

**California Regional Water Quality Control Board
San Diego Region**

David Gibson, Executive Officer



**Executive Officer's Report
March 9, 2022**

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Part A – San Diego Region Staff Activities

1. Personnel (*Attachment A-1*)

Staff Contact: Dulce Romero

An updated San Diego Water Board staff list can be viewed at: [San Diego Regional Water Quality Control Board Staff List \(ca.gov\)](#).

Recruitment

We are actively recruiting for five positions: one limited-term Senior Environmental Scientist Specialist in the Healthy Waters Branch, one Engineering Geologist and one Water Resource Control Engineer in the Groundwater Protection Branch; and one Water Resource Control Engineer and one Graduate Student in the Surface Water Protection Branch.

We are preparing to begin recruitment for three positions including two Student Assistants in the Surface Water Protection Branch and one Environmental Scientist in the Groundwater Protection Branch.

Filled Vacancies

We are excited and proud to announce one recent hire:

Rebecca Rosaler will be joining the Healthy Waters Branch as a Graduate Student Assistant in early March. Rebecca will be working with various program and project leads to develop communication products for internal and external audiences. She is studying Resilient and Sustainable Communities at Prescott College and has recently worked in marketing and development in the non-governmental sector. The position is a limited-term intern position designed to give students the experience of working with the Water Board. More information about the internship program is available at: [State and Regional Boards' Student Programs | California State Water Resources Control Board](#).

Turnover

Nicole Gergans has left the Water Board for an exciting opportunity with our sister agency, the California Department of Fish and Wildlife (CDFW). Nicole has served as an Environmental Scientist and Senior Environmental Scientist Specialist in many programs across all three branches of our office since joining the Board in 2015. She will be a great asset to CDFW where she will be managing restoration grants in the steelhead fisheries program.

Recognition

Lark Starkey, an Environmental Scientist in our Restoration and Protection Planning Unit, was highlighted in the recent Director's Report from the Southern California Coastal Water Research Program (SCCWRP). The report describes Lark's hard work to develop a management strategy for reducing eutrophication in the Santa Margarita River watershed and how the scientific investigations performed by SCCWRP's scientists are helping her complete that work. Congratulations to Lark on this well-deserved spotlight. The report is Attachment A-1 to this report.

Information regarding our vacancies is located on the CalCareers and San Diego Water Board websites:

<https://calcareers.ca.gov/CalHRPublic/Search/AdvancedJobSearch.aspx>;
https://www.waterboards.ca.gov/sandiego/about_us/employment/.

2. Water Tech Stormwater Capture Conference

Staff Contact: David Gibson

On January 25, 2022, I was pleased to be the keynote speaker at the Water Tech Alliance "[San Diego Stormwater Capture and Use](#)" Event. I highlighted a significant success story (San Diego International Airport) and a significant missed opportunity in the redevelopment of the former stadium property by SDSU as well as several projects in development in the City of San Diego. Stormwater capture and use presents the opportunity to intercept and remove trash and wastes (e.g., copper at the San Diego International Airport), diversify local sustainable water supply in the face of climate change. The stormwater treatment technology and the potential for linkage with enterprise funded programs (e.g., wastewater recycling for potable reuse) are improving the prospects for the projects in development in the region.

The City of San Diego, Industrial Environmental Association, County of San Diego, San Diego County Water Authority, San Diego Coastkeeper and the County of San Diego Building Trades Council participated in a panel discussion on the opportunities, constraints, funding, and regulatory challenges of stormwater capture and use. In particular, the panel and audience discussed seeking State Revolving Fund support for these projects, utilizing interagency agreements between wastewater and stormwater agencies, and the addressing the pretreatment regulatory challenges for stormwater harvesting as source water for indirect potable reuse projects. The recording of the event can be viewed [here](#).

Part B – Significant Regional Water Quality Issues

1. Sanitary Sewer Overflows in the San Diego Region – December 2021 (*Attachment B-1*)

Staff Contact: Keith Yaeger

Sanitary sewer systems experience periodic failures resulting in sanitary sewer overflow (SSO) discharges that may affect waters of the United States and/or the State of California (State). There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures, and operation and maintenance of the sanitary sewer system.

SSO discharges from public sewage collection systems and private laterals into the San Diego Region can contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oil, and grease. SSO discharges can pollute surface and ground waters, thereby threatening public health, adversely affecting aquatic life, and impairing the recreational use and aesthetic enjoyment of surface waters. Typical impacts of SSO discharges include the

closure of beaches and other recreational areas, the inundation of property, and the pollution of rivers, estuaries, and beaches.

State agencies, municipalities, counties, districts, and other entities (collectively referred to as public entities) that own or operate sewage collection systems report SSO spills through an on-line database system, the *California Integrated Water Quality System* (CIWQS). These SSO spills are required to be reported under the [Statewide General SSO Order](#),¹ the [San Diego Regional General SSO Order](#),² and/or individual National Pollutant Discharge Elimination System (NPDES) permit requirements. Some federal entities³ report this information voluntarily. Most SSO reports are available to the public on a real-time basis at the [State Water Board Public SSO Report Database](#).

Details on the reported SSOs in December 2021 are provided in the following attached tables:

- Table 1: December 2021 - Summary of Public and Federal Sanitary Sewer Overflow Events
- Table 2: December 2021 - Summary of Private Lateral Sewage Discharge Events
- Table 3: December 2021 - Summary of Sewage Discharges by Source

A summary view of information on sewage spill trends are provided in the following attached figures:

- Figure 1: Number of Spills per Month
- Figure 2: Volume of Public SSOs per Month
- Figure 3: Volume of Federal SSOs per Month
- Figure 4: Volume of PLSDs per Month

The figures show the number and total volume of sewage spills per month from December 2020 through December 2021. During this period, 36 of the 63 collection system agencies in the San Diego Region regulated under the Statewide SSO Program reported one or more sewage spills. Twenty-seven collection system agencies did not report any sewage spills. A

¹ State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* as amended by Order No. WQ 2013-0058-EXEC, *Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*.

² San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*.

³ Marine Corp Base Camp Pendleton reports sewage spills to CIWQS as required by its individual NPDES permit, Order No R9-2019-0167, NPDES Permit No. CA0109347, *Waste Discharge Requirements for the Marine Corps Base, Camp Pendleton, Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant at Haybarn Canyon, Discharge to the Pacific Ocean through the Oceanside Ocean Outfall*. The United States Marine Corps Recruit Depot and the United States Navy voluntarily report sewage spills through CIWQS.

total of 214 sewage spills were reported and more than 184,000 gallons of sewage reached surface waters.

Additional information about the San Diego Water Board sewage overflow regulatory program is available on the [San Diego Water Board's SSO Website](#).

