

International Boundary and Water Commission United States Section

For immediate release October 23, 2024

USIBWC San Diego Citizens Forum to Highlight Launch of South Bay Plant Rehabilitation and Expansion

The U.S. Section of the International Boundary and Water Commission (USIBWC) San Diego Citizens Forum board will host an in-person and virtual public meeting on **Tuesday**, **October 29**, **2024**, **from 6 p.m. to 8 p.m. PDT**.

USIBWC Commissioner Dr. Maria-Elena Giner, P.E., and her staff will speak about the launch of the rehabilitation and expansion of the South Bay International Wastewater Treatment Plant. This expansion, in combination with wastewater infrastructure improvements in Mexico under Minute 328, is intended to eliminate up to 90% of untreated wastewater reaching the coast.

Joshua Hinojosa, USIBWC Program Analyst, will present an update on the Asset Management Program, outlining key phases such as assessments, resource allocations, maintenance plans, and next steps.

The public meeting will be held in person at:

Coronado Community Center Triton Room 1845 Strand Way Coronado, CA 92118

The public meeting will also be held virtually. <u>Click here to join the meeting</u>. If possible, it may be helpful for you to test connectivity on your own prior to the meeting by clicking on the "Join" link and ensuring your camera and microphone are functioning. Or join by phone: Call-in number +1 915-320-4718,,874056577# Phone conference ID: 874 056 577#

For those connecting via phone, the presentations will be available before the start of the meeting. Go to the USIBWC Citizens Forum page at https://www.ibwc.gov/meetings/list/ and look for the link for the San Diego Citizen Forum meeting.

If you would like to speak during the public comment period, please sign up ahead of time by contacting Frankie Pinon at frankie.pinon@ibwc.gov or 915-832-4716 by noon on October 28, 2024.

Media Contact:

Frankie Pinon <u>frankie.pinon@ibwc.gov</u> 915-832-4716

SAN DIEGO CITIZENS FORUM

Tuesday, October 29, 2024, from 6 p.m.-8 p.m. PDT.
Coronado Community Center
Triton Room
1845 Strand Way
Coronado, CA 92118
And via Teams Webinar

Agenda

- Welcome and Introductions USIBWC Citizen Board Introductions
- USIBWC Commissioner Giner & IBWC staff: Launch of the South Bay International Wastewater Treatment Plant rehabilitation and expansion.
- USIBWC Joshua Hinojosa, Program Analyst: Asset Management program updates.
- Public Comment
- Board Discussion
- Suggested Future Agenda Items

If you have a disability that you wish to self-identify confidentially that requires accommodation, please advise us ahead of time. For more information call 915-832-4716 or email frankie.pinon@ibwc.gov

Microsoft Teams meeting

Join on your computer, mobile app or room device: Click here to join the meeting.

Meeting ID: 228 825 248 001 Passcode: 4pDqWw

Download Teams | Join on the web

Or call in (audio only)

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Phone conference ID: 874 056 577#



South Bay International Wastewater Treatment Plant Updates

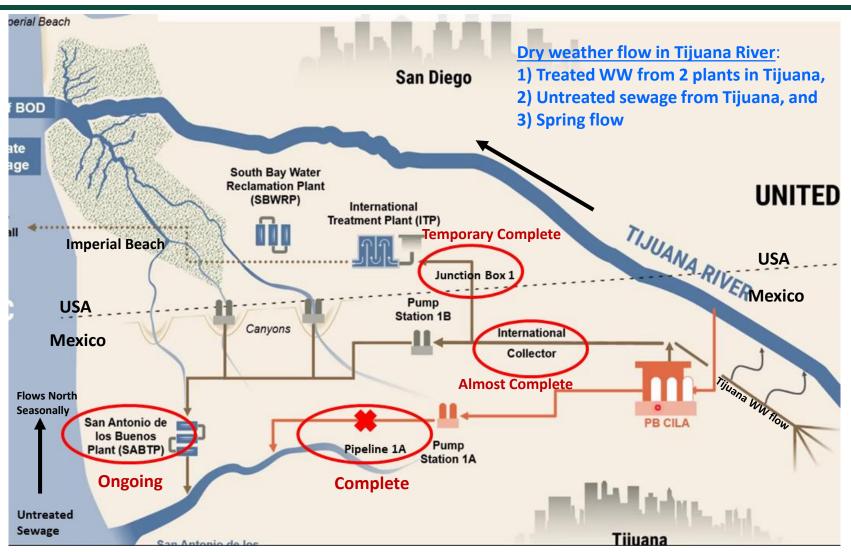
"4 Key Fronts Approach to Addressing Transboundary Flows & Water Quality In South Bay"

San Diego's Citizens Forum

October 2024



International Boundary and Water Commission **United States Section**



What is the Problem?

