. The site maps identify San Diego Bay as the receiving water into which storm water from SAN discharges. The site maps also show the storm water drainage system at the airport; associated inlets and points of discharge; any structural control measures (e.g., OWSs); compliance sampling locations; an outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, and other roofed structures; locations where materials are directly exposed to precipitation; the locations where significant spills or leaks have occurred; areas of industrial activity, including the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, and cleaning and rinsing areas; and other areas of industrial activity that are potential pollutant sources.

The Municipal Permit requires that Copermittees identify and prioritize their industrial sources of pollutants contributing to the Authority's jurisdiction's focused priority water quality conditions. The process implemented by the Authority for determining the potential threat of those operations conducting industrial activities is described Section 7.7.3.1. Per the WQIP source prioritization, all Industrial Tenant Operational Areas and Industrial Airport Operational Areas are designated as high-priority sources (Responsible Parties, 2015).

7.7.3.1 Description of Potential Pollutant Sources

Under the Industrial Permit, commercial passenger air carriers, cargo air carriers, FBOs (of which there is only one at SAN), fuel vendors, aircraft refuelers, aircraft and airport service, and maintenance providers, and all airfield/airport related activities are defined as industrial operations. The Authority used information gained from site visits, annual inspections, and storm water sampling results, including information regarding industrial materials handled and stored at the airport, descriptions of those industrial activities that may be sources of pollutants, and pollutants detected in prior sampling events, to determine their potential pollutant sources and areas. This information is presented in Tables 7-3 and 7-4.

Using the information on hand, the Authority has determined that all the activities listed in Tables 7-3 and 7-4, and therefore all 29 entities conducting industrial activities at SAN, are considered high-priority threats to water quality.

The Municipal Permit requires the Authority to maintain an inventory of industrial and commercial sites and sources and update it annually. These industrial and commercial sites and sources were prioritized as part of the WQIP process. The results of the commercial prioritization are presented in Section 6.0. The current prioritization results for industrial activities are included in Tables 7-3 and 7-4, as discussed above. Some of the entities conduct multiple industrial activities and may be listed more than once in Table 7-3. Table 7-4 provides the more detailed minimum information required by the Municipal Permit for each industrial site or source, specifically name; address; pollutants potentially generated by the site/source (and identification of whether the site/source is tributary to a 303(d)-listed water body segment and generates pollutants for which the water body segment is impaired); and a narrative description, including SIC codes that best reflect the principal products or services provided by each site/source/facility. The Municipal Permit also requires identifying mobile businesses and whether businesses are active or inactive; all 29 industrial entities are active and stationary.

Table 7-3. Overview of Inventory of Industrial Sites/Sources

Land Use and Activity	Water Quality Threat Priority	Entity
Passenger Carrier	High	Air Canada Alaska Airlines Allegiant Air American Airlines British Airways Airlines Delta Airlines Edelweiss (not operating due to Covid) Frontier Airlines Hawaiian Airlines Japan Airlines JetBlue Airways Lufthansa (not operating as of January 2022, but returning on March 30, 2022) Southwest Airlines Spirit Airlines Sun Country Airlines Swoop Airlines United Airlines WestJet Airlines
Cargo Carrier	High	DHL Airways Federal Express (FedEx) Corporation United Parcel Service Co. (UPS)
Cargo Handling	High	Bradford Federal Express (FedEx) Corporation United Parcel Service Co. (UPS)
Corporate General Aviation/ Fixed-Base Operations	High	Signature
Fuel Vendor	High	Menzies Menzies Fuel Farm
Aircraft Fueler	High	Menzies Signature
Aircraft and General Services Equipment and Maintenance	High	American Airlines United Airlines Delta Airlines
Jetway and Baggage Maintenance	High	Siemens
Airport Terminal Services	High	FlagShip
Fire Fighting	High	Aircraft Rescue and Firefighting Facility (ARFF)
Airport/Facilities Maintenance	High	San Diego County Regional Airport Authority (SDCRAA)
Terminal and Service Facilities for Motor Vehicle Passenger Transportation	High	Conrac Solutions

Table 7-4. Inventory of Industrial Sites/Sources

Facility Name	Address Number	Suite Number	Street Name	City	State	Zip Code	SIC Code	NAICS Code	Principal Products/ Services	Bacteria	Gross Pollutants	Metals	Nutrients	Oil & Grease	Organics	Pesticides	Sediment	Tributary	Threat
Air Canada	3665	#223	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Alaska	3665	#228	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Allegiant	3707	T2E	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
American	3707	#103	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
ARFF	3698	N/A	Pacific Hwy.	San Diego	CA	92102	9224	922160	Airport Rescue & Fire Fighting	No	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Authority	3835	N/A	North Harbor Dr.	San Diego	CA	92101	4581	488111	Facility Maintenance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bradford	2247	N/A	West Washington St.	San Diego	CA	92101	4581	488190	Cargo Handling	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes
British Airways	3707	#117	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Conrac	3355	#Q228	Admiral Boland Way	San Diego	CA	92101	4173	532111	Rental Car Center	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Delta	3835	#107	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
DHL	225	N/A	Washington St.	San Diego	CA	92101	4513	492110	Air & Ground Freight	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Edelweiss (not operating due to Covid)	3707	N/A	North Harbor Drive	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
FedEx	2221	N/A	West Washington St.	San Diego	CA	92110	4513	492110	Cargo Handling	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
FlagShip	3835	#130	North Harbor Dr.	San Diego	CA	92101	4581	561720	Janitorial	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes

Table 7-4. Inventory of Industrial Sites/Sources (continued)

Facility Name	Address Number	Suite Number	Street Name	City	State	Zip Code	SIC Code	NAICS Code	Principal Products/ Services	Bacteria	Gross Pollutants	Metals	Nutrients	Oil & Grease	Organics	Pesticides	Sediment	Tributary	Threat
Frontier	3707	#105	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Hawaiian	3707	T2	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Japan Airlines	3707	#123	North Harbor Dr.	San Diego	CA	92101	4512	481111	Passenger Carrier	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes
JetBlue	3835	#108	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Lufthansa (not operating as of January 2022, but returning on March 30, 2022)	3835	#134	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Menzies	2340	N/A	Stillwater Rd.	San Diego	CA	92101	4581	488190	Fueling Services	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Menzies Fuel Farm	3698	#C	Pacific Hwy.	San Diego	CA	92101	5171	424710	Fuel Storage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Siemens	3225	N/A	North Harbor Dr.	San Diego	CA	92101	4581	488111	Facility Maintenance and Maintenance (Boarding Bridges & Conveyors)	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Signature	2904	N/A	Pacific Hwy.	San Diego	CA	92101	4512, 4522	481111, 487990	Corporate General Aviation	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Southwest	3665	T1	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Spirit	3707	#227	North Harbor Dr.	San Diego	CA	92101	4512, 4581	481111, 488111	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Sun Country	3835	#107	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Swoop	3225	N/A	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
United	3855	#115	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes

Facility Name	Address Number	Suite Number	Street Name	City	State	Zip Code	SIC Code	NAICS Code	Principal Products/ Services	Bacteria	Gross Pollutants	Metals	Nutrients	Oil & Grease	Organics	Pesticides	Sediment	Tributary	Threat
UPS	3140	#G105	E Jurupa St.	Ontario	CA	91761	4513	492110	Cargo Handling	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
West Jet	3707	T2E	North Harbor Dr.	San Diego	CA	92101	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes

INDUSTRIAL MATERIALS AS POTENTIAL POLLUTANT SOURCES

Industrial materials associated with industrial activities at SAN could be potential pollutants consisting primarily of metals, petroleum products (such as fuels, oil, and greases), solvents, soap/cleaning fluids, and trash. Lesser amounts of other potential pollutants also present at the airport include lavatory chemicals and waste, paints, used batteries and battery acid, anti-freeze, hazardous wastes (mostly oils), metals, de-icing chemicals, herbicides and pesticides, adhesives, rust preventers, AFFF, and other fire suppression chemicals, and sealants (see list below for more details). These pollutants can be transported to the storm water system either as direct spills, from contact with rainfall runoff, or from apron or ramp scrubbing, if not completely contained. Appendix E contains a list of potential pollutants for each industrial tenant. Also described in Appendix E are material storage areas, lists of materials stored in quantities over 55 gallons, and shipping and receiving information if available.

In general, the industrial materials that could be potential sources of pollutants at SAN include the following:

- Acetic acid
- Acetone
- Adhesives
- Antifreeze
- Asphalt debris
- Battery acid
- Brake cleaners
- Brake fluid
- Bulk auto gas and diesel
- Carburetor cleaner
- Caulking
- Cleaning solutions
- Coolant
- Deicing/anti-icing fluids
- Degreasers (citrus based)
- Diesel
- Dumpster wastes
- Fertilizers
- Firefighting foam
- Fuel
- Fuel hydraulic fluids
- Galvanizing compound
- Herbicides
- Hydraulic fluids
- Hydraulic fluid (Skydrol)
- Jet fuel
- Lavatory chemicals
- Landscape waste
- Lavatory wastes
- Lubricants
- Metals
- Oil and grease
- Paints
- Pesticides
- Purple K (fire suppression chemical)
- Radioactive goods
- Recyclable paper/cardboard
- Rubber particulates
- Rust preventer
- Sealant
- Sediment
- Solvents
- Sump fuel
- Transmission fluid
- Trash
- Turpentine

INDUSTRIAL ACTIVITIES AS POTENTIAL POLLUTANT SOURCES

In and of themselves, the industrial activities conducted by both the Authority and tenants have the potential to impact water quality. As described above, the information gathered indicates that the potential pollutant generating activities/operations consist primarily of specific airport-industry processes, material handling and storage, and spills and leaks. To a lesser extent, pollutants may also potentially result from dust and particulate generating activities, soil erosion, and NSWDs. There may be pollutant sources related to

commercial activities conducted within industrial drainage basins, such as commercial parking lots management and vehicle storage, food service, and janitorial service. These commercial activities are addressed in Section 6.0 of the SWMP presented in Attachment 1.

Aircraft De-icing/Anti-icing

De-icing and anti-icing chemicals are generally used on aircraft to eliminate or minimize the ice buildup on the aircraft's wings and fuselage. These activities are fairly uncommon at SAN. Only one tenant conducts de-icing. De-icing can be performed using de-icing fluids (typically, ethylene glycol and/or propylene glycol), water, or air. The de-icing fluids are typically stored in drums or large plastic containers. De-icing fluid is generally applied by spraying the aircraft with a mixture of (hot) water and a glycol-based fluid. The spray drains from the aircraft onto the ramp area and could potentially result in an illicit discharge or transport other surface contaminants, thereby impacting storm water quality. Airlines typically use scrubbers, vacuums, or absorbents to clean up and properly dispose of residual chemicals. Mixing of de-icing chemicals occurs in the SAN triturator, which drains to the sanitary sewer.

Facilities performing de-icing activities with aircraft de-icing fluids may be subject to the requirements, and storm water ELGs outlined in Subchapter N. ELGs for existing airports apply only to airports conducting pavement de-icing. However, neither the Authority nor any industrial tenants at SAN perform airfield pavement de-icing. Therefore, SAN is not currently subject to the Subchapter N ELGs.

Because de-icing is fairly uncommon at SAN, it is not considered a significant non-storm water TTWQ. On average, de-icing is performed on one to two aircraft per day during the seven-month “de-icing season” from October to April. The Authority does require the use of BMPs to address de-icing activities. De-icing activities are authorized on the paved ramp in areas that are (1) sufficiently far enough from the nearest storm drains to allow for capture and cleanup of the residual de-icing fluids whenever chemical de-icers are used; (2) sufficiently far enough from the nearest storm drains to allow for the liquid to be captured and cleaned up to prevent the transport of surface contaminants, whenever air or water are used as de-icing agents; or (3) sufficiently far enough from the nearest storm drains to allow for the water to evaporate prior to reaching the storm drain system, whenever air or water are used as de-icing agents. These areas are depicted in the figure attached to the Aircraft De-icing/Anti-icing BMP (SC05) description in Appendix B. In general, BMP SC05 can be implemented effectively at the gates, although pushing an aircraft back away from the terminal on the ramp area around Terminal 1 allows for additional distance between the de-icing activity and the storm drain system. Tenants are responsible for properly implementing BMP SC05 at all times, including during inclement weather.

Aircraft, Vehicle, and Equipment Fueling

Fueling activities occur daily. Aircraft fueling activities are conducted on paved surfaces such as concrete ramps or at the gates. Approximately 450,000 gallons of jet fuel are brought to Terminals 1 and 2 ramp areas daily by tanker and loaded by positive lock hose into aircraft. Vehicle and GSE fueling is conducted at the gates or in maintenance areas. For the Authority, fueling activities also occur at all generators, light towers, and truck bays in the ARFF facility. Menzies maintains a fleet of trucks for fueling aircraft and three trucks for fueling GSE. Aircraft refueling trucks with a capacity of 10,000 and 15,000 gallons are loaded at the RFF. Fuel is delivered to the RFF from the FSF via a single 10-inch underground pipe. Both the RFF and the FSF are maintained and operated by Menzies Fuel Farm. At the FSF, there is a 12,000-gallon OWS plus an 8,000-gallon holding tank. The four FBO aircraft refueling trucks take on fuel at the RFF and less frequently at the FSF. Fueling operations are performed on-site at the FBO.

The concrete pad at the RFF loading islands is steam cleaned periodically, and the discharge enters the 12,000 gallon underground wastewater sump. This wastewater is then pumped to the RFF’s 500-gallon aboveground OWS for treatment; the treated water is then discharged to the storm drain. Most tenant vehicles or equipment are fueled on-site, although some perform vehicle or equipment fueling off-site. Conrac performs fueling of rental cars indoors in their quick turn-around (QTA area). Fuel is stored on-site in their service yard, located to the northwest of the parking garage structure. This fuel farm houses three

25,000-gallon USTs of regular unleaded gasoline. Fuel is delivered to the indoor QTA area, where fueling occurs, from the fuel farm where the fuel is stored on-site via an underground pipe. Fuel is provided by Western Pump. Four OWS are connected to the sanitary sewer line as a part of Conrac's drainage system to contain any discharged gasoline.

The industrial materials or potential pollutants from fueling activities are jet fuel, diesel fuel, and gasoline. Absorbent materials contain fuel spills, inflatable pools, or facility-specific spill containment areas/OWSs/tanks (for the RFF, FSF, and Conrac facility). The Authority procedures for spill reporting and response are outlined in Sections 3.5.3.2 and 3.5.3.3 of the SWMP (presented in Attachment 1 of the SWPPP). Tenants may also have additional spill procedures highlighted in their own SPCC plan, and environmental response contractors for spill response.

Aircraft, Vehicle, and Equipment Maintenance

The majority of industrial tenants at SAN maintain aircraft, equipment, and/or vehicles, although no major aircraft maintenance is performed on-site. Maintenance activities are performed both indoors and outdoors. Based on the nature of maintenance activities at airports, materials such as lubricating oils, hydraulic oils, degreasers, and other cleaning products are commonly used during maintenance activities. At tenant and Authority waste accumulation areas, waste oils, lubricants, oil filters, antifreeze, transmission fluids, and used absorbent materials are stored prior to transport to recycling or waste disposal facilities. Small leaks or spills of some of these fluids can occur during maintenance activities. Tenants respond to these leaks and spills using absorbent socks, dry absorbent materials, rags, mops, and request for service by the Authority's portable truck-mounted vacuum when needed. Many tenants use drip pans during maintenance activities in areas where a drip pan is unlikely to become a foreign object debris (FOD). Maintenance activities occur daily but tend to involve minor maintenance and industrial materials in small quantities. Where possible, maintenance activities are conducted indoors or under cover and generally represent a low potential for significant pollutant discharge.

Some tenants have floor drains located in maintenance areas. At some of these facilities, the runoff entering the floor drain is conveyed to an OWS before entering the sanitary sewer system. The runoff that discharges through the floor drains discharges directly to the sanitary sewer at a few facilities. Tenants are required to confirm that there are no illicit connections from these drains to the storm drain system at their leasehold.

Electric Vehicle Charging and Maintenance

Electric vehicle charging and maintenance represents a relatively new activity at SAN. The Authority has committed to clean air and emission reductions, including adopting the California Air Resources Board State Implementation Plan strategies, with its goal to transition existing GSE to zero-emission GSEs by 2032. The State Implementation Plan has a potential implementation date of 2023, in which P&EAD inventoried the age range, fuel types, and GSE types in the GSE database. In addition to the State Implementation Plan, the Authority has agreed to the specific measures identified in the *Memorandum of Understanding Between the Attorney General of the State of California and the Authority Regarding the San Diego International Airport Master Plan* that replaces all GSEs with electric or alternative fuel GSEs beginning in January 2010. In 2021, 31% of GSE was electric.

Multiple tenants utilize electric vehicles as part of their daily operations. These tenants charge the vehicles on site. During charging and maintenance, electric vehicles' batteries have the potential to leak or spill materials such as acid or water containing heavy metals, particularly if the batteries are over-charged or over-filled with electrolyte solution. Tenants are responsible for maintaining good housekeeping at charging stations, monitoring for and preventing spills and leaks, and responding to spills and leaks by applying neutralizing materials (e.g., sodium bicarbonate/baking soda), or using dry absorbent materials, absorbent socks, rags, and mops. The Authority also recommends that tenants utilize sealed or maintenance-free batteries whenever economically feasible. Charging occurs daily in many tenant areas but generally

represents a low potential for significant pollutant discharge because of the small volume of most leaks and spills.

Aircraft, Vehicle, and Equipment Washing

Several tenants at SAN conduct aircraft, vehicle, and equipment washing, with many using dry methods for cleaning the aircraft and others using water. In all but one instance, as described below, all aircraft, vehicles, and equipment washing activity conducted at SAN must be authorized in writing by the Authority P&EAD. To obtain approval, the P&EAD requires the submittal of a wash plan that identifies the tenant contact details; location where washing is performed; location of storm drains; equipment to be used and where it will be stored; quantity of wastewater to be generated; frequency of washing activities; water collection/ retrieval/ reclamation processes; water disposal/ elimination processes; chemicals to be used, if any, and the relevant material safety data sheets; washing methods employed; and BMPs used to control potential pollutants related to the activity. Where possible, tenants are encouraged to use reclaimed water from potable water flushing or air conditioning condensate as wash water. Upon satisfactory review of the wash plan, the Authority will provide written approval to conduct washing activities in the manner described in the plan. In general, the approved wash plans indicate that the washing is performed as far away from storm drains as possible, and temporary berms are used to block off nearby storm drains to prevent runoff to the storm drain system. Wash water is then vacuumed up and properly disposed of through the Authority's dewatering bin (where solids are removed) in Basin 6 or at the Authority wash rack in Basin 8 (see Figure F-1). Any equipment degreasing is conducted indoors, and washing activities are prohibited in areas that do not provide a wash rack, OWS, or area to deploy proper containment. The lone exception to obtaining this approval involves using properly designed wash rack connected to a dead-end sump and/or the sanitary sewer. One wash rack at SAN leased to the tenant Menzies was removed in 2021. Authority itself operates the second wash rack. It is a covered, 2-sided facility that can be used for tenant and Authority vehicles and equipment washing. The Authority wash rack uses a closed-loop water recycle system. These wash racks are also used to wash equipment other than vehicles.

In addition to the one wash rack, the RCC has 13 wash bays, five on floors 2 and 3 of their parking garage, and three on the garage's first floor where the rental cars are washed inside. All of the car wash drains lead to OWSs. Water is recycled and kept in a reclaimed water tank that can hold up to 4,500 gallons; this water is used again to wash cars. For the car wash's final spray, water from an on-site reverse osmosis system is used.

Due to recent drought conditions, tenants must use a hand-held hose with a positive shut-off nozzle to wash vehicles.

Outdoor Washdown/Sweeping

General Outdoor Washdown/Sweeping: Atmospheric deposition, vehicle and aircraft use and emissions, breakdown of asphalt and concrete surfaces, and peeling or crumbling paint from structures and runway surfaces can all introduce particulates into the storm drain system at SAN. The physical removal of particulates and attached fine pollutant particles (in particular heavy metals) from outdoor surfaces at SAN will prevent or eliminate the pollutant load that may be transferred to San Diego Bay. The Authority requires the use of the Outdoor Washdown and Sweeping BMP (SC12) in Appendix B to address pollutants associated with washing and sweeping activities. Aircraft and vehicle washing are discussed separately above, and power washing is considered separately below.

Ramp Sweeping: The Authority conducts a comprehensive program designed to reduce pollutant discharges to its MS4s from ramp and airfield industrial areas. The ramp sweeping program conducted by the Authority is further described in Section 7.7.3.1. This program differs from the Authority's road sweeping program described in Section 6.3 of the SWMP (presented in Attachment 1 of the SWPPP). All terminal ramp areas are swept at least every two weeks and upon request by tenants using two regenerative air sweepers. Potential pollutant sources that can be mitigated by sweeping practices in ramp areas are trash and debris (FOD), sediment, particulates, and other associated pollutants such as metals. Loading and unloading trash, cargo, and catering supplies from aircraft can lead to FOD on the ramp areas. Any uncovered dumpsters or

trash cans can be potential sources of FOD, as well as littering by staff, tenants, or the public. All Authority staff and tenants are very much aware of the potential hazards of FOD at the airport and conduct daily FOD walks to check for any trash, so the source from tenants and staff should be very minimal. Every individual working on the ramp is trained to immediately remove FOD when observed and place it in covered FOD bins located in each tenant gate area and throughout the airport. Some tenants also perform manual sweeping of their operational areas. The Outdoor Washdown and Sweeping (SC12) and Housekeeping (SC18) BMPs are required to be implemented during ramp sweeping activities.

Power washing: Both the Authority and the airport janitorial services provider conduct power washing, the Authority on an as-needed basis, and the janitorial services provider on a routine basis. Portions of the sidewalk areas in front of the terminals and the pedestrian bridges leading from the parking lots to the terminals are power washed by the janitorial services provider almost daily using high-pressure water only. Wastewater from power washing may contain and transport contaminants on the ground surface to the storm drain system if not properly contained and collected. The primary pollutants associated with power washing at the airport are particulates and associated pollutants, trash, and debris. Both the Authority and the janitorial services provider use power-washing equipment designed to minimize the amount of water used and to capture all the wastewater. Non-potable air conditioning condensate is used for power washing at the janitorial wash stations, and washing is generally conducted between 11pm and 4am because of drought conditions. To address the potential release or transport of pollutants during power-washing activities, the Authority requires the use of several BMPs in Appendix B, including the Non-Storm Water Management BMP (SC01), the Employee Training BMP (SC10), the Outdoor Washdown/Sweeping BMP (SC12), and the Housekeeping BMP (SC18).

Ramp Scrubbing: In addition to ramp-sweeping activities discussed above, the Authority also performs ramp scrubbing and power washing activities. CASQA guidance states that “no currently available conventional sweeper is effective at removing oil and grease.” As such, the Authority conducts an outdoor ramp-scrubbing program in the gate areas (and in the north ramp area when requested by Authority staff or tenants) designed to remove oil and grease, debris, and particulate matter (to which heavy metals may be adsorbed, or which may contain metals). The airport janitorial contractor uses either one of two 3,500 psi industrial pavement washers, or a pressure washing truck for ramp scrubbing. Both pieces of equipment are equipped with vacuum collection systems. The pressure washing truck also contains a reclamation system, for direct reuse of wash water. Oil and grease, fuels, hydraulic fluids, and other substances may leak onto the ramp from parked aircraft, vehicles, and equipment. An effective outdoor ramp-scrubbing program, in conjunction with the ramp sweeping program discussed above, can reduce these pollutants' levels in storm water runoff from the airport. Following washing activities, the wash water is either directly reused or vacuumed and collected by the Authority’s environmental contractor, who filters and reuses the water.

Runway Rubber Removal

On the runway, materials such as tire rubber, oil and grease, paint chips, jet fuel, and vehicle exhaust products can build up on a runway surface over time, causing a reduction in the pavement’s surface friction. When the friction value falls below a specific level, safety may be compromised, and maintenance must be performed. The buildup is generally removed using high-pressure water or specialized biodegradable detergents within a containment/recovery system. The detergent solution is not stored on-site. Only the amount needed is brought on-site during each rubber removal. Runway rubber removal is conducted on average every 8 weeks due to reduced operations during Covid-19 pandemic but will return to a 6-8 week schedule once normal operations resume. The waste rubber is disposed of in a lined rubber removal lowboy (dumpster) east of the ATCT. A contractor is responsible for disposal of the waste and wastewater generated. To address the potential release or transport of pollutants during runway rubber removal activities, the Authority requires the use of the Runway Rubber Removal BMP (SC15) in Appendix B.

Pesticide/Herbicide Use

Currently, six industrial tenants/facilities and the Authority use pesticides and/or herbicides. Menzies Fuel Farm, Signature, Conrac, ARFF, Cartwright, and Bradford use pesticides and/or herbicides. Menzies Fuel Farm uses herbicides to control weeds. They store small quantities in small containers within secondary containment outdoors at the FSF. The RCC contracts a landscaping service that applies herbicides biannually and pesticides on an as-needed basis. No herbicides or pesticides are stored on-site at the RCC. The Authority stores a small number of herbicides in flammable material storage lockers at the runway generator area. The Authority's landscape contractor also utilizes pesticides for weed control. These pesticides are not stored on-site. The use of pesticides and herbicides at the airport 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 the airport and the application of an IPM system at SAN, this activity appears to present a low potential for impacting storm water discharge.

Shipping/Receiving Areas

The main shipping/receiving area is in Drainage Basin 6. Additional secondary shipping and receiving areas are in Drainage Basins 5a, 8, and 12, as depicted in Figure 3 and Appendix B, Figure SC-06. The front of the main shipping and receiving area, the CRDC, is located in the northern portion of Drainage Basin 6 off of Pacific Coast Highway, where cargo and supplies are loaded and unloaded for the Authority and the various airlines and cargo carriers. The airport foodservice providers use loading/unloading areas at Terminal 1, Terminal 2 West, and at the connection between the eastern and western halves of Terminal 2, where food, drink, and other catering supplies for the airport restaurants are delivered by truck. Equipment used for loading and unloading at the docks typically includes forklifts. Loading and unloading of aircraft occur in Basins 1, 3, 6, 8, 12, and 15 using hydraulic lifting equipment. Loading and unloading of cargo occurs in Drainage Basin 5a at the front loading dock and at the provisioning dock of the ASB. To address the potential release or transport of pollutants during loading and unloading activities, the Authority requires the use of the Outdoor Loading/Unloading of Materials BMP (SC06) in Appendix B. The main loading and unloading areas are shown in the figure attached to the Material Loading/Unloading BMP description in Appendix B. Shipping and Receiving areas for each industrial tenant are listed in Appendix E.

MATERIAL HANDLING AND STORAGE AREAS AS POTENTIAL POLLUTANT SOURCES

Fuel, GSE, and Chemical Storage Areas

Tenants at SAN store varying quantities of chemicals and petroleum products (i.e., hydraulic fluids, gasoline, diesel, and jet fuels). Many tenants have indoor and outdoor storage areas to house these items. Chemicals, oils, and waste oils are typically stored in 55-gallon drums or smaller containers. Fuels are typically stored in ASTs or USTs, but some tenants who store only small quantities have 5-gallon fuel containers. De-icing fluids are stored in 55-gallon metal or plastic drums. Other materials, such as cleaners, paints, and paint-related products, are stored in smaller containers. Secondary containment may be required by law for certain hazardous materials, and the Authority requires the use of secondary containment in all chemical storage areas. If not adequately protected from contact with storm water, outdoor storage areas have the greatest potential to impact storm water. In these areas, the Authority requires the implementation of the Outdoor Material Storage BMP (SC07), including the proper use of secondary containment and cover, whenever possible.

Fueling Facilities: The FSF, RFF, and Conrac's RCC contain several ASTS and USTs, as outlined in the description of Basin 6 in Section 1.4 of the SWMP (presented in Attachment 1 of the SWPPP). Jet fuel is delivered to the two 1,000,000-gallon ASTs within a valved secondary containment area at the FSF via underground pipelines from the 10th Avenue Marine Terminal storage tanks. The facility can also receive jet fuel from commercial transport trucks at approximately 8,200 gallons per load. The fuel is off-loaded at the three dual-position unloading islands. The jet fuel tanks at the FSF and RFF are connected via an existing underground hydrant fueling system. Construction of a new hydrant fueling system throughout the apron areas at the terminal gates began in February 2019. The phased-in installation of the hydrant fueling system directly at the terminal gates will initially reduce and then potentially eliminate the need for fuel trucks on

the airfield; thereby reducing the potential brake pad and tire wear dust generated from fuel trucks, as well as reduce spills, leaks, and discharges from truck fueling activities. A portion of the hydrant fueling infrastructure parallel to the Vehicle Service Road was completed by September 2020. Installation will continue through the completion of the Terminal 1 expansion project in 2035. The West Refueler Loading Facility project began in May 2021 and is expected to be completed by mid-2022. The development project will consist of five fueling bays to replace the existing Remote Fueling Facility. The new facility will provide backup and supplement aircraft fueling capability to support the proposed hydrant system.

Currently, fueling is generally performed at SAN from fuel transfer trucks that load at the RFF. Loading gasoline and diesel into cars and trucks occurs at various locations around the airport. The aircraft refueling trucks at the FBO are stored outdoors on the concrete ramp area at the FBO and are used to fuel general aviation aircraft and GSE at the FBO. Aircraft refueling trucks range in storage capacity from 1,200 to 15,000 gallons, and vehicle refueling trucks range in storage capacity from 300 to 2,200 gallons. UST fuel storage capacities range from 3,000 to 15,000 gallons. An exception to this is the RCC's three 25,000-gallon USTs that hold regular unleaded gasoline to refuel rental vehicles. The airport's emergency power generators are operated by the Authority and feature ASTs with fuel storage capacities ranging from 25 to 1,000 gallons. ASTs and USTs are fitted with a combination of overfill protection, leak detection, and alarm systems to prevent spills, leaks, and discharges. All fuel delivery trucks or fueling areas must be equipped with spill kits. The loading/unloading areas are inspected regularly to identify any leaks from fuel transfers. At the FSF, leaks from fuel transfers are directed to bermed, sloped, spill containment areas that are linked to the 12,000-gallon OWS. At the RFF, the four loading islands are sloped and bermed to direct any discharges to a 12,000-gallon underground wastewater holding tank. Fuel spills that occur in any other airport area must be cleaned immediately using dry methods to reduce the potential to impact storm water. The Authority procedures for spill reporting and response are outlined in Sections 3.5.3.2 and 3.5.3.3 of the SWMP (See Attachment 1). Tenants may also have additional spill procedures highlighted in their own SPCC plan and environmental response contractors for spill response. BMP SC03 covers Aircraft, Ground Vehicle, and Equipment Fueling, and the attached figure in Appendix B outlines fueling areas.

