

EXECUTIVE OFFICER SUMMARY REPORT  
August 13, 2008

ITEM: 10

SUBJECT: Tijuana River Valley Funding Support – West Coast Estuaries Initiative for California Coast – Removal of Trash and Sediment (tentative Resolution No. R9-2008-0088)  
*(John Robertus)*

PURPOSE: The Regional Board may take public comments and consider adoption of a Resolution to support a proposal to be submitted to U.S. EPA for funding of a West Coast Estuaries Initiative for a California Coast project.

PUBLIC NOTICE: There are no public noticing requirements for this item.

DISCUSSION: The Regional Board conducted a public workshop on June 25, 2008 to discuss various actions that the Board can take to preserve, protect and restore water quality and beneficial uses of waters of the U.S. within the lower Tijuana River and estuary. During the workshop, the Board Members expressed the desire to support requests for funding and proposals for projects that will improve conditions in the Tijuana River Watershed. Since the workshop, Southwest Wetlands Interpretive Association and other organizations and agencies have coordinated for a joint submittal, a proposal to U.S. EPA to obtain funding. Accordingly, tentative Resolution No. R9-2008-0088 was prepared by the Regional Board to support the project.

KEY ISSUES: None

LEGAL CONCERNS: None

SUPPORTING DOCUMENTS: 1. Resolution No. R9-2008-0088  
2. US EPA Announcement Soliciting Proposals  
3. SWIA's Grant Proposal to the US EPA

RECOMMENDATION(S): Adopt tentative Resolution No. R9-2008-0088.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

RESOLUTION NO. R9-2008-0088

A RESOLUTION IN SUPPORT OF FUNDING OF THE SOUTHWEST  
WETLANDS INTERPRETIVE ASSOCIATION 2008 WEST COAST ESTUARIES  
GRANT BY THE U.S. EPA

WHEREAS, the San Diego Regional Water Quality Control Board (SDRWQCB) has designated beneficial uses of the waters of the Tijuana River and desires to protect and restore water quality and wetlands in these waters; and,

WHEREAS, the U.S. EPA Region 9 has solicited proposals for the 2008 West Coast Estuaries Initiative for the California Coast that conserve, restore and protect the water quality, habitat and environment of California coastal waters; and,

WHEREAS, the Southwest Wetlands Interpretive Association (SWIA) in cooperation with several governmental and private organizations dedicated to the environmental protection of the Tijuana River Watershed, has prepared a proposal seeking a grant from the 2008 West Coast Estuaries Initiative; and,

WHEREAS, the SDRWQCB has reviewed this proposal, received July 31, 2008, and finds it soundly based and clearly stated, and in the best interest of the restoration and protection of beneficial uses of waters of the Tijuana River Watershed.

BE IT RESOLVED, that the SDRWQCB fully supports and appreciates the diligence and efforts of SWIA and the other organizations that have submitted this proposal, and

BE IT FURTHER RESOLVED, that the SDRWQCB enthusiastically supports the funding of the SWIA 2008 West Coast Estuaries Grant by the U.S. EPA.

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Richard Wright

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Eric Anderson

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Susan Ritschel

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David King

\_\_\_\_\_  
Elizabeth Schneider

\_\_\_\_\_  
Wayne Rayfield

\_\_\_\_\_  
Kris Weber



<http://www.epa.gov/region09/funding/west-coast-estuaries.html>  
Last updated on Tuesday, May 27th, 2008.