Infrastructure Weak Points

Issues:

- JB1- inoperable
- Weak International Collector
- Pipeline 1A collapse
- SAB wastewater treatment plant is inoperable

Operational Limitations:

- Cannot throttle back flow, leads to excess flows
- Limited capacity in conveyance to SAB
- U.S. ITP Plant: Limited capacity and treatment
- Mexico SAB Plant: No wastewater treatment

Impact:

- Increased dry weather flows in Tijuana River to San Diego beaches
- Untreated flows to Tijuana beaches that seasonally flow north reach San Diego beaches



IBWC is working on **4 key fronts** to address transboundary flows & wastewater quality affecting the coast.

Repairs & Compliance

- Redirected \$25 million to South Bay Plant (SBIWTP) to address damage.
- Weekly communication on repair progress with the State Regional Water Quality Control Board ensures transparency.

Rehabilitation & Expansion

- Plant expansion to 50 mgd with 75 mgd peak.
- Secured \$400M of estimated cost \$600M.
- Progressive design-build: design and construction can be concurrent. schedule could be decreased by as much as 18 months.
- Design completed: May 2026
- Construction est, 5 years.

Minute 328 - Mexico

- USIBWC EPA monthly meetings.
- Key projects under Minute 328 underway;
 - ☐ International bypass collector
 - Rehabilitation of pump station PB1
 - New San Antonio de los Buenos WWTP
 - Rehabilitation of Pump Station
 - ☐ Tijuana River Gates

Transboundary Flows

- Accelerated Commissioner-level meetings.
- Water data from Tijuana Utility
- Review of satellite imagery.
- Binational river inspections
- U.S.-Mexico technical collaboration



REPAIRS & COMPLIANCE

OPERATIONS EXECUTIVE
PRINCIPAL ENGINEER, ISELA CANAVA

SAN DIEGO FIELD OFFICE
AREA OPERATIONS MANAGER, MORGAN ROGERS P.E.

Repairs & Compliance

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Critical Path - Primary Sedimentation Tanks (PSTs)

- \$31M USIBWC funds redirected to SBIWTP since FY21 to present
 - Five of five PSTs out of operation March 2023 through June 2024
 - Cleaning & rehab of all PSTs completed or in progress
 - New Influent pumps compelte and JB1 in process.
- Improvements seen in effluent water quality
- SBIWTP stabilization and compliance target November 2024





Joint Box Valve 96 inches not functioning



PST#1 In-Service (6/25/2024)



PST#2 In-Service (9/13/2024)



PST#3 Cleaning (November 2024)



PST#4 In-Service (9/30/2024)



PST#5 In-Service (8/15/2024)



Repairs & Compliance

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2024	Monthly	Total					
	Flow	Exceedances	PST#1	PST#2	PST#3	PST#4	PST#5
April		29					
Monthly	23.16						
Week 1							
Week 2							
Week 3							
Week 4							
May		28					
Monthly	23.82						
Week 1							
Week 2							
Week 3							
Week 4							
June		3					
Monthly	22.49						
Week 1							
Week 2							
Week 3							
Week 4							
July		24					
Monthly							
Week 1							
Week 2							
Week 3							
Week 4							
August		2					
Monthly	18.38						
Week 1							
Week 2							
Week 3							
Week 4							
Septemb		14					
Monthly	24.42						
Week 1							
Week 2							
Week 3							
Week 4							
October		TBD					
Monthly	TBD						
Week 1							
Week 2							
Week 3							
Week 4							

- Water quality compliance is dependent upon volume of flow and number of PSTs online
- March 2024 total exceedances 39 (no PSTs operational)
- Overall monthly exceedances trending downward as PSTs return to operation
- Increases in exceedances as PSTs return to operation reflect plant stabilization



REHABILITATION & EXPANSION

CONSTRUCTION MANAGEMENT DEPARTMENT

CIVIL ENGINEER, CRYSTAL CADILLO

CIVIL ENGINEER, TAMARA CORTEZ P.E

PROJECT HIGHLIGHTS

- Project includes essential rehabilitation and expansion
- Full design scope to double current capacity to 50 million gallons per day (MGD) average flow with a peak hydraulic flow capacity of 75 MGD
- Important component of the binational agreement
 - Minute No. 328: "Sanitation Infrastructure Projects in San Diego, California-Tijuana, Baja California for Immediate Implementation and for Future Development"
- In combination with wastewater infrastructure improvements in Mexico under Minute 328
 - Project will eliminate up to 90% of untreated wastewater reaching the coast
 - Will provide cleaner, safer water for local communities
- In partnership with the U.S. Environmental Protection Agency (EPA)
 - o Funded with the 2020 United States-Mexico-Canada Agreement and USIBWC's annual appropriations



Contract Award- August 20, 2024

Construction and Design Team:

PCL Construction, Inc. &

Stantec Consulting Services Inc.

