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# Minute 320 Update

UISBWC Citizens Forum

December 7, 2017

Steve Smullen, Area Operations Manager, San Diego

# Water Quality Workgroup - Protocols

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- Both binational protocols, the Pump Station CILA Operations Protocol and the Binational Spill Notification Protocol, have been finalized by the IBWC. Letters were exchanged between the US and Mexico Sections of the IBWC on September 21, 2017 to document the agreements.

# Binational Water Quality Monitoring Plan

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## Sites

- Three sites have been identified in Mexico, and seven in the United States. Monitoring has been expanded on the US side to include 6 cross border canyons.

## Parameters

- On the US side, sites will be sampled and tested for conventional pollutants, pathogens and indicators, priority pollutants (metals, VOCs, PAHs, PCBs) and pesticides; in both sediment and water. On the Mexican side, conventional pollutants and metals will be sampled and tested.

## Frequency –

- Varies, minimum monthly, some weekly

Note: Plan is still in development stage. USIWBC is working with City of San Diego and Regional Water Quality Control Board on possible offsets to the SBOO Ocean Monitoring program for funding of this plan.

# Water Quality Workgroup - Monitoring in U.S.

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Sampling Station	Station Location	
	Latitude	Longitude
Tijuana River at Dairy Mart Bridge (or IBWC gage)	32° 32' 54.43" N	-117° 3' 52.02" W
Tijuana River at Hollister Street Bridge	32° 33' 5.04" N	-117° 5' 2.56" W
Tijuana River at Saturn Boulevard	32° 33' 33.91" N	-117° 5' 34.15" W
Stewart's Drain Canyon Collector	32° 32' 25.69" N	-117° 3' 28.19" W
Canyon del Sol Collector	32° 32' 21.01" N	-117° 4' 7.18" W
Silva Drain Canyon Collector	32° 32' 22.06" N	-117° 3' 55.44" W
Smugglers Gulch Diversion Structure	32° 32' 23.28" N	-117° 5' 12.84" W
Goat Canyon Diversion Structure	32° 32' 13.20" N	-117° 5' 57.52" W
Yogurt Canyon	32° 32' 7.42" N	-117° 7' 12.23" W
Tijuana River at ocean confluence	32° 33' 8.17" N	-117° 7' 34.06" W

# Water Quality Workgroup – Monitoring in U.S.

Analyte (Recommended Method)	Sampling Media
<i>Conventional Pollutants</i>	
Flow Rate, Temp, Conductivity/Salinity, pH, DO, TSS, Surfactants	Water
<i>Pathogens and Indicators</i>	
E coli., Enterococcus, Notovirus, Enterovirus	Water
<i>Priority Pollutants</i>	
Organochlorine Pesticides, PAHs, PCB congeners, VOCs, Semi VOCs, Heavy Metals, Mercury	Water & Sediment
<i>Pesticides</i>	
Organophosphorus pesticides	Sediment
Carbamate pesticides	Water
Pyrethroid pesticides	Water & Sediment
Pyrethrin pesticides	Water & Sediment
Neonicotinoid Pesticides	Water
<i>Other</i>	
PBDEs	Water & Sediment

# Water Quality Workgroup – Monitoring in Mexico

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Location Name	Latitude	Longitude
Intake to PB-CILA	32°32'24.95"N	117° 2'7.12"W
Rio Alamar	32°30'53.20"N	116°57'43.84"W
Rio Tijuana	32°30'29.83"N	116°57'39.05"W

