

International Boundary and Water Commission United States and Mexico

TRANSBOUNDARY ISSUES IN THE TIJUANA RIVER BASIN NEWSLETTER

Volume 6



Through Minute 320 of the International Boundary and Water Commission, United States and Mexico (IBWC), entitled "*General Framework for Binational Cooperation 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 actions carried out by the Commission and the Minute 320 Work Groups during the month of March 2018. It also summarizes the recommendations derived from the investigation on the wastewater spill to the Tijuana River that occurred during the first week of February 2017.

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) has made a total investment of \$39.28 million pesos (\$2.12 million USD) for the acquisition of construction equipment and maintenance of the sanitary sewer network. Additionally, 100% of the funds for emergency equipment has been appropriated and the equipment has been purchased. As part of these investments, a motor-pump unit was purchased, mounted in a mobile unit to prevent floods and spills, whose total cost was \$ 16.07 million pesos (\$900,000 USD).
- 2. Installation of flow meters:** The IBWC acquired and installed flow meters at three locations in the Tijuana River. Currently, the flow meters that are in operation in the Tijuana River are: one located downstream of the diversion of the Tijuana River into the pumping station "PB-CILA" immediately before the international border; one located immediately upstream of the diversion to PB-CILA; and one located in the Tijuana River downstream of the border in the U.S.

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. On March 6 and 7, an event of this nature was recorded in the Tijuana River, with an estimated volume of 5,678 m³ (1,500,000 gallons), due to peak flows that occurred in the river that exceeded the capacity of the PB-CILA. It should be noted that the international communication on this event was not carried out because the peak flows occurred during the night hours, when there were no operators at the PB-CILA. To respond to the spill, measures were taken, such as the construction of a berm in the Tijuana River channel near the border to capture flow and send them back to PB-CILA.

4. Infrastructure Assessment: A scope of work for a contractor to perform a diagnosis of the existing bypass and pumping system was developed by the Minute 320 BWG. The diagnostic includes the evaluation of new infrastructure alternatives in Mexico and the United States to increase the flow management capacity of the Tijuana River. This diagnostic is being financed by the North American Development Bank (NADB), and procurement activities have been completed and the project has been awarded. kick-off” activities:

- Kick-off with NADB, EPA, IBWC, CESPT, CONAGUA on or about May 8 or 9
- Stakeholder meeting on or about May 15

5. Infrastructure Works: The Mexican Section of the IBWC completed installation of a weir in the Tijuana River Channel to capture flows that are not captured by PB-CILA. Additional pumps were brought in to pump water captured by the berms and pump it back to PB-CILA.

The Mexican Section will also carry out the following rehabilitation and improvement activities of the "PB-CILA" system in the coming months:

- Installation of four (4) variable speed pumps with a capacity of 2700 gpm (170 liters per second) provided by the U.S. Section of the IBWC.
- Acquisition and installation of control panels for operation of the four (4) pumps.
- Hiring of personnel to continuously attend to the operation of PB-CILA.
- Installation of steel grating and settling basin inside the Tijuana River.

CESPT has continued to carry out rehabilitation work on the critical wastewater collectors in Tijuana. These works carried out through the "Declaration of Emergency" issued by the State of Baja California and CESPT, amount to a total cost of \$ 170.7 million pesos (\$9.22 million USD).

| | Emerging Works | Total \$ | Spent \$ | Progress % |
|---|--|------------------------|------------------------|------------|
| 1 | Rehabilitation of the <i>Insurgentes Collector</i> at "El Mexicano-Puente Ermita" | 2,734,127.01 | 1,161,970.53 | 42 % |
| 2 | Rehabilitation of the <i>Insurgentes Collector</i> at "Parque Morelos-Los Álamos" | 1,290,847.64 | 1,062,591.32 | 82% |
| 3 | Rehabilitation of the <i>Oriente Collector</i> at "Buena Vista" | 742,872.34 | 84,281.87 | 11% |
| 4 | Rehabilitation of the <i>Oriente Collector</i> at "Alisos-Cuauhtémoc" | 887,463.79 | 288,872.75 | 33% |
| 5 | Rehabilitation of the <i>INV Collector</i> at "Fundadores-Estaban Calderón". | 497,437.46 | 74,537.69 | 15% |
| 6 | Rehabilitation of the <i>San Martin Collector</i> at "San Martin-Cañón of the Sainz" | 328,011.65 | --- | 0 % |
| | | \$ 6,480,759.89 | \$ 2,672,254.17 | |

CONAGUA announced that, in coordination with the state of Baja California and NADBank, an additional 82 million pesos (4.44 million USD) is being provided to further improve the wastewater infrastructure in Tijuana. Specific projects are to repair more than 5 kilometers of the Poniente collector, the replacement of four pumps and the rehabilitation of the PB-1 electrical substation; and the acquisition of a backup electric power generator and the control panels for the operation of the pumping equipment in the PB-CILA.

- 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 the United States, the IBWC developed a water quality monitoring program for the Tijuana River as well as sampling any transboundary flows at each of the canyon collectors. This program is still being developed as stakeholder input is still in process.
- 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. The next IBWC inspection is set for late May 2018

B) Sediment

The Sediment BWG has focused its efforts on 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 work group 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.

The United States Section is preparing a work plan to remove approximately 40,000 cubic yards of sediment from the concrete lined section of the Tijuana River in the United States to prevent the sediment from moving downstream during a high flow event.

The Directorate of Works and Urban Infrastructure of the City of Tijuana currently performs preventive maintenance to the sediment retention structures in the city.

The Mexican Section of the IBWC with resources contributed from CONAGUA, is undertaking the bidding process for works to remove solid waste and sediment from the Tijuana River channel in México for 500 meters upstream of the international border.

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 and its tributaries on both sides of the border is prepared and awaiting funds to submit for bid to perform the feasibility study.

On March 7, the City of Tijuana held the first stage of a cleanup of the Tijuana River channel whereby about 785 cubic yards (600 m³) of garbage was removed.

