

## **1.0 INTRODUCTION**

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### **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, 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](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. 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 drain pipe 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 recently 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.

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 turn around [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 937NEC002567, 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.

## **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 and a vehicle parking area containing a proprietary drain inlet filter BMP.

## **DRAINAGE BASIN 5**

A large portion of Drainage Basin 5 is utilized for vehicle parking, the RCC, and a public long-term parking lot. 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**

Drainage Basin 5A is a small, newly re-developed portion of Drainage Basin 5 that contains drainage from the entrance of the Transportation Network Company and cell phone lots, as well as drainage from part of the entrance to the employee lot and taxi hold lot. Activities are primarily commercial vehicle parking and Transportation Network Company parking.

### **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. 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.

Between the FSF and the air cargo carrier area is an Authority equipment and materials storage area, referred to as the “boneyard,” which provides storage for various parts and equipment. The boneyard is just north of the Air Traffic Control Tower (ATCT). 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. Adjacent to the boneyard is the CRDC serving 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 25,000-gallon OWSs. Also located in Drainage Basin 6 are portions of the runway, taxiways, and the vehicle service road. Solid waste from runway rubber removal are 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. Ramp sweeping solid waste is dumped at the lined lowboy west of the ATCT and the waste water is disposed at the wash rack. A contractor is responsible for disposal of waste and waste water generated in both the lowboy and the dewatering bin.

This drainage basin also includes the old Commuter Terminal ramp area and new 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 5,000-gallon capacity OWS. The parking lots were constructed with several new 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.

### **DRAINAGE BASIN 7**

Drainage Basin 7 includes Menzies (formerly Aircraft Services International Group), the old Commuter Terminal short-term parking lot and access road, Authority offices and parking lot, part of the airport RFF, a former aircraft wash rack, a vehicle wash rack, ground support equipment (GSE) maintenance and storage areas, a fuel truck parking area that drains into a 3,000-gallon OWS, and a secondary cargo area where outdoor loading and unloading of cargo occurs. Equipment, parts, vehicles, materials and trash storage areas, as well as a hazardous waste accumulation area are all located in this drainage basin. The aircraft wash rack was removed in 2016. All equipment used for the wash rack was removed, and the site was restored to the previous state before the wash rack was installed. During a rain event, no washing occurs and the drainage is switched to the storm drain system, via an automatic rain-event-triggered valve. The vehicle wash rack drains to a small sump which is connected to the sanitary sewer.

### **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 compactor 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.

To the south of the trash compactor area is parking for the secondary cargo area. West of this parking 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 also includes the Terminal 1 short-term parking lot.

### **DRAINAGE BASINS 9, 10, 11, AND 14**

Runoff from the Terminal 2 public short-term parking lot and 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

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Build. Drainage Basin 9 also includes office buildings, the central heating, ventilation, and air conditioning (HVAC) building and power plant building, equipment fueling, maintenance, and storage areas, and other materials and waste storage areas. Drainage Basins 9, 10, and 11 include the Terminal 2 Parking Plaza, which was completed in May 2018. The Terminal 2 Parking Plaza contains a 7.6-acre capture and reuse facility that captures 100% of the storm water drainage from an 85<sup>th</sup>-percentile of the 2-year storm event and routes it to the central HVAC building and power plant building. Drainage Basin 14 includes office buildings.

New storm water BMPs were installed in the Terminal 2 parking lots as part of the Green Build, including an acre of pervious pavers and bioswales, and three high-rate media filters.

### **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. 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.