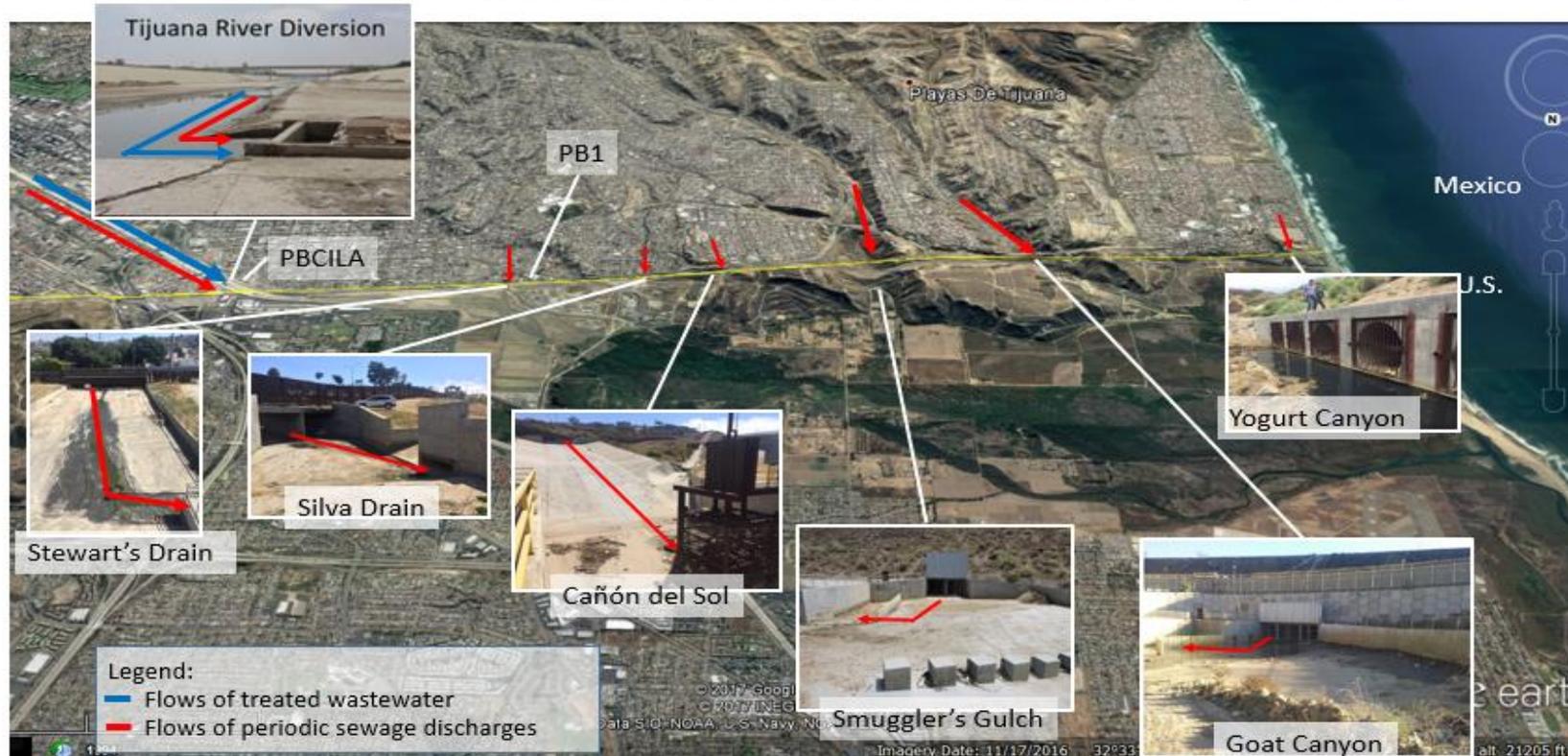
# Water Quality Workgroup – Monitoring in Mexico

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Parameter	Frequency
Temperature (degrees Celsius)	Monthly
Dissolved Oxygen	Monthly
Conductivity	Monthly
pH	Monthly
<i>Pathogens</i>	
Enterococcus, Total Coliform E. coli	Monthly
<i>Conventionals</i>	
Total Dissolved Solids	Monthly
Chlorides	Monthly
Sulfates	Monthly
Ammonia NH <sub>4</sub>	Monthly
Nitrates	Monthly
Total and Ortho Phosphorous	Monthly
Oil and Grease	Monthly

# DHS-CBP Water Quality Monitoring

Infrastructure for dry-weather capture of Tijuana wastewater flows at border



# DHS-CBP Water Quality Monitoring

Sites : 6 cross border canyons

Frequency : 1 week/month for 6 months; 1 sample per day as called for by CBP if needed, up to seven samples per week.