GSE: Areas designated for the storage and maintenance of GSE are primarily located in Basin 7; however, parking of GSE occurs throughout the other ramp areas. During rain events, any residues (fuel, oil, or grease) on the GSE under repair or leaks from the GSE are potential pollutant sources in storm water discharges and must be controlled by proper BMP implementation. The Authority requires frequent inspections and preventive maintenance of GSE to prevent leaks, the implementation of containment measures if leaks do occur, and the proper, timely disposal of obsolete equipment, among other BMPs, as described in the Aircraft, Ground Vehicle, and Equipment Maintenance BMP (SC02B) as well as the Electric Vehicle Maintenance BMP (SC02C).

Chemical/Materials Storage: Chemicals and other materials are stored in the GSE maintenance areas at the ASB, around the gate areas, in the North Side "boneyard" area, at the FBO, at the FSF, in the cargo areas north of the north ramp, and near the runway generator area. The materials stored include hydraulic fluids, lubricants, oils and greases, antifreeze, paints, rust preventers, solvents, batteries, metals, lavatory chemicals, cleaning solutions, de-icing chemicals, pesticides, and herbicides. Any residues on chemical storage containers, or residuals from chemical spills or leaks in uncovered outdoor storage areas, are potential pollutant sources in storm water discharges during rain events. Facilities that include outdoor chemical and materials storage must have secondary containment and overhead coverage. Generally, only small quantities of these industrial materials are stored at SAN. They are generally contained within flammable materials storage lockers or outdoor sheds or spill pallets with tarps or other coverage. The lockers are completely enclosed, provide containment for small spills, and do not appear to be a source of significant quantities of pollutants to the storm drain system. Large volumes of materials in 55-gallon drums tend to be stored indoors and associated with various tenant maintenance areas. Material storage areas for each industrial tenant are listed in Appendix E.

Appendix B, Figure SC-07 outlines the main chemical and materials storage locations and the types of chemicals and materials stored. The figure attached to the Outdoor Loading/Unloading of Materials BMP (SC06) in Appendix B outlines areas where materials are shipped and received or loaded and unloaded. SC06 and SC07 detail the BMPs required by the Authority for these activities.

Waste Treatment, Storage, and Disposal

Lavatory Waste: Lavatory waste is pumped daily from aircraft on the ramp or apron areas and transported to a specially designed waste disposal facility, an enclosed facility referred to as the triturator. The triturator is located near the Administration Building (former Commuter Terminal). To prevent sewage spills during the transfer of lavatory waste through the triturator into the sanitary sewer, the transfer is performed in a drive-up facility with an overhead cover. During aircraft lavatory servicing operations, chemical odorizers and/or sanitizers may be used. Airline tenants generally store this chemical indoors at the gate areas or occasionally outdoors on spill pallets under overhangs or tarps. BMP SC11 in Appendix B covers Lavatory Service Operation and the associated BMPs required.

Hazardous Waste Storage: Hazardous waste, mostly waste oils, oil filters, and used absorbent materials in 55-gallon drums, is stored at:

- The Authority's boneyard area in Basin 3;
- The Authority 90-day holding facility in Basin 6;
- The FSF in Basin 6;
- The gate areas in Basins 8, 12, and 15;
- The GSE maintenance areas in Basin 5a;
- The FBO in Basins 1 and 3;
- The north ramp in Basins 5 and 6; and
- RCC in Basins 3 and 5.

The locations at the airport at which more than 6000 kilograms (13,200 pounds) of hazardous waste might be stored at any time are the USTs for waste fuels at both the FSF and the RFF. The RCC stores waste fuel on-site in an oil room with three 2,500 containers of used oil. Currently, no facility at the airport generates more than 1000 kilograms (2200 pounds) of hazardous waste in any one month. To address the potential release or transport of pollutants during hazardous waste storage and handling activities, the Authority requires the use of both the Outdoor Material Storage BMP (SC07) and the Waste Handling and Disposal BMP (SC08) in Appendix B. The areas in which hazardous waste storage occurs at the airport are also shown in the figure attached to these two BMP descriptions in Appendix B.

Waste Disposal: The main waste disposal area at SAN is the trash compactor/recycling compactor/compost compactor area, as outlined in the description for Basin 8 in Section 1.4 of the SWMP (presented in Attachment 1 of the SWPPP). The trash compactors, recycling compactors, and compost compactor are located within a bermed area. Drainage in the bermed area is directed towards a sump that also pumps the water and liquids into the sanitary sewer. The dewatering bin was moved from the main waste disposal area to an area next to the ATCT in Basin 6. Additional disposal areas are the Terminal 2 trash compactors in Basin 12 and Basin 15 and the sweeping disposal lowboy in Basin 6, as depicted in Appendix B, Figure SC-08. There are also dumpsters and recycling bins at various locations throughout the airport. To address the potential release or transport of pollutants during waste disposal activities, the Authority requires the use of the Waste Handling and Disposal BMP (SC08). The areas at which waste disposal occurs at the airport are also shown in the figure attached to the Waste Disposal and Handling BMP description in Appendix B.

DUST AND PARTICULATE GENERATING ACTIVITIES AS POTENTIAL POLLUTANT SOURCES

Construction/demolition, aircraft and vehicle use and emissions, and airport operations can generate dust and particulates at SAN. In addition, airline off-loading of trash and debris from aircraft generates a significant gross pollutant source, requiring proper handling and disposal. The main industrial areas generating dust and particulates are the runway/taxiway area, the terminal gate areas, the FBO, and the gate areas for cargo operators on the north ramp. The pollutants and particulates generated can include trash and debris, metals, and hydrocarbons. To address the generation of dust and particulates, the Authority requires the use of the Outdoor Washdown/Sweeping BMP (SC12), Erodible Areas BMP (SC20), and the Building Repair and Construction BMP (SC21), as described in Appendix B.

SIGNIFICANT SPILLS AND LEAKS AS POTENTIAL POLLUTANT SOURCES

Fueling and equipment maintenance activities generally involve the use or handling of jet fuel, aviation gas, hydraulic oils, oil, de-icing fluids, degreasers, and other solvents. Considering that approximately 450,000 gallons of jet fuel are handled and transferred from truck to aircraft every day at the airport, it is highly likely that the history of significant spills (as defined by the Industrial Permit) would involve the handling of jet fuel. The refueler trucks operate nearly all around the airport, from the airport's ramp areas and at the FBO, to the air cargo/air freight operations area, and overnight aircraft parking areas. Areas where the largest spills have occurred are the Terminal gate areas, the FSF, the RON aircraft parking area, and the north cargo ramp area. In the last five years, most of these spills have been less than 15 gallons, with 2 spills between 25-100 gallons. All were contained within SAN; all were immediately cleaned up; and none of these spills reached San Diego Bay. Spill procedures are described in Section 3.2 of the SWMP (presented in Attachment 1 of the SWPPP), and the BMP required by the Authority to address spills is the Spill Prevention, Control, and Clean-up BMP (SR01) in Appendix B.

ILLICIT DISCHARGES AS POTENTIAL POLLUTANT SOURCES

Potential illicit discharges include aircraft, vehicle, and equipment washing; power washing, ramp scrubbing, and runway rubber removal; non-emergency firefighting activities; improper materials and waste handling, storage, and disposal; and spills and leaks without proper BMP implementation. As discussed in Section 7.7.4, BMPs are in place to avoid potential discharges from these sources. Potential illicit discharges are described in Section 3.0 of the SWMP (presented in Attachment 1 of the SWPPP), including the BMPs to control these discharges. The Authority's IDDE program is also discussed in Section 3.2 of the SWMP (in Attachment 1 of the SWPPP). With nearly every drainage basin susceptible to tidal intrusion, the drainage areas where most of the potential NSWDs occur are Basins 1, 3, 8, 12, and 15 for potable water flushing; Basins 1, 5, 5a, 6, 8, 9, 10, 11, 12, 14, and 15 for air conditioning condensation; and Basin 6 for non-emergency firefighting activities (see Appendix B, Figure SC-13).

ERODIBLE SURFACES AS POTENTIAL POLLUTANT SOURCES

SAN is approximately 90 percent impervious and is either covered by structures or is made up of concrete/asphalt surfaces. Unpaved areas are the least tern nesting ovals in the southeastern corner of SAN (south of the runway), northwest corner of SAN (north of the runway), erodible landscaped areas, and any active construction projects that may involve the removal of the impervious surface. The least tern nesting oval surfaces are generally very coarse gravel with little exposed soil. Landscaped areas are well maintained and have environmentally friendly landscaping/xeriscaping, including various indigenous and drought-tolerant plants, shrubs, and ground cover, which are used where possible to prevent soil erosion. High-performance erosion control methods, such as bonded fiber matrix or anchored erosion control blankets, are used on exposed soils. Where erosion does occur, sandbags or other storm drain inlet protection methods are employed, and maintenance is performed to repair or revegetate the eroded areas. Over-irrigation is prohibited to prevent soil erosion to storm drains. Active construction projects contain specific contract requirements for erosion and sediment control and are required to have a SWPPP or WPCP, per Section 5.0

of the SWMP presented in Attachment 1. Erodible surfaces are managed using the BMPs outlined in the Erodible Areas BMP (SC20) in Appendix B.

7.7.3.2 Summary of Industrial Sites and Sources

The industrial activities and pollutant sources occurring at SAN described above are summarized in Table 7-5. For each drainage basin at the airport (initially described in Section 1.4 of the SWMP (presented in Attachment 1 of the SWPPP) and depicted in Figure 3), Table 7-5 presents the drainage basin number; the storm water runoff sampling location identification number for any sampling locations within the basin; the name of the industrial entity located or operating in that particular basin; the types of industrial activities occurring in the basin; and the potential pollutants associated with those activities. Similar and additional information is provided by the individual industrial/commercial entity and the Authority on the Tenant Summary Sheets in Appendix E.

The potential pollutants listed in Table 7-5 are either stored or handled in the particular drainage basin identified. The main shipping and receiving area for most materials at the airport, including restaurant and catering food service supplies, occurs at the CRDC located in the northern part of Drainage Basin 6. A secondary cargo area is located in Drainage Basins 5A at the ASB. All shipping and receiving areas, including aircraft loading/unloading areas, are shown on the figure attached to the Outdoor Loading/Unloading of Materials BMP (SC06) in Appendix B. Pollutant sources stored, handled, shipped, or received by each individual industrial entity are itemized in the Tenant Summary Sheets in Appendix E. The Tenant Summary Sheets also include maps that depict each entity's locations or operating areas. The locations for storage of particular types of materials and waste are indicated in Figure 3 and the figures attached to the Outdoor Material Storage BMP (SC07) and the Waste Handling and Disposal BMP (SC08) in Appendix B. The BMP descriptions in Appendix B also include maps of where particular activities occur at SAN, as well as a list of the pollutants associated with those activities, and therefore the areas where the BMPs should be implemented.

Table 7-5. Industrial Inventory by Drainage Basin

1 Sampling location C-B01-11 was moved to location C-B03-21 to capture the effluent from a Stormfilter BMP, so treated runoff from Basins 1 and 3 is sampled	Authority Signature	Aircraft sanitary services Building & ground maintenance Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor waste storage Pesticide/herbicide/fertilizer usage Ramp/taxiway scrubbing Runway rubber removal Tank fuel transfer Vehicle parking Water/fuel mixture within berm	Acetone Adhesives Antifreeze Asphalt debris Battery acid Cleaning solutions Coolant Dumpster wastes Fuel Hydraulic fluid Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Purple K Rubber particulates Rust preventer Sealants Sediment Solvents Transmission fluid Trash Turpentine

Table 7-5. Industrial Inventory by Drainage Basin (Continued)

2	Drainage Basin 2 has been discontinued	Drainage Basin 2 was determined to be integrated with Drainage Basin 1	Drainage Basin 2 used to include a lavatory waste disposal facility connected to the sanitary sewer, but this facility has been moved to Drainage Basin 8.
3 (C-B03-1c, C-B03-2, C-B03-21)	Conrac DHL Authority Signature	Aircraft sanitary services Building/grounds maintenance Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor waste storage Pesticide/herbicide/fertilizer usage Ramp/taxiway scrubbing Runway rubber removal Tank fuel transfer Vehicle parking Water/fuel mixture within berm	Acetone Adhesives Antifreeze Asphalt debris Battery acid Cleaning solutions Coolant Dumpster wastes Fuel Hydraulic fluid Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Purple K Rubber particulates Rust preventer Sealants Sediment Solvents Transmission fluid Trash Turpentine

Table 7-5. Industrial Inventory by Drainage Basin (Continued)

4 (No safe sampling location identified. See Appendix D-1 MIP for details.)	No Industrial Tenants	None	None
5 (C-B05-4, C-B05-13)	Conrac DHL FedEx Authority UPS	Aircraft sanitary services Building & ground maintenance Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor apron wash Outdoor waste storage Pesticide/fertilizer/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Tank fuel transfer Vehicle parking Water/fuel mixture within berm	Acetone Adhesives Antifreeze Asphalt debris Battery acid Brake fluid Cleaning solutions Coolant Dumpster wastes Fuel Hydraulic fluids Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Purple K Rubber particulates Rust preventer Sealants Solvents Transmission fluid Trash Turpentine
5a (C-B05a-23, C-B05a-24)	American Delta Southwest United	Aircraft deicing storage Aircraft sanitary services Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor waste storage Vehicle parking	Antifreeze Battery acid Brake fluid Carburetor cleaner Cleaning solutions Coolant Deicing/anti-icing fluids Fuel Hydraulic fluids Lavatory wastes Lavatory chemicals Lavatory truck wash water Lubricants Metals Oil and grease Paints Rubber particulates Sealants Solvents Transmission fluid Trash

Table 7-5. Industrial Inventory by Drainage Basin (Continued)

6 (C-B06-5a, C-B06-14, C-B06-15a, C-B06-16a, C-B06-17, C-B06-19, C-B06-20 C-B06-25)	American ARFF Bradford Delta FedEx Authority Menzies Menzies Fuel Farm Southwest	Aircraft de-icing Aircraft sanitary services Building/grounds maintenance Cargo handling Equipment fueling Equipment storage Equipment washing Firefighting equipment testing Fluid leaks from aircraft/GSE/automobiles Fuel spills Fuel storage Loading/unloading of gasoline, diesel, and jet fuel Offloading of water/ fuel mixture from a 3,000-gallon UST Outdoor waste storage Pesticide/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Tank fuel transfer Vehicle parking Water/fuel mixture within berm	Acetone Adhesives Antifreeze Battery acid Brake fluid Cleaning solutions Coolant Deicing/anti-icing fluids Dumpster wastes Fire Fighting Foam Fuel Hydraulic fluids Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Purple K Radioactive goods Rubber particulates Rust preventer Sealants Sediment Solvents Trash Transmission fluid Turpentine
7 (Under construction; C-B07-6, C-B07-7 were retired)	Menzies Fuel Farm Authority	Building/grounds maintenance Equipment fueling Equipment storage Equipment washing Fuel spills Fuel storage Loading/unloading of gasoline, diesel, and jet fuel Metals storage Outdoor waste storage Power washing Ramp/taxiway scrubbing Vehicle fueling Vehicle parking Vehicle washing	Asphalt debris Cleaning solutions Diesel Dumpster wastes Gasoline Hydraulic fluids Jet fuel Lavatory chemicals Lavatory wastes Metals Oil and grease Sump fuel Trash

Table 7-5. Industrial Inventory by Drainage Basin (Continued)

8 (C-B08-8, C-B08-20a+, C-B08-22*) *: Alternate sampling location. Will be used to represent runway runoff if C-B03-1c is inaccessible due to safety reasons. +: C-B08-20a is located downstream of the RFF and thus not collected in the same drainage basin	Alaska Allegiant American Frontier JetBlue Menzies Authority Southwest Spirit Sun Country	Aircraft deicing Aircraft sanitary services Building/grounds maintenance Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor apron wash Outdoor waste storage Pesticide/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Tank fuel transfer Vehicle parking Water/fuel mixture within berm	Acetone Adhesives Antifreeze Asphalt debris Battery acid Brake fluid Carburetor cleaner Cleaning solutions Coolant Deicing/anti-icing fluids Dumpster wastes Fire fighting foam Fuel Hydraulic fluids Lavatory chemicals Lavatory wastes Lavatory truck wash water Lubricants Metals Oil and grease Paints Purple K Rubber particulates Rust preventer Sealant Sediment Solvents Trash Transmission fluid Turpentine
9	No Industrial Tenants	None	None
10	No Industrial Tenants	None	None
11	No Industrial Tenants	None	None

Table 7-5. Industrial Inventory by Drainage Basin (Continued)

12 (C-B12-9a)	Air Canada American Delta Menzies United	Aircraft sanitary services Building/grounds maintenance Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor apron wash Outdoor waste storage Potable water flushing Tank fuel transfer Vehicle parking	Acetone Adhesives Antifreeze Battery acid Brake fluid Cleaning solutions Coolant Dumpster wastes Fuel Hydraulic fluids Lavatory truck wash water Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Purple K Rubber particulates Sealant Solvents Trash Transmission fluid
13	No Industrial Tenants	None	None
14	No Industrial Tenants	None	None

Table 7-5. Industrial Inventory by Drainage Basin (Continued)

15 (C-B15-18a)	Alaska British Airways Delta Edelweiss (not operating due to Covid) Hawaiian Japan Airlines Lufthansa (not operating as of January 2022, but returning on March 30, 2022) Menzies Authority Southwest United West Jet Swoop	Aircraft sanitary services Building/grounds maintenance Cargo handling Equipment storage Fluid leaks from aircraft/GSE Fuel spills Fuel storage Outdoor apron wash Outdoor waste storage Pesticide/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Tank fuel transfer Vehicle parking Water/fuel mixture within berm	Acetone Adhesives Antifreeze Asphalt debris Battery acid Brake fluid Carburetor cleaner Cleaning solutions Coolant Deicing/anti-icing fluids Dumpster wastes Fire fighting foam Fuel Hydraulic fluids Lavatory truck wash water Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Purple K Rubber particulates Rust preventer Sealant Sediment Solvents Trash Transmission fluid Turpentine

7.7.4 BEST MANAGEMENT PRACTICE REQUIREMENTS

A BMP is broadly defined as any program, technology, process, siting criteria, operating method, measure, or device that controls, removes, or reduces pollution in storm water and authorized NSWDs. The Authority has identified BMPs required to control industrial/commercial pollutant sources at SAN, in accordance with Provision E.5.b of the Municipal Permit and Section X-H of the Industrial Permit. The required BMPs were first presented in the SWMP prepared under the 2001 Municipal Permit (RWQCB Order No. 2001-01).

Both the Industrial Permit and the Municipal Permit require the Authority to implement BMPs to address potential pollutant discharges; however, each permit's performance standard is different. The Industrial Permit requires that the implementation of BMPs achieve BAT for toxic and nonconventional pollutants and BCT for conventional pollutants. The Municipal Permit requires that the implementation of BMPs achieve MEP. These standards were taken into account when developing the BMP requirements at SAN.

BMPs are commonly defined in two ways: non-structural or structural, and source control or treatment control. Non-structural BMPs generally consist of processes, prohibitions, procedures, schedules of activities, etc., that prevent pollutants associated with industrial activities from entering storm water or authorized NSWDs. They are generally low cost and low technology in nature. Structural BMPs either prevent the pollutants from coming into contact with storm water or treat/remove the pollutants in storm water. On the other hand, source control BMPs prevent contact between storm water and the pollution source and can be structural or non-structural. Treatment control BMPs treat the storm water to remove pollutant(s) and are structural by their basic nature. Treatment control BMPs are not 100 percent effective, even if maintained and operated properly. From a cost and aesthetic perspective, treatment control BMPs that use natural processes are usually preferred over other fabricated or manufactured designs when conditions allow. Source control BMPs are preferred over treatment control BMPs because they are generally 100 percent effective if implemented properly and are usually less costly than treatment control BMPs.

LID BMPs can include source control or treatment control BMPs and are defined in the Municipal Permit as "schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of water of the United States through storm water management and land development strategies that emphasize conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions. LID BMPs include retention practices that do not allow runoff, such as infiltration, rain water harvesting and reuse, and evapotranspiration. LID BMPs also include flow-through practices such as biofiltration that may have some discharge of storm water following pollutant reduction." These types of BMPs are also referred to as Green Infrastructure. The types and designs of LID BMPs that can be implemented at SAN are discussed in detail in Appendix C.

The BMPs required by the Authority may consist of a single measure or activity, a set of BMPs, or a pollution prevention program. This section discusses BMPs that pertain to specific industrial activities and areas, as well as the minimum BMPs required airport-wide under the Industrial Permit. Also discussed are four specific pollution prevention programs implemented at SAN. One of these is the regularly scheduled power washing conducted by the airport janitorial services provider. The other three pollution prevention programs are conducted by the Authority and entail ramp sweeping, ramp scrubbing, and runway rubber removal. LID and structural treatment control BMPs implemented at SAN are discussed in Section 6.2 of the SWMP (presented in Attachment 1 of the SWPPP) and in the Treatment Controls BMP (TC-01) in Appendix B and in Appendix C. They are also discussed below as advanced BMPs under the Industrial Permit.

Additional operational BMPs are discussed in other sections of the SWMP, such as the NSWDs section (Section 3) and the Public Participation and Education Component section (Section 9).

7.7.4.1 Updated BMP Requirements

The BMPs required by the Authority to address industrial pollutant sources at SAN were first summarized into 19 BMP titles in Appendix B of the August 2003 version of the SWMP and last presented in the same appendix of the March 2008 version of the SWMP. These 19 BMP titles are updated and revised as described below to arrive at the current total of 25 required BMP titles. The updates and revisions are based on information gathered during recent site visits and annual inspections, the 2005, 2007, 2011, 2012, 2014, 2016, 2018 and 2020 Site Audits (Amec Foster Wheeler, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019), the 2006 BMP Recommendations Report (Amec Foster Wheeler, 2006), the 2016, 2017, 2018, 2019, 2020, and 2021 ERA Evaluations, as well as other information regarding the current industry and technical standards. The updates and revisions include enhancements to existing BMPs currently being implemented at SAN and the addition of new BMPs where necessary.

One significant change has been categorizing the BMPs according to the minimum BMPs required by Section X.H of the Industrial Permit. The required minimum BMPs include:

- Good housekeeping;
- Preventive maintenance;
- Spill and leak prevention and response;
- Material handling and waste management;
- Erosion and sediment controls;
- Employee training programs; and
- Quality assurance and recordkeeping.

A summary of updates to each BMP is as follows:

- SC01 – Non-Storm Water Management; BMP description enhanced to include 6 new elements and 1 modified element;
- SC02A – Outdoor Equipment Operations and Maintenance Areas; no changes;
- SC02B – Aircraft, Ground Vehicle, and Equipment Preventive Maintenance; 1 BMP description modified;
- SC02C – Electric Vehicle Maintenance; added;
- SC03 – Aircraft, Ground Vehicle, and Equipment Fueling; no changes;
- SC04 – Aircraft, Ground Vehicle, and Equipment Cleaning; BMP description enhanced to include 3 new elements;
- SC05 – Aircraft De-icing/Anti-Icing; name changed;
- SC06 – Outdoor Loading/Unloading of Materials; no changes;
- SC07 – Outdoor Material Storage; BMP description enhanced to include 1 new element and 1 modified element;
- SC08 – Waste Handling and Disposal; name changed, 2 BMP descriptions modified, and BMP description enhanced to include 1 new element;

- SC09 – Building and Grounds Maintenance; BMP description enhanced to include 9 new elements;
- SC10 – Employee Training; no changes;
- SC11 – Lavatory Service Operations; BMP description enhanced to include 1 modified element and 3 new elements;
- SC12 – Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing); BMP description enhanced to include 3 new elements;
- SC13 – Firefighting Foam Discharge; no changes;
- SC14 – Potable Water System Flushing; no changes;
- SC15 – Runway Rubber Removal; BMP description enhanced to include 1 new element;
- SC16 – Parking Lots; BMP description enhanced to include 6 new elements;
- SC17 – Storm Drain Maintenance; no changes;
- SC18 – Good Housekeeping; no changes;
- SC19 – Safer/Alternative Products; no changes;
- SC20 – Erodible Areas; added;
- SC21 – Construction and Remodeling/Repair; added;
- SR01 – Spill Prevention, Control, and Clean-up; name changed, and BMP description enhanced to include four new elements; and
- TC01 – Treatment Controls; name changed, and BMP description enhanced to include one new element.

All Authority staff and tenant personnel are required to implement the minimum BMPs as applicable and appropriate. Table 7-6 presents an assessment of the sources of pollutants that are likely to be found in storm water discharges at SAN and identifies the BMPs, in terms of individual BMP element, required to address those sources. Table 7-6 associates the pollutant sources with issues/areas identified by the BMP titles listed above. A list and description of all 25 BMP categories required by the Authority are in Appendix B. Appendix B also lists the pollutants reduced, the targeted pollutant-generating activities, and the applicable tenants responsible for each BMP, and materials or equipment needed for implementation of the BMP, and frequency of BMP implementation if applicable. The majority of BMPs are implemented during daily operations (e.g., housekeeping and spill response). Each BMP has an associated map illustrating SAN areas where the BMP applies.

The particular BMPs, listed by individual element applicable to each tenant and the Authority, are presented in Table 7-7, indicating whether the activity is being performed indoors or outdoors. The particular BMPs listed by individual element are presented in the Tenant Summary Sheets in Appendix E.

Table 7-8 summarizes the BMPs required at SAN in terms of the minimum BMP categories that they satisfy. Some SAN BMPs satisfy multiple requirements under the Industrial Permit.

Table 7-6. Potential Pollutant Sources at SAN

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Non-Storm Water Management throughout SAN	Prevention of NSWDs	Misinformation (improper/lack of signs)	Metals, particulates, sediment, solid waste	SC01-01 Notify SAN Communication Center (619-400-2710) and the Authority Planning and Environmental Affairs Department (619-400-2784) if there is any evidence of illicit connections or illegal discharges. SC01-02 Provide the appropriate level of employee, tenant, and public training or education in NSWD management, i.e., spill response and prevention, non-storm water pollution prevention, and hazardous materials management. SC01-03 Limit the availability of outdoor water supplies (e.g., hose bibs, faucets) and post with appropriate use signs to discourage uses that may pollute the storm drain system/receiving water. SC01-04 Ensure the site is free of evidence of illicit connections and illegal discharges. SC01-05 Do not irrigate during forecasted rain events and 48 hours following a rain event. SC01-06 Periodically inspect and maintain irrigation systems and landscaped areas to prevent prohibited over-irrigation and to repair any leaks. SC01-07 Direct air conditioning or refrigerator condensation to landscaping, porous surface, into the sanitary sewer, or for reuse. SC01-08 Irrigate using the satellite water-tracking system to reach proper levels of soil moisture applicable for landscaping, and follow City water restriction guidelines. SC01-09 Use a hand-held hose equipped with positive shut-off nozzle, handheld water container, or timed sprinkler system to irrigate landscaped areas. SC01-10 Prohibit over-irrigation of landscaped areas
		Litter improperly disposed of, including bottles and cans, paper and plastic bags, fast-food wrappers, cigarette butts, etc.	Solid waste	
		Improper hosing, power washing or washing down of vehicles or equipment	Fuel oil, particulates/sediment	
		Spills or leaks	Fuel, oils, sewage, trash	
		Over irrigation	Pesticides, sediment, bacteria, metals, nutrients	
		Air conditioning condensate	Particulate, metals, oil and grease, bacteria	
Outdoor Equipment Operations and Maintenance Areas	Equipment operations and maintenance	Vehicle and aircraft use and emissions	Metals, fuels, lubricants, antifreeze	SC02A-01 Equipment operations and maintenance areas should not be located directly in the path of storm drains. SC02A-02 Perform equipment operations and maintenance in designated areas with overhead cover for pollutant sources and/or activity areas.
		Industrial and commercial spills and releases	Metals, oils and greases, fuels, battery acids, antifreeze	
		Dirt or fluids from equipment and vehicles	Particulates/sediment, oils, lubricants, antifreeze, fuel, battery acid	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Maintenance activities	Oil and grease, lubricants, hydraulic fluids, antifreeze	
Aircraft, Ground Vehicle, and Equipment Maintenance	Aircraft, ground vehicle, and equipment operations and maintenance	Industrial and commercial spills and releases	Metals, oils and greases, fuels, battery acids, antifreeze	SC02B-01 Employees are trained in safe vehicle and equipment operations and maintenance. SC02B-02 Aircraft, vehicle and equipment maintenance areas should not be located directly in the path of storm drains. SC02B-03 Perform maintenance of aircraft, ground vehicles and equipment in designated areas that are either indoors or are covered, bermed, enclosed, or sloped/positioned away from the MS4. SC02B-04 Perform regular equipment inspection and testing. SC02B-05 Inspect aircraft, vehicles and equipment on a regular basis for fluid leaks. Place drip pans under leaks as needed. SC02B-06 Maintain aircraft, vehicles and equipment in good condition to prevent or correct any leakage of oil or other fluids. SC02B-07 Use drip pans during maintenance. SC02B-08 Do not leave drip pans containing fluids or other open containers lying around. Regularly transfer fluids for recycling or proper disposal. SC02B-09 Minimize the use of solvents or use less toxic solvents whenever possible. If solvents cannot be avoided, clean or drain parts in self-contained sinks or drum units, and check those units regularly for leaks. SC02B-10 Store mechanical parts, equipment and vehicles awaiting repair/removal under cover and away from storm drains. SC02B-11 Store spill response materials in maintenance areas and on maintenance vehicles. Adequately collect/remove absorbent materials from area after use and dispose of them in an appropriate manner. SC02B-12 Remove fluids and batteries from salvage vehicles and equipment and dispose of properly. SC02B-13 Properly dispose of obsolete and inoperable vehicles and equipment.
		Dirt or fluids from aircraft, equipment, and vehicles	Particulates/sediment, oils, lubricants, antifreeze, fuel, battery acid	
		Maintenance activities	Oil and grease, lubricants, hydraulic fluids, antifreeze	
Electric Vehicle Maintenance and Charging Areas	Electric vehicle charging,	Electrolyte spills and improper storage of batteries	Acid, heavy metals	SC02C-01 Do not overcharge batteries in electric vehicles.

