



# Tijuana River Valley Recovery Team Five-Year Action Plan March 2015



## 1.0 INTRODUCTION

The objective of the Tijuana River Valley Recovery Team (TRVRT) Five-Year Action Plan is to maintain collaborative momentum and implement projects that advance TRVRT goals as described in the January 2012 Tijuana River Valley Recovery Strategy (Recovery Strategy).

The San Diego Regional Water Quality Control Board (San Diego Water Board) endorsed the Recovery Strategy in February 2012 and recognized that based on demonstrated progress and solid measurable goals, the implementation of the Recovery Strategy would likely result in eventual attainment of water quality standards in the Tijuana River Valley. If done in a reasonable period of time, this could obviate the need for Total Maximum Daily Loads (TMDLs) or other regulatory measures for waters in the Tijuana River Watershed, which are listed 38 times on the 2010 U.S. Environmental Protection Agency (USEPA) 303(d) list of impaired waters due to pesticides and other organics, metals, sediment, nutrients, pathogens, and toxicity.

The San Diego Water Board will continue to evaluate the progress of implementing the 2012 Recovery Strategy as an alternative to TMDLs and other regulatory measures. If progress is not sufficiently demonstrated, the San Diego Water Board may decide, rather than continuing to endorse this alternative, to revert to adopting its traditional regulatory tools to attain better results.

The TRVRT Five-Year Action Plan is intended to outline what the TRVRT aspires to accomplish over the next five years to continue advancing the 2012 Recovery Strategy goals. The steps described to reach these accomplishments are not binding commitments but a potential path to implement these projects that currently serve as alternatives to TMDLs and other regulatory measures. The project descriptions may include tasks, deliverables, resources needed, a schedule for achieving project milestones, and processes for monitoring progress. Since these are all variables that can change over the course of a project, the Five-Year Action Plan should be updated regularly.

The projects below have been organized into two tiers. Tier 1 projects are described as such:

1. Identified as a **high priority** in the Recovery Strategy;
2. Involve relatively **straightforward** paths of completion;
3. Can be controlled by agencies **within the U.S.**; and
4. Are expected to produce **long-term benefits** to managing trash and/or sediment.

Tier 2 projects can be described with at least one of the four criteria.

The TRVRT has suggested to the U.S. International Boundary and Water Commission (IBWC) that some of these projects may be good candidates for “minute projects.” In 1944, the U.S. and Mexico signed a Water Treaty, which is implemented through minutes. IBWC and its Mexican counterpart, Comisión Internacional de Límites y Aguas (CILA) plans to soon approve a minute that establishes a process for identifying projects to manage cross-border sediment, trash, and water quality impacts. The projects will then be implemented through subsequent project-specific minutes.

## **2.0 TIER 1 PROJECTS**

Tier 1 projects are the highest priority projects. The San Diego Water Board submitted a request to the State Water Resources Control Board to provide Cleanup and Abatement Account (CAA) funds for the first phase of Tier 1 projects, anticipated to cover up to two years worth of work. Additional funds from sources such as the Integrated Regional Water Management (IRWM) program and California Fish and Wildlife will be requested to cover subsequent phases of these Tier 1 projects.

### **PROJECT 1: Reclamation of the Nelson Sloan Quarry**

**Background:** The Nelson Sloan quarry was acquired by the County of San Diego through funding by the California Coastal Conservancy for reclamation and restoration to native upland habitat. A portion of the quarry has already been filled by the federal Department of Homeland Security as part of the border fence project. The quarry could be reclaimed with sediment from the several excavation projects in the Tijuana River Valley; e.g., the Tijuana River channel, the pilot channel, and the Goat Canyon sediment basin. The quarry could receive sediment over a period of 5 to 20 years depending on the volume identified for removal. Moreover, 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.

In 2010, the California Coastal Conservancy provided \$250,000 to the City of San Diego for planning and permitting necessary to reclaim the quarry with the aim of improving the natural value and appearance of the abandoned quarry, while providing a low-cost option for disposing of sediment excavated in the Tijuana River Valley. The City of San Diego has spent \$200,000 on a Nelson Sloan Quarry Reclamation Plan. The remaining \$50,000 could possibly be transferred to the County of San Diego to support a contract for an operations plan and cost estimate for sediment deposition at this site.

The County of San Diego has not identified any plans to proceed with the reclamation of the quarry, but it might allow the aforementioned uses provided several conditions are met, including indemnification and essentially no cost to the County of San Diego for permitting or operations. It has, however, indicated a willingness to assist in completing or updating the Nelson Sloan Quarry Reclamation Plan and associated environmental documents. The County has also taken an active role in facilitating the discussion of the options to reclaim the quarry with Tijuana River Valley sediment. This is a key area where the continued discussion by elected officials to help us coordinate the efforts of several agencies and/or legislation to offset costs could be very helpful.