Design Award Amount: \$42,435,502.00



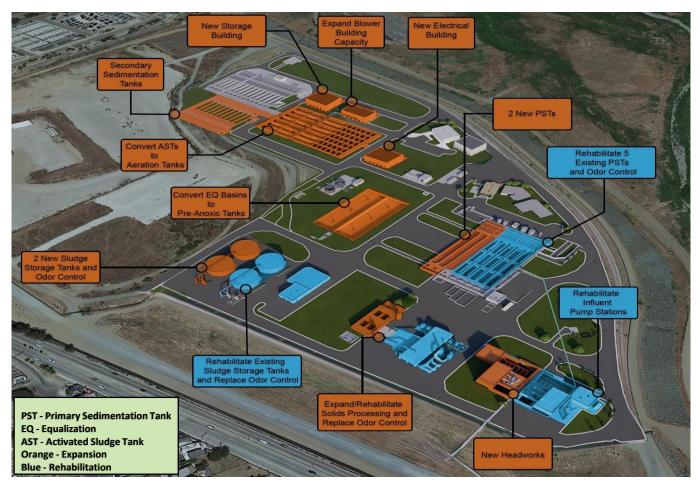


- ❖ The first phase of award covers the design for full scope
 - > Rehabilitation of existing infrastructure
 - > Expansion of SBIWTP to 50 MGD with 75 MGD peaking
- **Second phase for construction** to progress in various packages and tasks **awarded as design develops**
- ❖ Full project cost, including design, construction, contingencies, project management, and other support services estimated at \$600 million based on indicative construction estimates provided
- Current funding dedicated is \$400 million; delta of \$200 million in funding needed

PCL Approach Technical

HIGHLIGHTS

- Conversion of EQ Basins to Pre-Anoxic Tanks and ASTs to Aeration Tanks
 - Realize Cost Savings by Not Building 4 New ASTs
- > Add New Headworks Facility
 - Not just rehabilitation if existing facilities
 - More robust system





PROJECT DESIGN HIGHLIGHTS

- Project uses Progressive Design-Build contract delivery method
 - o Full construction, contingent on available funding
 - Reduced risk
 - Integrates construction experience through the design
 - Design to be completed in 20 months
 - Shorten overall construction schedule
 - 5-year construction timeline, may be reduced by as much as 18 months
 - Early construction packages to start construction in 2024
- As design progresses: more definitive full project cost and construction schedule will be available
 - 30% (mid-Spring) to 60% (Fall) design stage
 - Key part of early construction packages :
 - Rehabilitate degraded concrete structures and replace in-kind equipment
 - Site preparation work, including excavating new tanks and relocating site fence
 - Ordering long lead equipment



MINUTE 328 – MEXICO

ENGINEERING EXECUTIVE
PRINCIPAL ENGINEER, RAMON MACIAS

ENVIRONMENTAL MANAGEMENT DEPARTMENT

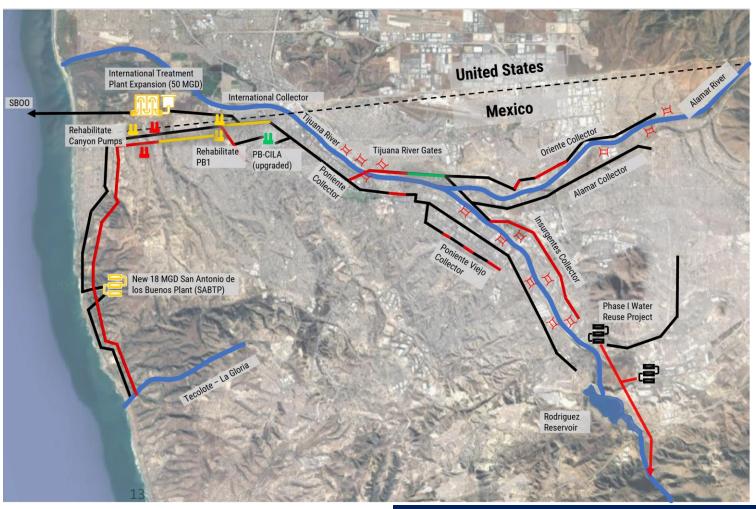
NATURAL RESOURCES SPECIALIST, DR. GILBERT ANAYA



IBWC Monthly follow-up

Projects in Mexico:

- Completed (shown in green)
 - PBCILA
 - Oriente collector
- Under construction (yellow)
 - International bypass collector
 - Rehabilitation of Pumping Plant Los Laureles I (Goat Canyon)
 - New San Antonio de los Buenos WWTP
 - Rehabilitation of PB1
 - Tijuana River gates



Minute 328 Status

Mexico Projects:

- Pending funding (red)
 - Rehab of the Parallel gravity line
 - Rehab of the Antiguo force main
 - Encasement of the open channel from PB1A to SAB
 - Rehab of Insurgentes collector
 - Rehab of Poniente interceptor
 - Rehab of Carranza collector
 - Rehab of Oriente collector
 - Lift station and force main from Sainz Canyon to Arturo Herrera lant
 - Reuse of effluent from La Morita and Arturo Herrera plants
 - Backup power supply for PB-1

Status of projects can be found on IBWC website:



Total commitment under Minute 328:

U.S.- \$330.3 M Mexico- \$143.7 M - 40% secured

Follow-up with Mexico

Mexico:

