

International Boundary and Water Commission United States and Mexico

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TRANSBOUNDARY ISSUES IN THE TIJUANA RIVER BASIN NEWSLETTER



Through Minute 320 of the International Boundary and Water Commission, United States and Mexico (IBWC), entitled "*General Framework for Binational Cooperation on Transboundary Issues in the Tijuana River Basin*," dated October 5, 2015, different issues have been identified in the Tijuana River basin requiring binational coordination between the United States and Mexico to address them. The Minute identifies the priority topics of common interest in this basin as water quality, sediment, and solid waste.

Minute 320 established a Binational Core Group composed of federal, state, and local government agencies as well as non-governmental organizations (NGOs) from both countries and tasked it with establishing Binational Work Groups (BWG). These groups meet to discuss the issues that require attention, as well as to explore different opportunities for cooperation on the three priority themes.

This newsletter summarizes the status of implementing recommendations derived from the investigation of the wastewater spill to the Tijuana River that occurred during the first week of February 2017. It also summarizes the actions carried out by the Commission and the Minute 320 Work Groups during the months of June and July 2018.

A) WATER QUALITY:

During March and April of 2017, a binational investigation was carried out on the spill of untreated wastewater that was bypassed into the Tijuana River. This bypass occurred because of the rupture of a section of the "Insurgentes" collector, in the vicinity of the confluence between the Tijuana and Alamar Rivers, in Tijuana, Mexico. According to the recommendations derived from the investigation, the institutions of both countries that make up the Minute 320 Water Quality BWG have done the following:

- 1. Equipment for emergency situations:** The State Public Services Commission of Tijuana (CESPT) acquired equipment for the construction and maintenance of the sanitary sewer network. As part of these investments, a mobile pump unit was purchased to prevent bypass wastewater flows during breaks and repairs to prevent spills into the river. The pump cost \$16.07 million pesos (\$900,000 USD).

**Equipment for emergency situations:
CESPT acquired a mobile pump for emergency bypasses.**

- 2. Installation of flow meters:** The IBWC acquired and installed flow meters in the Tijuana River. Currently, the flow meters that are operating are: the meter located downstream from the intake of the CILA Pumping Station (PB-CILA) before the international border, the meter located immediately upstream from the intake of PB-CILA, and the one located downstream of the border in the U.S. This will help quantify the amount of wastewater in the system or lost in the event of a bypass.

3. Communication: An international protocol for spill notifications was prepared and is being used by the responsible agencies of both countries. Likewise, a requirement to notify the IBWC was included in the CESPT emergency response protocol when spills occur with potential for cross-border impact. Also, a protocol for the operation of the PB-CILA pumping station was prepared. These protocols are available on our website.

4. Infrastructure Assessment: On August 28 and 29, the North American Development Bank (NADB) will hold a meeting on the diagnostic study. The meeting is to present the 30 percent progress on the study. This study

Infrastructure Assessment:

On Aug 28 and 29, the Tijuana River system diagnostic study will be presented at 30% progress.

was developed for the evaluation of new infrastructure alternatives both in the United States and Mexico including operational changes to management of flows in the Tijuana River. The overall goal of the study is to decrease the negative impacts on the quality of the waters that reach the Pacific Ocean. This project is being performed by Arcadis with funding from the USEPA and managed by the NADB. The diagnostic study will take about 7 months with delivery of the final report expected on December 12, 2018.

5. Infrastructure Works: The IBWC Mexican Section carried out the following improvement activities of the PB-CILA system.

- A.** Installation of two temporary earthen berms across the Tijuana River channel to prevent wastewater from crossing into the United States.
- B.** Installation of a steel grates structure in the Tijuana River pilot channel to protect the pumps from debris that could affect their operation.
- C.** Installation of four (4) variable speed pumps in PB-CILA with a capacity of 2700 gallons per minute (170 liters per second) provided by the U.S. Section of the IBWC.
- D.** Purchase and installation of control panels for operation of the four (4) pumps.
- E.** Sediment removal from the Tijuana River in the concrete lined section from 500 meters upstream of the border to the international border.

Improvements in the Tijuana River and PB-CILA:

Since March 4, there have been no cross-border flows through the Tijuana River because of these improvements.



Investment for these improvements is over \$5.058 million pesos (\$260,000 USD).

Additional personnel were contracted to continuously monitor operations of PB-CILA.

CESPT continues to carry out rehabilitation works in the aging wastewater collectors in Tijuana, among which are the Insurgentes, Oriente, INV, San Martín-Cañón del Sainz and Poniente Viejo collectors.

Wastewater collector repairs:

CESPT invested a total of \$28.71 million pesos (\$1.5 million USD) in 2017, and has programmed another \$86.01 million pesos (\$4.5 million USD) for 2018.

6. Water Quality Monitoring: CONAGUA established monitoring sites on the Tijuana River and the Alamar River as part of its national water quality monitoring network and is currently monitoring these sites. In addition, both Sections of the IBWC developed a binational monitoring program for water quality for the Tijuana River and for transboundary flows that occur in the canyons. The program includes soil sampling and water sampling in the canyons and routine site monitoring in the Tijuana River in the United States and Mexico. Implementation of the IBWC plan should begin October 2018 and continue for 1 year. This will be followed by assessing the data and evaluating any potential changes to the plan to continue the sampling efforts in following years.

Binational Water Quality Monitoring in the Tijuana River Basin
1 year study to begin October 1, 2018

7. Binational Field Inspections: IBWC has made joint tours of the Tijuana River channel and tributary streams to detect and act on potential transboundary wastewater spills. Also, binational field inspections by the Binational Water Quality Work Group will be conducted periodically to visit sites of interest within the Tijuana River basin.

B) SEDIMENT:

The Sediment BWG has focused its efforts on developing a Work Plan, studies, actions, and maintenance of the infrastructure to control the sediment in the upper part of the Tijuana River basin. A study promoted by the sediment BWG is expected to be carried out by the U.S. Army Corps of Engineers on the hydrological, hydraulic, and sediment aspects of both the Mexican and American parts of the Tijuana River basin, based on the information available from both countries and collected during 2017.

In response to the Request for Proposals for the Tijuana River Feasibility Study for Sediment Basins, the USIBWC received proposals on July 9, 2018. The USIBWC is currently reviewing the proposals and plans to award a study contract by the end of this fiscal year, September 30, 2018. This study will include the development of hydraulic and sediment transport models. In addition to the sediment, these basins will have sufficient capacity to retain solid waste and incidental transboundary flows.

Sediment removal in the Tijuana River:
USIBWC removed a total of 15,000 cubic yards (11,468 m³) of sediment.

The USIBWC completed removal of approximately 15,000 cubic yards (11,468 m³) of sediment from the Tijuana River Flood Control Project. The sediment was removed from the Tijuana River for 1,300 feet (400 m) from the international boundary northward to the end of the concrete-lined portion of the river channel. The work was done using USIBWC crews in partnership with CBP field crews.



C) SOLID WASTE:

The scope of work on the binational study for the installation of trash booms in different strategic sites along the Tijuana River on the U.S. side has been developed and is awaiting funds to perform the feasibility study.

Trash removal in the Tijuana River:
The Mexican Section invested \$1.35 million pesos (\$71,000 USD) for this project.

The Mexican Section also removed trash from the Tijuana River during the sediment removal project described above.