2. Transboundary Flows from Mexico into the San Diego Region – December 2021 (Attachment B-2)

Staff Contact: Keith Yaeger

Water and wastewater in the Tijuana River and from canyons located along the international border ultimately drain from the City of Tijuana, Baja California, Mexico (Tijuana) into the United States. The water and wastewater flows are collectively referred to as transboundary flows. The United States Section of the International Boundary and Water Commission (USIBWC) has built canyon collectors that capture dry weather transboundary flows for treatment at the South Bay International Wastewater Treatment Plant (SBIWTP) located at the United States/Mexico border. Dry weather transboundary flows that are not captured by the canyon collectors for treatment at the SBIWTP, such as flows within the main channel of the Tijuana River,⁴ are reported by the USIBWC pursuant to [Order No. R9-2021-0001](#), the National Pollutant Discharge Elimination System (NPDES) permit for the SBIWTP discharge. These uncaptured flows can enter waters of the United States and/or the State of California (State), potentially polluting the Tijuana River Valley and Estuary, and south San Diego beach coastal waters.

According to the 1944 *Water Treaty for the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande* and stipulations established in [IBWC Minute No. 283](#), the USIBWC and the Comisión Internacional de Límites y Aguas (CILA)⁵ share responsibility for addressing border sanitation problems, including transboundary flows. Efforts on both sides of the border have led to the construction and ongoing operation of several pump stations and treatment plants to reduce the frequency, volume, and pollutant levels of transboundary flows. This infrastructure includes but is not limited to the following:

- The SBIWTP, located just north of the United States/Mexico border, provides secondary treatment for a portion of the sewage from Tijuana and transboundary flows conveyed from canyon collectors located in Smuggler's Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain, and Silva Drain. The secondary-treated wastewater is discharged to the Pacific Ocean through the South Bay Ocean Outfall, in accordance with USIBWC's NPDES permit, Order No. R9-2021-0001.
- Several pump stations and wastewater treatment plants (WWTPs) in Tijuana, including the San Antonio de los Buenos WWTP, the La Morita WWTP and the Arturo Herrera WWTP.

⁴ Tijuana River transboundary flows typically consist of a mixture of groundwater, urban runoff, storm water, treated sewage wastewater, and untreated sewage wastewater from infrastructure deficiencies and other sources in Mexico.

⁵ The Mexican section of the IBWC.

- The River Diversion Structure and Pump Station CILA in Tijuana diverts dry weather transboundary flows from the Tijuana River. The flows are diverted to a discharge point at the Pacific Ocean shoreline, approximately 5.6 miles south of the United States/Mexico border; or the flows can be diverted to SBIWTP or another wastewater treatment plant in Tijuana, depending on how Tijuana's public utility department (CESPT) directs the flow into the collection system. The River Diversion Structure is not designed to collect wet weather river flows and any river flows over 1,000 liters per second (35.3 cubic feet per second, 22.8 MGD).

In December 2021, there were 14 reported transboundary flows. In total, the reported transboundary flows during this period resulted in more than 3.2 billion gallons of contaminated water⁶ flowing from Mexico into the United States.

Details on the transboundary flows reported in December 2021 are provided in the attached tables:

- Table 1: December 2021 - Summary of Transboundary Flows from Mexico by Event
- Table 2: December 2021 - Summary of Transboundary Flows from Mexico

A summary view of information on transboundary flow trends are provided in the following attached figures:

- Figure 1: Number of Transboundary Flows per Month
- Figure 2: Tijuana River Transboundary Flow Volume per Month
- Figure 3: Canyon Collector Transboundary Flow Volume per Month

These figures show the number and volume of transboundary flows per month from December 2020 through December 2021. During this period, there were a total of 110 reported transboundary flows resulting in more than 6.7 billion gallons of contaminated water flowing from Mexico into the United States. The number and volume of transboundary flows has increased compared to previous years due to infrastructure issues in Mexico and at the SBIWTP. While the full extent of the infrastructure issues in Mexico is unknown, the San Diego Water Board is aware of several infrastructure issues at the SBIWTP. Notably, the gate valves at the headworks of the SBIWTP are inoperable. With the gate valves inoperable, USIBWC currently has no control over the amount of flow entering the SBIWTP other than through communications with Mexico to limit the flow. USIBWC is currently working on the design for the repair of the gate valves, with an expected completion date of January 31, 2022, under the terms of the San Diego Water Board's Cease and Desist Order No. R9-2021-0107, as amended by Order No. R9-2021-0220. The Cease and Desist Order directs USIBWC to complete repairs to the gate valves as soon as is reasonably possible. The specific timeframe needed by USIBWC to complete the repairs to the gate valves has not yet been determined.

On December 13, 2021, USIBWC notified the San Diego Water Board of a crack in the International Collector (also referred to as the International Interceptor), a critical wastewater

⁶ As used in this report, the term "contaminated water" is intended to refer to water that either meets the definition of "contamination" under Water Code section 13050(k) or that creates, or threatens to create, a condition of "pollution" under Water Code section 13050(l).

pipeline in Mexico that conveys Tijuana wastewater and Tijuana River flows to Pump Station 1 (PB1) in Mexico or the SBIWTP. The cracked section of the International Collector is located beneath the highway just across the United States/Mexico international border at Stewart's Drain (see Figure 4). When the International Collector is pressurized above typical operational wastewater flows — as when pumping capacity at PB1 is insufficient during peak flows and/or when capacity is reduced due to power outages, pump failures, or blockages within the collection system — the wastewater backs up, leaks from the cracked section of the International Collector, and flows into the United States at Stewart's Drain. The number of transboundary flows at Stewart's Drain has increased as a result of the cracked International Collector. In response to the increase in transboundary flows at Stewart's Drain, USIBWC and CESPT are assessing the condition of infrastructure in both the United States and Mexico and implementing temporary corrective actions in an attempt to reduce the number and volume of transboundary flows at Stewart's Drain. One corrective action being taken is reducing the volume of contaminated water diverted from the Tijuana River to relieve pressure on the cracked section of the International Collector. As a result of this corrective action, it is expected that there will be an increase in the number and volume of transboundary flows at the Tijuana River main channel. It is currently unknown when the issues with the cracked section of the International Collector will be resolved or whether infrastructure deficiencies at the SBIWTP have contributed to the recent transboundary flows at Stewart's Drain.

Additional information about sewage pollution within the Tijuana River Watershed is available on the [San Diego Water Board's Tijuana River Watershed Website](#).