## Region 9: Grants & Funding

You are here: [EPA Home](#) [Region 9](#) [Grants](#) [Request For Proposals](#) [West Coast Estuaries Initiative for the California Coast](#)

# West Coast Estuaries Initiative for the California Coast

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**Agency Name:** U.S. Environmental Protection Agency (U.S. EPA), Region 9  
**Funding Opportunity Name:** West Coast Estuaries Initiative for the California Coast  
**Announcement Type:** Initial Announcement  
**Funding Opportunity Number:** EPA-R9-WTR3-08-006  
**Catalog of Federal Domestic Assistance Number:** 66.439

## Overview

U.S. EPA Region 9 is soliciting proposals under this announcement for projects that conserve, restore and protect the water quality, habitat and environment of California coastal waters, estuaries, bays and near shore waters through comprehensive approaches to water quality management. The emphasis is on supporting implementation activities based on existing plans, such as Comprehensive Conservation Management Plans (Clean Water Act Section (CWA) 320), State programs such as the Integrated Regional Water Management Plans, and local watershed plans.

States, local governments, public and private nonprofit institutions/organizations, federally recognized Indian tribal governments, U.S. territories or possessions, and interstate agencies are eligible to apply. For-profit commercial entities and all Federal agencies are ineligible. Nonprofit organizations described in Section 501(c)(4) of the Internal Revenue Code that engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995 are not eligible to apply.

The total amount expected to be awarded under this announcement is approximately \$5,000,000 made available pursuant to the FY 2008 Consolidated Appropriations Act. U.S. EPA Region 9 anticipates awarding approximately three to five grants or cooperative agreements under this solicitation. It is expected that the federal share of the awards will range from approximately \$250,000 to no more than \$1,000,000 each with project periods of three to five years. U.S. EPA is requiring applicants to demonstrate in their proposal submission how they will provide the minimum non-federal match of 25 percent of the total cost of the proposal. Federally recognized Indian tribal governments may be exempt from this match requirement if they can demonstrate the match requirement would impose an undue economic hardship.

The West Coast Estuaries Initiative for the California Coast is a focused effort under the U.S. EPA Targeted Watersheds Grant (TWG) Program. The TWG Program is designed to support the protection and restoration of the nation's water resources through a holistic watershed approach to water quality management. The goal of the TWG Program is to advance successful partnerships and coalitions that have completed the necessary watershed assessments and have a technically sound watershed plan ready to implement.

**Important Dates**

August 25, 2008	Proposals must be received by U.S. EPA or electronically through Grants.gov by 5pm Pacific Standard Time
October 17, 2008	Initial approval identified and sponsor of projects selected for funding will be requested to submit a formal application package
November 15, 2008	Application and work plan received via hardcopy
December 2008	Awards made

The above dates (other than the August 25, 2008 proposal submission date) are anticipated dates and may be subject to change.

**Key Contacts**

Ephraim D. Leon-Guerrero, [leon-guerrero.ephraim@epa.gov](mailto:leon-guerrero.ephraim@epa.gov)

West Coast Estuaries Initiative – California Coast  
U.S. EPA Region 9 (WTR-3)  
75 Hawthorne Street  
San Francisco, CA 94105  
(415) 972-3444

**Contents of Full Text Announcement**

1. Funding Opportunity Description
2. Award Information
3. Eligibility Information
4. Application and Submission Information
5. Application Review Information
6. Award Administration Information
7. Agency Contact
8. Other Information

**Full text announcement (PDF)** (22 pp, 99K [About PDF](#))

- Attachment A: Grants.gov Proposal Instructions (PDF) (4 pp, 27K)

Supporting Document 3

**From:** John Robertus  
**To:** Sarah Emerson  
**Subject:** Re: SWIA's Grant Proposal to the USEPA

Sarah, thanks for our efforts and for the Grant Proposal language. I will review it with staff and prepare a Resolution for adoption by the Regional Board on 13 August. Ben Tobler is our staff POC. Thanks again!  
JHR

>>> "Emerson, Sarah" <[semerson@parks.ca.gov](mailto:semerson@parks.ca.gov)> 7/31/2008 1:48 PM >>>  
Dear Mr. Robertus,