- <u>Transboundary flows should be Zero</u> => Reuse of Treated Wastewater discharged into Tijuana River (about 10 mgd)
- <u>Sediment issues</u> => Reforestation and Sediment catch basins
- Minute 328 projects => What can we do to help with new Sheinbaum administration



TRANSBOUNDARY FLOWS

COMMISSIONER, MARIA-ELENA GINER

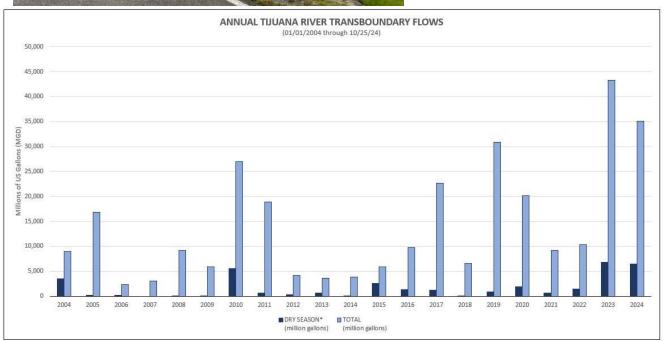
SAN DIEGO FIELD OFFICE
AREA OPERATIONS MANAGER, MORGAN ROGERS P.E.



International Boundary and Water Commission United States Section



High dry-season flows compared to past years

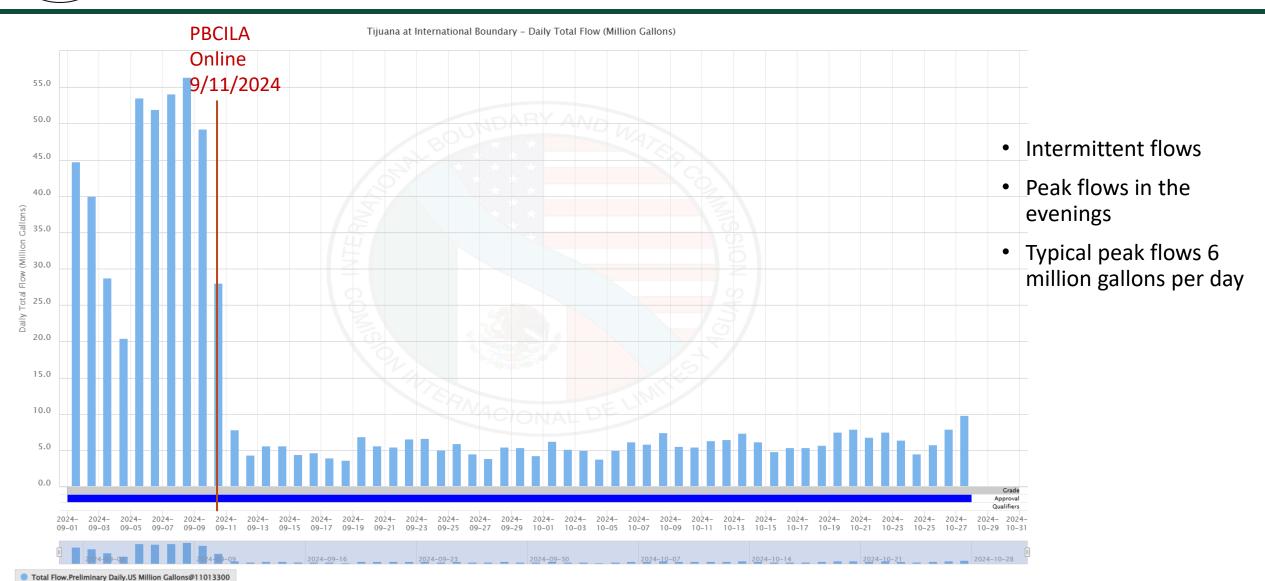


Month	2019	2020	2021	2022	2023	2024
January	2,371	2,185	2,179	1,006	14,449	6,586
February	8,297	1,883	889	1,377	3,608	12,703
March	2,080	4,328	2,049	1,921	12,828	5,996
April	125	9,193	463	462	2,562	2,882
May	552	793	8	0	1,039	1,743
June	21	565	0	12	346	1,617
July	28	372	0	32	126	1,456
August	0	113	18	423	3,011	1,476
September	285	5	4	826	1,282	533
October	21	0	649	126	959	150
November	5,189	229	0	2,307	1,170	
December	11,939	425	2,896	1,873	1,887	
Total Annual	30,908	20,091	9,155	10,365	43,267	35,142
Total Dry Season	907	1,848	679	1,419	6,763	6,975

- MX pipelines PB1A & B ruptured July 2022
- PB1B (48"") restored August 2022
- PB1A (42") restored November 2023
- System capacity reduced 25 MGD while PB1A out of service



International Boundary and Water Commission United States Section





1. Recurring Commissioner Level Meetings and Discussions (Ongoing since 6/20/2024)

• Objective: Discuss and coordinate actions, ensure continuity of progress

Participants: Commissioners, Principal Engineers, Field Staff, support staff from both Sections

2. Review Satellite Aerial Photography (Ongoing since 7/18/2024)

• Objective: Identify new flows, changes in flows, and irregularities of flows in TJ River and maintain monitoring data.