Part C – Statewide Issues of Importance to the San Diego Region

No Reports

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Significant NPDES Permits,
WDRs, and Actions of the
San Diego Water Board

March 9, 2022
APPENDED TO EXECUTIVE OFFICER'S REPORT

**TENTATIVE SCHEDULE
SIGNIFICANT NPDES PERMITS, WDRs, AND ACTIONS
OF THE SAN DIEGO WATER BOARD**

Action Agenda Items – San Diego Water Board

**April 13, 2022
Closed Session Only**

**May 11, 2022
Temecula Conference Center**

Action Agenda Item	Action Type	Written Comments Due
Rescission of Order No. R9-2009-0009, Waste Discharge Requirements for the California Department of Forestry and Fire Protection Rainbow Conservation Camp (Tentative Order No. R9-2022-0049). <i>(Brandon Bushnell)</i>	Waste Discharge Requirements Rescission	4/13/2022
Rescission of Order No. 94-48, Waste Discharge Requirements for SKP Incorporated, SKP Educational Resort of Southern California, Riverside County (Tentative Order No. R9-2022-0012). <i>(Brandon Bushnell)</i>	Waste Discharge Requirements Rescission	2/23/2022
Hearing - Administrative Civil Liability Compliant against Baldwin & Sons, Inc. et al. Portola Center South Construction Site, Complaint No. R9-2020-0006. <i>(Melbourn)</i>	Administrative Civil Liability Hearing	TBD

June 8, 2022
TBD

Action Agenda Item	Action Type	Written Comments Due
An Order Amending Order No. R9-2017-0007, NPDES No. CA0107409, Waste Discharge Requirements and National Discharge Elimination System Permit for the City of San Diego E.W. Blom Point Loma Wastewater Treatment Plant Discharge to the Pacific Ocean through the Point Loma Ocean Outfall (Tentative Order No. R9-2022-XXXX). <i>(Fisayo Osibodu)</i>	NPDES Permit Amendment	TBD
Cleanup and Abatement Order for the East Basin of Harbor Island (Tentative Order No. R9-2022-0007). <i>(Sarah Mearon)</i>	Tentative Resolution	TBD
Update on Agricultural Monitoring Programs. <i>(Cailynn Smith)</i>	Informational Item	N/A

Agenda Items Requested by Board Members**September 9, 2020**

Requested Agenda Item	Board Member	Status
Update on new scientific information regarding climate change and how we are including climate change considerations in our work.	Abarbanel	Ongoing

February 10, 2021

Requested Agenda Item	Board Member	Status
Update about the range of chemicals that might cause problems with the symporter of the fetus.	Olson	Winter 2021-22

March 10, 2021

Requested Agenda Item	Board Member	Status
Annual update on the progress and accomplishments of the Project Clean Water program, including information related to the impacts of the program on water quality.	Abarbanel, Warren	Ongoing
Region-wide workshop regarding the water quality issues in the Tijuana River Valley, including a discussion of water quality objectives and steps needed to achieve them.	Abarbanel	June 2022

April 14, 2021

Requested Agenda Item	Board Member	Status
Update from State Board on the lessons learned regarding the use of Zoom remote meeting platform for Board Meetings to inform how the Regional Boards move forward when we return to the office and hold Board meetings in person	Warren	Winter 2022
Information regarding the Water Board's Training Academy climate change courses	Abarbanel	Upcoming

May 12, 2021

Requested Agenda Item	Board Member	Status
Update from SCCWRP regarding current research projects.	Abarbanel	March 2022

June 9, 2021

Requested Agenda Item	Board Member	Status
Update about the issues associated with the South Orange County Wastewater Authority's (SOCWA's) Coastal Treatment Plant being in a fire zone.	Warren	Winter 2021-22

August 11, 2021

Requested Agenda Item	Board Member	Status
Drought and sustainability meeting with County Water Authority to find out how we can support their efforts	Abarbanel	Winter 2022
Briefing regarding the new State Water Resources Control Board fresh water harmful algal blooms policy.	Olson	March 2022

December 8, 2021

Requested Agenda Item	Board Member	Status
Update on the Contact Water Recreation (REC-1) Water Quality Objectives project, with information regarding the use of HF-183 in particular.	Olson	Upcoming
Update on SCCWRP's recent efforts	Abarbanel	March 2022
Update on the health of San Diego Bay	Abarbanel	Spring 2022
Update on the efforts regarding Lake San Marcos	Abarbanel	Spring 2022

February 9, 2022

Requested Agenda Item	Board Member	Status
Update on homeless issues along the San Diego River and efforts being made to address the issues	Strawn	Summer 2022

SCCWRP PARTNER SPOTLIGHT

Regional Board scientist relies on SCCWRP's work

Since joining the San Diego Regional Water Quality Control Board in May 2020, Lark Starkey's time has been consumed almost entirely by one massive project: Shepherding development of a multi-decade management strategy for reducing eutrophication in the Santa Margarita River watershed.



Lark Starkey

The project, which pre-dates Starkey's Regional Board tenure, encompasses multiple monitoring and modeling studies to understand how a complex set of environmental conditions and human activities is triggering ecologically disruptive algal blooms in the watershed.

And Starkey says she couldn't do her job without SCCWRP, which has been co-leading scientific investigations in Santa Margarita for the past decade.

"It's been incredibly helpful for me to connect with SCCWRP throughout my time working on this project," said Starkey, an Environmental Scientist for the San Diego Regional Board. "This is a really complex problem – we're going to need as much scientific evidence as possible to move forward with our water-quality restoration plan."

Starkey, who has begun drafting an initial version of the restoration plan for internal review, has been interacting regularly with SCCWRP since Day 1, relying on SCCWRP staff for advice, insights and perspective.

The management outcomes in Santa Margarita are particularly important because they're expected to serve as a key case study informing development of a planned statewide biointegrity-biostimulatory policy that will govern the health of streams across California.



Lark Starkey encounters a type of sea slug known as a Spanish Dancer nudibranch while training for her Divemaster scuba diving certification in Borneo in 2016.

Lark Starkey

Job: Environmental Scientist, San Diego Regional Water Quality Control Board (since 2020)

SCCWRP role: Partner on Santa Margarita River watershed biostimulatory management research

Prior jobs: Aquatic Scientist, Wood Environment and Infrastructure Solutions (2019-2020); California Sea Grant Fellow, State Water Resources Control Board (2018-2019); Conservation and Science Educator, WILD COAST (2017-2018); Crew Leader, Bristol Bay Science and Research Institute (2015-2017); Conservation and Communications Specialist, Tropical Research and Conservation Center in Borneo (2016); Communications and Development Manager, Alaska Marine Conservation Council (2014-2016)

Education: M.A.S. marine biodiversity and conservation, University of California, San Diego (2017); B.A. English literature, Queen Mary University of London (2011)

Residence: San Diego

Hometown: St. Croix Falls, Wisconsin and Anchorage, Alaska

Family: Husband Travis, a marine biogeochemistry professor; dog Stella, a Latin shepherd mix

Hobbies: Surfing; scuba diving; reading fiction; going to local music concerts

Starkey's passion for environmental management started shortly after graduating college, when she spent a year traveling through the island nations of southeastern Asia.

