

EXECUTIVE OFFICER SUMMARY REPORT
JUNE 21, 2017

- ITEM: 8
- SUBJECT: Information Item: Update on the Tijuana River Valley Recovery Team Five-Year Action Plan (*Melissa Valdovinos*)
- PURPOSE: San Diego Water Board staff and Tijuana River Valley Recovery Team members will provide the Board with the following updates on the Tijuana River Valley:
1. Progress of the Tijuana River Valley Recovery Team Five-Year Action Plan;
 2. Impacts and investigative findings related to a recent large-scale cross-border raw sewage release;
 3. Current and upcoming studies; and
 4. State legislative and funding support.
- This item will inform the Board's consideration of the Recovery Team approach to addressing long-term water quality problems in the Tijuana River Valley.
- RECOMMENDATION: The Executive Officer may offer a recommendation after public and Board discussion of the item.
- KEY ISSUES:
1. In 2012, the Board endorsed the Tijuana River Valley Recovery Team approach as an alternative to more traditional regulatory actions for addressing impaired waters, such as developing total maximum daily loads (TMDLs).
 2. Sediment, trash, and sewage continue to impair the Tijuana River, the Tijuana River Estuary, and the Pacific Ocean.
- PRACTICAL VISION: Existing and proposed efforts to address sewage, trash, and sediment in the Tijuana River Valley support important goals of the San Diego Water Board's Practical Vision:

1. The Chapter 1 goal of achieving healthy waters through strategic and effective government actions, targeting high priority waters;
2. The Chapter 3 goals of improving physical and biological integrity in naturally occurring wetlands and restoring natural floodplains and habitats; and
3. The Chapter 4 goal of maintaining proactive outreach that provides the public with easily understood information and pathways to communicate recommendations for improving conditions in the Tijuana River Valley.

DISCUSSION:

The Tijuana River Estuary is located within the Tijuana River Valley. It is the largest coastal wetland in Southern California and the river mouth there is the only one in the Region that is not bisected by a railroad or freeway. The Tijuana River Estuary is one of the few salt marshes remaining in Southern California, where over 90 percent of wetland habitat has been lost to development. The site is an essential breeding, feeding, and nesting ground and key stopover point on the Pacific Flyway for over 370 species of migratory and native birds, including six endangered species. The area is also a great recreational resource, with trails for biking, hiking, and horseback riding throughout the valley. The beaches of Imperial Beach, when open, are popular for swimming, surfing, and other water sports. Outdoor activities in Imperial Beach and the Tijuana River Valley are some of the few recreational options that are affordable to nearby low income communities.

Approximately 75 percent of the Tijuana River watershed is located in Mexico (see Supporting Document 1). When storm water and dry weather discharges flow from the Mexican side of the watershed, north into the U.S. through the main river channel and cross-border tributaries in the Tijuana River Valley, they bring substantial amounts of sediment, trash, and other pollutants. In fact, the Tijuana River and the Tijuana River Estuary are listed for 18 different pollutants on the Clean Water Act section 303(d) list of impaired waters. Since most of the sources of these pollutants are in Mexico, they are outside of California and U.S. regulatory jurisdiction, so overall, many adverse impacts go largely unaddressed in the absence of a responsible party.

Flows containing sewage, trash, and sediment cause economic, environmental, public health, and social harm on the California side of the border. Government land managers in the U.S. spend significant funds to excavate, haul, and dispose of some of the sediment, trash, and tires deposited in the Tijuana River Valley. The City of Imperial Beach's economic potential is severely compromised due to constant beach closures. The quality of life and environmental justice of people residing, working, and recreating in and near the valley are also compromised by sewage-contaminated waters, along with the associated odors and poor air quality. The sewage, trash, and tires damage the valley's riparian and wetland habitats, and induce potential public health risks from viruses such as West Nile, yellow fever, chikungunya, and Zika. *Aedes aegypti* mosquitoes carry the yellow fever, chikungunya, and Zika viruses, and they, in particular, thrive in waste tires.