Laboratory Analyses: VOCs 8260, SVOCs 8270, Metals (TAL Metals, Hexavalent Chromium, Chlorides), Inorganics (Chlorinated Pesticides, Herbicides, Nitrite/Nitrate, Sulfate/Sulfide/Sulfite, Cyanide, Carbonate/Bicarbonate)

Kickoff meeting is scheduled for December 2017, work will be conducted by Parsons Corporation.



# Flow Metering

## Rio Tijuana and Pump Station CILA

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### Tijuana River Flow Meters

- Three sensors were installed in October, one in Rio Alamar and two at Pump Station CILA. The Rio Alamar installation was stolen in its entirety on Nov 5. The 2 sensors at PS CILA are operational but only measure level and not flow. The website is [http://www.sutronwin.com/dcpmon/dcpout.jsp?group\\_select=Southern-California-Edison&channel\\_select=Channel\\_1&select\\_option=dcp\\_text&dcp\\_text=00918a1a&date\\_range=0&get\\_report=Get+Report](http://www.sutronwin.com/dcpmon/dcpout.jsp?group_select=Southern-California-Edison&channel_select=Channel_1&select_option=dcp_text&dcp_text=00918a1a&date_range=0&get_report=Get+Report)

### Pump Station CILA Meter

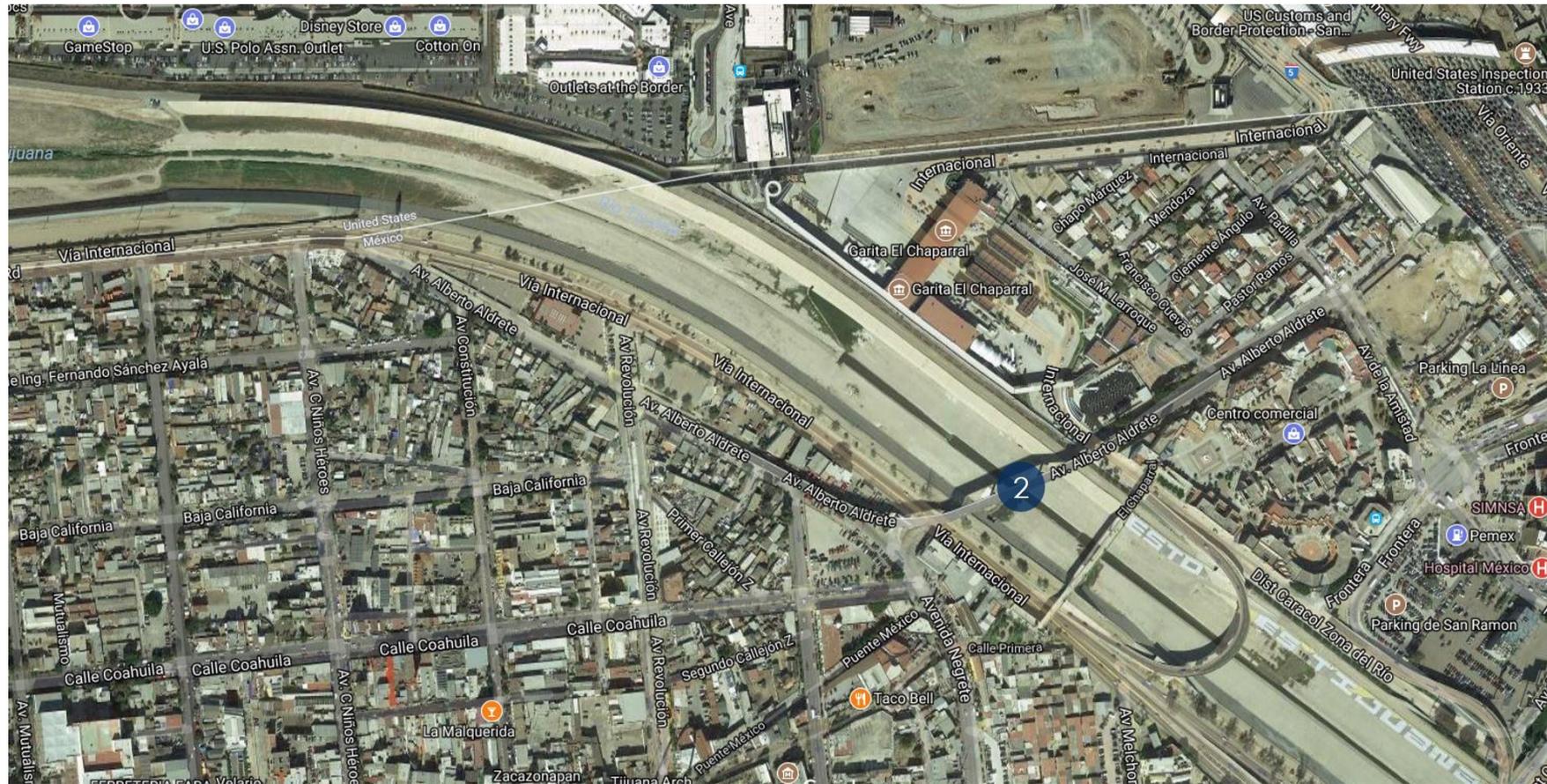
- Sensor has been installed, tested, and is working. Not yet calibrated as current conservative operation of the PS does not permit the sensor to register flow. Recommend that this be evaluated under the diagnostic.