"When you visit these places, it slaps you in the face how unsustainable human practices are," Starkey said.

Starkey took a science communications position for 1-1/2 years at a fisheries organization in Alaska, where she's from, then enrolled in a master's in marine biodiversity and conservation at UC San Diego.

After graduating, she completed a year-long Sea Grant fellowship at the State Water Board in Sacramento, where her primary responsibility was supporting fecal indicator bacteria objectives. The fellowship convinced Starkey she wanted to work for the Regional Board.

In her spare time, Starkey is an avid surfer and scuba diver. Starkey also is active in the NGO world; she recently completed a two-year stint on the Executive Committee of the San Diego chapter of Surfrider Foundation.

Table 1: December 2021 – Summary of Public and Federal Sanitary Sewer Overflow Events

Responsible Collection System Agency	Total Volume (Gallons)¹	Total Recovered (Gallons)²	Total Reaching Surface Waters (Gallons)³	Total Reaching Separate Storm Drain and Recovered (Gallons)⁴	Total Discharged to Land (Gallons)⁵	Surface Water Body Affected⁶	Miles of Pressure Sewer	Miles of Gravity Sewer	Population in Service Area⁷
City of Chula Vista	1,500	500	0	0	1,500	Not Applicable	3.4	511.0	265,070
City of Poway	1	1	0	0	1	Not Applicable	3.5	185.0	49,986
City of San Clemente	280	0	0	0	280	Not Applicable	3.7	177.6	51,339
City of San Diego	180	180	0	144	36	Not Applicable	112.5	2,931.2	2,300,000
City of San Diego	90	30	0	0	90	Not Applicable	112.5	2,931.2	2,300,000

¹ Total Volume = total amount that discharged from sanitary sewer system to a separate storm drain, drainage channel, surface water body, and/or land.

² Total Recovered = total amount recovered from a separate storm drain, drainage channel, surface water body, and/or land.

³ Total Reaching Surface Waters = total amount reaching separate storm drain (not recovered), drainage channel, and/or surface water body, but does not include amount reaching separate storm drain that was recovered.

⁴ Total Reaching Separate Storm Drain and Recovered = total amount reaching separate storm drain that was recovered.

⁵ Total Discharged to Land = total amount reaching land.

⁶ Agencies are only required to note the surface water body affected if the discharge reaches or has the potential to reach a surface water. If the discharge did not reach a surface water and does not have a potential to reach a surface water (i.e., a discharge to land or a discharge to a separate storm drain that is fully recovered) the surface water body affected is listed as “Not Applicable.” If the discharge was to a surface water body or to a separate storm drain and was not fully recovered, and the surface water body was not reported, the surface water body affected is listed as “Not Reported.”

⁷ As reported in the Collection System Questionnaire required under Order No. 2006-0003-DWQ.

Responsible Collection System Agency	Total Volume (Gallons)¹	Total Recovered (Gallons)²	Total Reaching Surface Waters (Gallons)³	Total Reaching Separate Storm Drain and Recovered (Gallons)⁴	Total Discharged to Land (Gallons)⁵	Surface Water Body Affected⁶	Miles of Pressure Sewer	Miles of Gravity Sewer	Population in Service Area⁷
City of San Diego	240	240	180	20	40	Not Reported	112.5	2,931.2	2,300,000
City of San Diego	75	0	0	0	75	Not Applicable	112.5	2,931.2	2,300,000
El Toro Water District	140	80	60	0	80	Aliso Creek	6.0	114.0	48,821
San Diego State University	10	10	0	0	10	Not Applicable	0.0	6.0	35,000
Elsinore Valley Municipal Water District	4,400	4,000	0	0	4,400	Not Applicable	0.0	35.0	15,669
United States Marine Corps Base, Camp Pendleton (Federal Facility)	28,000	300	0	0	28,000	Not Applicable	39.2	125.0	83,340

Table 2: December 2021 – Summary of Private Lateral Sewage Discharge Events

Responsible Collection System Agency	Total Volume (Gallons)¹	Total Recovered (Gallons)²	Total Reaching Surface Waters (Gallons)³	Total Reaching Separate Storm Drain & Recovered and/or Discharged to Land (Gallons)⁴	Surface Water Body Affected⁵	Population in Service Area⁶	Number of Lateral Connections
City of Chula Vista	40	0	15	25	Not Reported	265,070	49,532
City of Escondido	77	0	0	77	Not Applicable	148,000	27,081
City of Imperial Beach	5	5	0	5	Not Applicable	26,337	10,909
City of San Diego	1,830	1,830	0	1,830	Not Applicable	2,300,000	266,181

¹ Total Volume = total amount that discharged from private lateral to a separate storm drain, drainage channel, surface water body, and/or land.

² Total Recovered = total amount recovered from a separate storm drain, drainage channel, surface water body, and/or land.

³ Total Reaching Surface Waters = total amount reaching separate storm drain (not recovered), drainage channel, and/or surface water body, but does not include amount reaching separate storm drain that was recovered.

⁴ Total Reaching Separate Storm Drain & Recovered and/or Discharged to Land = total amount reaching separate storm drain that was recovered and/or total amount reaching land.

⁵ Agencies are only required to note the surface water body affected if the discharge reaches or has the potential to reach a surface water. If the discharge did not reach a surface water and does not have a potential to reach surface water (i.e., a discharge to land or a discharge to a separate storm drain that is fully recovered) the surface water body affected is listed as "Not Applicable." If the discharge was to a surface water body or to a separate storm drain and was not fully recovered, and the surface water body was not reported, the surface water body affected is listed as "Not Reported."

⁶ As reported in the Collection System Questionnaire required under Order No. 2006-0003-DWQ.

Table 3: December 2021 – Summary of Sewage Discharges by Source

Spill Type	Month/Year	Number of Spills	Total Volume (Gallons)¹	Total Recovered (Gallons)²	Total Reaching Surface Waters (Gallons)³	Total Reaching Separate Storm Drain & Recovered and/or Discharged to Land (Gallons)⁴
Public Spills	December 2021	10	6,916	5,041	240	6,676
Federal Spills	December 2021	1	28,000	300	0	28,000
Private Spills	December 2021	4	1,952	1,835	15	1,937
All Spills	December 2021	15	36,868	7,176	255	36,613

¹ Total Volume = total amount that discharged from sanitary sewer system to a separate storm drain, drainage channel, surface water body, and/or land.