Thank you for your efforts to address the issues of trash, sediment, and water quality in the Tijuana River Watershed. The workshop you conducted in June generated a tremendous amount of interest in the Southwest Wetlands Interpretive Association's (SWIA's) application to the U.S. EPA's West Coast Estuaries Initiative for the California Coast. Due in large part to your workshop, many organizations are now attempting to integrate watershed improvement projects into SWIA's proposal. SWIA expects a number of organizations (particularly the County of San Diego and the City of Imperial Beach) to finalize projects in the coming weeks (prior to the August 25 grant submission deadline). Because these projects are still in the works, the attached version of SWIA's proposal is slightly abridged and does not necessarily include all project activities. However, Clay Phillips and I believe that this document will best serve the purposes of the Regional Water Quality Control Board at this time. Please contact me if you require additional information.

Sincerely,

Sarah B. Emerson  
Volunteer Coordinator & Grant Writer  
Tijuana River National Estuarine Research Reserve  
and the  
Southwest Wetlands Interpretive Association  
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<http://www.tijuanaestuary.org> <<http://www.tijuanaestuary.org>>

**CC:** Benjamin Tobler

**Southwest Wetlands Interpretive Association – Grant Proposal Summary  
U.S. EPA, Region 9 West Coast Estuaries Initiative for the California Coast**

**Tijuana River Estuary Water Quality Improvement and Community Outreach Project  
August 25, 2008**

**Characterization of the Tijuana River Watershed and Tijuana River Estuary**

The Tijuana River Watershed covers 1,750 square miles – ¼ in the U.S. and ¾ in Mexico. Urban, agricultural, and industrial uses all impact the watershed from its eastern headwaters in the mountains of the U.S. and Mexico to its mouth at the Tijuana River Estuary in Imperial Beach, California. The Tijuana River National Estuarine Research Reserve is the end point for the watershed. This 2,500 acre, NOAA-designated Reserve includes the Tijuana Slough National Wildlife Refuge and Border Field State Park. It has been designated a “wetland of international importance” by the International Ramsar Committee. It is also a pilot site for the development of environmental scorecards through the Commission on Environmental Cooperation’s North American Marine Protected Area Network.

This unique area represents one of only two estuaries in Southern California not bisected by roads or railways. It is an excellent example of the wetland habitat that used to be a prominent feature along Southern California’s coast. Today, more than 90% of wetland areas in the region have been developed or degraded due to urban encroachment. The Reserve protects this area for a variety of species, including threatened and endangered birds, plants, and invertebrates. It also provides habitat for more than 370 bird species. In addition to its habitat value, the Tijuana River Estuary filters water flowing from the Tijuana River to the Pacific Ocean.

The Tijuana River Watershed faces profound environmental problems and threats. Water quality management and habitat preservation is extremely complex due to political boundaries, as well as social and economic differences between the U.S. and Mexico. The eastern part of the watershed is lightly developed, but the western end contains intense development in the fast-growing adjacent metropolitan areas of Tijuana and San Diego. This has created numerous environmental problems, including a decline in local groundwater; dependence on imported water; increased erosion and flood dangers; increased air pollution; a reduction in the amount of open, safe, green areas for urban residents; a decrease in ecosystem health; and an increasing number of threatened and endangered plants and animals.<sup>1</sup>

In the rapidly growing city of Tijuana, unregulated development and a lack of wastewater infrastructure have led to a tremendous increase in the flow of sediment, trash, debris, and wastewater into the Reserve. Three south-north canyons in Tijuana cross the border and drain directly into the Reserve: Matadero, Los Laureles, and Los Sauces. During a series of storms in late 2004 and early 2005, sediment flowing from these canyons buried over 20 acres of the Reserve’s salt marsh habitat, a major loss of coastal wetland. Sediment and trash filled two large sediment basins in the Reserve and then, after they were cleaned out, filled them a second time. In addition, more than 4,000 tires have ended up in the Reserve after major rains. Due in large part to these flows, the Tijuana River and the Tijuana River Estuary are included on the U.S. EPA’s 303(d) list of impaired waterways.