The local California State Parks office has expressed interest in approaching its decision-makers in Sacramento to suggest that California State Parks takes the lead on operations at the quarry. Since the agency's leadership has been in transition since July 2014, the local office proposes to make its suggestion once a new director is appointed.

This project was also proposed by the TRVRT to IBWC on October 22, 2014 as a minute project. The process to designate minute projects may be lengthy so the TRVRT will continue to move forward while IBWC and its Mexican counterpart, CILA, decide if this project could be implemented through a treaty minute.

**Project Lead:** State Parks preferred  
County of San Diego, alternate

**Desired Five-Year Outcome:** Reclamation of Nelson Sloan quarry underway using sediment excavated in the Tijuana River Valley

**Task 1:** Secure Funding

1.1 On December 31, 2014, the San Diego Water Board submitted a request to the State Water Resources Control Board to provide CAA grant funds for conditions in the Tijuana River Valley as there are no viable responsible parties available to undertake the work. The CAA project that this request would fund is called "Phase I of the Tijuana River Valley Recovery Team Five-Year Action Plan Implementation." The proposed CAA project consists of five components, A-E. Component A addresses planning activities for reclamation of the Nelson Sloan quarry; exploring management and operations alternatives and/or updating environmental documents based on the preferred alternative. As of the date of the CAA request, December 31, 2014, since no other funds were available to cover exploring management and operations alternatives or updating environmental documents, \$500,000 was requested to cover the cost of both. Agency point of contact: Melissa Valdovinos, San Diego Water Board.

- 1.2 The California Coastal Conservancy will consider transferring the remaining \$50,000 of the \$250,000 granted to the City of San Diego to the County of San Diego to hire a consultant to develop a management and operations plan and associated cost estimates for the Nelson Sloan quarry. Agency point of contact: Joan Cardellino, California Coastal Conservancy.
- 1.3 Funding from an alternative source will be requested if the abovementioned requests are not approved, not approved fully, or not approved in a timely manner.
- 1.4 Once a preferred alternative that complies with California Environmental Quality Act (CEQA) requirements is chosen, additional funds will be requested to produce design plans, construct, manage, and operate the site.

**Task 2: Develop Management and Operations Plan**

- 2.1 The County of San Diego is currently developing a scope of work (SOW) and once funds are secured under Task 1, a consultant will be hired to develop a management and operations plan and associated cost estimates for the Nelson Sloan quarry per the SOW. Agency point of contact: Christine Sloan, County of San Diego.
- 2.2 The consultant will explore the different options for managing the Nelson Sloan quarry and for operating it, including the reclamation plan developed by the City of San Diego. The various alternatives will take into account material import sources, material stockpiling, material sorting, material export, fill plan, restoration plan, project boundaries, operations and management structure, and estimated costs. These factors will be the basis for the TRVRT to choose a preferred alternative. The consultant's management and operations plan will describe the steps for carrying out the preferred alternative, including what must be identified to perform a CEQA review.

**Task 3: Develop Preliminary Design Plans**

- 3.1 Schematic design plans will be produced for the preferred alternative, taking into account what must be identified to perform a CEQA review.
- 3.2 Once the schematic design plans are approved by the agency that will manage the Nelson Sloan quarry, preliminary design plans will be produced to examine in detail whether or not the ideas developed in the schematic design phase should be committing to construction documents. The preliminary design plans will include enough detail for a CEQA review.

**Task 4: Perform CEQA Review**

- 4.1 A CEQA review for the Nelson Sloan quarry was conducted in 1976 based on conditions and reclamation activities planned at that time. An updated CEQA review will be conducted by the San Diego Water Board, in accordance with Chapter 3 of Title 14 of the California Code of Regulations, to identify the significant environmental impacts of the preferred alternative and to avoid or mitigate those impacts, if feasible. At a minimum, an initial review of the preferred alternative and its environmental effects will be conducted. Depending on the potential effects, a further, and more substantial, review may be conducted in the form of an environmental impact report (EIR).

**Task 5: Develop Final Construction Documents**

- 5.1 CEQA will reveal if the preliminary design plans may be approved. If anticipated environmental effects prompt a change in the preferred alternative and/or mitigation measures, the design plans will be modified accordingly and finalized. These construction documents may then be used by the agency that will manage the Nelson Sloan quarry to request construction bids and obtain any required permits or other approvals.

**Task 6: Construct Site for Sediment Deposition**

- 6.1 The site will be constructed in accordance with construction documents.

**Task 7: Manage and Operate Site**

- 7.1 The site will be managed and operated in accordance with management and operations plan and construction documents.