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
	vehicle parking, and battery maintenance	Overcharged vehicles	Acid, heavy metals	SC02C-02 Park electric vehicles in cool and dry areas (e.g., shade under building) when not in use. SC02C-03 Use acid resistant drip pans sprinkled with battery acid neutralizing agent (e.g., lime or baking soda) when filling or cleaning electric vehicle batteries and dispose of waste properly. SC02C-04 Maintain battery acid neutralizing kits adjacent to charging stations. Adequately recover spill response material from area after use and dispose of them in an appropriate manner. SC02C-05 Avoid overfilling electric vehicle batteries. SC02C-06 Do not fill batteries or perform electric vehicle maintenance during rain events. SC02C-07 Store batteries inside in a cool and dry place if possible. If batteries are stored outside, store in a non-reactive container with a cover. SC02C-08 Clean battery case and terminals regularly or when there is a buildup of corrosion with a rag dampened with a solution of water and battery acid neutralizing agent. Capture any wastewater to be treated as hazardous waste. SC02C-09 Apply petroleum jelly or grease on battery terminals to slow down corrosion process.
Aircraft, Ground Vehicle, and Equipment Fueling	Fueling	Fuel spills and improper storage of fuel	Jet fuel, gasoline, diesel	SC03-01 Perform aircraft, ground vehicle and equipment fueling in the designated areas that are covered, bermed, enclosed, or sloped/positioned away from the MS4. SC03-02 Fueling areas should not be located directly in the path of storm drains. SC03-03 Label, regularly inspect and keep in good condition all tanks, piping and valves. SC03-04 Store absorbent booms, spill kits, or vacuum equipment in fueling areas or on fueling vehicles. SC03-05 Regularly inspect fueling areas. SC03-06 Monitor major fueling operations. SC03-07 Use secondary containment or cover when transferring fuel from a tanker truck to a fuel tank.
		Leaking storage tanks	Jet fuel, gasoline, diesel	
		Aircraft, equipment, and vehicle leaks and spills	Jet fuel, gasoline, diesel	
		Hosing or washing down fuel areas without proper containment	Jet fuel, gasoline, diesel	
		Storm water run-on and runoff from fueling areas	Jet fuel, gasoline, diesel	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Spills and leaks during delivery, including topping off	Jet fuel, gasoline, diesel	SC03-08 Use leak detection, overfill protection and spill prevention devices for tanks and piping. SC03-09 Use automatic shut-off mechanisms for fuel tankers and hose connections. SC03-10 Do not top off fuel tanks. SC03-11 Restrict access to fuel tanks and fueling vehicles.
Aircraft, Ground Vehicle, and Equipment Cleaning	Cleaning	Aircraft, vehicle, or equipment washing	Particulates/sediment, oil and grease, metals, soaps/cleaning solutions	SC04-01 Keep vehicles, equipment, and washing areas clean and free of waste. SC04-02 Use dry washing and surface preparation techniques where feasible. SC04-03 Wash areas should not be located directly in the path of storm drains. SC04-04 Use pigs and cover mats to cover all catch basins in the surrounding area to contain the wash water during washing activities. SC04-05 Perform all washing activities in designated areas that capture, filter and recycle water (e.g., at RCC's wash bays), or use reclaimed water and divert wash water to a structural treatment control BMP, sanitary sewer or dead end sump with pump. SC04-06 Perform routine visual observations of washing activities and inspect nearby storm drains to detect and prevent discharges from cleaning activities. SC04-07 Remove all excess materials such as drippings and residue by using vacuum methods. Properly dispose of all waste materials. SC04-08 Use a hand-held hose equipped with positive shut-off nozzle to wash vehicles.
		Fall out from pressure washing	Particulates/sediment, oil and grease, metals	
Aircraft Deicing/Anti-Icing	Deicing/anti-icing	Spraying deicing fluid onto aircraft	Ethylene or propylene glycol	SC05-01 Perform all anti-icing and deicing operations only in designated areas that are covered, bermed, enclosed or sloped/positioned away from the MS4. SC05-02 Monitor deicing and anti-icing operations regularly to ensure quantities of fluids used are at a minimum while not jeopardizing aircraft safety and operation.
		Deicing fluids dripping from aircraft without proper clean up	Ethylene or propylene glycol	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
				SC05-03 All fluids are captured or diverted to a structural treatment control BMP, recycling system, sanitary sewer or dead end sump with pump. SC05-04 Clean the designated anti-icing and deicing ramp areas following deicing/anti-icing operations with wet-type sweepers to remove deicing fluids from the paved areas.
Outdoor Loading and Unloading of Materials	Loading/ unloading	Spills or leaks during loading/unloading	Fuel, oils, trash/debris	SC06-01 Contractors and haulers should be made aware of and adhere to BMPs specifications that are relevant to the loading and unloading of materials. SC06-02 Loading and unloading areas should not be located directly in the path of storm drains. SC06-03 Loading and unloading areas should be graded, bermed, covered or otherwise protected to prevent contact with rainfall and storm water run-on and runoff. SC06-04 Equipment used for loading and unloading should be checked on a regular basis for leaks. SC06-05 Use drip pans or other containment measures under hoses. SC06-06 Keep loading and unloading areas free of spills and debris by containing and absorbing leaks during transfers and spillage from hose disconnections or cargo pallets; dispose of residue or debris properly. SC06-07 Spill kits or other measures are available in accessible locations near areas where spills may be likely to occur to contain spills and/or prevent tracking off-site.
		Leaking of loading/unloading equipment	Fuel, hydraulic fluids	
Outdoor Material Storage	Material storage	Industrial and commercial spills and releases from storage units	Fuels, oil and grease, solvents, soap/cleaning fluids, lavatory chemicals, paints, battery acid, antifreeze, ethylene or propylene glycol, pesticides/herbicides, adhesives, rust preventers, AFFF, sealants	SC07-01 Outdoor material storage areas and equipment should not be located directly in the path of storm drains. SC07-02 Outdoor material storage areas have areas with overhead cover and secondary containment. SC07-03 Outdoor material storage areas are prevented from contacting storm water run-on and run-off (e.g., by the use of berms, wood pallets etc.). SC07-04 Cover and contain material stockpiles or implement erosion control practices at the perimeter of the site and at any inlets or catch basins to prevent the off-site transport of eroded material.

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Outdoor Material Storage (continued)	Material storage	Lack of proper secondary containment	Fuels, oil and grease, solvents, soap/cleaning fluids, lavatory chemicals, paints, battery acid, antifreeze, ethylene or propylene glycol, pesticides/herbicides, adhesives, rust preventers, AFFF, sealants	SC07-05 Cover wood products treated with preservative chemicals with tarps or store them indoors. SC07-06 Install protection guards (bollards, posts, or guardrails) around ASTs and piping to prevent damage from vehicles or forklifts and any subsequent release. SC07-07 Regular inspections are performed on tanks, storage containers, and berms to check for corrosion, structural failure, loose fittings, poor welds, leaks etc. Repairs or replacements are performed as needed. SC07-08 Liquid materials in ASTs should be stored in double-walled, valved storage tanks or within concrete bermed secondary containment areas to provide the capacity to contain the entire volume of the single largest container, with sufficient freeboard to contain precipitation. The area inside the curb should slope to a drain. SC07-09 Precipitation from bermed areas should be drained to the sanitary sewer if available or inspected and tested according to applicable regulations prior to its release to a storm drain. The drain must have a positive control, such as a lock, valve, or plug, below the product level in the tank to prevent release of contaminated liquids. SC07-10 Properly dispose of ponded storm water removed from bermed or containment areas. SC07-11 The facility/operation has and displays a San Diego County hazardous materials permit for hazardous materials storage. SC07-12 Maintain an accurate, up-to-date inventory of the materials delivered and stored on site. SC07-13 Do not permanently store equipment and materials in the bed of a pickup truck. If storing temporarily, provide cover and containment.
		Raw material, and finished product stock piles	Metals, sediments, particulates, debris	
		Contact between stored materials and storm water run-on/off due to lack of cover/berms, etc.	Fuels, oil and grease, solvents, soap/cleaning fluids, lavatory chemicals, paints, battery acid, antifreeze, ethylene or propylene glycol, pesticides/herbicides, adhesives, rust preventers, AFFF, sealants	
		Improper storage of fuel	Fuels	
Waste Handling/ Disposal	Waste handling/ disposal	Lack or failure of proper secondary containment	Oils, fuels, antifreeze, deicing fluids	SC08-01 Reduce the amount of waste generated (e.g., use only amount needed, use solvents more than once, practice good inventory control, do not over-buying, purchase long-lasting products, etc.). SC08-02 Recycle materials whenever possible.
		Waste container leaks	Oils, fuels, antifreeze, deicing fluids	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Improper training procedures	Oils, fuels, antifreeze, deicing fluids, lavatory wastes and chemicals	SC08-03 Designate waste/recycling areas with restricted access. SC08-04 Do not locate waste/recycling areas directly in the path of storm drains. SC08-05 Provide secondary containment and cover for wastes. SC08-06 Wastes that are not contained or covered are prevented from contacting storm water and run-on and run-off by the use of berms. SC08-07 All dumpsters are covered and kept closed and any drain holes plugged. SC08-08 Inspect on a frequent basis all waste collection and storage containers for evidence of leaks, spills, compromised structural integrity, and proper closure seal. SC08-09 Train all employees in the proper handling and disposal of waste materials. SC08-10 Store wastes and recyclable materials in appropriate containers and segregate and properly labeled them. SC08-11 Wastes are properly characterized and disposed. SC08-12 Prevent overflow of waste containers by timely pickup/service and removal. SC08-13 Perform dumpster cleaning in designated areas that are bermed to contain wash water. Properly dispose of all fluids collected or discharge to the sanitary sewer. SC08-14 Track waste generated, stored, and disposed.
		Contact between stored waste and storm water run-on/off due to lack of cover/berms etc.	Oils, fuels, antifreeze, deicing fluids, trash/debris	
		Improper disposal practices	Wastewater, oil and grease, fuels, rubber debris, trash	
		Irregular waste removal schedule	Oils, fuels, antifreeze, deicing fluids, trash/debris	
Building and Grounds Maintenance	Maintenance	Painting	Metals	SC09-01 Landscape, re-vegetate, or install erosion and sediment controls in areas of exposed soil. SC09-02 Use hand weeding when practical. SC09-03 Implement integrated pest management methods, minimize the use of pesticides, herbicides, and fertilizers, and use according to directions. SC09-04 Use temporary BMPs such as portable booms and vacuum trucks to contain water from outdoor building or structure washdown activities. Use reclaimed water, where possible, and collect and properly dispose of all wastewater through a permitted connection to the sanitary sewer.
		Pesticide application	Organic compounds	
		Wood preserving	Metals	
		Underground utilities (copper grounding wires in electrical vaults connected to storm drains) and lighting systems	Metals	
		Roofing	Metals, tar	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Cement in concrete pouring	pH	SC09-05 Compost or recycle grass trimmings, leaves, sticks, or other collected vegetation, where possible, or dispose of appropriately. SC09-06 Remove temporary stockpiled materials at the end of the day or place away from watercourses and drainage inlets, and berm and cover stockpiles to prevent material releases to the storm drain. SC09-07 Clean pavement or sidewalk (using dry methods or reclaimed water) of any residual materials or spills before applying irrigation water, and capture and properly dispose of any wash water. SC09-08 Repair damaged asphalt when degradation is observed. SC09-09 Reduce the exposure of galvanized or rusty metal structures to rainfall, where possible.
Employee Training	Training	Mismanagement	Oil and grease, hydrocarbons, pH, solid waste, particulates, sediment, ethylene glycol, metals, fuels, chemicals	SC10-01 Update the Authority SWMP and tenant SWPPPs covering the facility or operation on a periodic basis and complete and insert the amendment pages for the SWMP or SWPPP, as needed. SC10-02 Train Authority and tenant employees and contractors in storm water pollution prevention education covering all storm water issues, implementation and effectiveness of BMPs, spill prevention and cleanup, hazardous materials management, right-to-know awareness, and SWMP or SWPPP implementation. SC10-03 Implement additional training programs for relevant Authority and tenant employees and contractors covering any Spill Plan implementation, the prohibition on cross-connections between sanitary sewers and storm drains, and contractor responsibility to comply with adopted BMPs. SC10-04 Maintain training records for 5 years of current employees that have participated in the storm water pollution prevention education program and other related training programs.
		Lack of education outreach programs	Oil and grease, hydrocarbons, pH, solid waste, particulates, sediment, ethylene glycol, metals, fuels, chemicals	
		Inefficient or irregular training	Oil and grease, hydrocarbons, pH, solid waste, particulates, sediment, ethylene glycol, metals, fuels, chemicals	
Lavatory Service Operation	Operating/ maintenance	Leaking or blocked hoses	Lavatory waste, BOD, lavatory chemicals	SC11-01 Triturator facilities are covered and have low roll-over type berming. SC11-02 Triturator facilities should not be located directly in the path of storm drains.
		Spills during operations	Lavatory waste, BOD, lavatory chemicals	
		Improper waste disposal	Lavatory waste, BOD, lavatory chemicals	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Storm water contact with dirty lavatory trucks or hoses	Lavatory waste, BOD, lavatory chemicals	SC11-03 Perform regular inspections of all hoses and fittings used for transferring lavatory waste and keep the equipment in good condition. SC11-04 Absorbent booms, spill kits and other containment equipment are present on lavatory service equipment and at the triturator facility. SC11-05 Perform all mixing and transfers of surfactants and disinfectants within the covered and bermed triturator area or under a cover. SC11-06 Use drip pans when draining aircraft lavatory systems. Immediately dump the collected drippage into the bulk storage tank on the lavatory service cart or lavatory service truck. SC11-07 Immediately clean and properly dispose of all spills of lavatory wastes and lavatory chemicals at the triturator facility. SC11-08 Secure all hoses, valves, and equipment when transporting lavatory waste. SC11-09 Perform lavatory truck cleanouts/backflushing and lavatory waste discharging to sanitary sewer connections ONLY at triturator facilities. SC11-10 Completely drain all hoses. SC11-11 Use lavatory service cart or truck with spill prevention equipment installed, where possible. SC11-12 Temporary sanitary facilities must have secondary containment and be located away from watercourses, drainage facilities, traffic circulation and high wind areas. SC11-13 Regularly inspect temporary sanitary facilities for leaks and spills and clean or replace when necessary.
		Lack of lavatory truck/hose maintenance	Lavatory waste, BOD, lavatory chemicals	
Outdoor Wash Down/Sweeping (Apron Washing Ramp Scrubbing)	Washing/ sweeping	Fallout from pressure washing operations	Particulates/sediment, rubber, debris, oil and grease, fuel	SC12-01 Inspect and maintain sweeping and scrubbing equipment regularly to ensure effectiveness at removing pollutants and to avoid leaks. SC12-02 Roads, ramp areas, apron areas, and, if feasible, runway/taxiway areas are swept on a regular basis. SC12-03 Perform sweeping during dry weather using dry sweeping techniques where feasible.
		Improper waste disposal	Particulates/sediment, rubber, trash/debris, oil and grease, fuel, waste water, soaps	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Irregular sweeping or scrubbing	Particulates/sediments, oils and grease, fuel, trash/debris	SC12-04 Operate sweepers at manufacturer-recommended optimal speeds. SC12-05 Properly dispose of debris and sediment from sweeping. SC12-06 Berm outdoor washdown areas to contain the wash water and to prevent run-on to adjacent areas. SC12-07 Minimize the amount of water used during outdoor washdown activities. SC12-08 Wash water is collected and filtered and reused, or discharged to the sanitary sewer system through a permitted connection at designated and approved discharge facilities (i.e., dewatering bin). SC12-09 Maintain records of the sweeping or scrubbing activities, including the miles swept or scrubbed and the amount of waste collected. SC12-10 Do not use a running hose to wash down sidewalks, or other hard surface areas. A water-efficient, filtering and recycling device must be used and all wash water must be prevented from entering the storm drain system (curb gutters, streets, alleys, and inlets) SC12-11 Use reclaimed or recycled/filtered water. SC12-12 Roads, ramp areas, and apron areas are scrubbed on an as-needed basis.
		Industrial air emissions	Particulates/sediments, metals	
Fire Fighting Foam Discharge	Fire fighting	Ineffective containment of discharge	AFFF, wastewater	SC13-01 Do not perform fire fighting foam testing directly in the path of storm drains. SC13-02 Inspect and test fire fighting equipment on a regular basis. SC13-03 Perform fire fighting foam testing ONLY in a designated area that captures or divers all foam waste to a structural treatment control, sanitary sewer, or dead-end sump with pump. SC13-04 Service sump(s) and/or oil-water separators on a regular basis. SC13-05 Prevent all designated testing areas from contacting storm water run on and run-off or from reaching storm drains (e.g., by the use of berms and sandbags).
		Improper vacuum procedure	AFFF, wastewater	
		Improper waste disposal	AFFF, wastewater	
Potable Water System Flushing	Flushing	Fallout from flushing operations	Particulates/sediment, metals, oil and grease, fuels	SC14-01 The aircraft potable water system and water truck flushing/cleaning areas should not be located directly in the path of storm drains. SC14-02 Perform potable water system flushing only in designated flushing/cleaning areas that capture or divert all wastewater

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
				away from storm drains, or to a structural treatment control, sanitary sewer, or dead-end sump with pump. SC14-03 Prevent flushing/cleaning areas from contacting storm water run-on and run-off.
Runway Rubber Removal	Cleaning	Failure of equipment to adequately capture all waste water and debris	Rubber particulates/sediment/debris, metals, oil and grease, fuels	SC15-01 Minimize the amount of water used during runway rubber removal activities. SC15-02 Prevent waste water produced from runway rubber removal activities from entering the storm drainage system by immediately collecting and properly disposing of it. SC15-03 Use manual or mechanical cleaning methods such as mechanical street sweepers to remove rubber particulates from the runway and adjacent paved areas following runway rubber removal activities. SC15-04 Inspect storm drain inlets, catch basins, and runway drainage areas following runway rubber removal activities for any resulting debris, and remove and properly dispose of debris. SC15-05 Use reclaimed water, where possible.
Parking Lots	Maintenance of parking lots	Dirt and leaking fluids from equipment and vehicles	Particulates/sediment, oil and grease, brake fluid, fuel, antifreeze, metals	SC16-01 Post "No Littering" signs around parking lots and regularly empty trash receptacles. Trash receptacles must be covered. SC16-02 Sweep all parking lot areas on a regular basis to remove accumulated debris and sediment. SC16-03 Operate sweepers at manufacturer-recommended optimal speeds. SC16-04 Perform sweeping in parking lot areas when the number of parked vehicles is lowest to maximize areas swept. SC16-05 Maintain records of the sweeping activities, including the miles swept and the amount of waste collected. SC16-06 Clean oily spots from parking lot surfaces with absorbent materials. SC16-07 Perform all repairs to parking lot surfaces during periods of dry weather. SC16-08 Cover and seal nearby storm drain inlets, catch basins, and manholes during parking lot repairs.
		Dirt and grit from parking lots, driveways, sidewalks and landscaped areas	Particulates/sediment, metals	
		Litter improperly disposed of, including bottles and cans, paper and plastic bags, fast-food wrappers, cigarette butts, and more	Solid waste/trash	
		Galvanized metal roofs, gutters and downspouts	Metals, sediment	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Paving and recycling operations	pH, debris, tar/hydrocarbons	SC16-09 Use drip pans and absorbent materials to catch and collect drips and leaks from paving equipment that are not in use. SC16-10 Hot bituminous materials used for parking lot repairs are to be preheated and transferred or loaded away from storm drain inlets. SC16-11 Properly dispose of used absorbent materials, debris, and collected drips. SC16-12 Avoid draining rooftop downspout drains onto paved parking lot surfaces. SC16-13 Sweep, vacuum, or use other dry methods to remove waste materials generated from repairs. SC16-14 Temporarily store waste materials and debris generated from parking lot repairs in containers or in stockpiles with cover and berm around them and away from storm drain inlets.
Storm Drain Maintenance	Maintenance	Fallout from MS4 cleaning operations	Particulates/sediments, metals, trash and debris, fuel, oil and grease, bacteria, waste water	SC17-01 Stencil storm drains with "No Dumping" messages. SC17-02 Conduct routine self-inspections of the storm drainage system. The Authority should inspect the entire MS4 at least annually between May 1 and September 30. SC17-03 Use appropriate measures to prevent discharges during MS4 cleaning and maintenance. SC17-04 Clean and maintain storm drain inlets, catch basins, pipes, and other conveyance structures before the wet season and as needed. SC17-05 Clear open channels of accumulated litter in a timely manner. SC17-06 Properly dispose of all accumulated sediments, contaminants, debris and waste water from cleaning and maintenance activities. SC17-07 Maintain records for all inspections, cleaning, and maintenance, including the quantity of waste removed.
		Irregular or inadequate inspection and maintenance schedule	Particulates/sediments, metals, trash and debris, fuel, oil and grease, bacteria	
Housekeeping	Cleaning/ tidying	Insufficient facility and BMP inspections	Trash/debris, oil and grease, paints, fuels, pesticides/herbicides, hydraulic fluids, antifreeze, rust preventers, sealants	SC18-01 Perform and document on a regular basis self-inspections and evaluations of the implemented BMPs. SC18-02 Keep all facility and operation areas clean and orderly. SC18-03 Place trash receptacles that have covers in appropriate locations.
		Improper trash handling/trash or	Trash and debris, bacteria	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		FOD cans not covered		SC18-04 Sweep all facility and operation areas at least once per week to prevent the accumulation of sediments, debris, and contaminants. SC18-05 Properly dispose of all debris and sediment from sweeping. SC18-06 Store significant materials in the appropriate containers that are properly sealed and labeled. SC18-07 Store significant materials within secondary containment. SC18-08 Store significant materials in a restricted access area. SC18-09 Material Safety Data Sheets (MSDSs) are readily available for all significant materials.
		Lack or failure of proper secondary containment	Oils, fuels, antifreeze, brake fluids, hydraulic fluids, lubricants, paints, deicing fluids	
		Dirt and grit from ramp and facility areas	Particulates/sediment, metals, trash, and debris	
Safer/Alternative Products	Replacement of toxic with less or non-toxic materials	Use of toxic materials	Metals, hydrocarbons, synthetic organic compounds	SC19-01 Whenever possible, use alternative products that are "Regionally Accepted" and are identified as being non-toxic, less toxic, or biodegradable. SC19-02 Whenever possible, maximize the purchase and use of products containing recycled materials.
Erodible areas	Erosion	Erosion of disturbed areas	Sediment	SC20-01 Implement erosion control BMPs to stabilize soils. SC20-02 Implement wind erosion control BMPs to control dust. SC20-03 Maintain effective perimeter controls. SC20-04 Stabilize loose soils and slopes prior to a forecasted storm event. SC20-05 Prevent material tracking off site. SC20-06 Divert all storm water away from erodible materials.
		Wind erosion	Sediment	
Construction and remodeling/repair	Construction	Erosion from erodible surfaces	Sediment	SC21-01 Avoid outdoor repairs and construction during rain events or during any period for which the National Weather Service is forecasting a 50% chance of precipitation. SC21-02 Stabilize inactive areas (where there will be no construction for 14 days) or finished slopes or erodible areas with erosion control. SC21-03 Implement wind erosion control BMPs to control dust, and limit traffic to stabilized roadways within the site, where possible. SC21-04 Maintain effective perimeter and run-on controls. SC21-05 Maintain effective inlet protection.

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
				SC21-06 Install a stabilized construction entrance to prevent off site tracking. SC21-07 Sweep streets of any loose dirt or materials. SC21-08 Cover and contain all chemicals, liquids, erodible landscape materials, and fertilizers when not in use. SC21-09 Discontinue use of erodible landscape material within 2 days prior to forecast rain even or when it's raining.
Construction and remodeling/repair (continued)	Construction	Off-site material tracking	Sediment, metals, oil, fuel, paint, trash/debris, hydraulic fluids, antifreeze, rust preventers, sealants	SC21-10 Waste containers are covered at the end of each work day and when it is raining. Use plastic under-sheets when appropriate. SC21-11 Cover waste containers at the end of each work day and prior to a rain event, and have waste recycled or collected and properly disposed of frequently. SC21-12 Perform concrete washout in designated areas away from inlets and drainage courses, and in appropriately sized and designed pits or containers. Empty regularly. SC21-13 Temporary sanitary facilities must have secondary containment and be located away from storm drains and traffic circulation. SC21-14 Minimize water usage and use reclaimed water where possible. SC21-15 Contain any particulate generating activities. SC21-16 Designate areas for fueling equipment and vehicles away from inlets and drainage courses, or perform off site.
		Material spills	Metals, oil, fuel, paint, trash/debris, hydraulic fluids, antifreeze, rust preventers, sealants	
Spill Prevention, Control & Clean-up	Spill control	Fuel spills and improper storage of fuel	Fuels	SR01-01 Develop, implement and keep current Spill Plan, and develop facility spill prevention and response procedures. SR01-02 Post a summary of the Spill Plan and spill response procedures, at key locations, identifying the spill cleanup coordinators, location of cleanup equipment, and phone numbers of regulatory agencies to be contacted in the event of a spill. SR01-03 Train relevant employees and contractors in the implementation of the Spill Plan, if applicable, or spill control procedures. SR01-04 Use leak and spill prevention devices. SR01-05 Place adequate spill kits in appropriate locations.
		Improper waste storage and disposal	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants	
		Aircraft, equipment and vehicle fluid leaks and spills	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants, battery acid	
		Inadequate spill response or spill response materials	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants, battery acid	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		Lack or failure of proper secondary containment	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants, battery acid	SR01-06 Notify Airport Operations (619-400-2710), the Authority Planning and Environmental Affairs Department (619-400-2784), and any agencies or companies identified in the Spill Plan or facility spill prevention and response procedures in the event of a spill. SR01-07 In the event of a spill or release, immediately follow procedures identified in the Spill Plan or facility spill prevention and response procedures. SR01-08 Use only dry cleaning methods. SR01-09 Properly dispose of all used spill control and clean-up materials. SR01-10 Waste water from washing activities is captured by vacuum and properly disposed of, or is diverted to a structural treatment control, sanitary sewer, or dead end sump with pump.
Treatment Controls	Inspections/ cleaning/ maintenance	Irregular or inadequate inspections and maintenance	Particulates/sediment, oil and grease, metals, trash and debris, fuels	TC01-01 Regularly inspect, clean, and maintain all structural treatment control BMPs to prevent the accumulation or resuspension of oil, grease, floating debris and sediments. TC01-02 During cleaning operations, close any effluent valves at the treatment control device and properly dispose of any standing water and accumulated waste that are removed. Replace oil absorbent pads in the treatment control device prior to the start of the wet season and as needed. TC01-03 Document and maintain records for all inspections, cleaning, and maintenance of structural treatment control BMPs. TC01-04 Perform an annual inventory of all structural treatment control BMPs.

Table 7-7. BMPs Applicable to Individual Industrial Sites/Sources

TENANTS	SUMMARY OF INDUSTRIAL ACTIVITY CATEGORIES (See Appendix B For Associated BMPs)	AIRCRAFT				VEHICLES AND EQUIPMENT					OTHER																
		Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Aircraft Deicing/Anti-Icing	Lavatory Service Operation	Outdoor Equipment Ops and Maintenance Areas	Aircraft, Ground Vehicle and Equipment Maintenance	Electrical Vehicle Maintenance	Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Non-Storm Water Management	Outdoor Loading/Unloading of Materials	Outdoor/Indoor Material Storage	Waste Handling and Disposal	Building and Grounds Maintenance	Employee Training	Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)	Fire Fighting Foam Discharge	Potable Water System Flushing	Runway Rubber Removal	Parking Lots	Storm Drain Maintenance	Housekeeping	Safer/Alternative Products	Erodible Surfaces	Construction and Remodeling Repair	Spill Prevention, Control, and Clean-up	Treatment Controls
		SC03	SC04	SC05	SC11	SC02A	SC02B	SC02C	SC03	SC04	SC01	SC06	SC07	SC08	SC09	SC10	SC12	SC13	SC14	SC15	SC16	SC17	SC18	SC19	SC20	SC21	SR01	TCO1
Air Canada	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11,14, 18, 19, SR01	O	O		O	O	O		O	O	I/O	O	I/O	I		X			O				O	X			O	
Alaska	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 10, 11, 12, 14, 18, 19, SR01	O	O		O	O	O	O	O	O	I/O	O	I/O	I/O		X	O		O				X	X			I/O	
Allegiant	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 14, 18, 19, SR01	O	O		O	O	O		O	O	I/O	O	O	I		X			O				O	X			O	
American Airlines	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 09, 10, 11, 12, 14, 18, 19, SR01	O	O		O	O	I/O	I	O	O	I/O	O	I/O	I/O	O	X	O		O				I/O	X			I/O	
ARFF	SC01, 02A, 02B, 03, 04, 07, 08, 09, 10, 13, 16, 17, 18, 19, SR01					O	I		I	O	I/O		I/O	I/O	O	X		O			O	O	I /O	X			I/O	
Bradford	SC01, 02A, 02B, 04, 06, 07, 08, 09, 10, 16, 18, 19, SR01, TC01		I			I	I/O			I	I/O	O	I	I/O	I/O	X					O		I/O	X			I/O	O
British Airways	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 14, 18, 19, SR01	O			O	O	I/O			O	I/O	O	I/O	I		X			O				O	X			I/O	

Table Notes:

Industrial Activity Category
SC01 - Non-Storm Water Management
SC02A - Outdoor Equipment Ops and Maintenance Areas
SC02B - Aircraft, Ground Vehicle and Equipment Maintenance
SC02C - Electric Vehicle Maintenance
SC03 - Aircraft, Ground Vehicle and Equipment Fueling
SC04 - Aircraft, Ground Vehicle and Equipment Cleaning
SC05 - Aircraft Deicing/Anti-Icing
SC06 - Outdoor Loading/Unloading of Materials
SC07 - Outdoor/Indoor Material Storage
SC08 - Waste Handling and Disposal
SC09 - Building and Grounds Maintenance
SC10 - Employee Training
SC11 - Lavatory Service Operation

Industrial Activity Category (continued)
SC12 - Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)
SC13 - Fire Fighting Foam Discharge
SC14 - Potable Water System Flushing
SC15 - Runway Rubber Removal
SC16 - Parking Lots
SC17 - Storm Drain Maintenance
SC18 - Housekeeping
SC19 - Safer/Alternative Products
SC20 – Erodible Areas
SC21 – Building Repair & Construction
SR01 - Spill Prevention, Control, and Clean-up
TC01 - Treatment Controls

Codes:
BMP = Best Management Practice
I = The industrial activity is performed by the tenant indoors
O = The industrial activity is performed by the tenant outdoors
I/O = The industrial activity is performed by the tenant both indoors and outdoors
X = The activity applies to the tenant identified, without distinction regarding indoors or outdoors

Table 7-7. BMPs Applicable to Individual Industrial Sites/Sources (Continued)