² Total Recovered = total amount recovered from a separate storm drain, drainage channel, surface water body, and/or land.

³ Total Reaching Surface Waters = total amount reaching separate storm drain (not recovered), drainage channel, and/or surface water body, but does not include amount reaching separate storm drain that was recovered.

⁴ Total Reaching Separate Storm Drain & Recovered and/or Discharged to Land = total amount reaching separate storm drain that was recovered and/or total amount reaching land.

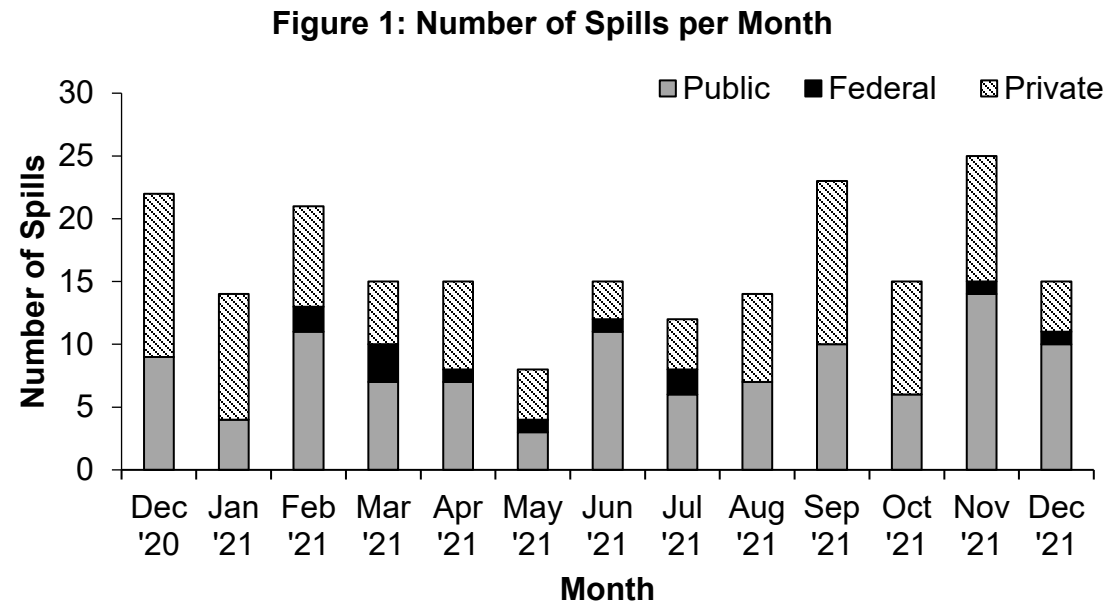


Figure 1: The number of public, federal, and private sewage spills per month from December 2020 through December 2021.

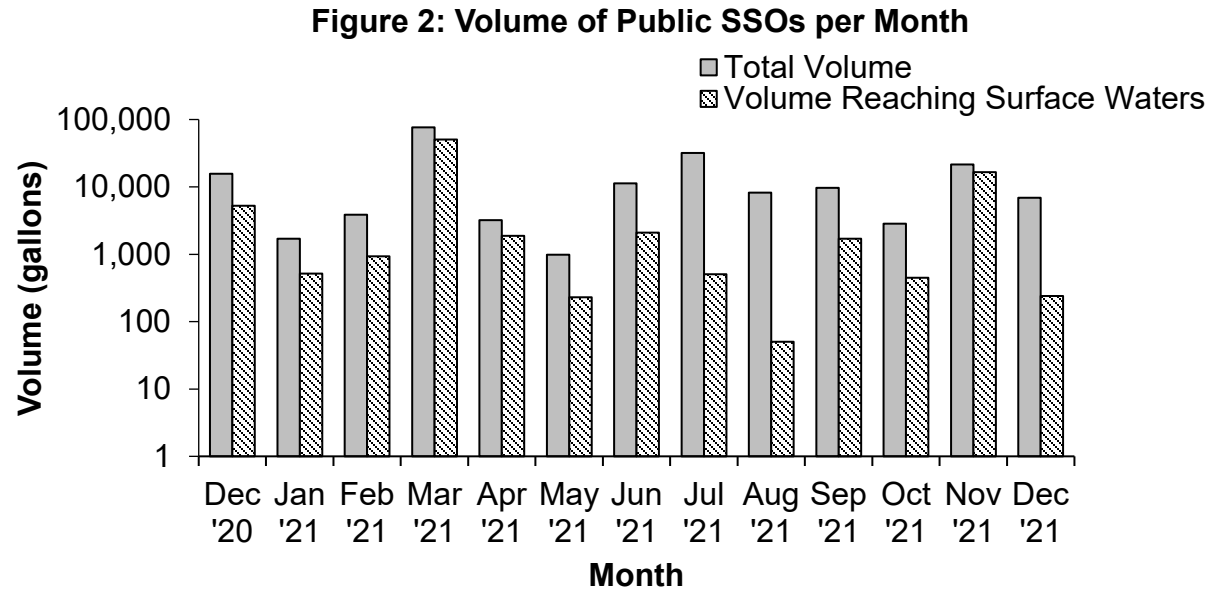


Figure 2: The volume of sanitary sewer overflows (SSOs) from public agencies per month from December 2020 through December 2021. Note the logarithmic scale on the vertical axis showing the wide variation in spill volumes.