Enhance data gathering from river inspections, flow calculations (Items 4, 5, and 6), and assist in locations

determination of water quality sampling under Item 3.

3. Solicitation for Services to Investigate the Flows into the Tijuana River

Objective: Identify and quantify the various sources of flows into the Tijuana River

Sampling for e-coli and chemical oxygen demand testing to determine quality of flow

Timeline: Awarded: September 13, 2024

Investigation and Report: End of October/ Early November

Contracting agency: Mexican Section with 50% US Section cost share

4. Data Collection – Mass Balance (Ongoing Action)

Data: Average daily flows of the Tijuana Sewage Collection System

• Frequency: U.S. Section meter data is collected daily. Monthly data collection from Mexico.

• Objective: Analyze trends, identify patterns and anomalies over time on a weekly basis. Assist in identify sources of flows.

5. Sewage Volume Calculation (Began June 20, 2024)

Objective: Determine the amount of sewage entering the system based on the volume of potable water serviced.

• Background: Additional action required to understand the source and type of flows in the Tijuana River.

Action: IBWC requesting data from the Tijuana utility to perform these calculations on a weekly basis.

Enhances action item 4 to assist in identifying sources.



6. Biweekly Commission Meetings at the Local Level (Ongoing Action)

• Objective: Discuss and coordinate actions, ensure continuity of progress; identify ongoing work and flows in Tijuana and

impact in the U.S.

Frequency: Bi-weekly

Participants: Field Staff, support staff from both Sections

7. Binational River Inspections (Ongoing Action since May 14, 2024)

Objective: Identify new flows, changes in flows, and irregularities of flows into the Tijuana River through onsite
inspections. This action is now being supplemented with the satellite aerial tool.

Background: USIBWC participated in river inspections as far back as July 2022 but discontinued due to security concerns and
instead relied on CESPT survey inspection reports. Agreement to recommend binational inspections reached
in January 2024 and began when rainy season ended in May 2024.

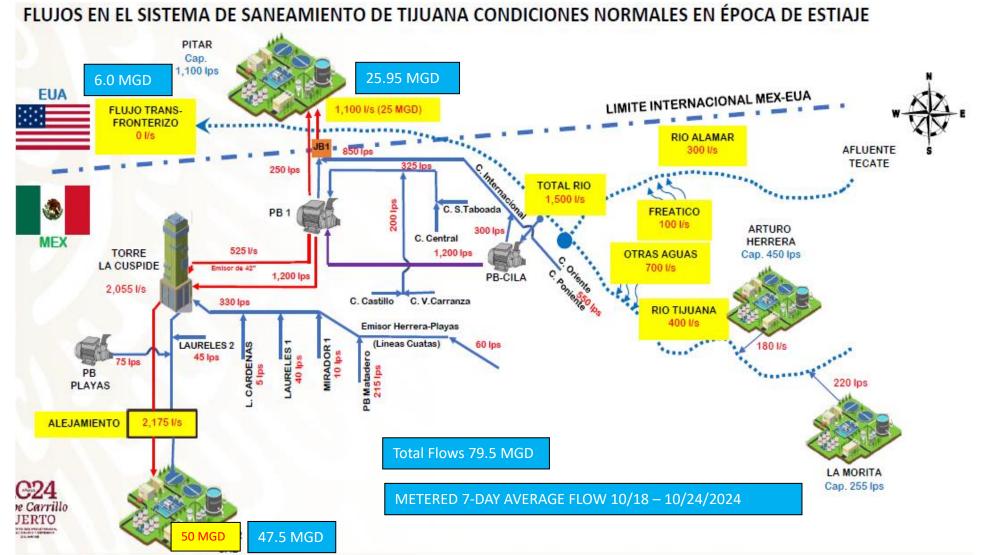
Frequency: Monthly

• Participants: Local IBWC Field Staff



International Boundary and Water Commission United States Section

- Typical 7-Day Average
- SBIWTP over permit capacity 25 MGD
- SAB at infrastructure capacity 50 MGD
- TJ River dry weather flows continue
- Approximately 10 MGD higher flow in 2024 as compared to same period in 2021
- Discussions & investigations with MX continue towards identifying new sources of TJ River flows





International Boundary and Water Commission **United States Section**

International Boundary and Water Commission, United States Section

ADDRESSING TRANSBOUNDARY FLOWS & WATER QUALITY **ACTIVITIES FACT SHEET**

IBWC is working on 4 key fronts to address transboundary flows and wastewater quality affecting the coast.

