

# International Boundary and Water Commission United States and Mexico

Volume 8

## 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 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 May 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.

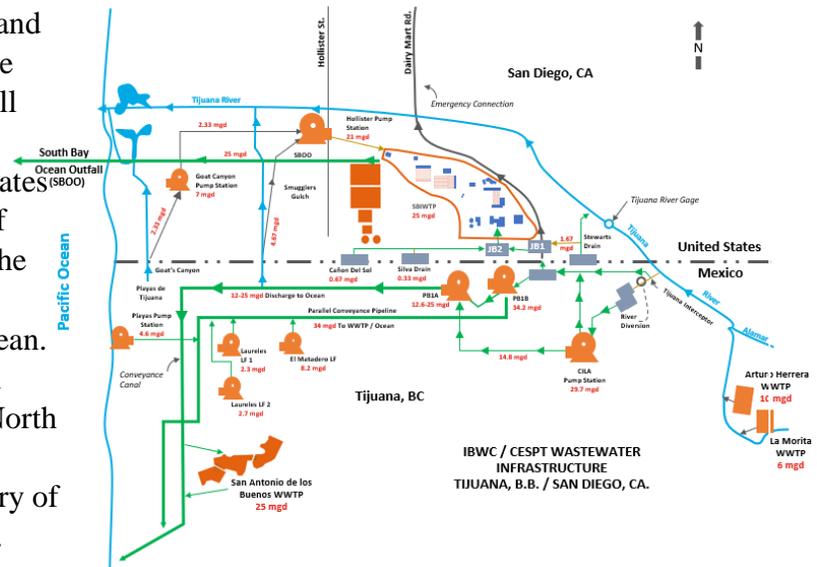
### A) WATER QUALITY:

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 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 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 May 9th and 17th, kick-off meetings were held to present the plan and schedule for performing a diagnostic study of the wastewater and river system. This diagnostic will include the evaluation of new infrastructure alternatives both in Mexico and in the United States 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 reaches the Pacific Ocean. This Project is being performed by Arcadis with funding from the USEPA and managed by the North American Development Bank (NADB). The Diagnostic will take about 7 months with delivery of the final report expected on December 12, 2018.



**5. Infrastructure Works:** On April 23, the Mexican Section of the IBWC completed installation of a sandbag weir in the Tijuana River channel to capture normal peak flows that are not captured by PB-CILA. The Mexican Section will also carry out the following improvement activities of the PB-CILA system in the coming months:

- Installation of four (4) variable speed pumps with a capacity of 2700 gallons per minute (170 liters per second) provided by U.S. Section of the IBWC.
- Acquisition and installation of control panels for operation of the four (4) pumps.
- Installation of steel gratings in the pilot channel, which is expected to be completed by June 11, 2018. Also, two desilting tanks will be built in the river channel. This should help protect the pumps from debris that could affect their operation.
- Personnel will be hired to continuously monitor operations of PB-CILA.



*Construction of the sandbag weir in the Tijuana River channel in Mexico.*

CESPT continues to carry out rehabilitation works in the emerging wastewater collectors in Tijuana, among which are the Insurgentes, Oriente, INV and San Martín-Cañón del Sainz collectors. Likewise, CESPT will join resources with CONAGUA, NADB and USEPA for the rehabilitation of more than 5 kilometers of the "Poniente" wastewater collector, for a total investment of \$47.5 million pesos (\$ 2.3 million USD).

Additionally, with the support of resources from the CONAGUA, CESPT will replace four (4) pumps and will rehabilitate the electric substation at pumping station PB-1B. CESPT will also acquire and install one (1) backup electric power generator and one (1) control panel for the operations of the existing pumping equipment at 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 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 Mexico and the United States. Currently, both Sections of the IBWC are taking steps to obtain the necessary resources to carry out this monitoring program.
- 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. On May 22nd, members of the Minute 320 Water Quality Work Group carried out a joint inspection tour to the "La Morita" Treatment Plant, to ensure that the effluent from the plant discharge to the Tijuana River is in compliance with the required quality standards.

These 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 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 U.S. Section of the IBWC concluded the proposal solicitation process for the development of a feasibility study for the construction of a sediment basin in the Tijuana River in the U.S. and its tributaries. This study, which will begin soon, will include the development of hydrological / hydraulic and sediment transport models. In addition to the sediment, these basins will have sufficient capacity to retain solid waste and some transboundary flows.

The Mexican Section of the IBWC began work on May 4 to dredge and remove materials from the Tijuana River channel in Mexico within the first 500 meters adjacent to the border with the United States. The work will be completed in June with a total investment of \$1.35 million pesos (\$ 66,000 USD).



## 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.

The Tijuana City Council conducted clean-ups throughout the city of Tijuana, with the support of educational institutions and other entities. On May 29, with the support of the Universidad Autónoma de Baja California (UABC), work was done to clean up areas in the Tijuana River near the international border. This work included trash collection and disposal, debris removal, and removal of weeds.