Figure 3: Volume of Federal SSOs per Month

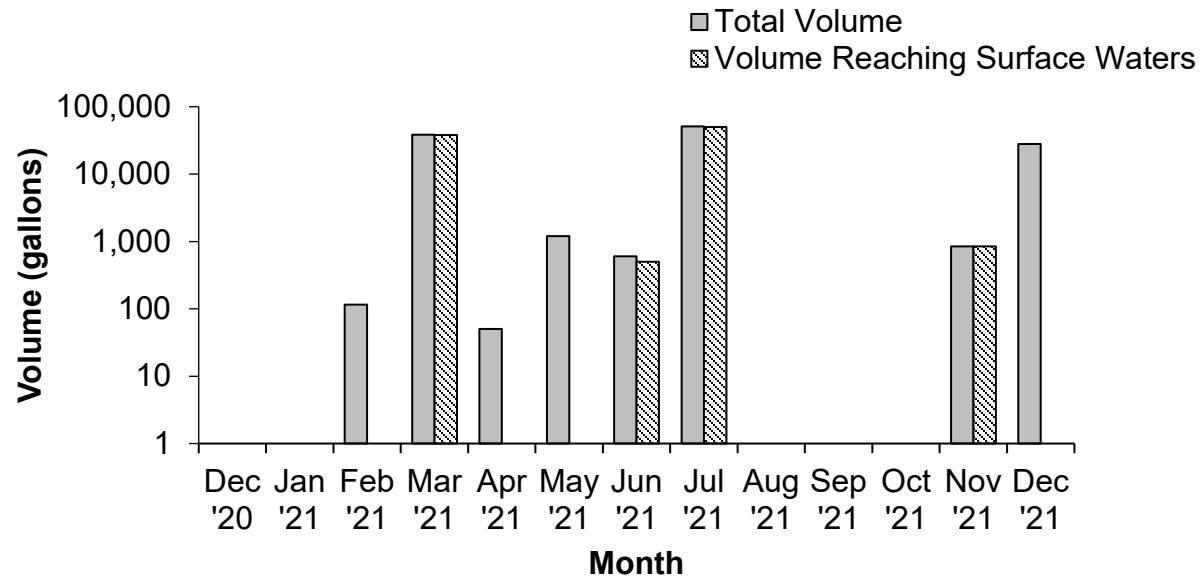


Figure 3: The volume of sanitary sewer overflows (SSOs) from federal agencies per month from December 2020 through December 2021. Note the logarithmic scale on the vertical axis showing the wide variation in spill volumes.

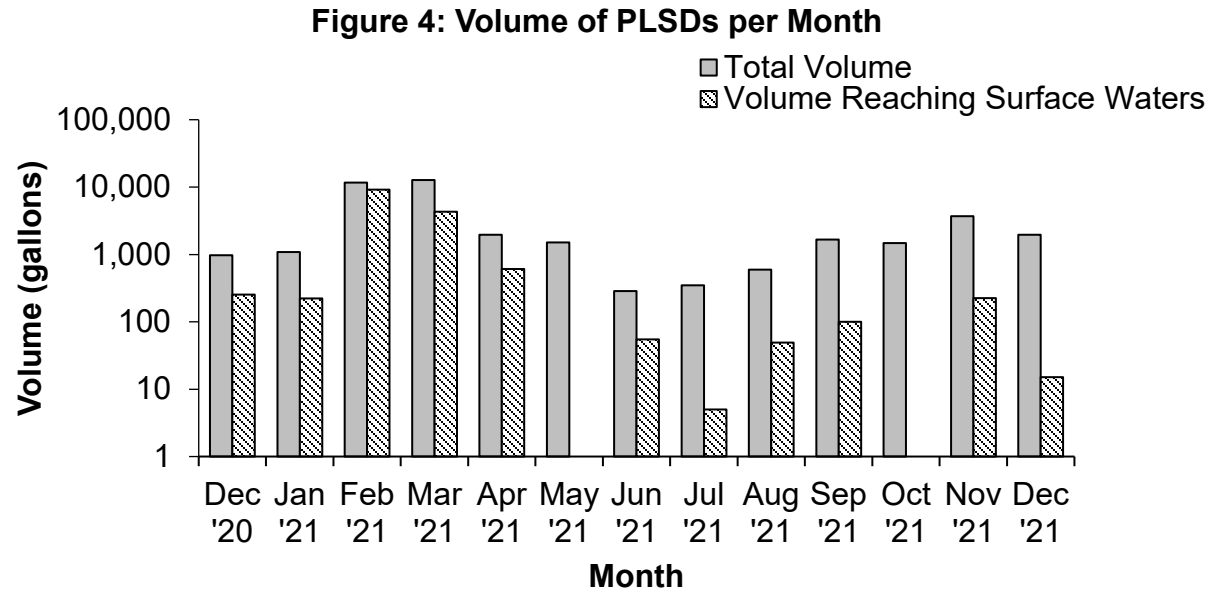


Figure 4: The volume of private lateral sewage discharges (PLSDs) per month from December 2020 through December 2021. Note the logarithmic scale on the vertical axis showing the wide variation in spill volumes.

Table 1: December 2021 – Summary of Transboundary Flows from Mexico by Event⁴

Location	Transboundary Flow Start Date	Transboundary Flow End Date	Weather Condition ^{5,6}	Total Volume (Gallons)	Total Recovered (Gallons)	Total Reaching Surface Waters (Gallons)	Additional Details Reported By USIBWC
Stewart's Drain	12/4/21	12/4/21	Dry	130,690	0	130,690	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Stewart's Drain	12/8/21	12/9/21	Dry	162,110	0	162,110	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Tijuana River Main Channel	12/9/21	12/11/21	Wet	159,400,000	0	159,400,000	A storm event resulted in excessive flow in the Tijuana River. As a result, flow in the Tijuana River bypassed the River Diversion Structure and crossed the United States/Mexico border.

Stewart's Drain	12/11/21	12/12/21	Wet	459,940	0	459,940	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Stewart's Drain	12/12/21	12/13/21	Wet	335,250	0	335,250	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Tijuana River Main Channel	12/14/21	12/19/21	Wet	1,212,000,000	0	1,212,000,000	A storm event resulted in excessive flow in the Tijuana River. As a result, flow in the Tijuana River bypassed the River Diversion Structure and crossed the United States/Mexico border.
Stewart's Drain	12/18/21	12/18/21	Dry	699	0	699	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to

							enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Tijuana River Main Channel	12/19/21	12/19/21	Dry	5,165,000	0	5,165,000	Due to an unplanned shutdown of Pump Station CILA in Mexico, flow in the Tijuana River bypassed the river diversion structure and crossed the United State/Mexico border.
Stewart's Drain	12/19/21	12/20/21	Dry	287,980	0	287,980	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Tijuana River Main Channel	12/20/21	12/20/21	Dry	474,000	0	474,000	Due to an unplanned shutdown of Pump Station CILA in Mexico, flow in the Tijuana River bypassed the river diversion structure and crossed the United State/Mexico border.

Stewart's Drain	12/20/21	12/20/21	Dry	926	0	926	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Stewart's Drain	12/21/21	12/22/21	Dry	2,660,000	0	2,660,000	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain bypassed the canyon collector system and continued into the Tijuana River Valley.
Stewart's Drain	12/22/21	12/23/21	Dry	451,605	0	451,605	Due to a backup of wastewater at Pump Station 1, the cracked section of the International Collector in Mexico overflowed causing excessive flow to enter the United States at Stewart's Drain and overwhelm the canyon collector system. As a result, some of the flow crossing the United States/Mexico border at Stewart's Drain

							bypassed the canyon collector system and continued into the Tijuana River Valley.
Tijuana River Main Channel	12/23/21	1/7/21	Wet	1,852,000,000	0	1,852,000,000	A storm event resulted in excessive flow in the Tijuana River. As a result, flow in the Tijuana River bypassed the River Diversion Structure and crossed the United States/Mexico border.