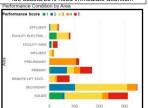


Before and after: Sediment and debris accumulation in nrimary sedimentation tank resulting in reduced canacity and

1.Urgent Repairs for Permit Compliance

In 2022 and 2023, IBWC redirected \$25 million to SBIWTP to address the damage caused by Tropical Storm Hilary and continued high flows from Mexico that bring unexpected large volumes of debris and trash which have caused issues with our discharge permit. Weekly communication on repair progress with the State Regional Water Quality Control Board ensures transparency. See list of projects on reverse side.

Equipment failures, condition, and age are impacting performance. 430 assets/36% need immediate attention.



Performance scores 4 and 5 need immediate attention

IBWC Minute 328: signed July 19, 2022, to implement infrastructure projects and improve sanitation conditions in San Diego-Tijuana

2. SBIWTP Rehabilitation and Expansion

Facility Assessment/Pre-design:

Start: October 2022: End: November 2023

Start: December 8, 2023: Award: August 21, 2024

Project is a progressive design-build and includes final design and construction for rehabilitation and expansion to 50 mgd with 75 mgd peaking factor. Estimated total cost \$600M. Secured funding \$400M

\$42.4 million for full scope

Start: September 2024; Launch: October 2024; End:

Construction: 5 years

Definitive schedule and costs will be determined between 30% and 60% design. Through progressive design-build, elements of design and construction can be executed concurrently. As such, this schedule could be decreased by as much as 18 months.

The plant will continue to operate during construction and excess flows in the Tijuana River will continue to be diverted to Punta Bandera.

3. Minute 328 - Mexico

In addition to efforts for the SBIWTP, \$144 million has been committed by Mexico for the 14 infrastructure projects under Minute 328. Approximately 40% of funding has been secured. IBWC and U.S. EPA hold monthly status review meetings of these projects with Mexico.

Key projects underway in Tijuana:

- . International bypass collector- completion Fall 2024
- Rehabilitation of pump station PB1 in procurement
- New San Antonio de los Buenos WWTP- started in
- Rehabilitation of Pump Station Los Laureles 1, completion Oct 2024
- Tijuana River Gates design completion Feb 2025

4. Urgent Action on Tijuana River Flows

IBWC is very concerned about the high flows and sediment entering the United States from Mexico in the Tijuana River. During the dry season, pump station PBCILA should be diverting flows to achieve zero or minimal transboundary flows. We are implementing steps to identify the sources. This plan includes: 1. Accelerated Commissioner-level meetings: 2. Water data from Tijuana Utility: 3. Review of satellite imagery; 4. Binational river inspections; and 5. U.S.-Mexico collaboration.

Recent Investments: USIBWC funds redirected since 2021 for SBIWTP = \$31 Million 18 Projects Completed since 2021 totaling \$7.5 Million

Urgent repairs at SBIWTP to restore performance and add redundancy in process:

ACTION	DESCRIPTION	COST	DATE AWARDED	NOTES
Repair Influent flow meter and associated piping and valves	Replace deteriorated Cement-Lined Ductile Iron (CLDI) piping and flow meter	\$1,791,532	8/17/2021	Valves and meter installed August 2024, near completion
Clean PSTs #1-4	Emergency Maintenance due to excess trash and sediment from excess inflows from MX	\$1,782,473	7/28/2023	PSTs #1, #2, and #5 are complete (Mod to redo #2 & #5 pending)
Repair Junction Box #1	Design and construction	\$5,793,110	8/10/2023	Groundbreaking occurred on 9/30/2024
Rehab PSTs #1-5	Emergency Maintenance due to trash and sediment from excess inflows from MX	\$2,384,511	8/14/2023	PSTs #1, #2, and #5 are complete
USST Valves and Piping Replacement	Rehab USST #1&2	\$ 2,979,490	9/29/2023	Work started 3/11/24
Backup Pumps &	For redundancy after TS	\$ 3,992,690	9/29/2023	Pumps on order
Motors	Storm Hilary	\$197,543	8/9/2024	Modification for required electrical work
Clean Grit Chambers	Emergency Maintenance due to trash and sediment from excess inflows from MX	\$439,065	2/16/2024	Completed May 2024
4 Backup Influent Pumps	For redundancy after TS Storm Hilary	\$1,908,000	3/25/2024	Pumps on order
Rehab Belt Filter Presses #1-4	Rapid deterioration caused by sand in sludge	\$4,668,046	5/10/2024	In progress; completion estimated 12/2024
Hollister Street Pump Station Repairs	Clean out surge tanks filled with sediment and perform electrical repairs	\$200,000 (est.)	8/2/2024	In progress

\$24,228,460

SBIWTP Background 1997: SBIWTP initiates operation, advanced primary treatment 25 mgd/75 mgd peak

Construction cost = \$147M

2011: Secondary treatment in operation, 25 mgd/50 mgd peak 2018: Secondary treatment expansion to increase efficiency

Construction cost = \$93.3M Construction cost = \$18.2M

MOVING FORWARD - IBWC IS WORKING ON THE FOLLOWING KEY FRONTS

- . Completion of urgent repairs for permit compliance and redundancy: Ongoing since 2023 SBIWTP Expansion/Rehabilitation: Progressive design build awarded August 2024
- Minute 328 Ongoing monitoring progress of Mexico's projects
- Urgent action on Tijuana River Flows