TENANTS	SUMMARY OF INDUSTRIAL ACTIVITY CATEGORIES (See Appendix B For Associated BMPs)	AIRCRAFT				VEHICLES AND EQUIPMENT					OTHER																
		Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Aircraft Deicing/Anti-Icing	Lavatory Service Operation	Outdoor Equipment Ops and Maintenance Areas	Aircraft, Ground Vehicle and Equipment Maintenance	Electrical Vehicle Maintenance	Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Non-Storm Water Management	Outdoor Loading/Unloading of Materials	Outdoor/Indoor Material Storage	Waste Handling and Disposal	Building and Grounds Maintenance	Employee Training	Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)	Fire Fighting Foam Discharge	Potable Water System Flushing	Runway Rubber Removal	Parking Lots	Storm Drain Maintenance	Housekeeping	Safer/Alternative Products	Erodible Surfaces	Construction and Remodeling Repair	Spill Prevention, Control, and Clean-up	Treatment Controls
		SC03	SC04	SC05	SC11	SC02A	SC02B	SC02C	SC03	SC04	SC01	SC06	SC07	SC08	SC09	SC10	SC12	SC13	SC14	SC15	SC16	SC17	SC18	SC19	SC20	SC21	SR01	TCO1
Conrac	SC01, 02A, 02B, 03, 04, 06, 07, 08, 09, 10, 12, 16, 18, 19, 20, SR01, TC01					I	I		I	I	I	I/O	I	I	I	X	O				I		I	X	O		I	I/O
Delta	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 10, 11, 12, 16, 17, 18, 19, SR01	O			O	O	I/O	I/O	O	O	I/O	O	I/O	I/O		X	O				O	O	I/O	X			O	
DHL	SC01, 02A, 02B, 03, 04, 06, 07, 08, 09, 10, 11, 12, 16, 18, 19, SR01	O	X		O	O	O		O	X	I/O	O	I/O	I/O	I/O	X	O				O		I/O	X			I/O	
Edelweiss (not operating due to Covid)	SC01, 02A, 02B, 03, 04, 11, 14, 18, 19, SR01	O			O	O	I/O		O	X	I/O								O				O	X			O	
FedEx	SC01, 02A, 02B, 03, 04, 06, 07, 08, 09, 10, 12, 14, 16, 18, 19, SR01, TC01	O	O			O	O		O	O	I/O	O	O	I/O	I/O	X	O		O		O		O	X			O	O
Frontier	SC01, 02A, 02B, 03, 06, 07, 08, 10, 11, 12, 14, 18, 19, SR01	O			O	O	I/O		X		I/O	O	I/O	I/O		X	O		O				O	X			O	
Hawaiian	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 12, 14, 18, 19, SR01	O	O		O	O	X		O	O	I/O	O	I	I		X	O		O				O	X			O	
Japan Airlines	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 10, 11, 12, 18, 19, SR01	O	O		O	O	O	O	O	O	I/O	O	O	I		X	O						O	X			O	

Table Notes:

Industrial Activity Category
SC01 - Non-Storm Water Management
SC02A - Outdoor Equipment Ops and Maintenance Areas
SC02B - Aircraft, Ground Vehicle and Equipment Maintenance
SC02C - Electric Vehicle Maintenance
SC03 - Aircraft, Ground Vehicle and Equipment Fueling
SC04 - Aircraft, Ground Vehicle and Equipment Cleaning
SC05 - Aircraft Deicing/Anti-Icing
SC06 - Outdoor Loading/Unloading of Materials
SC07 - Outdoor/Indoor Material Storage
SC08 - Waste Handling and Disposal
SC09 - Building and Grounds Maintenance
SC10 - Employee Training
SC11 - Lavatory Service Operation

Industrial Activity Category (continued)
SC12 - Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)
SC13 - Fire Fighting Foam Discharge
SC14 - Potable Water System Flushing
SC15 - Runway Rubber Removal
SC16 - Parking Lots
SC17 - Storm Drain Maintenance
SC18 - Housekeeping
SC19 - Safer/Alternative Products
SC20 – Erodible Areas
SC21 – Building Repair & Construction
SR01 - Spill Prevention, Control, and Clean-up
TC01 - Treatment Controls

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Table 7-7. BMPs Applicable to Individual Industrial Sites/Sources (Continued)

TENANTS	SUMMARY OF INDUSTRIAL ACTIVITY CATEGORIES (See Appendix B For Associated BMPs)	AIRCRAFT				VEHICLES AND EQUIPMENT					OTHER																
		Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Aircraft Deicing/Anti-Icing	Lavatory Service Operation	Outdoor Equipment Ops and Maintenance Areas	Aircraft, Ground Vehicle and Equipment Maintenance	Electrical Vehicle Maintenance	Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Non-Storm Water Management	Outdoor Loading/Unloading of Materials	Outdoor/Indoor Material Storage	Waste Handling and Disposal	Building and Grounds Maintenance	Employee Training	Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)	Fire Fighting Foam Discharge	Potable Water System Flushing	Runway Rubber Removal	Parking Lots	Storm Drain Maintenance	Housekeeping	Safer/Alternative Products	Erodible Surfaces	Construction and Remodeling Repair	Spill Prevention, Control, and Clean-up	Treatment Controls
		SC03	SC04	SC05	SC11	SC02A	SC02B	SC02C	SC03	SC04	SC01	SC06	SC07	SC08	SC09	SC10	SC12	SC13	SC14	SC15	SC16	SC17	SC18	SC19	SC20	SC21	SR01	TCO1
JetBlue	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 12, 14, 18, 19, SR01	O	O		O	O	O			O	I/O	O	O	I/O		X	O		O				O	X			O	
Lufthansa (not operating as of January 2022)	SC01, 02A, 02B, 03, 06, 08, 10, 11, 12, 18, SR01	O			O	O	O		O		I/O	O		I/O		X	O						O				O	
Menzies	SC01, 02A, 02B, 03, 04, 06, 07, 08, 09, 10, 12, 16, 18, 19, SR01	O				O	I		O	O	I/O	O	I/O	I	I/O	X	O				O		I/O	X			I/O	
Menzies Fuel Farm	SC01, 02A, 02B, 03, 04 06, 07, 08, 09, 10, 12, 13, 16, 17, 18, 19, SR01, TC01	O				O	O		O	O	I/O	O	I/O	O	I/O	X	O	O			O	O	O	X			O	O
SDCRAA	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 09, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, SR01, TC01				O	O	O	I/O	O	O	I/O	O	I/O	I/O	I/O	X	O			O	O	O	I/O	X	O	I/O	I/O	O
Siemens	SC01, 02B, 02C, 07, 08, 09, 10, 12, 14, 18, 19, SR01						I/O	I/O			I/O		I/O	O	I/O	X	O		O				O	X			I/O	
Signature	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 09, 10, 11, 16, 17, 18, 19, SR01, TC01	O	O		O	O	O	O	O	O	I/O	O	I/O	O	O	X					O	O	O	X			O	O
Southwest	SC01, 02A, 02B, 02C, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 14, 16, 18, 19, SR01	O		O	O	O	I/O	I/O	O	O	I/O	O	I/O	I/O	I/O	X	O		O		O		I/O	X			I/O	

Table Notes:

Industrial Activity Category
SC01 - Non-Storm Water Management
SC02A - Outdoor Equipment Ops and Maintenance Areas
SC02B - Aircraft, Ground Vehicle and Equipment Maintenance
SC02C - Electric Vehicle Maintenance
SC03 - Aircraft, Ground Vehicle and Equipment Fueling
SC04 - Aircraft, Ground Vehicle and Equipment Cleaning
SC05 - Aircraft Deicing/Anti-Icing
SC06 - Outdoor Loading/Unloading of Materials
SC07 - Outdoor/Indoor Material Storage
SC08 - Waste Handling and Disposal
SC09 - Building and Grounds Maintenance
SC10 - Employee Training

Industrial Activity Category (continued)
SC11 - Lavatory Service Operation
SC12 - Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)
SC13 - Fire Fighting Foam Discharge
SC14 - Potable Water System Flushing
SC15 - Runway Rubber Removal
SC16 - Parking Lots
SC17 - Storm Drain Maintenance
SC18 - Housekeeping
SC19 - Safer/Alternative Products
SC20 – Erodible Areas
SC21 – Building Repair & Construction
SR01 - Spill Prevention, Control, and Clean-up
TC01 - Treatment Controls

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Table 7-7. BMPs Applicable to Individual Industrial Sites/Sources (Continued)

TENANTS	SUMMARY OF INDUSTRIAL ACTIVITY CATEGORIES (See Appendix B For Associated BMPs)	AIRCRAFT				VEHICLES AND EQUIPMENT					OTHER															
		Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Aircraft Deicing/Anti-Icing	Lavatory Service Operation	Outdoor Equipment Ops and Maintenance Areas	Aircraft, Ground Vehicle and Equipment Maintenance	Electrical Vehicle Maintenance	Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Non-Storm Water Management	Outdoor Loading/Unloading of Materials	Outdoor/Indoor Material Storage	Waste Handling and Disposal	Building and Grounds Maintenance	Employee Training	Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)	Fire Fighting Foam Discharge	Potable Water System Flushing	Runway Rubber Removal	Parking Lots	Storm Drain Maintenance	Housekeeping	Safer/Alternative Products	Erodible Surfaces	Construction and Remodeling Repair	Spill Prevention, Control, and Clean-up	Treatment Controls
		SC03	SC04	SC05	SC11	SC02A	SC02B	SC02C	SC03	SC04	SC01	SC06	SC07	SC08	SC09	SC10	SC12	SC13	SC14	SC15	SC16	SC17	SC18	SC19	SC20	SC21	SR01	TCO1
Spirit	SC01, 02A, 02B, 02C, 03, 06, 07, 08, 10, 11, 12, 14, 18, 19, SR01	O			O	O	O	O	O		I/O	O	I/O	O		X	O		O				O	X			O	
Sun Country	SC01, 02A, 02B, 03, 06, 07, 08, 10, 11, 12, 18, 19, SR01	O			O	I	I				I/O	O	O	O		X	O						O	X			O	
Swoop	SC01, 02A, 02B, 03, 04, 06, 10, 11, 14, 18, 19, SR01	O	O		O	O	O		O	O	I/O	O				X			O				O	X			O	
United	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 10, 11, 12, 18, 19, SR01	O			O	I/O	I/O	I/O	O	O	I/O	O	I/O	I/O		X	O						I/O	X				
UPS	SC01, 02A, 02B, 03, 04, 06, 07, 08, 09, 10, 11, 12, 16, 18, 19, SR01	O	X		O	O	O		O	X	I/O	I/O	O	O	I/O	X	O						O	X			O	
West Jet	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 14, 18, 19, SR01	O	O		O	O	O			O	I/O	O	O	I		X			O				O	O			O	

Table Notes:

Industrial Activity Category
SC01 - Non-Storm Water Management
SC02A - Outdoor Equipment Ops and Maintenance Areas
SC02B - Aircraft, Ground Vehicle and Equipment Maintenance
SC02C - Electric Vehicle Maintenance
SC03 - Aircraft, Ground Vehicle and Equipment Fueling
SC04 - Aircraft, Ground Vehicle and Equipment Cleaning
SC05 - Aircraft Deicing/Anti-Icing
SC06 - Outdoor Loading/Unloading of Materials
SC07 - Outdoor/Indoor Material Storage
SC08 - Waste Handling and Disposal
SC09 - Building and Grounds Maintenance
SC10 - Employee Training
SC11 - Lavatory Service Operation

Industrial Activity Category (continued)
SC12 - Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)
SC13 - Fire Fighting Foam Discharge
SC14 - Potable Water System Flushing
SC15 - Runway Rubber Removal
SC16 - Parking Lots
SC17 - Storm Drain Maintenance
SC18 - Housekeeping
SC19 - Safer/Alternative Products
SC20 – Erodible Areas
SC21 – Building Repair & Construction
SR01 - Spill Prevention, Control, and Clean-up
TC01 - Treatment Controls

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Table 7-8. Minimum BMPs Implemented at SAN

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Good Housekeeping	Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly.	SC-01: Non-Storm Water Management SC-02A: Outdoor Equipment Ops and Maintenance Areas SC-07: Outdoor/Indoor Material Storage SC-09: Building and Grounds Maintenance SC-15: Runway Rubber Removal SC-16: Parking Lots SC-17: Storm Drain Maintenance SC-18: Housekeeping SC-19: Safer/Alternative Products
	Minimize or prevent material tracking.	SC-18: Housekeeping SC-20: Erodible Areas SC-21: Building Repair and Construction
	Minimize dust generated from industrial materials or activities.	SC-20: Erodible Areas SC-21: Building Repair and Construction
	Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible.	SC-12: Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing) SC-18: Housekeeping
	Cover all stored industrial materials that can be readily mobilized by contact with storm water.	SC-07: Outdoor/Indoor Material Storage SC-18: Housekeeping
	Contain all stored non-solid industrial materials or waste (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water.	SC-12: Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing) SC-18: Housekeeping
	Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system.	SC-07: Outdoor/Indoor Material Storage SC-09: Building and Grounds Maintenance SC-12: Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing) SC-17: Storm Drain Maintenance SC-18: Housekeeping
	Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility.	SC-01: Non-Storm Water Management SC-02A: Outdoor Equipment Ops and Maintenance Areas SC-17: Storm Drain Maintenance

Table 7-8. Minimum BMPs Implemented at SAN (continued)

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Preventative Maintenance	Identify all equipment and systems used outdoors that may spill or leak pollutants.	SC-02A: Outdoor Equipment Ops and Maintenance Areas SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
	Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks.	SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
	Establish an appropriate schedule for maintenance of identified equipment and systems.	SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
	Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.	SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
Spill and Leak Prevention and Response	Establish procedures and/or controls to minimize spills and leaks.	SC-03: Aircraft, Ground, and Equipment Fueling SC-04: Aircraft, Ground, and Equipment Cleaning SC-10: Employee Training SC-11: Lavatory Service Operation SR-01: Spill Prevention, Control, and Clean-up
	Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials shall be cleaned promptly and disposed of properly.	SC-03: Aircraft, Ground, and Equipment Fueling SC-04: Aircraft, Ground, and Equipment Cleaning SC-11: Lavatory Service Operation SR-01: Spill Prevention, Control, and Clean-up
	Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures.	SR-01: Spill Prevention, Control, and Clean-up
	Identify and train appropriate spill and leak response personnel.	SR-01: Spill Prevention, Control, and Clean-up SC-10: Employee Training

Table 7-8. Minimum BMPs Implemented at SAN (continued)

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Material Handling and Waste Management	Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event.	SC-05: Aircraft Deicing/Anti-Icing SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation
	Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water.	SC-05: Aircraft Deicing/Anti-Icing SC-06: Outdoor Loading/Unloading of Materials SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation SC-13: Fire Fighting Foam Discharge
	Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use.	SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation
	Divert run-on and storm water generated from within the facility away from all stockpiled materials.	SC-05: Aircraft Deicing/Anti-Icing SC-06: Outdoor Loading/Unloading of Materials SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-13: Fire Fighting Foam Discharge SC-14: Potable Water System Flushing
	Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures (Section X.H.1.c).	SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation
	Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.	SC-08: Waste Handling and Disposal
Erosion and Sediment Controls	Implement effective wind erosion controls.	SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event.	SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site.	SC-01: Non-Storm Water Management SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	Divert run-on and storm water generated from within the facility away from all erodible materials.	SC-01: Non-Storm Water Management SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	If sediment basins are implemented, ensure compliance with the design storm standards.	SC-21: Building Repair and Construction

Table 7-8. Minimum BMPs Implemented at SAN (continued)

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Employee Training Program	Ensure that all team members implementing the various compliance activities of this General Permit are properly trained to implement this General Permit requirements, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP.	SC-10: Employee Training
	Prepare or acquire appropriate training manuals or training materials.	SC-10: Employee Training
	Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive.	SC-10: Employee Training
	Provide a training schedule.	SC-10: Employee Training
	Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.	SC-10: Employee Training
Quality Assurance and Record Keeping	Develop and implement management procedures to ensure that appropriate staff implement all elements of the SWPPP, including the Monitoring Implementation Plan.	SC-10: Employee Training
	Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP.	SC-10: Employee Training SC-12: Outdoor Washdown/Sweeping (Apron SC-16: Parking Lots SC-17: Storm Drain Maintenance
	Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years.	SC-10: Employee Training

ADVANCED BMPS

In addition to the minimum BMPs described above, the Authority implements several advanced BMPs to further prevent the discharge of pollutants in its storm water discharge. The advanced BMPs include exposure minimization and treatment control BMPs.

Exposure Minimization BMPs

Exposure minimization BMPs include storm-resistant shelters that prevent storm water contact with industrial materials or activities. Basins 3, 5a, and 6 contain permanent storm resistant shelters for vehicle and equipment maintenance and operations. Basins 3, 5, 5a, 6, 8, 12, and 15 contain fire-resistant cabinets, roll-top containers, storage sheds, and other storm resistant shelters for outdoor materials storage. Figures 3 and 5-7 show the locations of these shelters.

Storm Water Containment and Discharge Reduction BMPs

These BMPs include any that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. During the recent Green Build expansion of Terminal 2, artificial turf was added in Drainage Basin 15, near the RON parking lot, as well as porous pavement in that area to infiltrate runoff. Porous pavement and eight infiltration basins below permeable surfaces and asphalt strips were also installed as part of the Signature FBO construction. Twelve modular wetland systems are installed in the SANPark 2 parking lot on the north side of the runway. A three-million gallon cistern was installed to capture stormwater runoff. This cistern is currently connected to the storm drains near the FMD Building and will eventually be connected to the RCC to capture and reuse the water used at the wash bays. An underground infiltration basin with the capacity for 35,273 ft^3 of runoff was constructed under the ASB. Additionally, air conditioning condensate is captured in basins 8, 12 and 15 and reused in power washing activities.

Treatment Control BMPs

Treatment control BMPs include mechanical, chemical, and biological systems that are utilized to reduce pollutants in storm water. Existing treatment control BMPs include: 11 OWS, 4 Contech StormFilters, 1 Contech Jellyfish Filter, 2 curb inlet boxes and 2 drop inlet filters, 2 Bio Clean Round Curb Inlet Skimmer Boxes, 6 Bio Clean Grate Inlet Skimmer Boxes, 28 ClearWater High-Rate Media Filters, 1 Bio Clean Water Polisher, 3 trench drain filters, 8 subsurface infiltration basins, 1 infiltration trench, 12 permeable surface locations, 3 hydrodynamic separators, 16 Modular Wetland Systems, 12 biofiltration areas, 1 underground detention basin, 1 artificial turf infiltration, 22 REM Triton Inlet Filters, 1 HFF Oil Stop Valve, 1 cistern, 1 Oldcastle/Kristar Perkfilter Unit, 5 CleanWay MetalZorbs, 4 activated alumina filter bags including three as trench drain filters, and 2 biochar boom. These treatment control BMPs were selected, designed, and implemented per Appendix C of this SWMP or as part of the ERA implementation for NAL exceedances. Any new treatment control BMPs will comply with the Industrial General Permit design storm standards as follows:

- Volume-based BMPs: The Authority, at a minimum, shall calculate the volume to be treated using one of the following methods:
  - The volume of runoff produced from an 85th percentile 24-hour storm event, as determined from local, historical rainfall records;
  - The volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice; or
  - The volume of annual runoff required to achieve 80% or more treatment determined according to the methodology set forth in the latest edition of the CASQA Storm Water BMPs Handbook, using local, historical rainfall records.

- Flow-based BMPs: The Authority shall calculate the flow needed to be treated using one of the following methods:
  - The maximum flow rate of runoff produced from a rainfall intensity of at least 0.2 inches per hour for each hour of a storm event;
  - The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or
  - The maximum flow rate of runoff, as determined using local historical rainfall records, achieves approximately the same reduction in total pollutant loads as would be achieved by treating the 85th percentile hourly rainfall intensity multiplied by a factor of two.

More information on treatment control BMPs is provided in Section 6.2 of the SWMP and Appendix C. Figures 3 and 5-7, and Appendix B, Figure TC-01, show these systems' locations. Appendix C was updated in February 2016, in accordance with the Municipal Permit.

POLLUTION PREVENTION PROGRAMS

Regular Power Washing

Outdoor tenant operational areas that are regularly cleaned by power washing include the concrete pad at the RFF and several cargo ramp areas. The airport janitorial services provider also regularly power washes the sidewalks in front of the terminals, the trash compactor areas near the terminals, the loading/unloading dock at the western end of Terminal 2 West, and the grease trap areas operated by the food service provider. Power washing is performed between 11pm and 4am. The janitorial services provider uses recovered air conditioning condensate instead of potable water for power washing. This water is collected into 55-gallon drums and, once full, the drums are transferred to the power washing reservoirs.

In 2021, approximately 58,440 gallons of condensate were recovered and used. The pressure washers used are equipped with a water recollection and filtration system. They are designed to collect all residual water, filter, recycle, and reuse the water throughout the equipment's operation. Before starting the pressure washing operation, janitorial staff locate all storm drain inlets and cover the areas with berms or mats. They then remove and sweep all trash, debris and cigarette butts. Next, staff will determine the path that the water will run and will funnel the water using berms and bags into the vacuum/reclaim system. Once the job is complete, the wash water is vacuumed up, hoses are drained into the sanitary sewage system or airport wash rack, and equipment is cleaned. The concrete pad at the RFF is steam cleaned, and the discharge enters the 12,000-gallon underground wastewater tank, which is serviced as needed and at least annually. Those tenants power washing the cargo ramp areas either perform the work themselves or contract for the service. All power washing is conducted in accordance with the BMPs described in Section 7.7.3.1.

Ramp Sweeping

The Authority FMD sweeps the aircraft gate and ramp (apron) areas three to four days a week during evening hours. Using mechanical sweeping equipment utilizing regenerative air technology, the program is directed mainly at removing FOD, but it also removes sediment, particulate matter, and other pollutants. The schedule allows sweeping of each gate area approximately every other month; some areas are swept more frequently upon request. Perimeter roads and taxiways are swept at least once per week. The debris/sweepings are vacuumed up into the unit and are disposed of in a lowboy container located in the northern portion of Drainage Basin 6. All sweeping is conducted in accordance with the BMPs described in Section 7.7.3.1.

Ramp Scrubbing

The janitorial services provider performs ramp scrubbing as needed, at a minimum of once every six months, using 3,500 psi industrial pavement washers. A biodegradable waxy soap, specifically made for oil removal, is used during the procedure. The soap is stored in two 100-gallon plastic containers on wooden pallets,

under cover, at Terminal 2 West. The wash water is vacuumed up and collected by the Authority's environmental contractor, who filters and reuses the water. The north ramp/cargo areas near the control tower are scrubbed when tenants request it or as needed. The janitorial services provider recently acquired a pressure washing truck for ramp scrubbing. This truck is equipped with a vacuum water reclamation system, a series of two drums for solids and grease removal, and four filters to filter water for direct reuse. The FMD also contracts for a professional concrete cleaning company to conduct large-scale ramp scrubbing operations to thoroughly clean ramp and apron areas once per year or as needed.

Runway Rubber Removal

A professional company conducts runway rubber removal under contract to the Authority. An all-in-one system is used that uses either high-pressure water or a chemical rubber removal solution and scrubbing action followed by a rinse(s). Both systems vacuum up the rubber and any residual liquids. Runway rubber removal is performed as warranted by runway friction (skidometer) testing, which tends to be every 6-8 weeks. Runway rubber removal is conducted on average every 8 weeks due to reduced operations during Covid-19 pandemic but will return to a 6-8 week schedule once normal operations resume. The waste rubber is disposed of in a lined rubber removal lowboy (dumpster), east of the ATCT. A contractor is responsible for disposal of the waste and waste water generated.

7.8 PROGRAM IMPLEMENTATION

The Authority has identified those updated BMPs applicable to industrial activities at SAN (Table 7-6 and Appendix B) and identified those BMPs applicable to individual tenants and the Authority (Table 7-7 and Appendix E). Tenants and Authority departments are required to adopt applicable BMPs, when necessary, as new activities are added or existing activities change. BMPs or elements of BMPs requiring major operational and/or structural modifications must be implemented in a timely manner. New BMP requirements will be incorporated into any SWMP updates, as required by both the Industrial Permit and Municipal Permit.

All tenants and Authority departments (with storm water management responsibilities) maintain current, up-to-date copies of the SWMP in either hard-copy or electronic copy, or have immediate access to the SWMP via the internet. The Tenant Summary Sheets in Appendix E list the contact information for each tenant. Tenants are required to notify the Authority P&EAD at least annually regarding any need to update or modify the SWMP. All industrial tenants should be knowledgeable of the BMPs required for use by the Authority to address their individual operations and activities (see Tables 7-6 and 7-7, and Appendix B and E, respectively).

The specific elements of the Authority's industrial storm water management activities are presented in Sections 7.8.1 through 7.8.5.

7.8.1 EDUCATION AND OUTREACH

Details on education and outreach programs for Authority staff, tenants, and the general public related to industrial activities are provided in Section 9.0 of the SWMP presented in Attachment 1.

7.8.2 STAFF TRAINING

All Authority staff members are provided annual SWMP implementation training regarding topics such as prohibited discharges, BMP requirements, good housekeeping, inspections, spill response, and recordkeeping procedures. Authority staff training is mandatory. Additional details on staff training are in Section 9.0 of the SWMP (presented in Attachment 1 of the SWPPP).

7.8.3 WET WEATHER SAMPLING AND ANALYSIS

The Authority is required to collect and analyze storm water samples from four QSEs each year. A QSE is defined as a storm producing discharge from at least one drainage area and preceded by at least 48 hours with no discharge from any drainage area. The samples will be collected according to the following timeline:

- Two QSEs during the first half of each reporting year (July 1 through December 31); and
- Two QSEs during the second half of each reporting year (January 1 through June 30).

Samples will be collected within the first 4 hours after the start of discharge.

The details of the industrial compliance monitoring are provided in Appendix D-1, the Monitoring Implementation Plan.

7.8.4 FACILITY INSPECTIONS

Generally, the Authority staff and industrial tenants inspect their operating and storage areas either daily or as part of their own routine facility inspections. Tenants are encouraged to request the assistance of the Authority FMD for any cleaning that cannot be addressed by their own efforts (in response to lease obligations) or that are not being addressed by the Authority's regularly scheduled ramp-sweeping or ramp-scrubbing programs. The Authority Airside & Terminals Operations Department staff also inspect the terminals, ramps, runway, and the FBO continuously during operating hours (and are generally available 24 hours per day).

Any inspections specifically required by either the Municipal Permit or the Industrial Permit will be conducted by the Authority P&EAD, as discussed below. The Authority may choose to require tenants and/or other Authority staff to conduct inspections that might complement the permit-required inspection program and further ensure that BMPs are being properly implemented. The Authority recommends that tenants conduct at least semi-annual inspections of their activities and operational areas and that they maintain records of these inspections as further means to ensure that BMPs are being properly implemented. Inspection records should be retained for at least five years.

7.8.4.1 Municipal Permit Inspection Requirements

The Authority is required to conduct inspections of industrial activities/operations/facilities to monitor compliance with the Municipal Permit, as well as the Authority's ordinances, permits, and approvals. The Municipal Permit (Provisions D.3.b.(3)(b) and D.3.b.(3)(c)) outlines procedures for determining the number of high-priority industrial sites that must be inspected in any given year of program implementation under the renewed Municipal Permit. Nevertheless, the Authority has determined that all industrial entities at SAN are considered high priority (as noted in Section 7.7.3.1) and each one will be inspected at least monthly. These inspections will be coordinated with inspections for the Industrial Permit (described below).

7.8.4.2 Industrial Permit Inspection Requirements

The Industrial Permit requires the Authority to conduct an inspection program to ensure that the BMPs being implemented are evaluated and revised to meet changing conditions, aid in the implementation and revision of the SWMP, and measure the effectiveness of BMPs to prevent or reduce pollutants in storm water discharges and authorized NSWDs, and identify additional BMP needs. The inspections must be recorded and the program revised whenever appropriate. Inspections are readily available for Authority staff and tenants' review via the Authority's Web-based database. The Industrial Permit inspection requirements include the following:

- Monthly dry weather visual observations.

- Sampling event visual observations to coincide with storm water sampling.
  - Two observations between July 1 and December 31; and
  - Two observations between January 1 and June 30.
- Annual Evaluation (addressed in Section 7.10.1).

Monthly Dry Weather Discharge Visual Observations: The Authority's P&EAD conducts monthly inspections of SAN to observe authorized NSWDs and their sources and to verify that BMPs required to control those authorized discharges are being properly implemented and are effective. The Authority also conducts monthly visual observations of all drainage areas to identify any prior, current, or potential illicit discharges and their sources. Authority staff evaluate authorized NSWDs to ensure that (1) they comply with the Industrial Permit and the Municipal Permit; (2) required BMPs are effective in preventing or reducing the contact of NSWDs with industrial materials or equipment and to minimize, to the MEP, the flow or volume of discharges; (3) NSWDs do not contain or transport significant quantities of pollutants that cause or contribute to an exceedance of a water quality standard; (4) they comply with the Authority's Storm Water Code and Rules and Regulations; and (5) they meet BAT/BCT standards. The monthly inspections also verify the list of potential pollutants at the industrial sites/sources and identify any necessary modifications to the SWMP.

The monthly observations are conducted during daylight hours on days with no storm water discharges. The observations are conducted at least once per calendar month. Each year, at least one of the monthly inspections becomes the Annual Evaluation discussed below. The observations document the presence of any uncharacteristic volumes, discolorations, stains, odors, floating material, etc., as well as the source of any discharge. Records of the observations, including date, location, description of observations, and response taken to eliminate unauthorized NSWDs, to reduce or prevent pollutants from contacting NSWDs, and BMP corrective actions needed, are maintained by the Authority P&EAD via its Web-based database, as described below.

Sampling Event Visual Observations: The Authority's P&EAD conducts visual observations of storm water discharges at all storm water monitoring locations at the same time that sampling occurs at those discharge locations. Two such observations take place between July 1 and December 31 and two observations take place between January 1 and June 30 of each year. Visual observations are not required during dangerous weather conditions, such as electrical storms or flooding. During observations, the Authority documents the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, trash, or debris, and the source of any pollutant observed. If the presence of pollutants is observed, efforts will be made to identify the source of the pollutants. The investigation will begin at the sampling location and continue upstream through the drainage basin until the pollutant source is located, if possible. Once the source is located, the Authority will direct that the responsible party takes corrective actions to reduce or prevent pollutants from contacting storm water discharge. Visual observations of stored or contained storm water, such as at the FSF, are conducted at the time of release. Containment areas are checked monthly to detect leaks and ensure adequate freeboard maintenance. The SWMP will be revised, if necessary, in response to any issues identified during the sampling event visual observations.

Annual Evaluations: One Annual Evaluation is conducted in each reporting year, as required by Industrial Permit Section XV. The procedures for Annual Evaluations are discussed in Section 7.10.1, below.

7.8.4.3 Formal Inspection Procedures for Industrial Sites and Sources

Formal inspections of industrial sites and sources by the Authority's P&EAD staff generally include a review of the following information, to the extent the information exists: (1) any SWPPPs or BMP implementation plans; (2) any relevant monitoring data; (3) any self-inspection records; and (4) any previous inspection reports. The inspection generally involves an assessment of: (1) compliance with the SWMP and the Authority's ordinances and permits related to urban runoff; (2) existing BMP requirements and the

adequacy of BMP implementation, BMP maintenance and effectiveness, and the site supervisor/manager's efforts to make appropriate adjustments when ineffective BMPs have been identified; (3) confirmation of no exposure for all drainage areas previously identified as having no exposure to industrial activities; and (4) visual observations for illicit discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff. The inspection also presents an opportunity to provide education and training regarding storm water pollution prevention. There are four basics steps in the Authority's facility/site inspection procedures: initiation, preparation, site visit, and post-inspection activities.