### Canal Site –

- Modification has been issued to ADS by USIBWC to install a meter at the Canal Site (between Pump Station No. 1 and San Antonio de los Buenos)



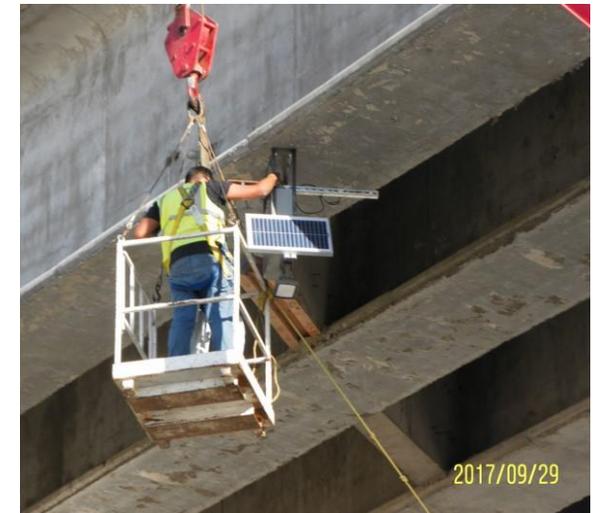
# SITE 2 - ALBERTO ALDRETE BRIDGE





# SITE 2 –ALBERTO ALDRETE BRIDGE

- Construction of harnesses and installation of radar sensor on the bridge.

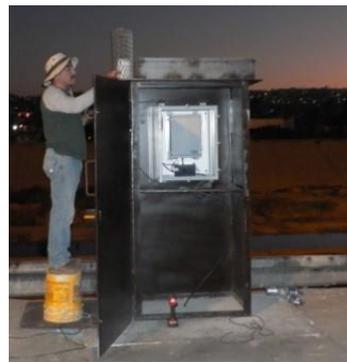






# SITIO 3 – EL CHAPPARAL

Metal shed constructed for equipment protection.