**Project Need**

This project will address the severe and growing threats to water quality in the Tijuana River Estuary from environmental degradation upstream in Mexico and habitat loss within the Reserve. The threats facing the Tijuana River Estuary are difficult to overstate. The City of Tijuana’s urban canyons – which drain into the Reserve – are being rapidly developed by the City’s fast-growing population. These makeshift communities lack basic infrastructure and sewage and trash services. This presents a tremendous challenge to the Reserve in terms of erosion, sedimentation, trash, and overall water quality. Meanwhile, invasive vegetation and erosion within the Reserve itself are degrading habitat. In addition, well over 1 million people live within a 30 minute drive of the Reserve, yet many residents remain largely unaware of this valuable and vulnerable coastal wetland.

Listed impairments currently facing the waterways in the Tijuana River Watershed include coliform bacteria, pesticides, synthetic organics, eutrophic conditions, trace elements, trash, lead, nickel, thallium, trash, and solids. (The Reserve is working with the Regional Water Quality Control Board to update the extent of the sediment problem as it relates to solids.) All these impairments will be addressed in this project, with a special emphasis on trash and sediment.

This project will accomplish three major objectives:

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<sup>1</sup> Tijuana River Watershed Binational Vision Document, <http://trw.sdsu.edu/English/Publications/visionDraft.htm>

1. Reduce the amount of sediment, trash, and contaminated urban runoff that enters the Tijuana River Estuary from Mexico.
2. Improve the quality of wetland and upland habitat at the Reserve.
3. Expand active community participation in protecting and enhancing the Reserve.

The long-term desired outcomes for this project are:

- Reduction in wetland degradation from contaminated transboundary flows from Mexico.
- Improvement of water quality, wetland habitat, and upland habitat at the Reserve.
- Enhanced public perception of coastal wetlands and increased public participation in restoration efforts.

Comprehensive planning and assessment have been completed in order to ensure the activities of this project will achieve tangible and sustainable environmental results. Evidence of this planning and assessment can be found in the 2007 revision of *The Tijuana River National Estuarine Research Reserve Management Plan* (a NOAA-mandated and approved document required by all units of the National Estuarine Research Reserve System). In addition, the following documents provided guidance: *A Binational Vision for the Tijuana River Watershed* (adopted in 2004 by the Binational Watershed Advisory Council); the California Biodiversity Council's *Biodiversity Along the Border Committee Strategies for Consideration (2007)*; the State Coastal Conservancy's *Southern California Wetlands Recovery Program Workplan* (which includes the Reserve as a priority area, and specifically designates Los Laureles Canyon as a target action area); the *Los Laureles Master Plan* (prepared by IMPlan, Tijuana's planning agency, and approved by the State of Baja California in 2007); the *Tijuana River National Estuarine Research Reserve Invasive Vegetation Management Plan* (updated 2008); and *Border Field State Park's Interim Road Treatment Plan (2008)*.

**Project Plan (61% in the U.S. and 39% in Mexico)**

The Southwest Wetlands Interpretive Association (SWIA) will carry out this project in partnership with the Reserve by managing this grant and the personnel administration for five new staff:

- Watershed Projects Facilitator
- Watershed Projects Facilitator Assistant
- Community Outreach Coordinator
- Two Stewardship Assistants

In addition, the Reserve's current Stewardship Assistant will work full-time. All of these staff will be based at the Reserve's offices in Imperial Beach. They will be supervised by the Reserve Manager and collaborate with the Reserve's current staff – particularly, the Coastal Training Program (CTP) staff and Stewardship staff. Regular water quality monitoring will be conducted throughout the grant period by the Reserve's Research staff (including a Ph.D.- level scientist) and by volunteers from San Diego Coastkeeper's Citizen Watershed Monitoring Program.