Step 1: Initiation: The inspection is typically initiated in response to a schedule, a public report or complaint, or an illicit discharge investigation, or as follow-up to a previous inspection, violation, or other enforcement action. The inspector typically conducts a complete inspection of the entire facility/site, regardless of the initiating circumstances. However, the inspectors may choose to focus on specific issues that were previously identified or the reason for the inspection initiation.

Step 2: Pre-Inspection Preparation: Prior to visiting a facility/site, the inspector reviews any of the available information noted above and reviews the Authority's Web-based database which tailors the inspection form (found in Appendix G) to each particular tenant or facility. Using maps and other sources, the inspector familiarizes themselves with general site location and vicinity, including proximity to storm drain inlets. The inspector also gathers needed equipment, i.e. an iPad, tablet, or smart phone to access the Web-based database and to record the inspection, a camera, and pertinent documents or information not available in the database or internet, maps, and any other required equipment.

Step 3: The Site Visit: The inspector begins assessing site conditions upon approach to the facility/site. Depending upon circumstances and availability, the inspector may begin by interviewing the facility/site operator or other responsible individual. The inspector then verifies/clarifies observations made upon approaching the facility/site and identifies and evaluates the BMP requirements applicable to the site/activity, as well as the effectiveness of the BMPs being implemented. If responsible individuals are available, the inspector will ensure that the contact information and BMP requirements on record are accurate and will discuss how various BMP requirements are being met (especially if requisite BMPs have been incorporated into the operations and activities in a manner that may not be obvious). The inspector typically asks to see any existing pollution prevention plans, records, or environmental management system documentation not previously gathered or available. While conducting a walkthrough of the facility/site, the inspector notes those industrial/commercial areas and activities that are exposed to precipitation (potentially increasing the risk of pollutants entering the storm drain system). Areas of storm water run-on and runoff are also noted. The inspector uses the walkthrough to assess the accuracy of site maps, descriptions of the areas and activities, and lists of materials on site; the effectiveness of the BMPs being implemented; and any evidence of potential or existing illegal discharges. The inspection is documented on the Web-based database, as outlined below. The inspection is acknowledged by both the inspector and the responsible individual (or designee) for the facility/site, in a back and forth communication on any issues requiring corrective actions.

Step 4: Post-Inspection Activities: After the inspection, the inspector ensures that actions are taken to address any immediate concerns; updates the Authority's records, as necessary; completes the inspection via the Authority's Web-based tracking application and ensures that a copy is issued to the responsible party; issues corrective action or enforcement orders to the responsible party via the Web-based database, as necessary; schedules follow-up inspections, as needed; and makes reports or referrals, as needed, to the appropriate departments or agencies.

7.8.4.4 Inspection Tracking and Records

The Authority's P&EAD conducts various inspections at SAN to maintain and ensure compliance with both the Industrial Permit and the Municipal Permit. The various inspection programs were outlined above. The inspections are documented within the Authority's Web-based database. Inspection reports and/or

summaries, as appropriate, are included in the Annual Reports required by the Industrial Permit and Municipal Permit. The inspection forms used for each of the various inspection programs are presented in Appendix G.

The Authority generally conducts all inspections using the Web-based database in real time. However, the Authority may utilize the following inspection forms generated by the CASQA if the database is not available:

- Form 1 – BMP Inspection Form;
- Form 2 – Visual Observation Log—Monthly; and
- Form 3 – Visual Observation Log—Sampling Event.

[Note – Appendix G also includes CASQA Form 4 – Sampling Log, which is used to present the wet weather sampling and analysis results. The wet weather sampling and analysis performed by the Authority in compliance with the Industrial Permit is discussed in Appendix D-1 of this SWMP.]

Alternatively, the inspections may be recorded directly in the Web-based database, the application developed for the Authority P&EAD to track and manage the storm water management program data. The Web-based database can be used to document BMP deficiencies for each tenant during monthly, annual, or ad hoc inspections. It can also be used as a platform to correspond with tenants on inspection issues, view records on inspection history, and access storm water reference material.

Both the inspection forms and the Web-based database incorporate the minimum required inspection tracking information per Industrial Permit Section XI.A.3 and Municipal Permit Provision E.5.c(3). This includes the inspector's name, name and location of each inspected entity, inspection date and time, findings of the inspection, description of any deficiencies, violations or pollutants observed, a description of any applicable enforcement actions, and date of resolution for each deficiency or violation. Any SWPPP revisions required in response to the visual observations will be implemented by the P&EAD.

7.8.4.5 Owner Operator Notifications

One objective of the SAN SWMP is to notify all industrial sites/sources at SAN, whether operated by tenants or the Authority, of the BMP requirements deemed applicable to each site/source by the Authority. As noted above, all tenants and Authority departments (with storm water management responsibilities) are provided and maintain current, up-to-date copies of the SWMP in either hard-copy or electronic copy or have immediate access to the SWMP via the internet. BMP descriptions are also provided to all tenants in the Web-based database.

Notification of BMP deficiencies will be conveyed via the Web-based database. When an inspection or audit of a tenant area is complete, an authority inspector will upload the inspection results, including text and photos, into the Web-based database. An email is then generated by the Web-based database and sent to the tenant. The tenant is then provided with the opportunity to enter a resolution for each deficiency identified. The inspector then reviews the resolution for completeness and either approves or denies the action. Enforcement measures for issues that cannot be resolved in a timely fashion are addressed in Section 7.8.4.6.

7.8.4.6 Enforcement Measures

This section describes the ERP as it applies to industrial 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.

All industrial tenants operating within the Authority's jurisdiction are required to maintain compliance with the Authority Rules and Regulations, Storm Water Code (Article 8), SWMP, the Industrial Permit, the Municipal Permit, and contracts and leases. Any findings or violations noted during a site inspection by the P&EAD inspector will be discussed on site or via the Web-based database with the Authority employee or tenants. A corrective action form may also be used to document the problem and its resolution. The P&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 within 14 days to the Authority's Web-based database or prior to the next predicted rain event, whichever is sooner. Escalated enforcement mechanisms can be enforced if corrective action is not completed within 30 days. 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 P&EAD inspector and a suggested timeframe for completion within 30 days of the initial inspection, which the P&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 P&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. P&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) Order to cease and desist (stop work orders);
5) Fines;
6) Denial or revocation of permits and approvals;
7) Administrative and criminal penalties;
8) Bonding requirements; and
9) Liens.

The Authority's ERP for industrial dischargers has two main levels of enforcement, with escalating enforcement measures utilized as necessary on a case by case basis, using the Authority inspector's professional judgment. The Authority has the discretion to initiate or escalate enforcement using any enforcement mechanism available, depending on the nature of the violation or discharge, the effect on water quality, and the degree of cooperation or response time of responsible parties. Further information on the Authority's enforcement activities is provided in Section 2.3 of the SWMP. The general escalated 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. The issues will be documented in the Web-based database so that the responsible party and interested parties are notified of the violation. The responsible party can then notify the inspector via the Web-based database when

the corrective action has been completed. Corrective actions are expected to be completed within 30 days. Photos of the corrective action should be uploaded to the web-based database within 30 days, or the agreed upon timeframe, if longer. The web-based data generates a date associated with each photo, which reflect the photo's upload date. If the finding is not corrected after the first reinspection, a notice of violation is issued to escalate enforcement, which may include an order to clean, test, or abate. Upon the second reinspection, if the finding is still not corrected the issues will be directed to Airline Relations for escalated enforcement.

- Enforcement Level 2 is initiated when the noncompliant activity or violation may impact water quality, human health, or the environment (i.e., prohibited discharge). A written notice to clean, test, or abate, and/or a CDO is used to initiate enforcement and compliance is expected within 24 hours. If a CDO is issued, the recipient must cease and desist all activities that cause or contribute to illegal discharges or remove illicit connections. A notice and order to clean, test, and abate is a written or verbal order to perform the activities listed in the Authority's Storm Water Code. If the violation is not corrected Airline Relations will be notified for escalated enforcement. Penalties and fines may be issued if the notice to clean, test, or abate and/or the CDO are ineffective and the violation continues. Additionally, the Authority or tenants may be subject to a meeting with the Director of the P&EAD to discuss the reasons for failing to comply and the means of resolving the issue.

If the non-compliance resulted in a spill or discharge, the party responsible for the discharge is responsible for conducting cleanup measures appropriate to the degree of the spill or discharge, or if needed, for contacting the appropriate emergency response or cleanup contractor.

Contractors and developers are required to abide by the Authority documents, permits, rules, and regulations while working within airport operational areas. The Authority may use provisions within the contract to correct any non-compliant activities. The Authority may also employ this mechanism for tenants that are under lease or use permits.

7.8.4.7 Reporting of Industrial Non-Filers and Incidents of Noncompliance

REPORTING OF INDUSTRIAL NON-FILERS

Per Municipal Permit Provision E.6.e(2), the Authority is required to report any persons required to obtain coverage under the Industrial Permit and failing to do so, within five calendar days of becoming aware of the non-filer. As noted in Section 1.0 of the SWMP, the industrial operations at SAN have been subject to the Industrial Permit since 1992. At that time, the Port of San Diego filed a NOI with the permit that included all the industrial entities at SAN. Since then, ownership and operation of SAN was transferred from the Port of San Diego to the Authority, and the Port of San Diego filed a Notice of Termination from permit compliance and listed the Authority as the new facility operator for SAN. In March 2003, the Authority filed a NOI to comply with the Industrial Permit and listed the site's primary SIC code as 4500 Air Transportation. In response, the SWRCB issued WDID #937I018035 to SAN. In August 2003, the Authority prepared the SAN SWMP to comply, in part, with the Industrial Permit. As was true at the time that the Port of San Diego operated the airport, all airport tenants operate under lease or license agreement with the airport owner/operator, which is currently the Authority. As a result, industrial operations and tenants at SAN are also subject to the requirements of the Industrial Permit and must comply with the Authority direction regarding storm water management at SAN, as described in Section 7.2.

Incidents of Noncompliance

The Authority may issue a written enforcement notice for repeat or serious noncompliance incidents. If an incident or practice of noncompliance occurs, P&EAD staff will then determine whether the incident endangers human health or the environment by considering the following criteria:

- Characteristics, quantity, and toxicity of substances/materials involved;
- Proximity of site to a sensitive water body (San Diego Bay);

- Proximity of site to an impaired water body (San Diego Bay);
- Proximity of site to a sensitive habitat/endangered species;
- Estimated volume of actual and/or potential discharge;
- Whether the incident involves a discharge to the storm drain; and
- Condition of the storm drain system (clog, etc.).

If the Authority determines that the incident does endanger human health or the environment, then the Authority will provide verbal notification to the RWQCB within 24 hours from the time that the Authority becomes aware of the circumstances. Within five days from the time that the Authority becomes aware of the circumstances, the Authority will provide the RWQCB with a written submission containing a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following will be reported within 24 hours:

- Any unanticipated bypass that exceeds any effluent limitation in the Municipal Permit;
- Any upset which exceeds any effluent limitation in the Municipal Permit; and
- Violation of a maximum daily discharge limitation for any or the pollutants listed by the RWQCB in the Municipal Permit to be reported within 24 hours.

In addition, under the Industrial Permit, incidents of noncompliance are grounds for enforcement actions and /or removal from Industrial Permit coverage. If any storm water or NSWDs exceed the discharge prohibitions, effluent limitations, or receiving water limitations specified in the Industrial Permit, or exceed any applicable water quality standards in the SWRCB or RWQCB Basin Plans, the facility is not in compliance. Should such a situation arise, the Authority will submit a report to the RWQCB within 60 days describing BMPs currently being implemented and additional BMPs that will be implemented, with a schedule of implementation, to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. Following approval of the report by the RWQCB, the Authority will revise and implement this SWMP and monitoring program, as necessary, within 90 days to incorporate any additional BMPs that may have been and/or will be implemented (including a schedule for implementation) and any additional monitoring requirements. Any anticipated noncompliance, such as a planned change at the airport facility that will change the nature or increase the amount of pollutants discharged, will be reported to the RWQCB. Any noncompliances will be reported in the monitoring report discussed below, and will include a description of the noncompliance and its cause, the date and time of the noncompliance and whether it has been corrected, and the steps taken or planned to reduce and prevent a recurrence of the noncompliance.

7.9 EXCEEDANCE RESPONSE ACTIONS

The Industrial Permit establishes NALs for certain pollutants (described in Appendix D-1). Under the Industrial Permit, all industrial dischargers are in baseline compliance status for the first year of implementation. If the pollutant levels are found to exceed either an annual NAL or an instantaneous NAL in a given year, this baseline status will change to Level 1 beginning July 1 of the subsequent year. The actions required under Level 1 status are described in Section 7.9.1. If pollutant levels are found to exceed an annual or instantaneous NAL while in Level 1 status, it will enter Level 2 status beginning July 1 of the subsequent year. The actions required under Level 2 status are described in Section 7.9.2. The exceedance response level is pollutant-specific, meaning that the Authority may fall under Baseline, Level 1, and Level 2 status for different pollutants within the same reporting year.

The Authority is required to implement water quality-based corrective actions if industrial discharges and/or NSWDs are found to be in violation of receiving water limitations in San Diego Bay. These required actions are summarized in Section 7.9.3.

7.9.1 LEVEL 1 EXCEEDANCE RESPONSE ACTIONS

The Authority started in baseline status for all pollutants for the 2015-2016 reporting year. However, by the end of the 2015-2016 reporting period, sampling results indicated an NAL exceedance for copper and the Authority entered Level 1 status for that parameter beginning July 1, 2016. By the end of the 2016-2017 reporting period, sampling results indicated NAL exceedances for copper and zinc. Subsequently, the Authority entered Level 1 status for zinc and Level 2 status for copper, beginning July 1, 2017.

By the end of the 2017-2018 reporting period, sampling results indicated NAL exceedances for copper, zinc, BOD, and chemical oxygen demand (COD). Subsequently, the Authority entered Level 1 status for COD and BOD, and Level 2 status for zinc beginning July 1, 2018, while continuing to remain in Level 2 status for copper. In February 2019, the RWQCB granted the request for an extension of the Level 2 Technical Report for Copper and Zinc to December 31, 2022. Therefore, both copper and zinc will remain in Level 2 until the Technical Report has been submitted, approved by the RWQCB, and results from four subsequent consecutive QSEs sampled indicate no additional NAL exceedances.

By the end of the 2018-2019 reporting period, sampling results indicated NAL exceedances for copper but no additional NAL exceedances for zinc, BOD, or COD. According to the IGP, results from four (4) consecutive QSEs sampled subsequent to BMP implementation must indicate no additional NAL exceedances to return to baseline from Level 1. BMPs for BOD and COD were implemented on December 31, 2018 and four QSEs were subsequently sampled in 2019, with no further NAL exceedances. As such, BOD and COD returned to baseline after the fourth QSE sampled indicated no NAL exceedances.

Similar to the monitoring year 2018-2019, by the end of the 2019-2020 reporting period, sampling results indicted NAL exceedances for copper but no additional NAL exceedances for zinc, BOD, or COD. However, zinc will remain in Level 2 until the ERA Level 2 Technical Report extension requirements are completed. COD and BOD concentrations were below the NAL for three storms in 2018-2019 and the consecutive first storm of the 2019-2020 monitoring season, returning them to baseline.

In the 2020–2021 monitoring season there was a NAL exceedance for mean concentration of iron, which brings it to Level 1 status. Although no NAL exceedances for mean concentrations of zinc, zinc remains in Level 2 until the ERA Level 2 Technical Report extension requirements are completed. There was an NAL exceedance for mean concentration of copper during the 2020-2021 monitoring season, which maintains Level 2 status for copper. The 2020–2021 monitoring season experienced a season total of approximately 4.51 inches of rain, considerably lower than the annual average of 10 inches per year.

The Industrial Permit requires that by October 1, following commencement of Level 1 status, the Authority must have completed an evaluation, with the assistance of a QISP, of the industrial pollutant sources at SAN that are or may be contributing to the exceedance. The evaluation must also identify the corresponding BMPs and any additional BMPs that may be necessary to prevent future NAL exceedances to comply with the Industrial Permit. All drainage areas must be included in this evaluation.

The site evaluation for the copper NAL exceedance was conducted on September 23 and 28, 2016. As a result of the evaluation, three new BMPs were created and two existing BMPs were modified. The new BMPs include SC09-08: repair damaged asphalt, SC09-09: prevent rain from contacting galvanized or rusty metals, and SC12-12: scrub roads, ramp areas, and apron areas as needed. The language for the BMP SC02B-10 was modified to include the word removal in the following description: mechanical parts, equipment, and vehicles that are awaiting repair/removal under cover and away from storm drains. The BMP SC07-01 was modified to include equipment in the following description: locate storage and equipment

away from storm drains. In addition, some sampling locations were changed as a result of the site evaluation to more accurately reflect the activities for which the Authority is sampling. In a further attempt to decrease copper concentrations, ERA training was given in November 2016 to tenant employees working in areas where copper levels were found to be elevated, and treatment control BMPs were implemented, where possible, in areas with elevated copper levels.

The site evaluation for the copper and zinc NAL exceedances was conducted on July 28, August 4, and August 8, 2017. As a result of the evaluation, changes to the following sampling locations were made: C-B05-4a was moved back to its previous location C-B05-4 for both safety and sampling feasibility reasons, C-B06-16a was moved to C-B06-16b in order to avoid construction staging yard runoff near C-B06-16a, and C-B15-18 was moved to C-B15-18a in order to avoid active construction site runoff near C-B15-18. Additionally, two new BMPs were created and one existing BMP was modified. The new BMPs are SC01-10: Prohibit over-irrigation of landscaped areas, and SC07-13: Do not permanently store equipment and materials in the bed of a pickup truck. If storing temporarily, provide cover and containment. The language for the BMP SC01-06 was modified to replace "minimize excess watering" with "prevent prohibited over-irrigation." In a further attempt to decrease copper and zinc concentrations, ERA training was given in June 2017 to tenants and employees working in areas where copper and zinc levels were found to be elevated, and treatment control BMPs were implemented, where possible, in areas with elevated copper and zinc levels.

The site evaluation for the copper, zinc, BOD, and COD NAL exceedances was conducted on August 21 and 22, 2018. As a result of the evaluation, changes to the following sampling locations were made: C-B06-16b was moved back to C-B06-16a because construction had finished and the construction staging yard was removed, and C-B07-7a was moved back to C-B07-7 once the new BMPs were installed. These sampling locations were updated in Amendment 5 of the SWMP/SWPPP and its associated attachment and appendices. No source control BMPs were modified or added. In a further attempt to decrease copper, zinc, BOD and COD concentrations, ERA training was given in December 2018 to tenants and employees working in areas where copper, zinc, BOD and COD levels were found to be elevated, and treatment control BMPs were implemented, where possible, in areas with elevated copper, zinc, BOD and COD levels.

The site evaluation for the copper exceedances was conducted on August 23, 2019. In a further attempt to decrease copper concentrations, ERA training was provided in December 2019 to tenants and employees working in areas where copper and zinc levels were found to be elevated, and treatment control BMPs were implemented, where possible, in areas with elevated copper and previously elevated zinc levels.

The site evaluations for copper exceedances were conducted on August 24, 2020 and August 27, 2020. ERA training to tenants and employees working in areas where copper and zinc levels were found to be elevated were given in May 2020, as part of the annual training, and December 2020. TCBMPs were implemented as needed in areas that had elevated concentrations.

The site evaluations for copper, iron and zinc exceedances were conducted on August 24-27, 2021 and August 31, 2021. ERA training to tenants and employees working in areas where iron, copper and zinc levels were found to be elevated were given in May and June 2021 as part of the annual training, and December 2021. TCBMPs were implemented as needed in areas that had elevated concentrations.

By January 1 of each year following commencement of Level 1 statuses, the Authority revised this document as necessary and implemented any additional BMPs identified by the QISP in the Level 1 evaluations. The QISP prepared Level 1 ERA Reports and the LRP certified these reports via SMARTS. The Level 1 ERA Reports included the QISP's identification number, name, phone number, and email address, as well as:

- A summary of the Level 1 ERA evaluations; and
- A detailed description of any SWPPP revisions made and additional BMPs implemented for each parameter that exceeds an NAL.

ERAs implemented for Level 2 copper and zinc are outlined in Section 7.9.2 below.

7.9.1.1 Returning to Baseline from Level 1 Status

The Authority will return to baseline status for a given parameter if the following conditions are met:

- A Level 1 ERA Report has been completed;
- All identified additional BMPs have been implemented; and
- Results from four consecutive QSEs indicate no additional NAL exceedances for that parameter.

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1 (whichever comes first), sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances in SMARTS. As noted above, BOD and COD returned to baseline during fiscal year 2019-2020 because the fourth QSE sampled after December 31, 2018 indicated no NAL exceedances. During the 2020-2021 season, iron exceeded the NAL and entered Level 1 on July 1, 2021.

7.9.1.2 LEVEL 2 EXCEEDANCE RESPONSE ACTIONS

If the Authority is in Level 1 status for a given parameter, the Level 1 ERA Report has been completed, and the sampling results indicate that an NAL exceedance for the same parameter has occurred, the Authority will enter Level 2 status for that parameter beginning on July 1 of the subsequent reporting year. Level 2 status requires submittal of a Level 2 ERA Action Plan and Level 2 ERA Technical Report. As stated above, the Authority entered Level 2 status for copper beginning July 1, 2017; and entered Level 2 status for zinc beginning July 1, 2018.

7.9.1.3 Level 2 ERA Action Plan

The Level 2 ERA Action Plan was prepared by a QISP. The LRP or his representative certified and submitted this report via SMARTS and included the QISP's identification number, name, phone number, and email address. The plan was submitted by January 1 following the reporting year in which the exceedance triggering a new Level 2 status occurred. A new Level 2 exceedance is any Level 2 NAL exceedance for a new parameter in any drainage area or an exceedance of the same parameter that is being addressed in an existing Level 2 ERA Action Plan, but in a new drainage area. At a minimum, this plan addresses the drainage area in which the Level 2 exceedance has occurred.

For each new Level 2 exceedance, the plan identifies which of the following demonstrations the Authority has elected to perform:

- Industrial Activity BMP Demonstration: describing additional BMPs that will be implemented to eliminate future NAL exceedances, or any which are not feasible to be implemented and the reasons why;
- Non-Industrial Pollutant Source Demonstration: finding that the exceedance of the NAL is due solely to the presence of non-industrial pollutant sources; and
- Natural Background Pollutant Source Demonstration: finding that the NAL exceedance is due solely to the presence of the pollutant in the natural background, undisturbed by industrial activities.

The Level 2 ERA Action Plan (revised in December 2018, December 2019, December 2020, and December 2021) includes a detailed schedule and description of tasks required to complete the selected demonstration. The Authority has chosen the Industrial Activity BMP Demonstration. All Action Plan elements were to be implemented as soon as practicable and completed no more than one year following submittal of the plan, unless an extension was granted. As noted above, the Authority has been granted such an extension for

copper and zinc. In addition, the Authority provided ERA training in June 2017, December 2018, December 2019, December 2020, and December 2021 to tenants and employees working in areas where copper and zinc levels were found to be elevated, and updated the SWPPP.

7.9.1.4 Level 2 ERA Technical Report

By January 1 of the reporting year following submittal of the Level 2 ERA Action Plan, the Authority is required to certify and submit via SMARTS a Level 2 ERA Technical Report. This report must include one of the three demonstrations listed above and described in Section XII.D.2 of the Industrial Permit. Upon submittal of the Level 2 ERA Technical Report, both the SWRCB and RWQCB may review the report; if the report is found to be deficient, the Authority may be directed to take further action to comply with the Industrial Permit. However, as allowed by the Industrial Permit, the Authority was able to apply for and was granted an automatic one-time extension to the January 1 submittal deadline when the following items were submitted to SMARTS (per Industrial Permit requirements):

- Reasons for the extension;
- A revised Level 2 ERA Action Plan with a schedule and tasks necessary to complete the Level 2 ERA Technical Report; and
- A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed.

Any additional extensions must be approved in writing by the RWQCB. The RWQCB may require that additional tasks or temporary BMPs be implemented. The Authority sent such a written request to the RWQCB, because the schedule in the Action Plan extended beyond the six-month automatic extension.

Once the Level 2 ERA Technical Report has been developed, it will be updated annually upon additional NAL exceedances of the same parameter within the same drainage area outlined in the report. The report will also be updated annually following any facility operational changes, pollutant source changes, or new and relevant inspection and monitoring results. This updated Level 2 ERA Technical Report will be submitted with each Industrial Annual Report. If there have been no changes necessitating an updated Level 2 ERA Technical Report, the Authority will certify that no changes are needed in the Annual Report.

The Authority submitted revised Level 2 ERA Action Plans for copper and zinc by January 1, 2019, January 1, 2020, January 1, 2021, and January 1, 2022.

7.9.1.5 Returning to Baseline Status From Level 2 Status

The Authority will be eligible to return to baseline status for a pollutant only if the Level 2 ERA Technical Report follows the Industrial Activity BMP Demonstration and all BMPs outlined in the Level 2 ERA Action Plan have been implemented. The results from four consecutive QSEs must also indicate no additional NAL exceedances for that parameter. If any future NAL exceedances occur for that parameter, the Authority will automatically enter Level 2 status on July 1 of the subsequent reporting year, bypassing Level 1.

The Authority will not be eligible to return to baseline status if any of the following are submitted in the Level 2 ERA Technical Report:

- An Industrial Activity BMP Demonstration stating that all of the implemented BMPs, including additional BMPs outlined in the Level 2 ERA Action Plan, achieve compliance with the Industrial Permit but are not expected to eliminate future exceedances. This demonstration must include an evaluation of any additional BMPs that could reduce or prevent NAL exceedances that are not being

implemented, estimated costs of these additional BMPs, and an analysis of the basis for selecting the BMPs implemented rather than the additional BMPs evaluated.

- A Non-Industrial Pollutant Source Demonstration.
- A Natural Background Pollutant Source Demonstration.

The Authority continues to implement its revised ERA Level 2 Action Plan, following its submittal into SMARTS.

7.9.2 VIOLATION OF RECEIVING WATER LIMITATIONS

Per Industrial Permit Section XX.B, the Authority will implement water quality-based corrective actions if it is determined that industrial storm water discharges or NSWDs are in violation of any applicable receiving water limitations within the receiving water, or are causing or contributing to an exceedance of a water quality standard within the receiving water. Water quality-based corrective actions are different from Level 1 and Level 2 ERAs resulting from effluent-based monitoring. It is possible to be engaged in Level 1 or Level 2 ERAs while simultaneously being required to perform water quality-based corrective actions. The Authority will conduct a facility evaluation to identify any BMPs described in the SWPPP that are not being properly implemented. Following this evaluation, the SWPPP itself will be assessed to determine whether additional BMPs are needed to reduce pollutants to a level meeting receiving water limitations. If necessary, the SWPPP will be revised. These evaluations and revisions will be certified and submitted via SMARTS for review by the RWQCB, which may reject these corrective actions or request more documentation. To date, none of the industrial storm water discharges or NSWDs from the airport are have been determined to be in violation of any applicable receiving water limitations within the receiving water, that is San Diego Bay, or causing or contributing to an exceedance of a water quality standard within the bay.

7.10 ANNUAL EVALUATION AND REPORTING

7.10.1 ANNUAL EVALUATION

The Authority conducts one Annual Evaluation during the Industrial Permit reporting period of July 1 through June 30 (which corresponds to the fiscal year of the Authority). Annual Evaluations are conducted within 8 to 16 months of each other. The Annual Evaluation process generally follows the procedure outlined in Section 7.8.4.3, and includes a review of all visual observations records, inspection records, and sampling and analysis results; inspections, review, and evaluation of all BMPs to determine whether the BMPs are adequate, properly implemented, and maintained, or whether additional BMPs are needed; a visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system; an inspection of all drainage areas previously identified as having no exposure to industrial activities and materials; and a visual inspection of equipment needed to implement the SWMP, such as spill response equipment. Any incidents of non-compliance are noted and the responsible party is directed by the Authority to take corrective action. The Annual Evaluation process includes timely follow-up inspections whenever BMP deficiencies are found at any particular site. The process also produces a report that identifies any necessary revisions to the SWMP or to the Authority's BMP requirements, or to the descriptions of the BMPs, and outlines a schedule for implementing any necessary revisions. Any revisions necessary must be implemented within 90 days of the Annual Evaluation.

7.10.2 ANNUAL REPORTING

Both the Municipal Permit and the Industrial Permit require the Authority to submit Annual Reports to the RWQCB. The Municipal Permit requires submission of an Annual Report by January 31 of each year, which includes the information listed in Provision F.3 of the Municipal Permit. The Industrial Permit requires submission of an Annual Report by July 15 of each year, which includes the information listed in Section XVI of the Industrial Permit for the preceding 12-month period of July 1 through June 30. Annual Reports are signed and certified by the LRP or his DAR.

The Industrial Annual Report will be submitted via SMARTS. The following components will be included in the report:

- A compliance checklist indicating compliance with the components of the Industrial Permit;
- An explanation for any incidents of noncompliance, as indicated in the compliance checklist;
- An identification, including page numbers, of all revisions made to the SWPPP within the reporting year; and
- The date(s) of the Annual Evaluation.

The Municipal Annual Report consists of two components, an assessment of the Jurisdictional Runoff Management Program for July 1 through June 30 of the preceding year, and a WQIP monitoring and assessment evaluation for October 1 through September 30 of the preceding year. The Municipal Annual Report requirements are discussed in more detail in Section 12.1 of the SWMP.

7.10.3 RECORDS MANAGEMENT

The Authority will retain records of all storm water monitoring information, copies of all reports (including Annual Reports) required by the Municipal Permit and the Industrial Permit, records of all data used to complete the NOI for the Industrial Permit, and all other data and information required by either permit for a period of at least five years. These records will be provided to the RWQCB, SWRCB, or USEPA within 10 days of receipt of a written request for information, or during office hours for review by the RWQCB.

7.11 INDUSTRIAL COMPONENT EFFECTIVENESS ASSESSMENT REPORTING

The Authority has developed internal and external effectiveness assessment programs to evaluate the Authority staff, Authority Board, and tenant compliance with water quality issues. The Authority's Effectiveness Assessment component is described in Section 11.6 of the SWMP (and presented in Attachment 1 of the SWPPP).

7.12 INDUSTRIAL COMPONENT PROGRAM REVIEW AND MODIFICATION

The Authority has reserved this section to identify and document future changes to the Industrial Component of the SWMP. Section 13.0 of the SWMP details the program modifications made to the June 2015 version of the SWMP to bring this document into compliance with the renewed Municipal Permit and Industrial Permit. Changes made are listed below.