Since 2011, the Executive Officer suspended work on Tijuana River TMDLs in favor of a collaborative, bi-national, stakeholder effort known as the Tijuana River Valley Recovery Team. This approach was chosen due to the unique nature of the binational watershed and the lack of source control by U.S.-based agencies, which presents challenges to a traditional TMDL approach. The Recovery Team is a consensus-based collaboration of over 30 federal, state, and local government agencies, environmental and science communities, and members of the public from both sides of the border (Supporting Document No. 2).

In 2012, the Recovery Team finalized a Tijuana River Valley Recovery Strategy (Supporting Document No. 3), which outlines the challenges and goals for a restored Tijuana River Valley. In 2015, the Recovery Team finalized a Five-Year Action Plan (Supporting Document No. 4) that describes specific projects the Recovery Team aspires to accomplish to continue advancing the Recovery Strategy's goals. The San Diego Water Board endorsed the Recovery Strategy and Action Plan with Resolution Nos. R9-2012-0030 and R9-2015-0035, respectively.

Efforts to restore the Tijuana River Valley also promote the goals of San Diego Water Board Resolution No. R9-2015-0020 since the efforts benefit Disadvantaged Communities along the U.S.-Mexico border while promoting improved water quality and habitat restoration. In addition, efforts specific to the Brown Property restoration support the goals of San Diego Water Board Resolution No. R9-2015-0041, which designates the Brown Fill Property Restoration Project as one of the three top priority restoration projects in the San Diego Region.

When the Board endorsed the 2015 Action Plan, it directed the Executive Officer to provide updates to the Board on its progress. A large part of today's agenda item is focused on this. A summary of the most notable progress is as follows:

Reclamation of the Nelson Sloan Quarry

The goal of this project is to restore the former quarry to native upland habitat using sediment from the several excavation projects in the Tijuana River Valley (e.g., the Tijuana River main channel, the Smugglers Gulch pilot channel, and the Goat Canyon sediment basins). The quarry could also be used as a sediment/trash processing center for efforts in the Tijuana River Valley, allowing sediment to be stockpiled for uses such as construction fill and aggregate in San Diego or Tijuana, as market conditions allow, or beach replenishment material.

The County of San Diego (County) completed the Nelson Sloan Management and Operations Plan and Cost Analysis in April 2016. The plan describes management and operation alternatives that could be conducted to meet reclamation requirements to restore the former quarry. This helps to inform planning efforts, for which California State Parks has secured funding through the California Department of Water Resources (via San Diego Integrated Regional Water Management) and the State Coastal Conservancy. These funds will cover environmental review, permitting, and design work. Chris Peregrin, from California State Parks, will provide additional details at today's meeting.

Brown Property Restoration

The goal of this project is to restore the Brown Property site to riparian forest, wetland habitat, and safe recreational use. The site would provide significantly improved hydrology in the Tijuana River Valley, potentially reducing the need for pilot channel maintenance by the City of San Diego and reducing flood risks and channel erosion in the northern reach of the Tijuana River on the U.S. Navy Outlying Field.

The County has allocated funding to its Department of Parks and Recreation for a comprehensive hydrology study related to Brown Property restoration. The County has also requested funding through the State Coastal Conservancy Proposition 1 grant program to cover environmental review, permitting, and design work for future fill removal and restoration at the Brown Property. A representative from the County will provide additional details at today's meeting.

Sediment Management Plan for the Tijuana River Valley

The sediment management plan will inform regulatory decisions (e.g., waivers, waste discharge requirements, etc.) in general for the Tijuana River Valley, and specifically for Brown Property fill removal and sediment deposition/processing/reuse at the Nelson Sloan quarry. A critical step in this process is evaluating the hydrology of the Tijuana River Valley. The Army Corps of Engineers, in partnership with the City of San Diego, has completed the first phase of a multi-phase hydrology study that is intended to eventually inform a valley-wide sediment management plan. A representative from the Army Corps of Engineers, Raina Fulton, will provide additional details at today's meeting.

