

Tijuana River Valley: A Threatened but Resilient Ecosystem

The Tijuana River Valley (TRV) contains the largest intact coastal wetland system in Southern California, despite intense pressure from development associated with being situated on an international border between two major metropolitan areas- San Diego (California, United States) and Tijuana (Baja California, Mexico). Unlike most other coastal ecosystems in the region, which have been fragmented or lost altogether, the Valley has contiguous beach, dune, salt marsh, riparian, and upland ecosystems. These habitats are largely in public ownership, managed by the National Oceanic & Atmospheric Administration, US Fish & Wildlife, California State Parks, County of San Diego, and City of San Diego.



Tijuana River Watershed drains 1,700 square miles to the Pacific Ocean through the Tijuana River Valley.
(Map credit: TRV Recovery Strategy)



US-Mexico Border:
Tijuana adjacent to Border Field State Park



Oneonta Slough neighboring Imperial Beach, CA

Light-footed Clapper Rail
Habitat: Salt Marsh



California Least Tern
Habitat: Dune



Least Bell's Vireo
Habitat: Riparian



Salt Marsh Bird's Beak



Why this project?

Climate change will effect the long-term ecological viability of natural ecosystems, while impacting the social and economic health of the surrounding communities. Fortunately, the Tijuana River Valley has been the focus of major restoration, conservation, and research efforts, making it a regional system able to accommodate impacts associated with our changing climate. In order to maintain and improve the resiliency of the TRV, we must strengthen our understanding of local vulnerabilities to climate change and develop adaptation strategies to address the impacts that threaten the future sustainability of important natural ecosystems and human communities.

Climate adaptation strategies will help resource managers effectively protect the habitats of endangered and threatened species throughout the TRV.

(Photo Credit- Bird's Beak: Michael L. Charters, calflora.net / Vireo: PRBO)

Expertise from TRNERR's primary programs will be drawn on throughout the development and implementation of this project.

Education & Community Outreach



Research

Stewardship



Training

Project Objectives

The overarching goal is to build upon a regional commitment to understand and adapt to climate change. In order to achieve this goal, the Tijuana River National Estuarine Research Reserve (TRNERR) will collaborate with a diverse stakeholder group to conduct a vulnerability assessment that informs the development of adaptation strategies addressing the impacts of climate change, specifically sea level rise and riverine flooding. This project will aid the Tijuana River Valley Recovery Team (TRVRT) in addressing one of its priority action areas listed in the Recovery Strategy as a way to help protect and enhance natural resources throughout the region. The development and implementation of adaptation strategies will help local communities adapt to climate change, and increase ecosystem resiliency by providing jointly developed recommendations to coastal decision-makers on how to consider climate change in managing our natural resources and built infrastructure.

US Navy



Equestrian



Border Patrol



A Collaborative Approach

TRNERR will lead a team that builds on well-established partnerships through the TRVRT and is expanded to include perspectives among federal, state, regional, county, and local public agencies; universities; nonprofits; and private consultants throughout the development and implementation of the adaptation strategies. This process will improve the ability of public agencies in the TRV to adapt to climate change, as well as offer tools for effective participatory ecosystem-based management in light of these changes.

In addition to being an important ecological resource, the Tijuana River Valley provides a wide variety of uses.

(Photo credit- Navy & Border Patrol: KPBS)

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