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February 2024

QUESTIONS



INTERNATIONAL BOUNDARY AND WATER COMMISSION

UNITED STATES SECTION

Enterprise Asset Management Program
EAMP
San Diego's Citizens Forum

October 2024



TOPICS OF DISCUSSION

- What is Asset Management (AM)?
- What involves and other considerations
- IBWC Enterprise Asset management (EAM) Industries
- EAM in San Diego
- History of EAM in IBWC
- Timetable

- Benefits
- Status
- SBIWTP Milestones
- Recourses allocated for EAMP in IBWC



WHAT IS ASSET MANAGEMENT?

Asset management is a systematic process of developing, operating, maintaining, upgrading, and disposing of assets in the most cost-effective manner (including all costs, risks, and performance attributes).



WHAT DOES IT INVOLVE?

- Inventory and evaluation of assets
- Plan development
- Work prioritization
- Financial Planning





OTHER CONSIDERATIONS

- Safety
- Organizational alignment
- Long-term funding strategy





USIBWC Enterprise Asset Management Program

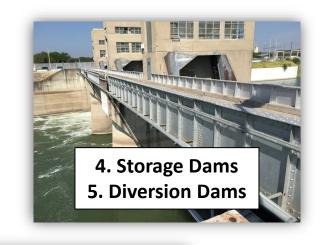
INDUSTRIES













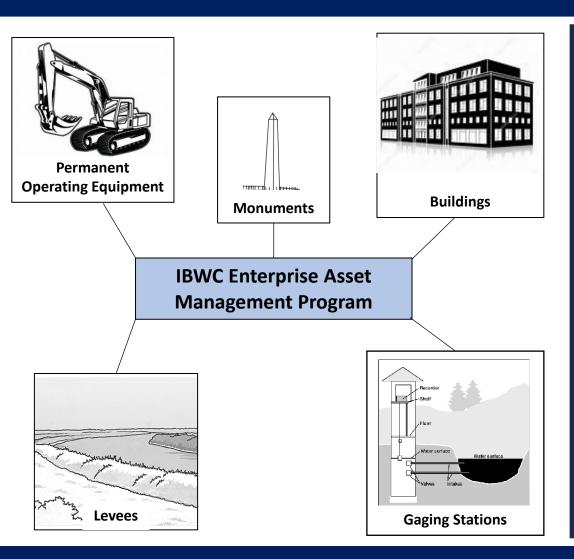








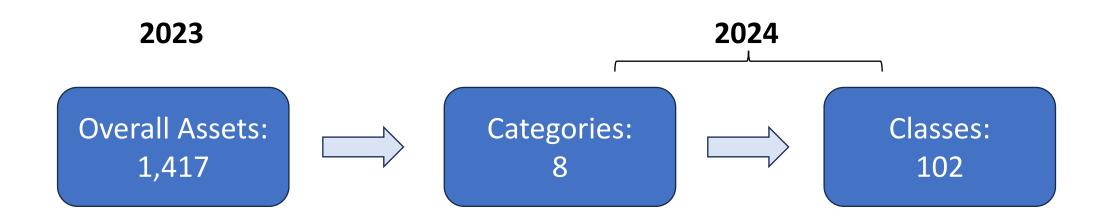
ASSET MANAGEMENT IN SAN DIEGO





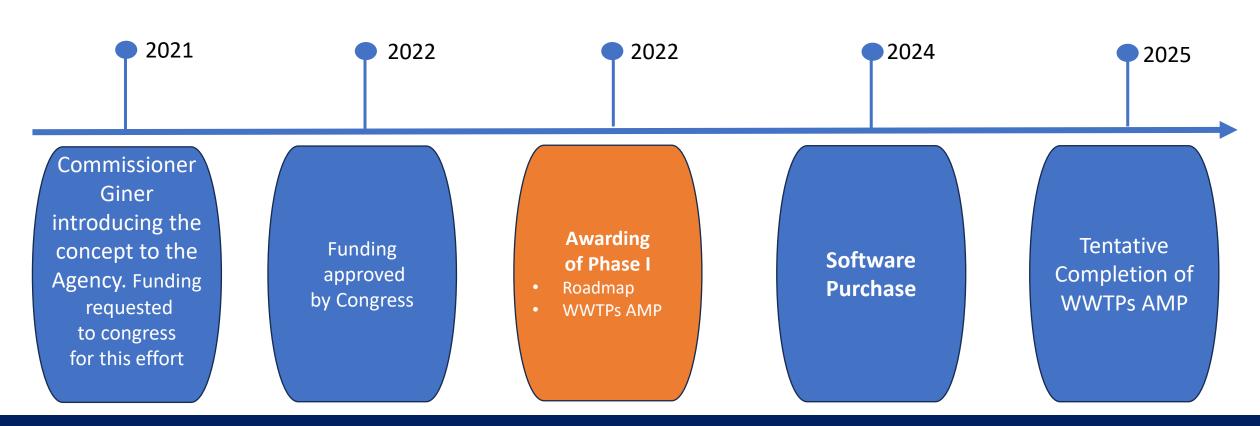


SBIWTP ASSETS IDENTIFICATION





HISTORY OF ENTERPRISE ASSET MANAGEMENT IN IBWC





ENTERPRISE ASSET MANAGEMENT PROGRAM (EAMP)