# BASE STATION, PS CILA

- In order to transmit data from the meters via satellite, a base station and antenna were installed at PS CILA.



Antena satelital



Panel solar

Caja NEMA



Radio Maestro

# Water Quality Workgroup – Emergency Work in Mexico

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	Total	Monto Ejercido	Por Ejercer
REHABILITACIONES	117,820,291.99	46,980,173.47	70,840,118.52
OBRAS DE PROTECCION	4,091,166.39	4,091,166.39	
EQUIPAMIENTO	39,283,720.89	16,074,322.00	23,201,398.89
DESAZOLVE DE COLECTORES	9,525,450.16	1,507,075.00	8,018,375.16
<b>TOTAL</b>	<b>170,720,629.43</b>	<b>64,561,570.47</b>	<b>102,059,892.57</b>

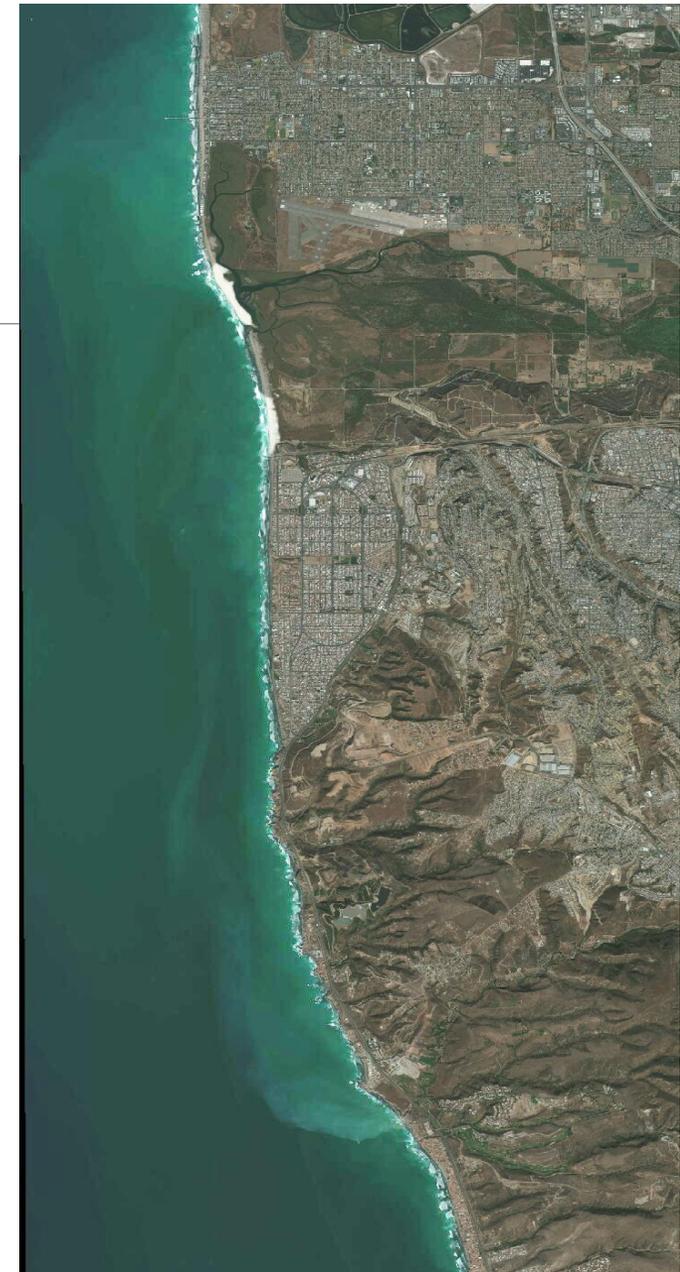
The above table is as of Aug 31, 2017. In addition to the above, CESPT with its own resources of \$ 42 million pesos carried out the rehabilitation of the sewage collectors "Sánchez Taboada", "Cuatas Lines", "Ave. The Americas ", and the junctions in Montes Scandinavian street. These resources plus those allocated by the "Emergency Declaration" add up to a total of \$ 212.72 million pesos of investment in infrastructure works and equipment in Tijuana.

