Improving Water Quality in the Tijuana River Valley

Project #1: New Tijuana River Diversion System in the U.S. and Treatment in the U.S.

Overview

This project would improve Tijuana River conveyance and increase treatment capacity of transboundary river flows in order to protect the estuary and coastal communities. This is done by building a new Tijuana River diversion system in the U.S. near the international border and constructing a new advanced primary wastewater treatment plant. The project is located within the existing footprint of the South Bay International Wastewater Treatment Plant and the area around San Diego's South Bay Water Reclamation Plant. This project will:

- Divert and treat river water during wet-weather. Treatment plant capacity is being evaluated at 35 MGD, 100 MGD, and 163 MGD.
- Divert and treat dry-weather transboundary flows if the dry-weather diversion system in Mexico fails.
- Discharge treated water to the Pacific Ocean through the existing South Bay Ocean Outfall.

Project at a Glance

Location of Operations	United States
Entry Points Addressed	Tijuana River
Targeted Pollutant(s)	Untreated Wastewater

Will this project increase public health protection and beach water quality?

This project will reduce the amount of untreated wastewater reaching the beach from the Tijuana River.

Does this project improve work conditions for government activities?

Implementation of this project is expected to reduce health risks among Navy personnel who train along the beachfront near the U.S. Navy Base in San Diego, California. However, it will not resolve existing impacts to U.S. Border Patrol operations and personnel, who are sometimes exposed to untreated wastewater while performing their job duties near border infrastructures.

	35 MGD[1]	100 MGD[2]	163 MGD
COST ESTIMATES			
Capital	$110M	$220M	$295M
Annual O&M[3]	$11M	$40M	$62M
40-year lifecycle	$503M	$1.6B	$2.4B
TRANSBOUNDARY TIJUANA RIVER IMPACT (Annual Benefit)			
Flow day reduction	52%	82%	87%
Flow rate reduction	10%	20%	25%
Sewage reduction[4]	55%	79%	85%
SAB CREEK IMPACT[5] (Annual Benefit)			
Flow rate reduction	–	–	–
Sewage reduction	–	–	–
BEACH CLOSURE IMPACTS (Annual Benefit)			
Closure reduction[6]	5%	14%	21%

LEGEND

[1] 35 MGD option assumes a 60 MGD shutoff threshold
[2] MGD: million gallons per day
[3] O&M: Operations and maintenance
[4] Estimates of sewage reduction are based on the reduction of BOD (biochemical oxygen demand), a standard surrogate for sewage.
[5] No anticipated benefits to SAB Creek
[6] Beach closure reduction estimates are based on Scripps Institution of Oceanography models

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