Citizens Forum Meeting

Binational Water Quality Study of the Tijuana River and Canyons

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International Boundary and Water Commission
United States Section
December 06, 2018
Binational Monitoring Program

Binational Water Quality Study of the Tijuana River and Canyons

- February 2017 spill investigation noted a lack of baseline data
- Recommendation from binational work group to develop a routine monitoring program to gather baseline data

12-Month Study:

- Collect data from the main transboundary sites
- Mold future monitoring events based on information
- Develop more focused monitoring studies based on the location/data
- Prepare an IBWC binational technical report of findings (English/Spanish)
Binational Monitoring Program

Binational Water Quality Study of the Tijuana River and Canyons

Parameters being analyzed in Water:

• Field (pH, dissolved oxygen, conductivity, temperature, weather (wind, direction), flow
• Conventional- TSS/VSS, BOD, COD, Ammonia, T-Phosphorus
• Pathogens- E. coli, Enteroccocus, Cholera, Enteric Virus, Campylobacter, Norovirus
• Metals and Organics (Pesticides, Volatiles, Semi-Volatiles (BNA’s))

Parameters being analyzed in Sediment:

• Metals, Organics, BNA’s
• Pathogens
• Recommendation from binational work group to develop a routine
• monitoring program to gather baseline data
Binational Monitoring Program

Sampling Plan

Binational sampling team:

• U.S. team to collect at all sites in the U.S. plus at the PBCILA station, samples to be analyzed by a U.S. lab
• Mexican team to collect at all sites in Mexico as well as canyon sites, samples to be analyzed by a Mexican lab

First Sampling to begin on December 6, 2018
Discussion
Citizens Forum Meeting

Feasibility Study for Sediment Basins – Tijuana River

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December 06, 2018
Purpose of the Feasibility Study

• To locate and size sediment basin(s) in the Tijuana River between the International Border and Dairy Mart Road to intercept sediment, transboundary flows, incidental wastewater flows, and capture debris and trash.

• Study will include Hydrologic/Hydraulic and Sediment Transport modeling.

• The Study will develop alternatives and identify a preferred alternative.

• A conceptual design will be developed for the preferred alternative.

• The Scope of Work was developed with the Minute 320 Sediment Work Group and Stantec was awarded Study Contract in Sep, 2018.
Sediment Basin Concept
Project Location
Project Alternatives

• Alternative A – In-channel sediment basin

• Alternative B – Off-channel sediment basin

• Alternative C – Combination of In-channel and Off-channel sediment basin
Alternative A – In-Channel Sediment Basin
Alternative B – Off-Channel Sediment Basin
Alternative C – Combination of In-Channel and Off-Channel Sediment Basin
Project Schedule

• Nov 5, 2018: Kickoff meeting

• Dec 20, 2018: 30% Conceptual Design

• Apr 10, 2019: 60% Conceptual Design

• Jun 30, 2019: 90% Conceptual Design

• Sep 16, 2019: 100% Conceptual Design
Discussion
Citizens Forum Meeting

Tijuana River Flood Control
Rehabilitation of North and South Levees,
San Diego County, California

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December 06, 2018
FOR NORTH LEVEE

• Design of approximately 2,300 linear feet reinforced floodwall at the north levee, including levee abutting Dairy Mart Road.

• Design of levee repairs for damages by burrowing rodents and erosions in the locations near the 90° bend at the energy dissipater.

• Design of necessary rehabilitation to existing drainage structures or new drainage structures that may be needed to meet FEMA 44 CFR §65.10 requirements and USIBWC standards.
Scope Overview contd.

FOR SOUTH LEVEE

• Design of levee repairs for the damage caused by burrowing rodents, erosion, other factors in the locations observed during the site reconnaissance.

• Design of necessary rehabilitation to existing drainage structures or new drainage structures that may be needed to meet FEMA 44 CFR §65.10 requirements and USIBWC standards
• Ground Survey – Survey control & existing survey markers, right of way, cross section survey, existing utility survey, geophysical location and potholing.

• Geotechnical Investigation and Biological Survey.

• Hydrologic and Hydraulic Analysis.
**Levee Terminology**

- **Riverside**
- **Levee**
- **Landside**

**Base Flood Elevation**
(1% annual chance of occurrence) = 100yr event

**Freeboard**

**Slope failure**

**Structural Integrity**

**Underseepage (sand boils)**

**Overtopping**

**Through seepage**
Riverside Earthen Section
Ground squirrel burrows within embankment
Storm Drains

North Drain 1 - Landside

North Drain 1 - Riverside
Project Schedule

• Sep, 2017: Project awarded to AECOM

• Oct 11, 2017: Kickoff meeting

• Nov 13, 2018: Final Survey Report

• Feb 19, 2019: 30% Conceptual Submittal

• Apr 12, 2019: 60% Design Submittal

• Jun 3, 2019: 90% Design Submittal

• Sep, 2019: 100% Design Submittal
Discussion