The length of the proposed project will be three years. The project components are ready for implementation because they build upon existing projects, scientifically-approved watershed plans, mandates from NOAA, and established partnerships with the City of San Diego, the County of San Diego, other public and private agencies, and the local community. The existing Reserve programs, staff, partnerships, and facilities provide a platform that will assure quick productivity and long-term success.

<b>Project Budget</b>	
Request from U.S. EPA	\$957,058
Non-Federal Match	\$328,993
<b>Total Cost</b>	<b>\$1,286,051</b>

**Project Components**

This project has three major components:

- I. **Facilitating Watershed Improvement Projects in the U.S. and Mexico**
- II. **Watershed Stewardship: On-the-Ground Improvements**
- III. **Community Education, Engagement, and Participation**

**Component I: Facilitating Watershed Improvement Projects in the U.S. and Mexico**

The goal of this component is to facilitate watershed improvement projects that result in direct environmental benefits to the Reserve. The Watershed Projects Facilitator (WPF) will work in partnership with the Reserve's CTP staff to accomplish the following activities.

<b>Component I Budget</b>	
Request from U.S. EPA	\$395,203
Non-Federal Match	\$163,332
<b>Total Cost</b>	<b>\$558,535</b>

**Control Erosion in Los Laureles Canyon:** The goal of this activity is to control erosion in San Bernardo by installing pervious pavers and planting native vegetation. The pavers will allow water to percolate through the blocks and channel remaining runoff into storm drains. Native vegetation will reduce the rapid erosion of bare slopes. This project will serve as a model for soil erosion prevention projects throughout the Tijuana River Watershed.

**Manage Storm Water – Canyon Collectors:** The goal of this activity is to increase the capacity of existing canyon collectors to accommodate over 50 percent of the storm flows from Mexico, and to add a collector at Yogurt (Los Sauces) Canyon. Canyon Collectors are installed and currently maintained by the International Boundary and Water Commission (IBWC) on East Spooner’s Mesa, in Smuggler’s Gulch (Matadero Canyon), and in Goat Canyon (Los Laureles Canyon). These facilities take the lowest storm flows and redirect them to the water treatment plant along Dairy Mart Road.

**Manage Storm Water – Implement Community-Based Sewage System:** The goal of this activity is to build and maintain a sewer system for a portion of San Bernardo, and to reuse the treated wastewater to irrigate native vegetation on nearby slopes. This activity will be coordinated in partnership with volunteers from the San Diego Professional Chapter of Engineers without Borders.

**Secure Conservation Easements in Urban Canyons in Mexico:** The goal of this activity is to conserve two properties located in Los Sauces and Matadero Canyons, both of which drain from Tijuana into the Reserve. This will provide recreational space for Tijuana residents and provide a vegetated buffer near the border to help filter storm water and sediment before it enters the Reserve.

**Prevent Sediment from Entering the Reserve:** The goal of this activity is to capture sediment before it enters the Reserve by building a series of sediment basins in the South-North canyons in Tijuana that cross the border and drain directly into the Reserve.

**Reduce Tires and Trash through Tire Reutilization Designs, Trash Disposal, and Recycling:** The goal of this activity is to reduce the number of tires and amount of trash that enters the Reserve. This will be accomplished by training people how to use waste tires in civil engineering projects; consolidating trash as it enters the Tijuana River Valley; and promoting commercial recycling of tires (there are currently no tire recycling centers in San Diego County).

**Low Impact Development Pilot Project: Catch Basin Inserts in Curb Inlets:** The goal of this activity is to reduce the amount of trash, sediment, oils, and grease that make its way into the City of San Diego’s storm drain system into the Tijuana River Estuary. This activity will be accomplished by the City of San Diego.

**Volunteer Watershed Improvement Projects at the Reserve:** This activity is detailed under Component III. Please refer to this section when considering Component I: Applied Science: Watershed Improvement Projects.

**Component II: Watershed Stewardship: On-the-Ground Improvements**

The goal of this component is to decrease sedimentation and erosion and improve the quality and quantity of wetland and upland habitats within the Reserve. The Stewardship Assistants will work alongside the Reserve’s NOAA-funded Stewardship Coordinator to implement the following activities and tasks.