Table 2: December 2021 - Summary of Transboundary Flows from Mexico

Location	Weather Condition ⁷	Month/Year	Number of Transboundary Flows	Total Volume (Gallons)	Total Recovered (Gallons)	Total Reaching Surface Waters (Gallons)
Tijuana River Main Channel	Dry Weather	December 2021	2	5,639,000	0	5,639,000
Tijuana River Main Channel	Wet Weather	December 2021	3	3,223,400,000	0	3,223,400,000
Canyon Collectors	Dry Weather	December 2021	7	3,694,010	0	3,694,010
Canyon Collectors	Wet Weather	December 2021	2	795,190	0	795,190
All Locations	Wet and Dry	December 2021	14	3,233,528,200	0	3,233,528,200

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Figure 1: Number of Transboundary Flows

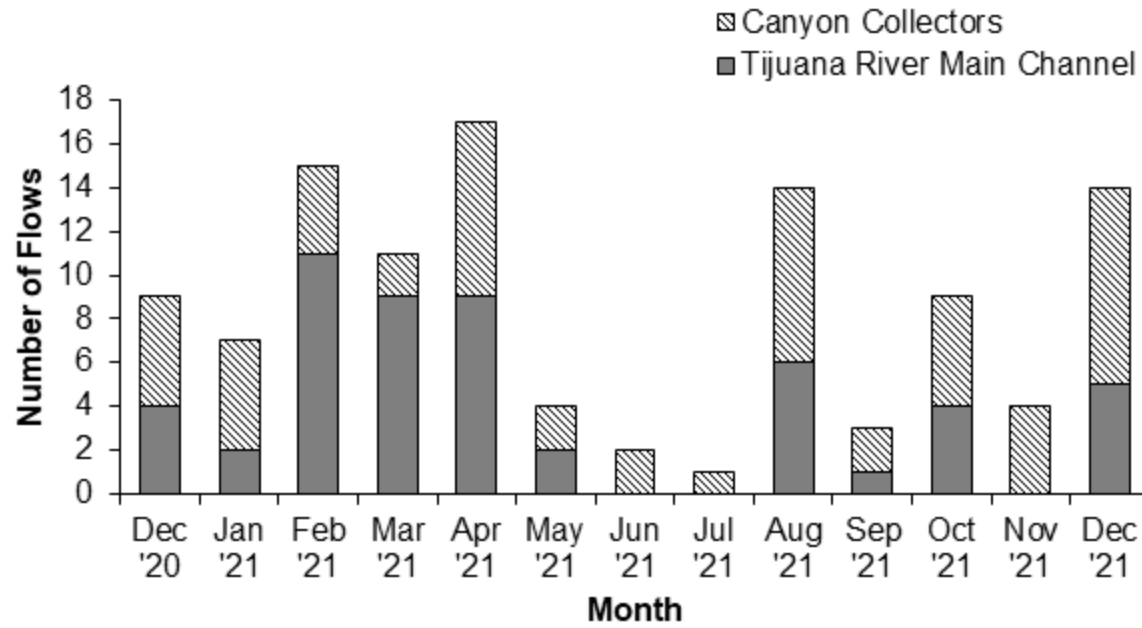


Figure 1: Number of reported transboundary flows per month from December 2020 through December 2021 at the canyon collector systems and the Tijuana River main channel. The number of transboundary flows at the canyon collectors in October 2021 includes the transboundary flow at Canyon K, which does not have a canyon collector system.

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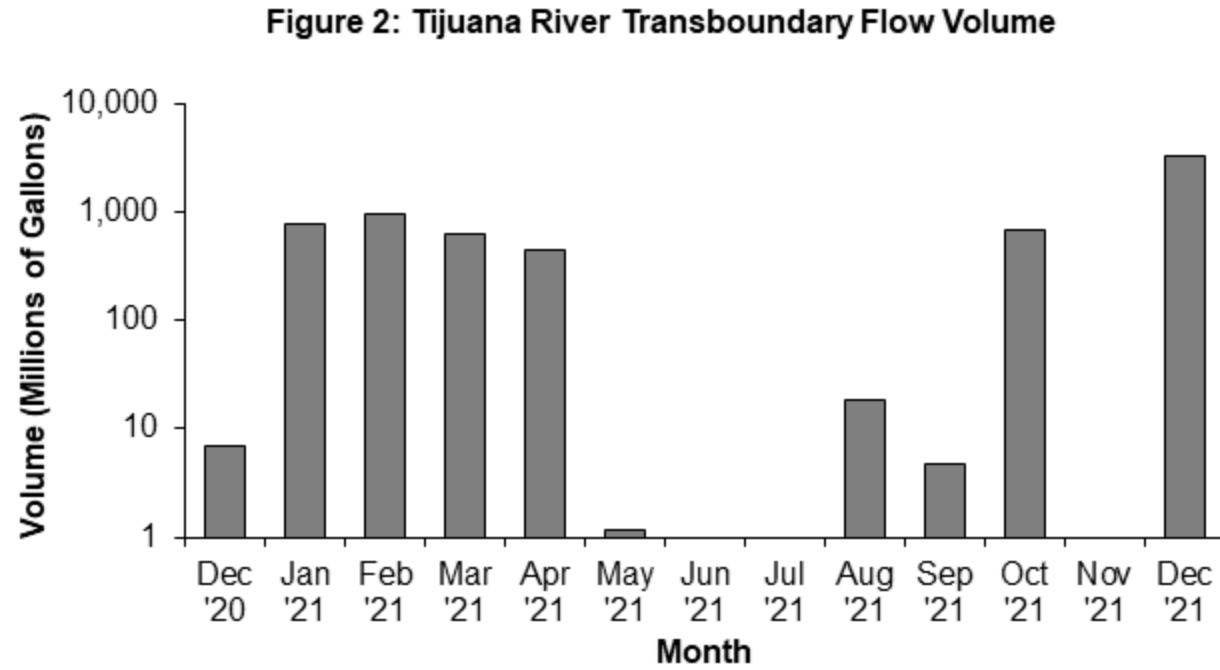


Figure 2: Volume of reported transboundary flows per month from December 2020 through December 2021 at the Tijuana River main channel. Note the logarithmic scale on the vertical axis showing the wide variation in transboundary flow volumes. Page Break