- Updates were made to the Industrial Component, Section 7, following the Annual Evaluations and ERA Evaluations (2016, 2017, 2018, 2019, 2020 and 2021), including updating the LRP and adding the QISP.
- The following BMPs were added as a result of the ERA Evaluation (2016):
  - SC09-8 Repair Damaged Asphalt;

  - SC09-9 Reduce the exposure of galvanized or rusty metal structures to rainfall, where possible; and
  - SC12-12 Roads, ramp areas, and apron areas are scrubbed on an as-needed basis.

- The following BMPs were added as a result of the ERA Evaluation and Annual Evaluation (2017):

  SC01-10; Prohibit over-irrigation of landscaped areas; and

  SC07-13: Do not permanently store equipment and materials in the bed of a pickup truck. If storing temporarily, provide cover and containment.

- The following BMP was removed due to reduced drought restrictions:
- SC04-09: wash vehicles, aircraft, and equipment during specified hours.
- No new source control BMPs were added as a result of the ERA Evaluation and Annual Evaluation (2018, 2019, 2020, and 2021).
- TCBMPs were installed in various locations following the 2016, 2017, 2018, 2019, 2020, and 2021 ERA Evaluations, and are indicated on the SWMP figures:
  - Five (5) CleanWay MetalZorbs;
  - Four (4) Activated Alumina Filter Bags (including one as a trench drain filter); and
  - Two (2) Biochar Booms.
- The SWMP was modified in February 2017 to enhance the information included in Section 7 for tenants Menzies Fuel Farm and Menzies, and to add information for the new tenant Conrac Solutions, in anticipation of their incorporation into the Authority's program and WDID number under the Industrial General Permit.
- The SWPPP was modified in December 2017 to incorporate over-irrigation prohibitions.
- The SWPPP/SWMP was modified in January 2019, December 2019, December 2020 and January 2022 to incorporate updates as a result of ERAs and annual evaluations.
- Section 7.8.4.6, Enforcement Measures, was updated to reflect updated escalated enforcement measures.

Section 13.0 will also be used as an amendment log for any future revisions to the SWMP. The amendment log will note the date of each amendment. The Authority will continue to revise the SWMP as needed, including changes necessary because of the following:

- There is a change in the total industrial area exposed to storm water;
- Additional BMPs are added;
- There is a significant change in industrial operations that may affect the type or amount of a pollutant that may be discharged;
- There is a change in the parties responsible for implementation of the SWMP; and
- A revision is otherwise deemed necessary.

The revised SWPPP will be submitted via SMARTS within 30 days when it contains significant revisions. The previously revised SWPPP, Amendment 7 was uploaded to SMARTs in January 2021.The on-site SWPPP will be kept up to date at all times, although SWPPP revisions are not required to be certified and submitted via SMARTS more than once every three months.

8.0 RESIDENTIAL COMPONENT

As noted in Section 1.0 of this SWMP, there are no residential land uses or activity areas within the Authority's jurisdiction. For this reason, the SWMP contains no discussion of activities conducted by the Authority relative to the residential requirements of the Municipal Permit.

9.0 PUBLIC EDUCATION AND PARTICIPATION COMPONENT

The Municipal Permit and Industrial Permit require the Authority to promote public education about and participation in the implementation of the SWMP. This section describes the mechanisms put in place by the Authority to comply with this requirement.

The Provisions of the Municipal Permit require the Authority to:

- B.5.a.(6) and B.5.b.(10)—Assess and adapt the water quality priority conditions and improvement strategies during the term of the Municipal Permit. The Copermittees must evaluate the components outlined in WQIP water quality improvement strategies and assess their progress toward meeting numeric goals. Because the Copermittees' strategies include education and public participation efforts and programs, the effectiveness of these programs must be assessed. Recommendations for modifications to the WQIP program are solicited through the public participation process. Section 9.2.2 has been prepared to address this requirement.
- E.7—Implement a public education and participation program in accordance with the strategies described in the WQIP. Copermittees are required to include education and outreach to the public and to encourage public participation in the strategies to improve water quality. Sections 9.1 and 9.2 have been prepared to address this requirement.

The Sections in the Industrial Permit require the Authority to:

- IX—Designate a properly trained and certified QISP to train employees responsible for, or whose duties apply to, implementing the programs and requirements of this SWMP (if the Authority enters Level 1 or 2 status). Section 7.6 has been prepared to address this requirement.
- X.H.1.f—Ensure that all team members responsible for implementing the Industrial Permit requirements, such as BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities, are trained to implement these activities. The Authority must identify the personnel that require training, their responsibilities, and the training they receive, and must provide a training schedule. Sections 7.0 and 9.1.2.2 have been prepared to address this requirement.

9.1 EDUCATION

As required by Provision E.7 of the Municipal Permit, Sections IX.A.3.b and X.H.1.f of the Industrial Permit, and strategies outlined in the San Diego Bay WQIP, the Authority conducts a comprehensive education and training program that measurably increases awareness of target populations with respect to the storm drain system, the impacts of urban runoff on receiving waters, NSWDs associated with over-irrigation and other prohibited discharges, and the BMPs (both structural and non-structural) that are implemented to reduce storm water and non-storm water quality impacts to the MEP. The Municipal Permit specifically requires the Authority to:

1) Implement educational activities to address pollutants associated with the application of pesticides, herbicides, and fertilizers, and other WQIP-identified pollutants of concern (e.g., copper and zinc in wet weather discharges).
2) Facilitate proper management and disposal of oils and toxic materials.
3) Reach out to specific target audiences on the basis of high-risk behaviors and pollutants of concern, as applicable to SAN.

The Authority's education efforts outlined in the SWMP are intended to increase understanding of storm water and non-storm water management issues and to help promote behavioral changes that will reduce storm water and non-storm water pollution to the storm drain system and ultimately San Diego Bay. Public education is also one of the regional strategies in the WQIP. Education efforts will support the goals of the Authority and other jurisdictional programs by gaining support from the public, staff, and tenants and unifying the effort across all operations within the San Diego Bay WMA. The Authority's training program objectives include:

- Providing useful guidance to develop outreach and training programs that support the successful implementation of the Authority's SWMP;
- Encouraging participation by all personnel, tenants and contractors; and
- Maximizing consistency in information and helping adapt education and outreach to the appropriate personnel, raising their knowledge and awareness of the issues related to storm water and urban runoff.

This section provides a general description of the content, form, and frequency of training developed for Authority staff and airport tenants, as applicable. The Authority has also implemented community-based social marketing strategies to reach and educate the general public and school children about storm water pollution and storm water pollution prevention issues.

9.1.1 TARGET AUDIENCES

The Authority's storm water and non-storm water education program targets the following audiences: Authority departments and personnel, SAN industrial and commercial tenants, the traveling public using the airport, the general public and school children, and construction site project managers, developers, and contractors. While there is no residential land use within the jurisdiction of SAN, as one of the Responsible Parties the Authority supports and participates, where reasonable, in the Copermittees' regional and WMA outreach efforts to residential communities. Additional training may be given or required of those Authority tenants or departments exhibiting high-risk behaviors, or that are subject to escalated enforcement because of noncompliance actions or issues.

9.1.2 STAFF TRAINING ELEMENT

Authority staff members involved in the implementation of the SWMP receive continual training related to their job duties. The Authority uses formal and informal training mechanisms to educate tenants and department personnel about storm water and non-storm water pollution prevention and BMPs. The most comprehensive training is provided annually to Authority management and staff through classroom and online training systems. The classroom training is targeted at a divisional level for the ADC, FMD, and P&EAD staffs. Much of the training is provided in house and on the job, and through attendance at meetings, seminars, and conventions. P&EAD staff members regularly attend external professional training and development workshops and training events. Most ADC staff that are involved in development planning and approval as well as construction project management and oversight receive more frequent training, refreshers, and reminders at staff meetings. These Authority staff members are responsible for (1) implementing BMPs; (2) conducting inspections, sampling, and visual observations; and (3) managing storm water runoff. They receive more intensive and more frequent training that is geared to their specific responsibilities. Education mechanisms initially used to train Authority staff members who are involved in SWMP implementation include classroom seminars and workshops, online training, as well as specific printed and audio/visual guidance on BMPs and storm water management procedures.

9.1.2.1 Trainer Qualifications

As described in Section 7.6, when the Airport enters Level 1 status under the Industrial Permit, the Authority will designate a staff member or contractor with appropriate QISP certifications to lead training for the Authority employees who are responsible for SWMP implementation activities. However, if the Authority is in baseline status for all analytes under the Industrial Permit, P&EAD, together with other appropriate departments such as ADC and/or other contractors, will conduct training for Authority personnel.

9.1.2.2 General Storm Water Topics

The training program provides Authority personnel responsible for implementation of various components or elements of the SWMP with an understanding of the following topics:

- Basic urban runoff concepts for all personnel, such as the distinction between the storm drain system and the sanitary sewer system, and the impacts of urban runoff on receiving waters;
- California's Statewide NPDES Permit requirements, including the Industrial Permit, Municipal Permit, the CGP, and federal, other state, and local water quality regulations;
- Water quality impacts associated with land development and construction site management and control measures to address and minimize them;
- The Authority SWMP, including the IDDE Program;
- The San Diego Bay WMA WQIP, including the Authority focused priority water quality conditions and pollutants of concern, water quality goals, and water quality improvement strategies;
- Storm water and non-storm water inspections and self-audits;
- Prohibited discharges to the MS4, including the prohibition of over-irrigation and how the Authority prevents over-irrigation through the water conservation program, landscaping/xeriscaping, and IPM program;
- Hazardous materials disposal and containment;
- Spill response, containment, and recovery;
- Preventive maintenance;
- Water quality awareness for emergency/first responders;
- IPM;
- Minimum required and advanced BMPs and their proper implementation;
- The connections between daily airport operations and activities, construction activities, and water quality impacts; and
- Advancements in BMP technologies.

Annual training is a joint effort among P&EAD, and ADC staff to emphasize the relationships between the requirements of the Municipal Permit, WQIP, Industrial Permit, CGP, SWMP, construction SWPPPs or WPCPs, and any relevant project and contract documents or leases. Continuous training may also include in-house presentations, emails, the Authority intranet, monthly ramp-walk inspections, new-hire reviews, and training programs led by outside agencies. Those Authority staff members not directly involved in SWMP implementation receive annual basic training to increase their general awareness of storm water and non-storm water issues at work and at home. This training generally emphasizes pollution prevention methods. General storm water pollution prevention information is also a part of safety training, incoming new employee orientation, and other training opportunities, as appropriate. Training opportunities also include

workshops, audio/visual guidance on BMPs, announcements, posters, displays, and company events. A training schedule is used to track employees or departments that have received or require training, and reminders are provided for employees to receive refresher training.

9.1.3 EDUCATION OUTREACH ELEMENT

Specific training for airport tenants involved in industrial and commercial activities at SAN is generally accomplished through:

- On-site monthly and annual inspections, training meetings, ad-hoc site visits, site audits, and ramp walks;
- Seasonal training sessions emphasizing the expectations for an upcoming dry or rainy season;
- Refresher training sessions conducted by the P&EAD facilities for high-risk activities, as needed; and
- Pre-bid, pre-construction, and ongoing project progress meetings for construction sites.

Training for construction site contractors is described in Section 5.7. Both the Tenant Safety Committee and the Lindbergh Airline Managers Council meet monthly to discuss a variety of operational issues, and the Authority P&EAD makes use of these meetings to provide training and information about storm water management. The annual site inspection, site audits, and monthly ramp walks and inspections also provide opportunities for P&EAD staff to provide training and educational materials to tenants. Topics of education include storm water laws, regulations, permits, the SWMP, BMPs, NSWDs and illicit discharges including over-irrigation, general urban runoff concepts, Authority rules and regulations, materials and waste storage and proper disposal, and storm water pollution prevention. Tenant training also focuses on proper BMP implementation for high-risk activities, such as fueling and hazardous waste storage. Authorized NSWDs and methods to control them (as described in Section 3.0) are also covered in training.

The Authority engages employees, tenants, and contractors to prevent and report over-irrigation. The Communication Center, Airport & Terminals Operations, FMD, and P&EAD are trained to respond to over-irrigation. Employees and the public can report over-irrigation incidents to the Communication Center or to P&EAD. Airport employees and Authority staff are informed of the over-irrigation prohibition at outreach events, all-hands meetings, and through email and tenant information notices. Over-irrigation information and reporting instructions are also highlighted in the annual mandatory training required for all Authority employees and tenants.

The Authority uses SAN itself as a venue to highlight and/or emphasize the education and outreach efforts developed by others that are directed at school children and the general public. The Authority Public Art Program reserves 2 percent of the total costs of project construction in the Capital Program and Master Plan budgets to fund public art at the airport. Billboards, banners, display cases, and the Terminal 2 Youth Art Wall are used to highlight the existing efforts such as the Caltrans “Don’t Trash California” campaign. The Green Build provided the opportunity for art to be incorporated into the design and build process, which now displays art projects relating to the San Diego environment. The Authority also provides support to Copermittees’ Regional Residential Education Plan.

The Authority uses several mechanisms on a daily basis year-round to educate both tenants and the general public. These mechanisms include (1) the Authority webpage, (2) storm drain stenciling, (3) posters, banners, and signage in the terminals and parking lots, (4) brochures, (5) public service announcements in the terminals, (6) collaborative efforts, (7) special presentations to the public, (8) airport tours, (9) presentations to tenants and staff, and (10) monthly ramp walks. Each of these mechanisms is briefly described as follows:

1) **The Authority Webpage**: The P&EAD has a webpage (http://www.san.org/Airport-Projects/Environmental-Affairs) that features several environmental issues at SAN, including storm water and non-storm water management. The webpage, which is accessible by the general public, Authority staff, and tenants, presents important SAN documents related to storm water such as the SWMP, the WQIP, Sustainability Policy, Sustainability Reports, Municipal and Industrial Annual Reports, IDDE Annual Reports, and new development Environment Impact Reports. Details are also provided on the Green Build, North Side Improvements, Airport Development Plan, over-irrigation prohibition and LEED certifications. GIS data is also downloadable on the Authority webpage. Once approved by the RWQCB, the WQIP and new BMP Design Manual were made available on the Authority webpage. The webpage provides contact information for the P&EAD, affording the general public another opportunity to review and comment on the SWMP and the BMPs described in it. The P&EAD storm water web page highlights the education and outreach efforts in place at the airport for preventing, reporting, and addressing over-irrigation.

2) **Storm Drain Stenciling**: Warning stencils are placed in and around storm drain inlets throughout the Airport (e.g., "No Dumping! Flows to Bay" or similar warning signs). These warnings notify staff, tenants, and the general public of the need to protect storm drain inlets.

3) **Posters/Banners/Signage/Displays in Terminals and Parking Lots:** The Authority participates in billboard programs and displays that promote anti-litter campaigns and encourage habitat restoration. These billboards are placed strategically to reach a broad audience.

4) **Brochures**: Outreach materials, such as the Airport Recycling Brochure, are also made available to the general public. The Sustainability and Storm Water Pollution Prevention brochure is available during the biannual Sustainability Fair, workshops, and training events. These materials provide information that individuals can use to help prevent storm water pollution at SAN.

5) **Public Service Announcements**: "Think Blue" public service announcements have aired in the Terminal 2 baggage claim area. The public service announcements raise public awareness about the impacts of storm water pollution and how it can be prevented.

6) **Collaborative Efforts**: The Authority collaborates with community groups, local organizations, and other agencies and jurisdictions to provide outreach to the general public regarding storm water pollution prevention. The Authority is applying the concepts of community-based social marketing to public education efforts, and is seeking to collaborate with other organizations to leverage public outreach methods. To date, the Authority has collaborated with local environmental groups (non-governmental organizations [NGOs]) that share the goals of effective storm water management at SAN and protection of San Diego Bay. The Authority has collaborated with NGOs on (1) environmental campaigns that target local school children, (2) bilingual natural resource conservation campaigns aimed at the general public and schoolchildren, and (3) efforts to educate the public and children about the harmful effects of litter, cigarette butts, plastics, and other storm water pollutants in the region's waters. Authority staff are also members of community organizations and serve as board directors and committee members for local non-profit groups.

7) **Special Presentations/Events**: The Authority presents storm water management information to grade school and high school students about environmental issues at SAN. Presentations are given at forums open to the public. Information booths at community events, such as local Earth Day celebrations, allow Authority staff to conduct public outreach. Authority staff also present at various public seminars about their storm water programs.

8) **Airport Tours**: Tours are offered to educate and engage the public on airport operations and activities. Special tours are geared toward school children in grades two through eight, and are offered twice per month. Additional tours for the general public are offered twice weekly, and discuss topics such as the art program, endangered species areas, and general activities at SAN.

9) **Tenant Presentations**: The Authority uses internal presentations during tenant and staff meetings to inform tenants of updates to the SWMP. For example, P&EAD gave presentations at 12 Tenant Safety

and Security Committee meetings during the 2013–2014 reporting period. Airline station managers also receive information on SWMP updates during monthly Lindbergh Airport Managers Council meetings.

10) **Monthly Ramp Walks**: P&EAD participates in monthly ramp walks with tenants to observe activities and operational areas. These ramp walks provide an opportunity for P&EAD to educate tenants about storm water BMPs.

The Authority intends to use community-based social marketing as the backbone for designing and implementing effective public outreach and education programs. The Authority continues to look for opportunities to partner with other Copermittees, other governmental agencies (federal, state, and local), and non-profit organizations and NGOs. Each year, the Authority's Municipal Permit Annual Report describes the actual outreach and education mechanisms put to use, and provides a general indication of the target audience.

9.2 PUBLIC PARTICIPATION

The goals of the SWMP Public Participation Component are to facilitate public participation in SWMP implementation and to engage the public in sustaining and improving the Authority's storm water management efforts. An educated public generally is a more effective partner in preventing storm water pollution. As such, there is some overlap between the Authority's public education efforts described in Section 9.1 and the public outreach efforts described in this section. Public participation is enlisted in two primary ways: (1) participation in implementation of SWMP programs, and (2) public feedback on SWMP programs. Feedback is used to improve the SWMP itself and to improve implementation of the SWMP.

The Authority's public participation program is directed primarily at Authority staff and the airport tenants and tries to address the general public to the extent possible.

9.2.1 PUBLIC PARTICIPATION OPPORTUNITIES

In addition to daily interactions between the tenants, Authority staff, and the public, several mechanisms are used to allow airport tenants, staff, and the public to participate in the implementation and ongoing development of the Authority's SWMP. The Municipal Permit requires the Authority to provide a minimum of three opportunities for public participation:

1) A process for members of the public to participate in updating the highest priority water quality conditions, numeric goals, and water quality improvement strategies in the WQIP

2) Opportunities for members of the public to participate in providing the Authority recommendations for improving the effectiveness of the water quality improvement strategies implemented within the Authority's jurisdiction

3) Opportunities for members of the public to participate in programs and/or activities that can help prevent or eliminate NSWDs to the MS4, reduce pollutants in storm water discharges from the MS4, and/or protect the quality of receiving waters

These mechanisms can be separated into two categories: those available to all (including the general public), and those additional mechanisms that are available to Authority staff and airport tenants. Public participation mechanisms available to all include (1) regular meetings of the Authority Board and subcommittees; (2) regular meetings of the various Copermittee committees and workgroups; (3) WQIP public workshops; (4) stakeholder engagement; (5) WQIP updates; (6) the Authority webpage, (6) the San Diego County Project Clean Water webpage; (7) the Copermittees' Public Hotlines; (8) outreach events; and (9) collaborative efforts with the community. Additional public participation mechanisms available to Authority staff and airport tenants include (1) the Authority's 24-hour telephone line/public hotline; (2) the Airport Advisory Committee; (3) the Tenant Safety Committee; and (4) the Lindbergh Airline Managers Council.

The two categories of participation mechanisms and their components are described in Sections 9.2.2 and 9.2.3.

9.2.2 PUBLIC PARTICIPATION OPPORTUNITIES AVAILABLE TO ALL

San Diego County Regional Airport Authority Board Meetings

The Authority Board is committed to ensuring that all SAN staff and tenants comply with all environmental laws. The tenants, Authority staff, and the public are encouraged to review and comment on the San Diego Airport SWMP, thereby helping to improve both the plan and its implementation. SAN tenants and staff are encouraged to speak directly to the Authority Board during public meetings. All Authority Board, Authority Board Committee, and Authority Advisory Committee meetings are open to the public and provide public comment periods.

Copermittee Meetings

The Copermittees meet regularly to discuss various aspects of the Storm Water Management Programs being implemented throughout San Diego County. In addition to the meetings of the Copermittee Management Committee, the Copermittees have established a number of subcommittees and workgroups for each WMA. All meetings of the Committees, the subcommittees, and workgroups are open to the general public. These meetings provide numerous opportunities for public participation in storm water management activities, both throughout the region and at SAN. Attendees include a wide variety of experts, including representatives of federal, state, and local agencies, industry representatives, environmental groups, consulting firms, product vendors, and academic and research institutions, as well as the general public.

WQIP Public Workshops

Collaboration in the WQIP public participation process to date has included various responsible party public workshops aimed at educating and engaging the public in the WQIP process and identifying water quality issues in the WMA. In an effort to better facilitate communication between WQIP stakeholders and the general public, the Copermittees created the WQIP Consultation Panel. The Authority works with the WQIP Consultation Panel, which includes representatives from the RWQCB, environmental interest groups, development groups, and "at-large" interest groups, in the continuous development of water quality goals and strategies.

Stakeholder Engagement

SAN's stakeholders include the general public, business leaders, local governments, environmental and community-based groups, and transportation agencies. Authority Board Members engage with stakeholders on a regular basis to support collaboration and transparency within their business and environmental practices. These stakeholders are encouraged to participate in public Authority Board meetings, become involved in SAN activities via social media and public tours, and connect with Authority Board members via the contact information provided on www.san.org. To further support stakeholder participation, the Authority has formed a citizen's advisory committee to assist with planning and development of SAN facilities. The Authority Advisory Committee serves as a communication mechanism for stakeholders to provide recommendations to the Authority Board on issues under the Authority's responsibility.

Water Quality Improvement Plan Updates

The WQIP will be assessed during annual reporting and preparation of the ROWD, a required element of the Municipal Permit. During these assessments, the WQIP Consultation Panel will be consulted on proposed updates to the WQIP. At this time, the public will have the opportunity to comment on all aspects of the airport SWMP, as well as highest and focused priority water quality conditions, sources, numeric goals, and water quality improvement strategies outlined in the WQIP. The ROWD was submitted in December 2017; therefore, the period of public participation was during the spring and summer of 2017, and then annually after that during WQIP reporting.

Authority Webpage

The Authority webpage features several sections regarding the environmental issues at SAN (http://san.org/Airport-Projects/Environmental-Affairs), including storm water management, as previously described. Schedules for upcoming Authority Board meetings are posted on the webpage and the public can view the results of the sustainability efforts at SAN established in the 2008 Sustainability Policy updated in January 2019 (http://sustain.san.org). Results of these efforts include ways that the Authority is integrating community involvement, public outreach, and stakeholder engagement into the airport's operations and business practices. Over-irrigation incidents can be reported using the over-irrigation hotline or reporting form.

Project Clean Water Webpage

Partly in response to its duties as the Principal Copermittee to the 2007 Municipal Permit, the County of San Diego established the Project Clean Water webpage (www.projectcleanwater.org) that features both general and specific information on regional water issues, WQIP, and the local Storm Water Management Programs. The webpage features contact information and direct web-links to the Authority. The webpage is intended to represent a major portal for public participation in storm water management regionally and at the watershed and individual jurisdictional levels, and is intended to continue to serve as the Regional Clearinghouse for uploading reports, monitoring results, and other WMA and regional information, as required by the 2013 Municipal Permit

Copermittees' Public Hotlines

The Copermittees have established regional hotlines: the Regional Storm Water Hotline and the Think Blue Hotline. Both are toll-free 800-numbers that allow the general public to obtain contact information for any of the individual Jurisdictional Runoff Management Programs, including the Authority's. The hotlines provide a mechanism for the general public to report unauthorized NSWDs and/or other storm water concerns, which are then referred to the appropriate jurisdiction. The hotlines provide services in English and Spanish and are available 24 hours a day.

The Regional Storm Water Hotline is: (888) 846-0800.

The Think Blue Hotline is: (619) 235-1000 or (888) 844-6525.

Outreach Events

Outreach events for the Authority staff, tenants, and the general public allow P&EAD and these entities the opportunity to exchange information, ideas, and opinions about storm water management issues and those issues specific to SAN. Outreach events have both an education and a public participation component. Such events promote public participation and further environmental stewardship by tenants, staff, and the general public. Events include meetings, employee open houses, cleanup, recycling, and community events, and presentations to various groups, clubs, and organizations.

Collaboration with the Community

To date, the Authority has collaborated with local environmental NGOs that share the goals of effective storm water management at SAN and protection of San Diego Bay. The Authority has collaborated with NGOs on environmental campaigns that target local school children and on bilingual natural resource conservation campaigns aimed at the general public and school children. Several of these collaborative efforts have resulted in displays at the Children's Art Wall in Terminal 2. The Authority has also collaborated with NGOs to educate the public and children about the harmful effects of litter, cigarette butts, plastics, and other storm water pollutants. The Authority continues to seek and support such collaborations to promote environmental stewardship among the public and school children. These collaborative efforts provide another opportunity for the public to share ideas and concerns regarding storm water pollution

prevention with the Authority. The Authority also supports three local watershed cleanup events: (1) Annual California Coastal Cleanup Day, (2) Annual Creek to Bay Cleanup, and (3) EarthFair in Balboa Park.

9.2.3 ADDITIONAL PUBLIC PARTICIPATION OPPORTUNITIES AVAILABLE TO AUTHORITY STAFF AND AIRPORT TENANTS

Authority's 24-Hour Telephone Line/Public Hotline

Authority staff, tenants, and the general public can always voice immediate storm water concerns directly to the Authority using the SAN Communication Center 24-hour telephone line/public hotline. In addition to providing Authority staff, tenants, and the general public with another link to P&EAD, the telephone line enables callers to report illicit discharges and other storm water concerns. Tenants and staff can also direct questions via the Hotline to P&EAD regarding appropriate implementation of BMPs and the SWMP as a whole. Over-irrigation incidents can be reported using the over-irrigation 24-hour hotline or reporting form.

The Authority's 24-Hour Hotline is: 619-400-2710.

Airport Advisory Committee

The Airport Advisory Committee serves as a communication liaison between airport tenants, City representatives, and the Authority. During these meetings, Committee members discuss issues related to SAN development and planning and receive recommendations from the public and tenants. All recommendations are submitted to the Authority Board for review.

Tenant Safety Committee

The Tenant Safety Committee is another opportunity to encourage tenants and Authority staff to take ownership of the SWMP and to help ensure effective implementation of the plan. During monthly committee meetings, storm water management concerns are presented by P&EAD and discussed with tenants and staff. At the same time, tenants and staff are encouraged to submit comments on the SWMP and its implementation during the meetings.

Airline Environmental Meeting

Authority staff meet with airline tenants to provide updates to environmental representatives on various environmental, sustainability, and compliance initiatives at the San Diego International Airport. This meeting provides an opportunity to openly discuss environmental projects and issues, any tenant or airside updates, and implementation of the SWMP.

Lindbergh Airline Managers Council

Tenants and Authority staff meet monthly to discuss and improve the operational aspects at SAN. During these meetings, P&EAD presents storm water program updates to airline station managers and tenants and staff are encourages to become involved in the SWMP, take ownership of the SWMP, and help ensure SWMP implementation. The meetings allow for frank exchange of information and opinions regarding storm water management concerns at SAN.

FMD Status Meetings

P&EAD staff members attend FMD's quarterly status meetings to encourage communication and cooperation among departments. FMD and P&EAD work together to achieve many of the strategies in the storm water programs, and this provides an opportunity to openly discuss plans and developments relating to Airport storm water management.

9.3 PUBLIC PARTICIPATION AND EDUCATION OUTREACH COMPONENT EFFECTIVENESS ASSESSMENT

To support the iterative and adaptive management process of the WQIP required under Provision B.5 of the Municipal Permit, the Authority will assess the effectiveness of its education, training, and public participation programs as part of the re-evaluation of WQIP water quality improvement strategies. The Authority's assessment of WQIP goals and strategies is described in Section 11.0.

9.4 PUBLIC PARTICIPATION AND EDUCATION OUTREACH COMPONENT PROGRAM REVIEW AND MODIFICATION

The Authority has reserved this section to identify and document future changes to the Public Participation and Education Outreach Component of the SWMP. Section 13.0 discusses the program modifications made to the March 2008 version of the SWMP to bring this document into compliance with the renewed Municipal Permit.

- Language was added to emphasize the over-irrigation education and outreach conducted and to add information on the Sustainability Fair.

10.0 FISCAL ANALYSIS COMPONENT

10.1 INTRODUCTION

The San Diego County Regional Airport Authority Act, the Authority's enabling legislation, frames the financial parameters of the Authority. As a financially self-sufficient agency, the Authority does not rely on taxpayer dollars or any city or county funds for its operations. As of June 2014, the Authority held total assets of over $2.2 billion. The Municipal Permit requires that the Authority secure the resources necessary to meet the requirements of Order No. R9-2013-0001. The Authority will annually conduct and report the results of a fiscal analysis of its jurisdictional runoff management program in its entirety (including jurisdictional, watershed, and regional activities).

10.2 FISCAL ANALYSIS METHODS

The fiscal analysis identifies the various categories of expenditures attributable to the jurisdictional runoff management program and outlines the program budget for the current year, including a description of the sources of the funds that are proposed for use.

10.2.1 AUTHORITY BUDGET PROCESS

The Authority operates on a fiscal year from July 1 through June 30. The budget process begins in November, with senior management updating, reviewing, and formulating the Authority's long-term goals and strategies. At the same time, division managers and staff develop programs, plans, and objectives for the following fiscal year. In January, the Revenue Generation & Partnership Development staff review the first six months of the then-current fiscal year and departments submit budget requests that reflect operating needs and programs to achieve the Authority's goals and objectives. Personnel, contractual services, utilities, maintenance, supplies and materials, business development, employee support, fixed assets (property, plant, and equipment), and capital projects are proposed and reviewed. The Revenue Generation & Partnership Development, Talent, Culture & Capability department, Procurement Department, and ADC analyze the requests and determine the cost impact, where appropriate. Meetings are held with each division to review the budget requests. To ensure that the budget is adequately funded and to maintain the Authority's strong financial condition, the Revenue Generation & Partnership Development prepares a revenue budget that incorporates budget expenditure requests into the rate-setting formula to determine projected rates, fees, and charges to the airlines and other tenants. Budget workshops are held with the Authority Board to review the budget and receive further direction. The Authority Board adopts the budget as a whole. It may be amended as required, pending Authority Board approval, at any time during the year.