Climate Change and Adaptation Plan

The Climate Understanding and Resilience in the River Valley (CURRV) project has been funded by the National Oceanic and Atmospheric Administration and is being carried out by the Tijuana River National Estuarine Research Reserve (TRNERR), with substantial stakeholder involvement. The CURRV project evaluates how habitat and infrastructure in the Tijuana River Valley and Estuary may be adapted to adjust to rising tides and storm surges, and to changing river hydrology as a result of drier conditions and more intense, though less frequent, storm events. The ultimate goal of this project is to provide recommendations to coastal decision-makers on how to consider climate change in managing natural resources and built infrastructure. Jeff Crooks from TRNERR will provide additional details on CURRV reports and guidance produced on existing conditions, scenario planning, and adaptation and resilience strategies.

While these efforts reveal meaningful progress along many project fronts, actual improvement to water quality and restoration of beneficial uses continue to be elusive and unattained goals.

Transboundary Sewage Flows into the River Valley

This agenda item will also update Board members on recent raw sewage releases from Tijuana that were summarized in the March and April 2017 Executive Officer Reports. Last winter, large storm events further compromised the already impaired Tijuana sewage collection system. It is common for treated and untreated sewage to enter into the Tijuana River Valley. In Tijuana, two sewage treatment plants discharge effluent into the river, sanitary sewer overflows discharge to the river and cross-border tributaries at times, and lack of sewage collection for some residents also results in raw sewage discharges. However, the volume and impact of the raw sewage during last winter's storms were especially alarming. Attached is a list of known transboundary spills that have taken place from October 1, 2016 through May 2017 (Supporting Document No. 5). These types of spills result in beach closures in Imperial Beach and, at times, as far north as Coronado. The shoreline of Imperial Beach, from the end of Seacoast Drive to the international border, has been continuously closed since November 21, 2016. Many people that live and work in the Tijuana River Valley and Imperial Beach have reported ill effects from sewage-contaminated water and air. Total coliform, fecal coliform, E. coli, and enterococcus samples taken from the Tijuana River verify the presence of raw sewage in the Tijuana River Valley.

The International Boundary and Water Commission is the agency responsible for implementing water treaty rights and obligations between the United States and Mexico, including those related to sanitation and water quality problems in the Tijuana River watershed. In April, the U.S. section of the International Boundary and Water Commission (USIBWC) finalized an investigative report (Supporting Document No. 6) that provides details on the raw sewage release and recommendations to reduce such occurrences. A representative from USIBWC, Steve Smullen, has been invited to today's meeting to provide more information on the release, as well as the general status of Tijuana sewage collection system damage following winter storms, and any upcoming improvements to the system. Agencies in the Tijuana River Valley and Imperial Beach have also been invited to share the impacts they have experienced from sewage contamination; and USEPA will report on its infrastructure investments in Tijuana.

Legislative, Funding, and Research Updates

Representatives from State government have also been invited to provide updates. Ken DaRosa, from CalRecycle, will update the Board on work that has come out of Senate Bill 83, which established a solid waste working group, mandated a solid waste and waste tire strategic plan (available [here](#)), and appropriated \$300,000 to CalEPA from the California Tire Recycling Management Fund for California-Mexico Border Relations Council support. Elizabeth King, from CalEPA, will update the Board on the effect of Assembly Bill 965 on California Department of Fish and Wildlife’s Proposition 1 grant program, which now includes a priority to “protect and restore cross-border urban creeks and watersheds.”

Additional organizations conducting research and other projects in the Tijuana River Valley have also been invited to introduce the Board to their restoration, hydrologic study, and trash diversion efforts.

LEGAL CONCERNS: None

SUPPORTING DOCUMENTS:

1. Map of Tijuana River Watershed
2. List of Tijuana River Valley Recovery Team Participants
3. Resolution No. R9-2012-0030 and the Tijuana River Valley Recovery Strategy
4. Resolution No. R9-2015-0035 and the Tijuana River Valley Recovery Team Five-Year Action Plan
5. List of Known Transboundary Spills (Oct 2016–May 2017)
6. USIBWC Investigative Report of Transboundary Bypass Flows into the Tijuana River

PUBLIC NOTICE:

Announcements regarding this agenda item were sent via the Board meeting Lyris list and the Tijuana River Valley Recovery Team Lyris list. The agenda was also posted on the San Diego Water Board web site on May 31, 2017.