# Water Quality Workgroup – October 26, 2017 Event

Enterococcus - MPN/100  
ml at Mexico Shoreline  
Locations

Sampling and Testing  
Data Results provided  
by PFEA

Fecha	San Antonio	El Vigia	Cañada Azteca	Parque México	El Faro
25/05/17	20	<10	<10	<10	<10
1/06/17	160	<10	<10	31	120
15/06/17	211	<10	<10	<10	<10
22/06/17	309	<10	10	10	10
06/07/17	31	<10	134	<10	<10
13/07/17	<10	<10	10	<10	<10
20/07/17	108	<10	<10	10	10
28/07/17	723	<10	<10	10	10
03/08/17	52	10	30	10	10
11/08/17	121	<10	<10	<10	<10
17/08/17	243	<10	<10	<10	<10
24/08/17	1616	10	<10	10	<10
14/09/17	<10	<10	<10	<10	<10
21/09/17	231	<10	<10	<10	20
12/10/17	983	<10	<10	<10	<10
19/10/17	107	20	<10	<10	<10
26/10/17	63	1850	959	1036	820
03/11/17	41	<10	<10	10	<10



# Water Quality Workgroup- Diagnostic for Diversion & Pumping

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Development of a Diversion/Pumping Diagnostic to be funded by EPA/NADBANK. Scope is being finalized with both US and Mexico comments. Expect request for proposals will be issued in December 2017 with award in the first quarter of 2018.

Will include transboundary flow analysis, evaluation of existing conditions at PS CILA, PS No. 1 and SBIWTP and optimization of flow diversion and pumping. Development of alternatives to increase capacity of PS CILA, construct an additional diversion in Mexico, construct additional diversion and pumping in US. Evaluate return flow to Mexico, discharge through Emergency Connection, discharge through SBOO with or without additional treatment. All alternatives will be evaluated against effect on transboundary flows and beach closure days. Mexico's comments included exploration of reuse alternatives, evaluation of additional flow impacts on existing system and determination of the best alternative using a cost benefit ratio.

# Sediment Workgroup

## City of San Diego/USACOE H&H Study

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MOU between City of San Diego and Army Corps of Engineers on Hydraulics and Hydrology Study – Phase 1 has been completed on the US side, report not yet final. Expected final by January 2018.

Agreement by Mexico to participate in Phase 2 of the study. Study will analyze dams, flows, sediment transport in the watershed. Mexico has provided data requested and it has been provided to City/USACOE. Phase 2 scope will be initiated in January 2018.



# Sediment Workgroup

## Main Channel Sediment Basin Feasibility

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Scope of Work for Feasibility of Sediment Basin in Main Channel Tijuana River and Smugglers Gulch/ other locations – has been finalized by USIBWC. This was in response to a letter requesting the study from South Bay area mayors.

SOW can potentially be executed with excess funding from SB 507, which will be administered through the County of San Diego. County, Regional Board and USIBWC are in discussions on next steps.

# Solid Waste Workgroup

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Development of SOW for Feasibility Study for Solid Waste Traps at 3 Locations in Mexico and the US. (completed - pending funding)

NOAA Marine Debris Grant- funding for TRAM, Goat Canyon Sed Basin, technology and transborder information transfer to control single use plastic and Styrofoam products (ongoing)

Plastic Bag Project Tijuana

TRAM (Binational Cleanup Activities)

4 Walls International (NGO) - Social Environmental Impact Bond to source manage transboundary waste.

# SBIWTP Infrastructure Improvements

Contract is nearing completion, expected commissioning will be in January 2018. Three additional secondary clarifiers, new RAS pumps and 2 new flow equalization basins will allow the plant to treat higher peak flows without permit violations.



# Questions