The Authority has four sources of revenue: (1) airline revenue; (2) non-airline revenue; (3) non-operating revenue; and (4) investment earnings. Airline revenue is primarily from landing fees, terminal rents, and security related fees. Non-airline revenue is composed of public parking fees, terminal and other concessions, rental car fees, and ground rents. Non-operating revenue is primarily passenger facility charges, FAA Airport Improvement Program grants, airport revenue bonds, and short-term borrowing using commercial paper.

The divisional and departmental budgets, addressing the Authority's overall goals, objectives, and mandated obligations, contribute to an expense budget. The expense budget is composed of costs for salaries, wages, benefits, operating equipment and systems, safety and security, maintenance, utilities, contractual services, business development (including advertising and promotional activities), various property lease payments, debt service, and capital improvements. The Capital Improvement Program is a rolling three- to five-year program that provides for critical improvements and asset preservation. The program includes projects that address federal security requirements, airfield safety and capacity, terminal building improvements, electrical upgrades, and environmental pollution prevention/remediation needs. Funding sources for the

projects include FAA Airport Improvement Program grants, passenger facility charges, airport operating revenues, airport revenue bonds, and short-term borrowing using commercial paper.

There are "revenue diversion" restrictions imposed by federal laws and regulations on the use of Authority funds. The expenditure of Authority funds off airport property may violate federal law. Penalties for violation of the federal "revenue diversion" restrictions are severe and include withholding of current and future grant funds, withholding of other FAA approvals, and other civil penalties.

10.2.2 BUDGET FOR STORM WATER MANAGEMENT PROGRAMS

Currently, the Authority's fiscal analysis of the storm water management program examines previously adopted budgets and expenditures against program needs to develop adequate budgets for future years. The methodology incorporates costs for program administration, planning, monitoring, necessary infrastructure, and other capital improvements. The fiscal analysis includes an assessment of personnel time and expenditures related to implementation of the SWMP and a description of funding sources and any legal restrictions on the use of the funds.

The P&EAD summarizes the expenditures required each year to execute the programs outlined in the SMWP. Most of the expenditures related to implementation of the SWMP pass through the P&EAD and the FMD. The P&EAD is responsible for administrative functions within the Storm Water Management Program, including fiscal analysis, budget management, and planning. The P&EAD carries out the administrative activities for the program, including (1) general program budget analysis and planning; (2) inspections and enforcement; (3) monitoring and reporting; (4) coordination and involvement with the Copermittees and agencies; (5) assistance to other groups outside the department; (6) internal and external training, workshops, and public events; (7) assistance in securing the materials and equipment necessary to perform required tasks; and (8) inspection and maintenance of storm drain systems. The FMD is generally responsible for the operations and maintenance aspects of the program, including (1) maintenance of facilities and grounds; (2) securing of materials, equipment, and vehicles necessary to perform required tasks; and (3) support for management of the Authority's wastes.

The various expenditures attributable to the jurisdictional runoff management programs include:

- Personnel Expenses:
  - P&EAD; and
  - FMD.
- Non-Personnel Expenses:
  - NPDES Permit Fees;
  - Professional Services:
    - Legal and
    - Consulting.
  - Routine Maintenance;
  - Ramp Cleaning/Runway Rubber Removal;
  - Landscape Maintenance;
  - MS4/BMP Cleaning/Maintenance;
  - Parking Lot and Street Sweeping;
  - Hazardous Waste Disposal;

  - Equipment Purchases; and
  - Education, Training, and Public Outreach.
- Capital Improvement Program Expenses (to the extent that they exist).

10.3 UPDATE TO FISCAL ANALYSIS METHODS

Each year, the Authority will conduct an annual fiscal analysis of the storm water management program, as outlined above, as an attachment to the Jurisdictional Runoff Management Program Annual Report. The fiscal analysis will report four general categories of expenditures: jurisdictional expenditures, watershed shared expenditures, regional shared expenditures, and total program expenditures, including a description of the specific capital, operation and maintenance, and other expenditure items in each category of expenses. The analysis will include any personnel expenses and staff resource expenditures needed and allocated to meet the requirements of the Municipal Permit in the current reporting year. The analysis will also identify sources of funds that are proposed to meet necessary jurisdictional runoff management program expenditures in the following fiscal year, including legal restrictions on the use of such funds.

10.4 FISCAL ANALYSIS COMPONENT PROGRAM REVIEW AND MODIFICATION

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

11.0 EFFECTIVENESS ASSESSMENT COMPONENT

In accordance with Municipal Permit Provisions D.4 and F.3, the Authority annually assesses the effectiveness of SWMP implementation, and specifically the effectiveness of each major component of the Authority's urban runoff management program, as described in this SWMP; the effectiveness of each significant type of jurisdictional activity/BMP implemented; and the effectiveness of the Authority's urban runoff management program as a whole. The Authority will also assess progress toward achieving interim jurisdictional goals outlined in the WQIP and assess the effectiveness of selected strategies. Additionally, Industrial Permit Section XV mandates an annual comprehensive industrial facility compliance evaluation, involving inspection of all industrial areas and BMPs as well as review of sampling and inspection records from the previous year. Additional assessments are required if SAN enters Level 1 or Level 2 discharger status. The Authority's approach to the annual and long-term effectiveness assessment is described below.

11.1 INTRODUCTION

Since 2004, the Authority has been evaluating the effectiveness of the SAN SWMP to varying degrees under both the Industrial Permit and the Municipal Permit. Beginning with the 2013 Municipal Permit, the focus of assessment changed to encompass required evaluations of the WQIP. The Copermittees have developed and will continue to refine criteria that allow for an assessment of the effectiveness of storm water management efforts implemented in accordance with the Municipal Permit. The Authority will continue to collaborate with the Responsible Parties to outline standardized methods and procedures for assessing the effectiveness of local urban runoff management programs, which incorporate WQIP strategies. The WQIP assessment program is described in Sections 11.2, 11.5.1 and 12.0.

11.2 MUNICIPAL PERMIT ASSESSMENT COMPONENTS

Municipal Permit Provision D.4 mandates two types of general assessments: (1) receiving water assessment; and (2) MS4 outfall assessment. Additionally, the Authority will periodically assess progress toward achieving goals related to the focused priority condition outlined in the San Diego Bay WQIP, as well as contributing to watershed-wide special studies assessments. Finally, the Authority will perform assessments integrating the annual assessment components, JRMP and WQIP implementation evaluations, and monitor data to evaluate the overall effectiveness of the WQIP and this SWMP. This iterative process of program assessments and revisions is required to comply with the provisions of the Municipal Permit.

11.3 RECEIVING WATER ASSESSMENT

Receiving water data, collected per the methods discussed in Appendix K of the WQIP, will be assessed in the San Diego ROWD. Receiving water data will be collected and analyzed as a watershed and/or regional effort. However, prior to completing the receiving water assessment, the Authority will review their jurisdictional program to compile any available and relevant data that may be used to assess the MS4 contribution to receiving water quality conditions. Jurisdictional Runoff Management Program data that will be compiled may include, but are not limited to, hotline reports, IDDE investigations, industrial and commercial tenant inventories or land use data, inspection results, new BMPs, or new Authority regulations or policies.

Once relevant data have been compiled in regional formats, the Responsible Parties will conduct a watershed assessment as required by Municipal Permit Provision D.4.a.(2).

11.4 MS4 OUTFALL ASSESSMENT

The Authority will assess its MS4 outfall monitoring program annually as part of the San Diego Bay WQIP Annual Report process, described in Section 12.0. Assessments will include evaluations of dry and wet weather outfall monitoring, including field screening and observations, and data collected under the IDDE program (Section 3.0 and Appendix D-2).

Assessments will include the following:

- Non-storm water assessments per Municipal Permit Provision D.4.b.(1):
  - Progress toward effectively prohibiting NSWDs and illicit discharges into the MS4;
  - Ranking and prioritization of MS4 outfalls according to TTWQ;
  - Identification of known and suspected sources contributing to non-storm water action level exceedances at highest ranking MS4 outfalls;
  - Estimation of volumes and loads of NSWDs; and
  - Identification of data gaps.
- Wet weather MS4 outfall assessments per Municipal Permit Provision D.4.b.(2):
  - Estimation of volumes and loads of storm water discharges;
  - Identification of modifications to MS4 outfall monitoring locations and frequencies;
  - Identification of known and suspected sources contributing to storm water action level exceedances at highest-ranked MS4 outfalls; and
  - Identification of data gaps.

It is important to note that the assessments conducted under Municipal Permit Provision D.4.b focus primarily on data gathered from the single permit-required MS4 outfall monitoring location (see Appendix D-2 for outfall location and description) and the IDDE program. As described in Section 11.4, additional sampling data gathered under the Industrial Permit will be utilized to measure progress toward meeting the interim and final numeric goals stated in the WQIP.

11.5 SPECIAL STUDIES ASSESSMENT

The Authority is participating in a number of regional and watershed special studies, including the San Diego Regional Reference Streams and Beaches Studies and the San Diego Bay Debris Study. The Authority will collaborate with the other Responsible Parties to evaluate the results and finding from these special studies, as described in Appendix K of the San Diego Bay WQIP. These assessments will be incorporated into the WQIP Annual Reports as well as the ROWD.

11.5.1 FOCUSED PRIORITY CONDITION ASSESSMENT AND INTEGRATED ASSESSMENT

As part of the WQIP process mandated under the 2013 Municipal Permit, the Responsible Parties selected highest and focused priority conditions within their jurisdictions. The process for selecting these conditions is documented in Section 2.0 of the San Diego Bay WQIP. The Authority selected metals (copper and zinc) as the focused priority condition for the Authority jurisdiction, and, based on this selection, the Authority set a number of interim and final goals to evaluate progress. The first of these interim goals coincides with the end of the current Municipal Permit cycle and preparation of the ROWD. At that time, the Authority will evaluate progress toward achieving these interim goals on the basis of monitoring data and records of program implementation.

Table 11-1 lists the interim and final goals that have been set to evaluate the focused priority condition, as well as notes on the data that will be assessed and the assessment method. Data gathered from Industrial Permit-required monitoring (described in Appendix D-1) and records of BMP implementation will be used to assess these goals.

Table 11-1. Assessment of Goals for Focused Priority Condition (Copper and Zinc) Within Authority Jurisdiction, Current and Future Permit Terms

Water Quality					
Numeric Goals		**Assessment Period and Fiscal Year**			
		Current Permit Term	**FY 16-20**	**FY 21-25**	**FY 26-30**
		FY 17	FY 18	FY 21	FY 26
		Interim Goal[1]			Final Goal[2]
MS4 Discharges Jurisdiction-wide % of Wet Weather Samples With Concentrations Exceeding Target)	Dissolved Copper[3]	70%	30%	20%	0%
	Dissolved Zinc[3]	65%	35%	25%	0%
OR					
Performance Metrics		FY 16	FY 18	FY 21	FY26
MS4 Discharges Sub-basins 1, 3, and 5 (in total) Area Treated with Street Sweeping	Acres/ Week[4]	7 Acres/ Week (Current Frequency)	21 Acres/ Week (3-fold increase in area)		

Notes:

1. Interim Goals are based on State Industrial General Permit Numeric Action Levels (NALs), which are based on the 2008 USEPA NPDES Multi-Sector General Permit benchmark values. Benchmark values for copper and zinc are 33.2 µg/L and 260 µg/L, respectively, and were calculated based on the highest hardness as CaCO3 value in the 2008 Multi-Sector General Permit hardness table.
2. Final Goals are based on the 1-hour average concentration for dissolved solids from the USEPA California Toxics Rule Criteria for Enclosed Bays and Estuaries. Criteria values for copper and zinc are 4.8 µg/L and 90 µg/L, respectively.
3. The data assessed is the wet weather compliance sampling data gathered under the Industrial Permit monitoring program (Appendix D-1). The assessment method is a comparison of sample results to the Industrial Permit NALs and calculation of percent exceedance.
4. The data assessed is the SWMP implementation records. The assessment method is tracking and confirmation of the implementation of street sweeping frequency.

11.6 INDUSTRIAL PERMIT ASSESSMENT COMPONENTS

The Authority will conduct an annual facility evaluation, including an assessment of industrial source areas and BMPs. Additional BMP and facility assessments will be conducted when the Authority enters Level 1 or Level 2 discharger status for any analyte as a result of NAL exceedances.

11.6.1 ANNUAL EVALUATION

As described in Section 7.0, the Authority will conduct an Annual Evaluation. This evaluation will include an assessment of all BMPs in each industrial drainage area and associated potential pollutant sources to determine whether the BMPs are properly designed, implemented, and effective in reducing and preventing pollutants from industrial storm water and authorized NSWD. The evaluation also includes review of sampling results and inspection records. Based on the Annual Evaluation, the SWPPP may be revised to ensure (1) the site map is up to date; (2) control of all potential pollutant sources is included in the SWPPP; and (3) proper BMPs are being implemented based on sampling data and visual records.

11.6.2 LEVEL 1 STATUS ASSESSMENTS

As part of the Level 1 ERA evaluation (described in Section 7.0), the Authority will assess industrial pollutant sources that are or may be related to any Level 1 NAL exceedances. Based on this evaluation, the Authority will identify and assess the corresponding BMPs in the SWMP and any additional BMPs revisions necessary to prevent future exceedances.

11.6.3 LEVEL 2 STATUS ASSESSMENTS

When the Authority enters Level 2 status for any analyte, one of three demonstrations will be completed by a QISP as part of the Level 2 Action Plan and Technical Report, described in Section 7.0. Each evaluation includes additional assessments, listed below.

- Industrial Activity BMP Demonstration:
  - An assessment of current BMPs and additional BMPs recommended under the Level 2 ERA Action Plan will be conducted to determine whether these BMPs (1) achieve compliance with effluent limitations in the Industrial Permit; and (2) are expected to eliminate future NAL exceedances; and
  - If current and additional BMPs are not expected to eliminate future NAL exceedances, an assessment of the BMP selection methodology will be conducted to describe why any further BMPs are not implemented. This assessment will include an economic analysis of BMP alternatives.
- Non-Industrial Pollutant Source Demonstration:
  - An assessment of the relative contributions of the pollutant exceeding NALs from (1) storm water run-on from adjacent properties or non-industrial areas of SAN or aerial deposition, and (2) storm water associated with the Authority's industrial activities will be conducted; and
  - An assessment of the monitoring data used to evaluate the relative contributions of non-industrial and industrial sources will be conducted.
- Natural Background Pollutant Source Demonstration:
  - An assessment of monitoring data, research, and published literature used to demonstrate that a natural background source is responsible for the NAL exceedance will be conducted.

11.7 PROGRAM REVIEW AND MODIFICATION

The Municipal Permit and Industrial Permit both require an Annual Report that includes an assessment of SWMP effectiveness. The Annual Reports will provide documentation of the SWMP elements and data needed to make decisions regarding refinement of the SWMP. The assessment will document specific strategies implemented each year, comparison to the action levels and numeric goals, effectiveness of the

strategies toward meeting goals, need for further action or modification, and recommendations. This process will be used to track the effectiveness of the Authority's jurisdictional runoff management program on an annual basis.

Additionally, the Municipal Permit requires a ROWD at the end of each Municipal Permit cycle. This includes an assessment of the SWMP effectiveness in improving the Authority's focused priority condition. The assessment documents monitoring results and actions implemented in comparison with goals set in the WQIP. Lessons learned from this assessment will guide an adaptive management process that may lead to modifications to the SWMP as the Authority reevaluates its focused priority condition, water quality goals and schedules, water quality improvement strategies and BMPs, and monitoring and assessment programs. As progress toward achieving goals is made, the Authority's focused priority condition will be re-evaluated, and new priorities will be identified if appropriate.

The Authority has reserved this section to identify and document future changes to the Effectiveness Assessment Component of the SWMP. Section 13.0 of this SWMP details the program modifications made to the March 2008 version of the SWMP to bring this document into compliance with the renewed Municipal Permit and Industrial Permit. Changes made are listed below.

- The WQIP sweeping goal was amended slightly in Section 11 to reflect the most up-to-date information collected on the runway/taxiway sweeping program, and older goals incorporated into draft versions of the WQIP (which are no longer included in the final WQIP) have been removed; and
- The table showing WQIP goals (Table 11-1) has been updated to include all interim and final WQIP goals.

12.0 REPORTING

12.1 MUNICIPAL PERMIT REPORTS

The Municipal Permit requires Copermittees to submit deliverables in the form of annual reports and updates to ensure compliance. The Authority's JRMP implementation and results will be documented and communicated to the RWQCB and the public through the reports described in Sections 12.1.1 through 12.1.4. When requested, the Authority, along with the other Responsible Parties, will appear before the RWQCB to present progress reports on implementation of the San Diego Bay WQIP program and individual JRMPs.

12.1.1 TRANSITIONAL REPORTS

Until the first WQIP Annual Report was submitted, the Authority continued to submit a JRMP Annual Report by October 31 of each year for the previous reporting period of July 1 to June 30. The JRMP Annual Report includes a completed JRMP Annual Report Form (Attachment D of the Municipal Permit) and any required additional information to explain or clarify the responses in the form.

The Copermittees jointly submitted a Transitional Monitoring and Assessment Annual Report by January 31 of each year following each transitional monitoring and assessment reporting period of October 1 through September 30 until the first WQIP Annual Report was submitted. The Transitional Monitoring and Assessment Program Annual Report included receiving water and MS4 outfall discharge monitoring data, as well as the assessments of those data, and any required reporting from the previous Municipal Permit (R9-2007-0001).

12.1.2 WATER QUALITY IMPROVEMENT PLAN ANNUAL REPORT

The San Diego Bay WQIP Annual Report provides updates to, and results from, the WQIP program. The Authority and other Responsible Parties submit the WQIP Annual Report for each reporting period of July 1 to June 30 before January 31 of the following year. In accordance with Provision II.F.3.b.(3) of the Municipal Permit, the WQIP Annual Report includes the following information:

- Receiving water and MS4 outfall discharge monitoring data;
- Updates on the Authority's (and other Responsible Parties') contribution and progress toward completing special studies, including the results, interpretations, and conclusions following completion of each phase;
- Assessments, conclusions, and recommendations for receiving water quality, MS4 outfall discharge reduction, special studies, and WQIP program monitoring;
- Progress toward achieving interim and final numeric goals for highest and focused priority water quality conditions for the WMA;
- Description of the implemented WQIP strategies and those planned for implementation during future reporting periods;
- Description of WQIP strategies that were removed or anticipated but not implemented during the current and previous reporting periods;
- Proposed modifications to the WQIP strategies and supporting rationale;
- Comments received during the WQIP update public comment period;
- Previous modifications or updates incorporated into the WQIP and/or JRMP document;

- Proposed modifications to the WQIP and/or JRMP document and supporting rationale;
- Completed JRMP Annual Report Form (Attachment D of the Municipal Permit) for each responsible party, certified by a Principal Executive Officer, Ranking Elected Official, or DAR;
- Data or documentation used in the WQIP Annual Report, if requested by the RWQCB; and
- Monitoring and assessment data used in the WQIP Annual Report, which will be uploaded to the California Environmental Data Exchange Network and made available on the Regional Clearinghouse described in Section 12.1.4.

In FY 2021, the Authority met their WQIP goals of less than 20% and 25% exceedances for dissolved copper and dissolved zinc in wet weather discharges respectively, and continued to meet the FY 2018 goal of sweeping 21 acres in drainage basins 1, 3 and 5.

Water Quality Improvement Plan Update

As part of the adaptive management process, the WQIP will be updated in response to the results of the assessment presented in the WQIP Annual Report. As required under Provision F.2.c.(1)(a) of the Municipal Permit, the Authority and the other Responsible Parties will implement a public participation process to incorporate information, recommendations, and comments from the general public into the WQIP update. The WQIP Consultation Panel held a meeting in early 2017 to provide an opportunity for representatives of the RWQCB, environmental community, development community, and the public to comment on all aspects of the WQIP update, including the highest and focused priority water quality conditions, sources, and water quality improvement strategies, and to recommend additional updates. The Authority will continue to work with the other Responsible Parties to incorporate any proposed updates to the WQIP, and the supporting rationale, either as part of the WQIP Annual Report or the ROWD.

Final updates will be implemented 90 days after submission of the WQIP updates, unless otherwise directed by the RWQCB. Updates to the WQIP will be made available on the Regional Clearinghouse within 30 days following acceptance by the RWQCB.

12.1.2.1 Jurisdictional Runoff Management Program Document Update

This SWMP represents the Authority's updated JRMP, in accordance with the requirements in Municipal Permit Provisions F.2.a.(1) and F.2.a.(2). The Authority will also update its SWMP as necessary during submittal of WQIP Annual Reports or as part of the ROWD. The updated JRMP will be made available on the Regional Clearinghouse within 30 days following the WQIP Annual Report submittal.

12.1.2.2 BMP Design Manual Update

The BMP Design Manual was developed regionally by the Copermittee Land Development Workgroup and replaces the previous SUSMP. The BMP Design Manual includes the elements described in Section 4.7 of this SWMP. The Authority continued to implement the SUSMP until the new BMP Design Manual was adopted in February 2016 and amended in January 2022. Subsequent updates to the BMP Design Manual will be submitted with the WQIP Annual Reports or the ROWD. The updated BMP Design Manual is available on the Regional Clearinghouse via a link to the Authority's webpage.

12.1.3 REPORT OF WASTE DISCHARGE

The Authority and the other Municipal Permit Copermittees reapplied for coverage prior to expiration of the Municipal Permit on June 27, 2018, in accordance with the CFR Duty to Reapply [40 CFR 122.41]. The ROWD was submitted no later than December 24, 2017, as part of the application for reissuance of Order number R9-2013-0001 (NPDES Permit number CAS0109266).

The ROWD included the following information:

- Names and addresses of Copermittees;
- Names and titles of Authority and Copermittee primary contacts;
- Proposed updates and supporting rationale for changes to the WQIP;
- Proposed updates and supporting rationale for changes to the JRMP;
- Additional updates to the JRMP, WQIP, or BMP Design Manual that were not included in the WQIP Annual Reports; and
- Applicable information required under federal regulations for reissuance of the NPDES Permit.

12.1.3.1 Regional Monitoring and Assessment Report

The Regional Monitoring and Assessment Report was submitted no later than December 24, 2017, as part of the ROWD. In compliance with Provision II.F.3.c of the Municipal Permit, the Regional Monitoring and Assessment Report considered receiving water and MS4 outfall discharge monitoring and assessment data, results, and conclusions from previous reporting years. Based on these considerations, the report assesses, within the San Diego region, the following:

- Are beneficial uses of receiving waters being supported or adversely impacted by MS4 discharges?
- What is the progress toward protecting the beneficial uses of receiving waters?
- What are the pollutants or conditions of emerging concern that may impact the beneficial uses of receiving waters?

Recommendations for improving strategies, implementation, and assessment of the WQIP and JRMP were included in the Regional Monitoring and Assessment Report. Any Authority data used in preparation of the report will be made available on the Regional Clearinghouse described in Section 12.1.4.

12.1.4 REGIONAL CLEARINGHOUSE

The Authority and the Responsible Parties will continue to maintain and update the internet-based Regional Clearinghouse (www.projectcleanwater.org) in accordance with Provision II.F.4 of the Municipal Permit. This Regional Clearinghouse will be organized according to WMA and will continue to be used to make responsible party documents available to the public. These documents include, but are not limited to, the following (per WMA):

- WQIPs and all updates;
- Annual Reports;
- Jurisdictional Runoff Management Program documents and all updates;
- BMP Design Manual and all updates;
- Special Study reports;
- Monitoring data links to California Environmental Data Exchange Network (where data will be uploaded); and
- GIS data, layers, and/or shapefiles used to develop applicable maps.

In addition, the Authority will provide contact information, the public storm water hotline telephone number and email address, a link to the Authority webpage, information on Authority-sponsored public participation activities available, reports from regional monitoring programs where the Authority is a participant, the

Regional Monitoring and Assessment Program, and additional data or information that the Authority deems appropriate for public access.

12.1.5 STANDARD PERMIT PROVISIONS AND GENERAL PROVISIONS

Federal regulation 40 CFR 122.41(l) requires the Authority to notify the RWQCB as soon as possible of any changes to the airport property or activities that may result in any of the following:

- Planned physical alterations or additions to airport facilities that may result in a new source of pollutants, or a significant change in the nature or quantity of pollutants discharged; and
- Anticipated noncompliance with the requirements of the Municipal Permit.

Any occurrence of noncompliance that may threaten health or the environment, such as an unanticipated bypass or upset that exceeds effluent limitations, or any violation of maximum daily discharge limitations, will be verbally reported to the RWQCB within 24 hours from the time the Authority becomes aware of the incident, followed by a written notification within 5 days (unless the RWQCB waives this requirement). The written report must include:

- A description of the incident and its cause;
- The period of noncompliance (dates/times);
- If not corrected, anticipated time until correction; and
- Steps taken or planned to prevent reoccurrence of the noncompliance.

All other instances of noncompliance will be included annually in the monitoring reports.

General Provisions of the Municipal Permit require any reports submitted to comply with any Municipal Permit requirements to include an executive summary, introduction, conclusion, recommendations, and signed certified statement covering the Authority's responsibilities, in a hard copy and an electronic copy to the RWQCB, unless requested otherwise, and one electronic copy to the USEPA.

12.2 INDUSTRIAL PERMIT REPORTS

An Annual Report will be submitted each year in accordance with Section XVI of the Industrial Permit. Sampling results from the 2015-2016 reporting period indicated an NAL exceedance for copper and the Authority entered Level 1 status for that parameter beginning July 1, 2016. The Authority also submitted an ERA Report because of this NAL copper exceedance. By the end of the 2016-2017 reporting period, sampling results indicated NAL exceedances for copper and zinc. Subsequently, the Authority entered Level 1 status for zinc and Level 2 status for copper, beginning July 1, 2017. An ERA Evaluation and Report was submitted for the Level 1 status for zinc. An ERA Action Plan was submitted for the Level 2 status for copper, and an ERA Technical Report will be submitted once all tasks in the Action Plan are completed. By the end of the 2017-2018 reporting period, sampling results indicated NAL exceedances for copper, zinc, BOD, and COD. Subsequently, the Authority entered Level 1 status for BOD and COD, and Level 2 status for copper and zinc, beginning July 1, 2018. An ERA Evaluation and Report was submitted for the Level 1 status for BOD and COD. A revised ERA Action Plan was submitted for the Level 2 status for copper and was modified to incorporate zinc, and an extension request to the ERA Technical Report was submitted to allow time for all tasks in the Action Plan to be completed. For the monitoring years 2018-2019 and 2019-2020, sampling results indicated NAL exceedances for copper but no additional NAL exceedances for zinc, BOD, or COD. However, zinc will remain in Level 2 until requirements of the ERA Level 2 Technical Report extension are completed. COD and BOD concentrations were below the NAL for three storms in 2018-2019 and the consecutive first storm of the 2019-2020 monitoring season. As a result, both COD and BOD returned to baseline. Beginning July 1, 2020, the Authority remained in ERA Level 2 status for copper and zinc. Zinc did not exceed the NAL in the 2020-2021 reporting period but remains in ERA Level 2 status

because the technical report has not yet been completed. By the end of the 2020-2021 reporting period, sampling results indicated NAL exceedances for iron. Subsequently, the Authority entered Level 1 status for iron, and retained Level 2 status for copper and zinc beginning July 1, 2021. These reports are described in Sections 12.2.2.

12.2.1 INDUSTRIAL PERMIT ANNUAL REPORT

The Industrial Permit Annual Report, in a standardized format generated under the Industrial Permit, will be submitted in SMARTS by July 15 following each reporting year (July 1 through June 30). The Annual Report will include the following:

- A Compliance Checklist indicating compliance with all applicable Industrial Permit requirements;
- An explanation of any non-compliant activities or events within the reporting year;
- A description of any revisions applied to the SWPPP during the reporting year and their location within the SWPPP; and
- The date of the Annual Evaluation, as described in Section 7.10.

The Authority will submit any sampling and analytical results via the SWRCB's SMARTS website within 30 days of obtaining all results for each sampling event.

12.2.2 EXCEEDANCE RESPONSE ACTION REPORTING

An ERA Report will be submitted by January 1, only if the Authority enters Level 1 or Level 2 status at any point during the previous reporting period. ERAs are conducted in response to an annual or instantaneous maximum NAL exceedance, as defined in Section XII of the Industrial Permit. ERA analyses, plans, and reports will be completed by a certified QISP and submitted in SMARTS. The ERA documents required for each level will include the following:

Level 1

- ERA Report:
  - A description of any revisions to the SWPPP necessary to address the potential pollutant source(s) related to the NAL exceedance;
  - BMP additions or modifications necessary to prevent future NAL exceedances;
  - A summary of the required SWPPP revisions; and
  - The name, identification number, and contact information for the QISP assigned to perform the ERA evaluation and prepare the report.

Level 2

- ERA Action Plan:
  - A separate ERA Action Plan will be submitted for each new parameter that exceeded the NAL or for equivalent parameters that exceeded NALs in different drainage areas. The Action Plan will identify the BMP demonstration(s) to be performed in each corresponding drainage area to prevent future NAL exceedances.
  - The ERA Action Plan will include a schedule and description of tasks required to complete the BMP demonstration(s).

- ERA Technical Report:
  - The Authority will select a BMP demonstration from the list provided in Sections XII.D.2.a through XII.D.2.c of the Industrial Permit to address the source(s) of each pollutant with a NAL exceedance. The ERA Technical Report will include a detailed description of the BMP demonstration chosen to address each NAL exceedance.
  - The ERA Technical Report will be updated annually to include additional NAL exceedances of the same parameter and drainage area, activity or operational changes, pollutant source(s) changes, and/or additional information acquired through visual observations, evaluations, and sampling as applicable. If no changes are necessary, the Authority will explain in the Annual Report why resubmittal of the ERA Technical Report is not necessary.

Further information about the ERA levels, evaluations, planning, and reporting is provided in Section 7.9.

13.0 MODIFICATIONS TO THE SWMP

This SWMP was updated from the March 2008 version of the SWMP to comply with the new requirements of the Municipal Permit, the Industrial Permit, and to incorporate new developments and BMPs installed during the Green Build North Side Development and other redevelopments at SAN. As part of the iterative process for the WQIP and any required updates to the SWPPP, modifications may continue to be made to this SWMP to reflect programmatic changes and/or strategy improvements as a result of WQIP and NAL assessments required under the respective permits. Proposed changes to the SWMP or applicable program modifications will be included in the Annual Reports for the Municipal Permit and the Industrial Permit.