TIMETABLE

- Strategic Roadmap,
- Software Recommendation and Purchase
- Start-up, Testing, and Implementation of

PHASE I

EAM Software

FY23-FY26

- Wastewater Treatment Plants EAMP
- Permanent Operating Equipment EAMP
- **Gaging Stations EAMP**

2024 2025 2026 2027 2023 2028 2029 2030 2031

PHASE II

FY26-FY28

- 4. Storage Dams EAMP
- 5. Diversion Dams EAMP
- 6. Hydropower Plants EAMP

PHASE III

FY27-FY31

- 7. Levees EAMP
- 8. Bridges EAMP
- 9. Buildings EAMP
- 10. Monuments FAMP



BENEFITS FOR ASSET MANAGEMENT IN IBWC

- Provides an accurate cost accounting of operations and maintenance at the IBWC.
- Allows the IBWC to use appropriated funds in the most efficient and effective manner possible, protecting taxpayer dollars.
- Protects our investments since we are spending millions of taxpayer dollars to rehab and expand the wastewater treatment plant. We will have a comprehensive asset management system for preventative and predictive maintenance schedules and prioritizing capital investments based on risks.

What it takes:

- Several years of strategic and detailed work to fully deploy
- Upfront investment with returns that may be hidden in the initial years



EAM STATUS (TO BE COMPLETED IN FY25)

Agency wide

- Strategic Roadmap
- Software System Evaluation, Review and Recommendations
- Sofware purchase
- Start up, implementation and testing

South Bay Int. Wastewater Treatment Plant

Asset Management Plan



SOUTH BAY WWTP ASSET MANAGEMENT PLAN

MILESTONES

- 1. Inventory Validation
- 2. Development of Standard Operating Procedure (SOP)- Policy Document
- 3. Performance Targets for Service Levels and Key Performance Indicators (KPIs)
- 4. Condition Assessment
- 5. Risk Management and Capital Needs Plan
- 6. Preventive Maintenance Programs (PM) Plan
- 7. Predictive Maintenance (PdM) Plan
- 8. Reporting and Communication Plan

Completion of Asset Management Plan: July 2025



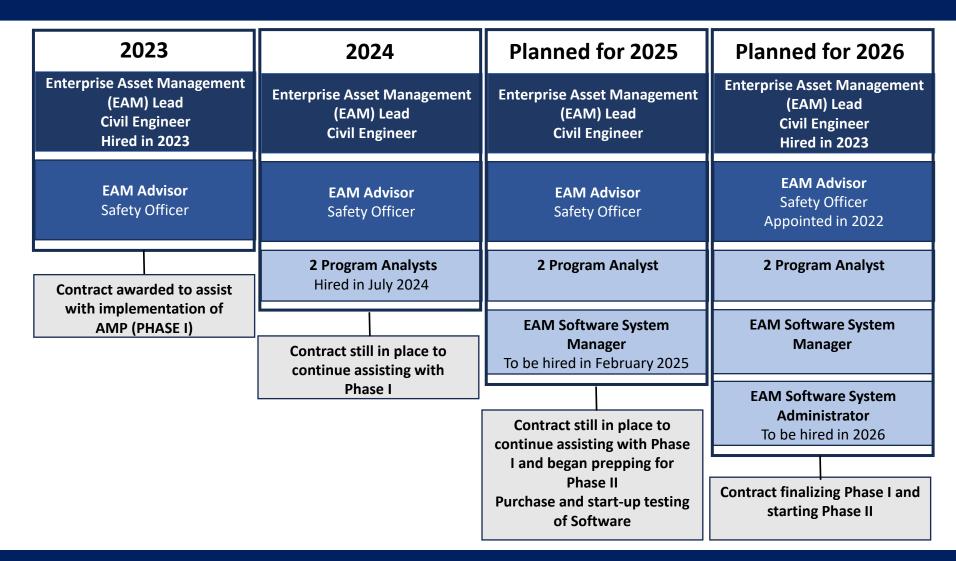
IBWC ADDITIONAL RESOURCES ALLOCATED FOR

ASSET MANAGEMENT

2021-2022

Commissioner
Maria Elena Giner
Initial EAM Need
Identified

EAM AdvisorSafety Officer
Appointed in 2022





SUMMARY

- EAM is being implemented in phases
- IBWC is committed to provide resources and manpower
- Proactive vs. Reactive
- Roadmap and Standard Operation Procedures currently in phase to support EAM
- WWTPs EAM Plan to be completed in July 2025.



Additional Questions?