Figure 3: Canyon Collector Transboundary Flow Volume

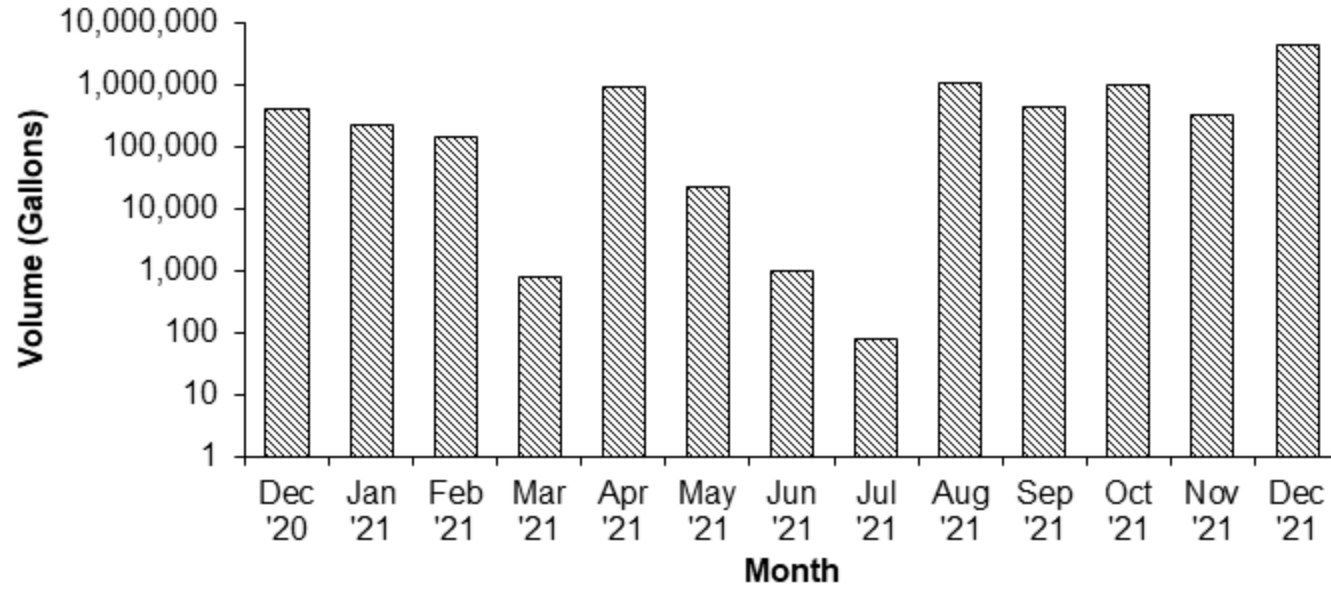


Figure 3: Volume of reported transboundary flows per month from December 2020 through December 2021 at the canyon collector systems. Note the logarithmic scale on the vertical axis showing the wide variation in transboundary flow volumes. The volume reported in October 2021 includes the transboundary flow at Canyon K, which does not have a canyon collector system.

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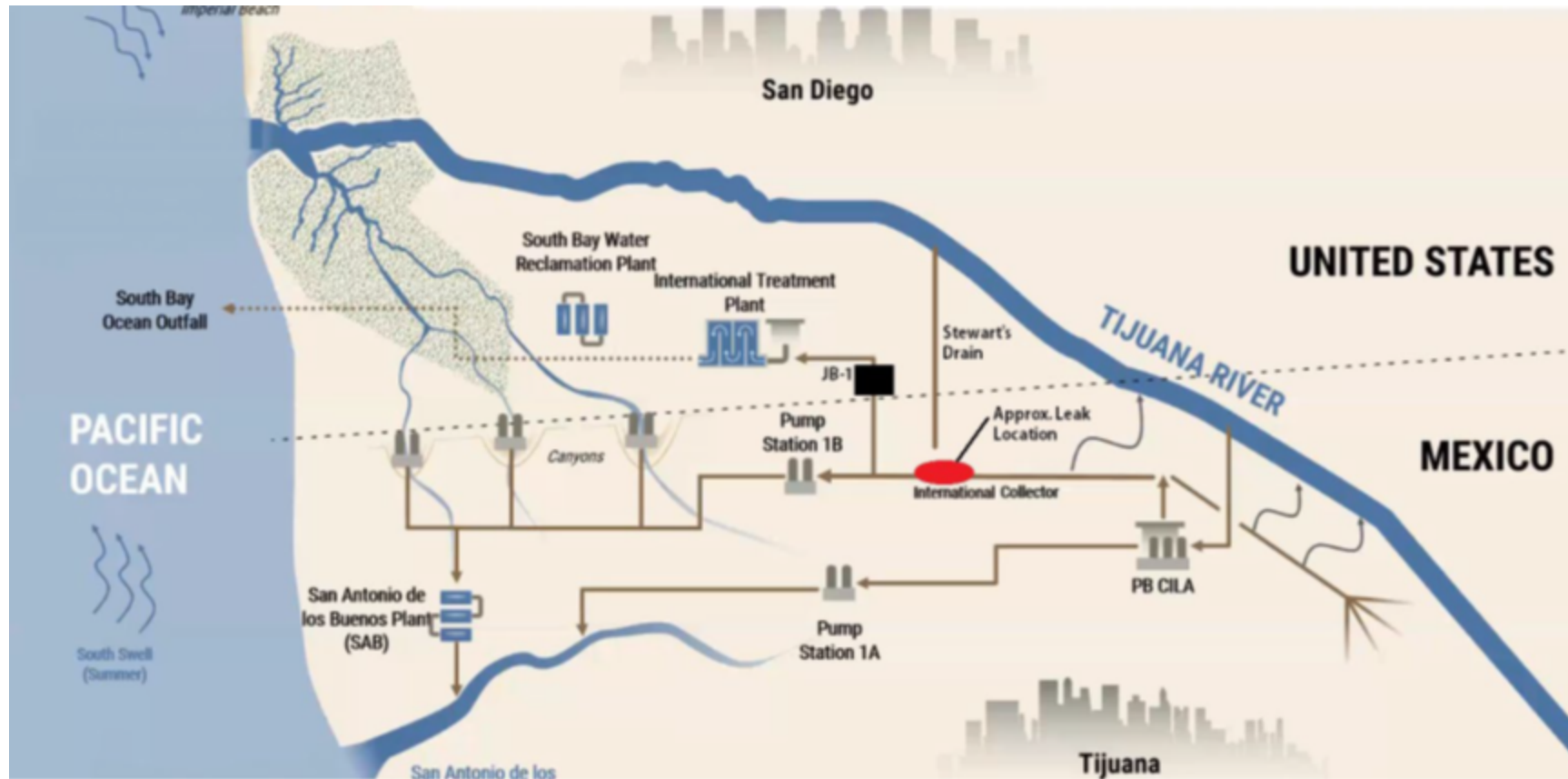


Figure 4: Map of wastewater infrastructure in the United States and Mexico. The approximate location of the crack in the International Collector is shown in red. Map provided by USIBWC.