Modifications made to the overall structure of the SWMP and incorporated into the SWMP June 2015 Revision to bring this document into conformance with the renewed Municipal Permit and the Industrial Permit include the following:

- Combining previous Sections 3.0 and 9.0 into the new Section 3.0 "Non-Storm Water Discharges/Illicit Discharge Detection and Elimination."
- Combining previous Sections 10.0 and 11.0 into the new Section 9.0 "Public Participation and Education Component."
- Separating sections regarding compliance with the Industrial Permit from the rest of the SWMP. Section 7.0 was modified so that it could be extracted from the remainder of the SWMP for uploading to SMARTS per Industrial Permit requirements. An attachment to Section 7.0 will include material from other sections of the SWMP that are referenced in Section 7.0 and will be uploaded with Section 7.0 into SMARTS. This attachment is for SMARTS upload purposes only and will not be included in this SWMP.
- Transferring Tables 1 through 9 from the end of the document into their corresponding sections.
- Rearranging Appendices D-1 and D-2 for wet and dry weather monitoring into Appendices D-1 and D-2 for Industrial Permit Monitoring Implementation Plan and Municipal and BMP Effectiveness Monitoring Plan, respectively.
- Updating the JRMP in accordance with the strategies identified in the WQIP.

- **Modifications made to the SWMP in February 2016 include the following:**

  - The BMP Design Manual replaced the SUSMP in Appendix C, and related updates to Sections 4 and 12 were made.

Modifications made to the SWMP following the Annual Evaluations (2015 and 2016), ERA Site Assessment (2016) and WQIP Annual Report (2017) include:

- Updates were made to the Industrial Component, Section 7, following the Annual Evaluation and ERA, including update of the LRP and addition of the QISP.
- Appendix B was updated following the Annual Evaluations (2015 and 2016) and ERA (2016).
- Updates were made to Appendix D-1 following the Annual Evaluations (2015 and 2016) and ERA (2016).
- Updates were made to the tenant summary sheets and maps in Appendix E following the Annual Evaluations.
- Sampling locations were modified in order to collect samples representative of activities conducted in specified drainage basins.

- Sampling procedures, sampling sites, data quality objective table, and sampled analytes were updated in Appendix D-1.
- The following BMPs were added to Appendix B as a result of the ERA Evaluation:
  - SC09-8 Repair Damaged Asphalt;
  - SC09-9 Reduce the exposure of galvanized or rusty metal structures to rainfall, where possible; and
  - SC12-12 Roads, ramp areas, and apron areas are scrubbed on an as-needed basis.
- The SWMP was modified to enhance the information included in Section 7 and Appendices B, D and E for tenants Menzies Fuel Farm and Aircraft Services International Group (now Menzies), and to add information for the new tenant Conrac Solutions, in anticipation of their incorporation into the Authority's program and WDID number under the Industrial Permit. Incorporation of those tenants under the Authority's WDID is dependent upon approval by the State and RWQCB of the Authority's COI and tenant NOTs.
- Tenant Summary Sheets and Appendix E figures were updated to reflect Tenant operations.
- Figures 3-7 were updated to reflect changes in the tenant gates, sampling locations, and new TCBMPs installed.
- The WQIP sweeping goal was amended slightly in Section 11 to reflect the most up-to-date information collected on the runway/taxiway sweeping program, and older goals incorporated into draft versions of the WQIP (which are no longer included in the final WQIP) have been removed.

- **Modifications made to the SWMP following the Annual Evaluation (September 2017) and ERA (July/August 2017)**

- Updates were made to the Industrial Component, Section 7, following the Annual Evaluation and ERA Evaluation;
- All BMP Summary Sheets and maps were updated in Appendix B to reflect tenant and tenant gate changes, to reflect the change of Aircraft Services International Group to Menzies, and to include the airline Edelweiss that began operations at SDIA in May 2017;
- Updates were made to Appendix D-1 to reflect changes in sampling locations for the 2017-2018 monitoring year;
- Updates were made to the tenant summary sheets and maps in Appendix E following the Annual Evaluation (September 2017);
- Figures 3-7 were updated to reflect changes in the tenant gates, sampling locations and to include the airline Edelweiss;
- The tenant Aircraft Services International Group was renamed Menzies during summer 2017 and the Industrial Component, Section 7, Appendix B, Appendix E, and Figures 3-7 were updated to reflect this change;
- The following BMPs were added to Appendix B as a result of the ERA Evaluation and Annual Evaluation:
  - SC01-10: Prohibit over-irrigation of landscaped areas; and SC07-13: Do not permanently store equipment and materials in the bed of a pickup truck. If storing temporarily, provide cover and containment.

- **Modifications made to the SWMP following the Annual Evaluation (September/October 2018) and ERA (August 2018)**

- Updates were made to the Industrial Component, Section 7, following the Annual Evaluation and ERA Evaluation.
- All applicable BMP Summary Sheets and maps were updated in Appendix B to reflect any tenant and tenant gate changes.
- Updates were made to Appendix D-1 to reflect changes in sampling locations for the 2018-2019 monitoring year.
- Updates were made to the tenant summary sheets and maps in Appendix E following the Annual Evaluation (September/October 2018).
- Figures 3-7 were updated to reflect changes in the tenant gates and sampling locations.
- Minor updates were made to the drainage basins in Section 1.
- Updates were made to Authority departments in Section 2 following organizational changes at SAN, and subsequent assignment of roles and responsibilities.
- Further BMPs and details were added on the prohibition of over-irrigation in Section 3 (and throughout the SWMP), and details on the FOD Management Program at SAN. The outline of potential NSWDs at SAN was reorganized in Sections 3.1.1. – 3.1.2.
- Updates were made to Section 4 in January 2019, following finalization of the Strategic Master Drainage Plan and change in the storm water capture and reuse WQIP strategy from an optional to a jurisdictional strategy.
- Updates were made to Section 5 in January 2019, to add the current (as of January 2019) construction sites and the method of assigning TTWQ designations for construction sites.
- Updates were made to Section 6 in January 2019, following the designation of additional minimum BMPs, and addition of specific BMPs for preventing over-irrigation.
- Section 7 of the SWMP was modified in January 2019 to incorporate updates as a result of ERAs and the 2018 annual evaluation.
- Language was added to Section 9 to emphasize the over-irrigation education and outreach conducted and to add information on the Sustainability Fair.
- Section 11, Table 11-1 was updated to show all interim and final WQIP goals.
- Section 12 was updated to reflect the latest ERAs and reporting following the 2017-2018 monitoring season.

- **Modifications made to the SWMP following the Annual Evaluation (September/October 2019) and ERA (August 2019)**

  - Updates were made to the Industrial Component, Section 7, following the Annual Evaluation and ERA Evaluation.
  - All applicable BMP Summary Sheets and maps were updated in Appendix B to reflect any tenant and tenant gate changes.
  - Updates were made to the tenant summary sheets and maps in Appendix E following the Annual Evaluation (September/October 2019).
    -

- **Modifications made to the SWMP following the Annual Evaluation (September 2020) and ERA (August 2020)**

  - Updates were made to the Industrial Component, Section 7, following the Annual Evaluation and ERA Evaluation.
  - All applicable BMP Summary Sheets and maps were updated in Appendix B to reflect any tenant and tenant gate changes.
  - Updates were made to the tenant summary sheets and maps in Appendix E following the Annual Evaluation (September 2020).
  - Minor updates were made to Drainage Basin 3 in Attachment 1 Section 1.
  - Minor updates were made to Attachment 1 Section 3 to update the name of the facility of Allied Aviation to Menzies Fuel Farm.
  - Updates were made to Section 6 to include new TCBMPs and any other updates to the TCBMP inventory.
  - Section 12 was updated to reflect the latest ERAs and reporting following the 2019-2020 monitoring season.

- **Modifications made to the SWMP following the Annual Evaluation (September 2021) and ERA (August 2021)**

  - Updates were made to the Industrial Component, Section 7, following the Annual Evaluation and ERA Evaluation.
  - All applicable BMP Summary Sheets and maps were updated in Appendix B to reflect any tenant and tenant gate changes.
  - Updates were made to the tenant summary sheets and maps in Appendix E following the Annual Evaluation (September 2021).
  - Updates were made to descriptions of Drainage Basins 3, 4, 5a, 6, 7, 8, 9, 10, 11 and 14 in Section 1, as well as the addition of off-airport parcel descriptions.
  - Updates were made to Section 6 to include new TCBMPs and any other updates to the TCBMP inventory.
  - Section 12 was updated to reflect the latest ERAs and reporting following the 2020-2021 monitoring season.
  - Updates were made to the escalated enforcement measures in Sections 3, 4, 6 and 7.

14.0 CONCLUSIONS AND RECOMMENDATIONS

The SAN SWMP describes procedures and activities intended to manage and reduce urban runoff pollution to the storm drain system, and ultimately San Diego Bay, from the operations and activities at SAN. This document was prepared by the Authority to be consistent with the Municipal Permit and the Industrial Permit to provide a written account of the various programs and strategies developed to comply with the requirements of these two permits and ultimately to improve water quality of receiving waters in San Diego Bay. The SWMP is a combination of the Authority's JRMP document required by the Municipal Permit and the industrial SWPPP required by the Industrial Permit. This SWMP contains information required by the Municipal Permit for each component of the Authority's storm water management program, including land use planning for new development and redevelopment, construction activities, existing development, IDDE activities, and education and public participation activities. It also serves to document the Authority's plans to meet the goals and strategies developed for the San Diego Bay WQIP. The WQIP serves as the tool to assess the effectiveness of Copermittees' individual JRMPs and to track progress toward meeting water quality improvement goals. The iterative process of the WQIP allows jurisdictional programs and strategies to be adapted and modified as the understanding of their impacts on water quality improves.

The requirements of the Industrial Permit are included in this SWMP to provide one document to serve as a reference for all Authority staff and tenants. However, the Industrial section and corresponding appendices and attachments will be extracted and uploaded via SMARTS per Industrial Permit requirements.

Any recommendations for future actions and/or program additions or revisions will be presented in the Annual Reports required by both the Industrial Permit and the Municipal Permit.

15.0 REFERENCES

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FIGURES

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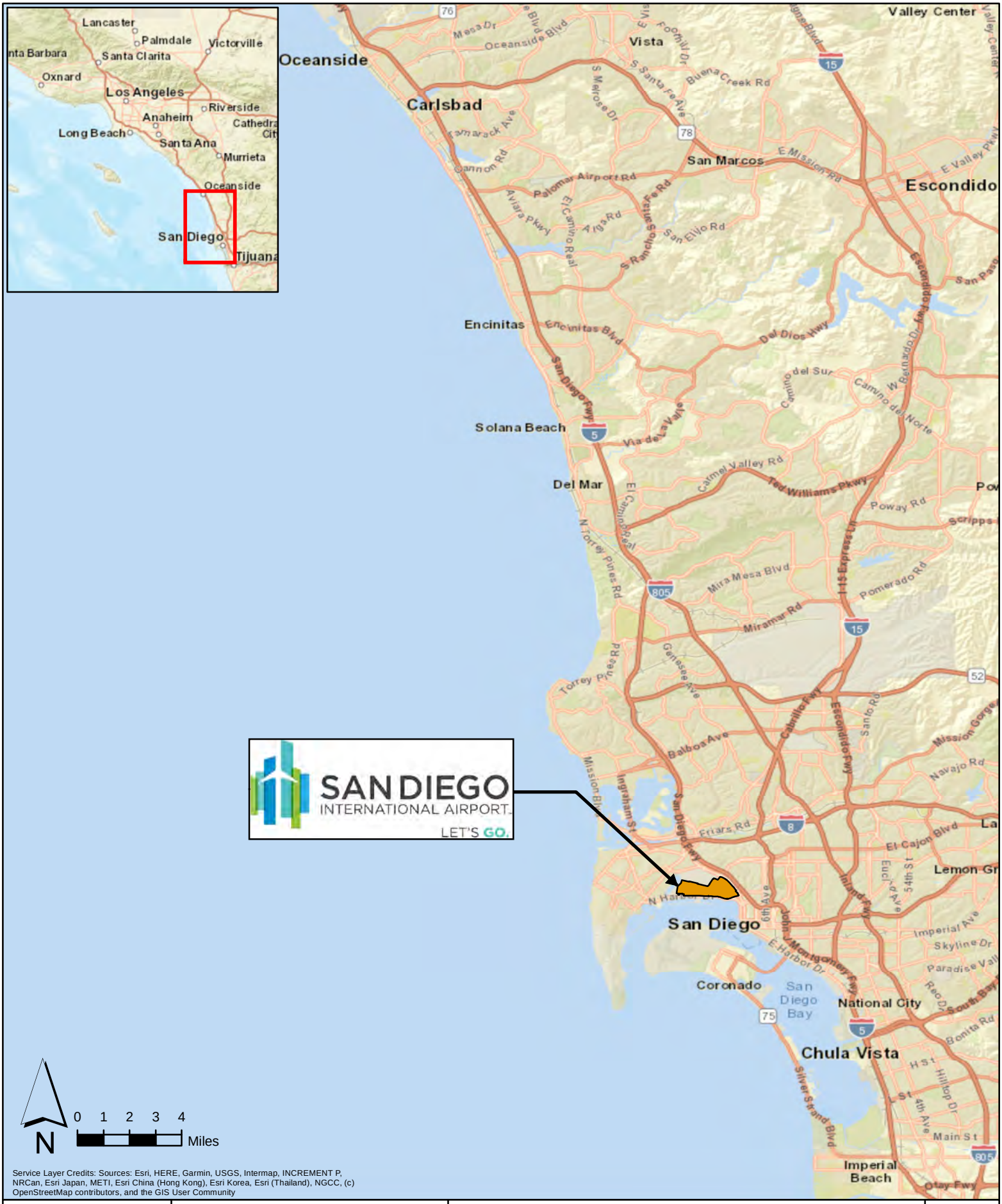

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SAN Stormwater Management Plan **January 2022**	wood.	**Regional Location Map** **San Diego International Airport**	FIGURE 1

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

SAN Stormwater Management Plan **January 2022**	wood.	**General Vicinity Map** **San Diego International Airport**	FIGURE 2

Notes:

1. Areas impacted by storm water run-on from surrounding areas include the eastern portion of Drainage Basin (DB) 1 and the northern portions of DB 5, 6, and 13.
2. Most storage areas are under cover, apart from the boneyard area and some equipment storage areas outside some maintenance shops in DB 5A.
3. All areas are paved apart from the erodible areas, the Least Tern ovals, and the landscaped areas in the parking lots.
4. Shipping and receiving areas are located at Bradford's facility (DB 6) and the Airline Support Building (DB 5A).
5. Equipment maintenance/storage areas are mainly inside, and at the Airline Support Building in DB 5A. Minor maintenance is also performed in ramp areas.
6. No significant spills or leaks have occurred at SAN in the last five years.
7. Storm drain inlets are shown on map attached to SC01 in Appendix B.

T-B06-09
C-B06-14
C-B06-19
T-B06-7
C-B06-5a
C-B06-15a
C-B06-25
C-B12-9a
S-B12-12a
T-B12-12
T-B15-15
C-B15-18a
C-B08-22
C-B08-8
C-B08-20a
C-B06-17
C-B05-13
T-B05-08
C-B03-21
T-B03-1
T-B06-14
C-B05a-23
C-B06-16a
C-B05a-24
T-B05-2a
C-B05-4
T-B03-11
C-B03-1c
T-B06-10
C-B03-2
T-B03-6

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- Sampling Location
- Inlet
- Outfall
- Stormwater Pipe
- Trench Drain
- Direction of Surface Flow
- Permeable Strip
- Aircraft Lavatory Disposal
- Composting
- Dumpster
- Fuel Storage
- Fueling
- Grease Trap
- Industrial Waste
- Loading
- Material Storage
- Metal Storage
- Oil Storage
- Portable Toilet
- Recycling
- Underground Storage Tank
- Wash Area
- Artificial Turf
- Erodible Area
- Least Tern Nesting Area
- Pervious Pavement
- Building/Other Roofed Structures
- Drainage Basin and Number
- Airport Boundary
- Off-Airport Leased Parcels
- (A) Inlet Filter
- (AA) Cistern
- (AB) HFF Oil Stop Valve
- (AC) Underground Infiltration Basin
- (B) Permeable Surface
- (C) Trench Drain Filter
- (D) Bio Clean Grate Inlet Skimmer Box
- (E) Bio Clean Curb Inlet Skimmer Box
- (F) Infiltration Trench
- (G) Contech Storm Filter
- (H) Contech CDS
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- (J) Modular Wetland System
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- (O) Oil Water Separator
- (P) Pervious Gravel
- (Q) Bioretention Basin
- (R) Subsurface Infiltration Basin
- (S) Curb Inlet Box
- (T) Curb Cut with Rock Infiltration Bed
- (U) OldCastle/Kristar Perkfilter Unit
- (V) Contech Jellyfish Unit
- (W) CleanWay Metalzorb
- (X) Activated Alumina Filter Bags
- (Y) Biochar Boom
- (Z) Revel Environmental Manufacturing (REM) Inlet Filter

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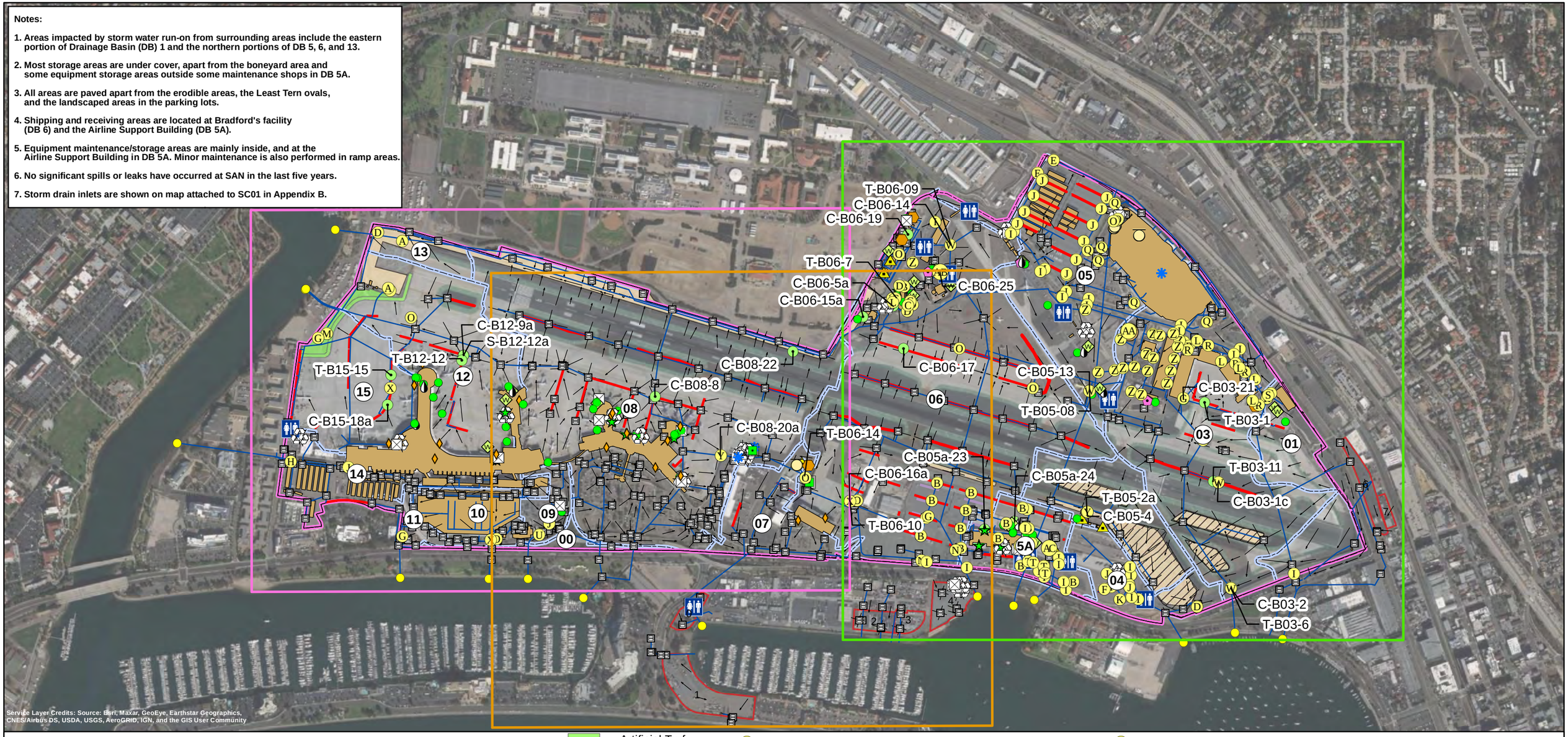
SAN DIEGO INTERNATIONAL AIRPORT
San Diego, California

STORM WATER MANAGEMENT PLAN AT SAN DIEGO INTERNATIONAL AIRPORT

FIGURE
3

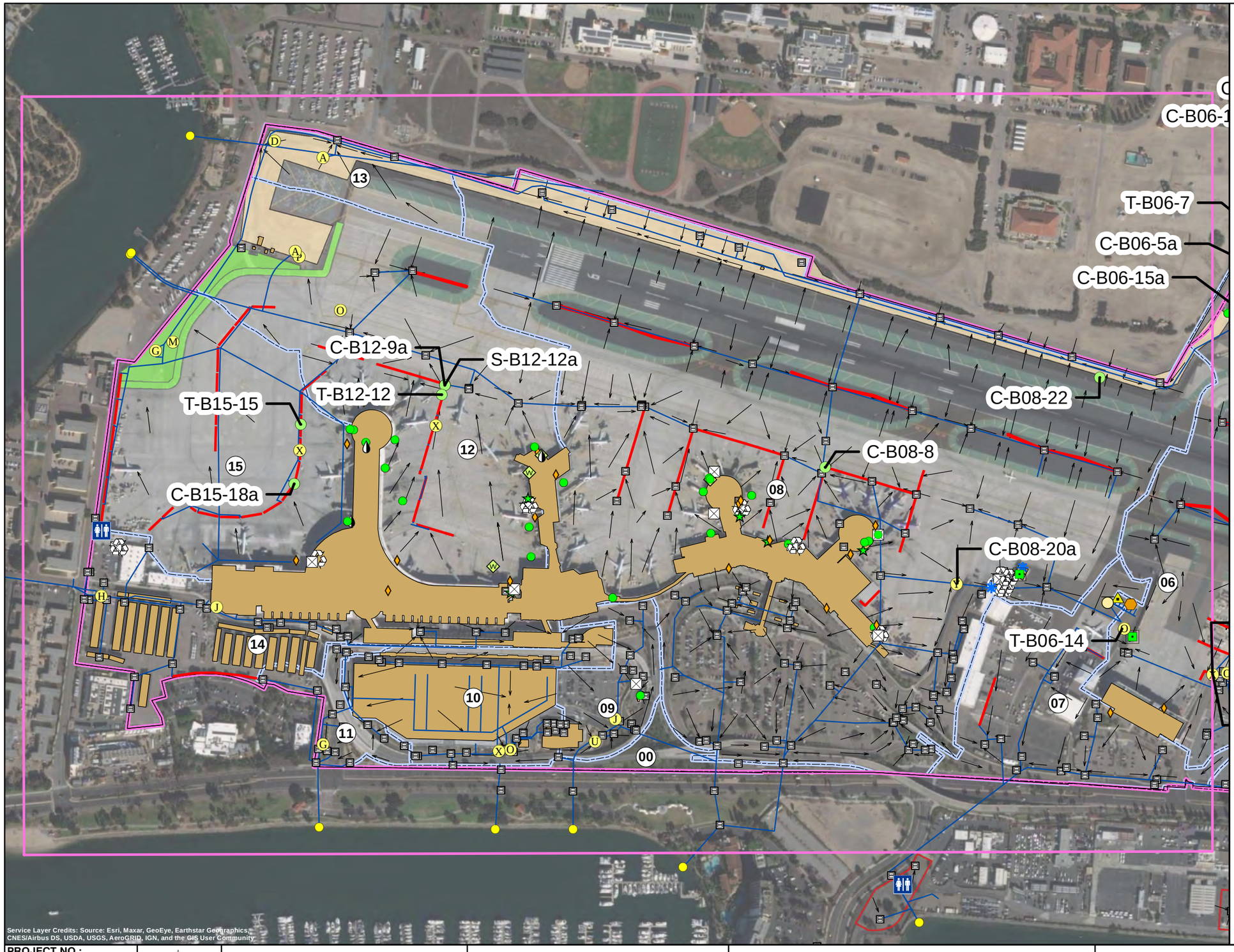
Notes:

1. Areas impacted by storm water run-on from surrounding areas include the eastern portion of Drainage Basin (DB) 1 and the northern portions of DB 5, 6, and 13.
2. Most storage areas are under cover, apart from the boneyard area and some equipment storage areas outside some maintenance shops in DB 5A.
3. All areas are paved apart from the erodible areas, the Least Tern ovals, and the landscaped areas in the parking lots.
4. Shipping and receiving areas are located at Bradford's facility (DB 6) and the Airline Support Building (DB 5A).
5. Equipment maintenance/storage areas are mainly inside, and at the Airline Support Building in DB 5A. Minor maintenance is also performed in ramp areas.
6. No significant spills or leaks have occurred at SAN in the last five years.
7. Storm drain inlets are shown on map attached to SC01 in Appendix B.



- Sampling Location
- Inlet
- Outfall
- Stormwater Pipe
- Trench Drain
- Direction of Surface Flow
- Permeable Strip
- Aircraft Lavatory Disposal
- Composting
- Dumpster
- Fuel Storage
- Fueling
- Grease Trap
- Industrial Waste
- Loading
- Material Storage
- Metal Storage
- Oil Storage
- Portable Toilet
- Recycling
- Underground Storage Tank
- Wash Area
- Artificial Turf
- Erodible Area
- Least Tern Nesting Area
- Pervious Pavement
- Building/Other Roofed Structures
- Drainage Basin and Number
- Airport Boundary
- Off-Airport Leased Parcels
- A Inlet Filter
- AA Cistern
- AB HFF Oil Stop Valve
- AC Underground Infiltration Basin
- B Permeable Surface
- C Trench Drain Filter
- D Bio Clean Grate Inlet Skimmer Box
- E Bio Clean Curb Inlet Skimmer Box
- F Infiltration Trench
- G Contech Storm Filter
- H Contech CDS
- I ClearWater Solutions BMP Unit
- J Modular Wetland System
- K Detention Basin
- L Bioswale
- M Artificial Turf Infiltration
- N Aquashield HDS
- O Oil Water Separator
- P Pervious Gravel
- Q Bioretention Basin
- R Subsurface Infiltration Basin
- S Curb Inlet Box
- T Curb Cut with Rock Infiltration Bed
- U OldCastle/Kristar Perkfilter Unit
- V Contech Jellyfish Unit
- W CleanWay Metalzorb
- X Activated Alumina Filter Bags
- Y Biochar Boom
- Z Revel Environmental Manufacturing (REM) Inlet Filter
- Figure 5
- Figure 6
- Figure 7

PROJECT NO.: 5025-18-2002 DATE: JANUARY 2022 DRAWN BY: CAB CHECKED BY: AA/NP	N	0 250 500 1,000 1,500 2,000 Feet	wood.	**SAN DIEGO INTERNATIONAL AIRPORT** **San Diego, California**	**STORM WATER MANAGEMENT PLAN AT SAN DIEGO INTERNATIONAL AIRPORT**	FIGURE 4



Legend

- Sampling Location
- Inlet
- Outfall
- Stormwater Pipe
- Trench Drain
- Direction of Surface Flow
- Permeable Strip
- Aircraft Lavatory Disposal
- Composting
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- Airport Boundary
- Off-Airport Leased Parcels

- (A) Inlet Filter
- (AA) Cistern
- (AB) HFF Oil Stop Valve
- (AC) Underground Infiltration Basin
- (B) Permeable Surface
- (C) Trench Drain Filter
- (D) Bio Clean Grate Inlet Skimmer Box
- (E) Bio Clean Curb Inlet Skimmer Box
- (F) Infiltration Trench
- (G) Contech Storm Filter
- (H) Contech CDS
- (I) ClearWater Solutions BMP Unit
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- (K) Detention Basin
- (L) Bioswale
- (M) Artificial Turf Infiltration
- (N) Aquashield HDS
- (O) Oil Water Separator
- (P) Pervious Gravel
- (Q) Bioretention Basin
- (R) Subsurface Infiltration Basin
- (S) Curb Inlet Box
- (T) Curb Cut with Rock Infiltration Bed
- (U) OldCastle/Kristar Perkfilter Unit
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- (Y) Biochar Boom
- (Z) Revel Environmental Manufacturing (REM) Inlet Filter

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SAN DIEGO INTERNATIONAL AIRPORT

San Diego, California

STORM WATER MANAGEMENT PLAN AT SAN DIEGO INTERNATIONAL AIRPORT

FIGURE

5

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Sampling Location
- Inlet
- Outfall
- Stormwater Pipe
- Trench Drain
- Direction of Surface Flow
- Permeable Strip
- Aircraft Lavatory Disposal
- Composting
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- Industrial Waste
- Loading
- Material Storage
- Metal Storage
- Oil Storage
- Portable Toilet
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SAN DIEGO INTERNATIONAL AIRPORT

San Diego, California

STORM WATER MANAGEMENT PLAN AT SAN DIEGO INTERNATIONAL AIRPORT

FIGURE 6

Legend

- Sampling Location
- Inlet
- Outfall
- Stormwater Pipe
- Trench Drain
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- Aircraft Lavatory Disposal
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SAN DIEGO INTERNATIONAL AIRPORT

San Diego, California

STORM WATER MANAGEMENT PLAN AT SAN DIEGO INTERNATIONAL AIRPORT

FIGURE 7

San Diego County Regional Airport Authority Leadership Group

Airport Authority Board of Directors

Amy Gonzalez
General Counsel

Lee Parravano
Chief Auditor

Kimberly Becker
President & CEO

Lee Kaminetz
Director, Counsel Services

Angela Shafer-Payne
Vice President & Chief Operations Officer

Scott Brickner
Vice President & Chief Financial Officer

Hampton Brown
Vice President & Chief Revenue Officer

Dennis Probst
Vice President & Chief Development Officer

Michelle Brega
Senior Director, External Relations

Monty Bell
Director, Talent, Culture, & Capability

Clint Welsh
Director, Aviation Security & Public Safety

Jessica Bishop
Director, Information & Technology Services

Rick Belliotti
Director, Customer Experience & Innovation

Bob Bolton
Director, Airport Design & Construction

Matt Harris
Director, Government Relations

David LaGuardia
Director, Facilities Management

John Dillon
Director, Financial Planning & Budgeting

James DeCock
Director, Revenue Generation & Partnership Development (interim)

Brendan Reed
Director, Airport Planning & Environmental Affairs

Jonathan Heller
Director, Communications

Marc Nichols
Director, Ground Transportation

Liz Stewart
Director, Accounting (Interim)

Jon Graves
Director, Marketing & Air Service Development (interim)

Tony Russell
Director, Board Services & Records Management

Jeff Rasor
Director, Terminal & Airside Operations

Jana Vargas
Director, Procurement