<b>Component II Budget</b>	
Request from U.S. EPA	\$315,179
Non-Federal Match	\$76,832
<b>Total Cost</b>	<b>\$392,011</b>

**Road Treatment and Slope Stabilization:** The goal of this activity is to reduce erosion and sedimentation associated with the road network within the Reserve. Dirt roads throughout the upland and wetland regions of the Reserve will be treated to properly convey storm water. Hill-side and bluff-edge erosion scars will be stabilized and revegetated.



**Restore Wetland and Upland Habitat:** The goal of this activity is to improve the quality and quantity of wetland and upland habitat within the Reserve. Disturbed and ruderal habitats will be treated for exotic vegetation and planted with native species. Additionally, exotic vegetation will be treated throughout the entire Reserve. Restoration and treatment will focus on improving the quality and quantity of Southwestern willow scrub, elderberry savannah, mule-fat scrub, and maritime succulent scrub. Exotic plant species to be targeted for removal include tamarisk, arundo, castor bean, eucalyptus, perennial pepper-weed, and Saharan mustard.

**Remove Trash:** The goal of this activity is to prevent trash from entering the Tijuana River Estuary. Trash collection activity will be focused on stranded trash and debris flowing in from Mexico.

**Volunteer Watershed Improvement Projects at the Reserve** Volunteers will be integral to the execution of the above watershed improvement projects. This activity is detailed under Component III. Please refer to this section when considering Component II: Watershed Stewardship: On-the-Ground Improvements.

**Component III: Community Education, Engagement, and Participation**

The goal of this component is to expand active community participation in protecting and enhancing the Tijuana River Estuary through volunteer activities. This will not only help accomplish much needed on-the-ground projects. It will also transform perceptions of coastal wetlands and encourage environmentally-friendly choices by incorporating education into each volunteer project and providing education and technical training to volunteers and the general the public. The Community Outreach Coordinator will reach out to a diverse audience of citizens – from both sides of the Border – to accomplish the following activities and tasks.

<b>Component III Budget</b>	
Request from U.S. EPA	\$246,675
Non-Federal Match	\$88,830
<b>Total Value</b>	<b>\$335,505</b>

**Coordinate Volunteer Watershed Improvement Events at the Reserve:** The goal of this activity is to engage the public in meaningful and rewarding volunteer activities that will help build community advocates for the protection and preservation of the Tijuana Rive Estuary and other coastal wetlands. Volunteer events will be held at least monthly and will focus on habitat restoration, trash removal, and erosion control.

**Increase and Manage Long-Term Volunteer Activities:** The goal of this activity is to secure the long-term commitment of volunteers to participate in environmental education, stewardship, research, and outreach that will inspire and educate the public about the importance of protecting and preserving the Reserve and other coastal wetland areas.

**Offer Targeted Training and Educational Programs to the Public:** The goal of this activity is to teach volunteers and members of the public the ways that they can improve water quality and protect the environment in their own communities through a series of skill-building workshops and educational materials to be distributed at both workshops and volunteer events.

**Partnering**

This project includes public and private partners in multiple jurisdictions in both the U.S. and Mexico who are already working together on projects in the Tijuana River Watershed. In the U.S., municipal, county, state, and federal agencies are all engaged in efforts to improve the water quality, habitat, and environment of the watershed. The recently-signed MOU between California State Parks (as managers of the Reserve) and the City of Tijuana reflects the increased level of binational cooperation in recent years, particularly on projects in Los Laureles Canyon. The Mayors of Tijuana and Tecate also sit on the Advisory Council of the Reserve. This grant will strengthen all of these partnerships, which are critical to the short and long-term goals of protecting and restoring the water quality of the Tijuana River Watershed. Active partners in this project include the following:

- SWIA will manage the grant. SWIA has worked for almost 30 years to protect and restore the Reserve. SWIA administers NOAA funding for a number of the Reserve's staff positions, and will similarly handle personnel administration for the five new staff.

- **The Reserve** will coordinate on-the-ground volunteer watershed improvement projects. The Reserve Manager will supervise the five staff, who will work closely with the Reserve's CTP and Stewardship staff. The Reserve's Researchers will continue to monitor water quality in the Tijuana River Watershed.
- **California State Parks** manages the Reserve in partnership with the National Oceanic and Atmospheric Administration and the U.S. Fish & Wildlife Service. The Reserve Manager will supervise all five new staff hired through this grant. The in-kind value of the Reserve Manager's time is \$48,000.
- **The State Coastal Conservancy** works with the Southern California Wetlands Recovery Project (SCWRP) to build the capacity of coastal decision-makers and watershed agencies to address the challenges facing coastal wetlands. The State Coastal Conservancy has pledged \$20,000 for projects in Los Laureles Canyon.
- **City of San Diego** will implement a low impact development project in the Tijuana River Watershed. Catch basin inserts will reduce the amount of trash, sediment, oils, and grease that make its way into the City of San Diego's storm drain system and eventually into the Tijuana River Estuary. The value of design and planning for this project – \$8,000 – will be used as non-federal match. In addition, an engineer from the City will provide technical assistance to the Reserve for other improvement projects conducted in the watershed.
- **County of San Diego** is a landowner within the Reserve boundaries and sits on the Reserve's Advisory Council. The County is working with the Regional Water Quality Control Board and the Integrated Waste Management Board to identify and obtain funding for a trash characterization study in the Tijuana River Valley. In addition, the County's District 1 Community Projects Grant Program is providing \$5,000 in matching funds to support volunteer activities.
- **City of Imperial Beach** is a landowner within the Reserve boundaries and sits on the Reserve's Advisory Council. It has been awarded funds from the State of California Water Resources Control Board "Clean Beach Initiative" to investigate bacterial sources throughout the United States portion of the Tijuana River Watershed. The information from this study will help to inform future water quality projects undertaken by SWIA, the Reserve, and other project partners.
- **San Diego Coastkeeper** is a nonprofit organization that conducts regular water quality monitoring in the Tijuana River Watershed through their Citizen Monitoring Program. This program recruits and trains community volunteers to collect water samples from three sites in the Tijuana River Watershed on a monthly basis. Samples are tested for turbidity, nutrients, total organic carbon, metals, total coliform, and E. coli. The in-kind efforts of San Diego Coastkeeper volunteers in the Tijuana River Watershed are valued at \$10,535.40.
- **Earth Island Institute** has pledged \$30,000 for erosion control projects in Los Laureles Canyon.
- **Engineers Without Borders – USA – San Diego Professional Chapter (EWB-SD)** is a non-profit organization established to partner with developing communities worldwide to improve their quality of life. EWB-SD is currently initiating planning efforts to implement a community-based sewage system in Los Laureles Canyon (Component V, Activity C2). Their in-kind efforts are valued at \$34,500.
- **City of Tijuana** will provide in-kind labor and materials, including preparation of surfaces, fencing, and irrigation for the revegetation and installation of a gravel base for the pervious pavers. As part of the MOU, the Mayor has designated a senior project director for the Los Laureles project from the Municipal Institute of Planning (IMPlan). The City's *Los Laureles Master Plan* provides a blueprint for infrastructure development and open space conservation. A master plan for adjacent Matadero Canyon is underway.
- **WILD COAST** is a nonprofit based in Imperial Beach that actively partners with the Reserve to educate coastal decision-makers about the importance of improving, protecting, and preserving water quality and habitat in the Tijuana River Watershed.

**Additional partners:** U.S. Fish & Wildlife Service, the National Oceanic and Atmospheric Administration, and universities in both the U.S. and Mexico.