**PROJECT 2: Brown Property Restoration**

**Background:** The Brown Property on Hollister Avenue was the site of unauthorized fill activities in the past. The fill material has been evaluated by CalRecycle as inert and nonhazardous waste. Removal of the fill and restoration of the site to riparian forest floodplain would substantially improve the hydrology of the Tijuana River Valley. Nonetheless, an additional focused hydrology study is needed for CEQA and permitting of the fill removal and restoration to ensure impacts are mitigated and an appropriate, sustainable, post-project design is developed for the restoration of the site.

With additional studies, the property could be restored to riparian forest , wetland habitat, and recreational uses. The site would provide significantly improved hydrology in the Tijuana River Valley, potentially reducing the need for the 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. Financial support from CalRecycle would be critical to complete this project. The restoration would reestablish the braided channel condition expected in this type of river system and reduced flood impacts for the 25-year and smaller storm events. The post-project area would be able to support certain recreational uses (trails for equestrian, biking, hiking, and bird watching) currently not fully realized.

Sediment removed could be placed in the Nelson Sloan quarry for reclamation or other purposes. The site could potentially be used as a mitigation bank for wetland projects or as a Watershed Water Quality Improvement Plan Alternative Compliance Site for storm water permit implementation.

This project was also proposed by the TRVRT to IBWC on October 22, 2014 as a minute project. The process to designate minute projects may be lengthy so the TRVRT will continue to move forward while IBWC and its Mexican counterpart, CILA, decide if this project could be implemented through a treaty minute.

**Project Lead:** County (property owner) preferred  
City of San Diego (responsible for flood control), alternate or joint lead

**Desired Five-Year Outcome:** Brown Property fill removal and restoration underway

**Task 1:** Secure Funding

- 1.1 On December 31, 2014, the San Diego Water Board submitted a request to the State Water Resources Control Board to provide CAA grant funds for conditions in the Tijuana River Valley as there are no viable responsible parties available to undertake the work. The CAA project that this request would fund is called “Phase I of the Tijuana River Valley Recovery Team Five-Year Action Plan Implementation.” The proposed CAA project consists of five components, A-E. Component B addresses planning activities for restoring the Brown Property; preparing a hydrology study, feasibility study, and environmental documents. As of the date of the CAA request, December 31, 2014, since no other funds were available to cover a hydrology study, feasibility study, and environmental documents, \$300,000 was requested to cover the cost of these items. Agency point of contact: Melissa Valdovinos.
- 1.2 Funding from an alternative source will be requested if the abovementioned request is not approved, not approved fully, or not approved in a timely manner.

- 1.3 Once a preferred alternative that complies with CEQA is chosen, additional funds will be requested to produce design plans, remove fill, and manage the site.

**Task 2: Prepare Hydrology Study**

- 2.1 Once funds are secured under Task 1, a consultant will be hired to prepare a hydrology study to explore the hydrologic impacts due to various fill removal and restoration scenarios. This will inform the feasibility study.

**Task 3: Prepare Feasibility Study**

- 2.1 Once the hydrology study has identified the potential fill removal and restoration scenarios, a consultant will be hired to prepare a feasibility study that evaluates the practicality and cost estimates of these potential plans. This will be the basis for choosing a preferred alternative for fill removal and restoration.

**Task 4: Develop Preliminary Design Plans**

- 3.1 Schematic design plans for fill removal and restoration will be produced for the preferred alternative, taking into account what must be identified to perform a CEQA review.
- 3.2 Once the schematic design plans are approved by the agency that will manage the property, preliminary design plans will be produced to examine in detail whether or not the ideas developed in the schematic design phase should be committing to construction documents. The preliminary design plans will include enough detail for a CEQA review.

**Task 5: Perform CEQA Review**

- 5.1 A CEQA review for Brown Property restoration will be conducted by the San Diego Water Board, in accordance with Chapter 3 of Title 14 of the California Code of Regulations, to identify the significant environmental impacts of the preferred alternative and to avoid or mitigate those impacts, if feasible. At a minimum, an initial review of the preferred alternative and its environmental effects will be conducted. Depending on the potential effects, a further, and more substantial, review may be conducted in the form of an environmental impact report (EIR).



**Task 6: Develop Final Construction Documents**

- 6.1 CEQA will reveal if the preliminary design plans may be approved. If anticipated environmental effects prompt a change in the preferred alternative and/or mitigation measures, the design plans will be modified accordingly and finalized. These construction documents may then be used by the agency that will manage the property to request construction bids and obtain any required permits or other approvals.

**Task 7: Fill Removal and Other Restoration Work**

- 7.1 Restoration activities, including fill removal, will be performed in accordance with construction documents.

**Task 8: Manage Property**

- 8.1 The property will be managed and maintained in accordance with factors considered in the feasibility study and construction documents.

**PROJECT 3: Preparation of a Sediment Management Plan for the Tijuana River Valley**

**Background:** Sediment and trash are currently excavated at several locations in the Tijuana River Valley and the disposal of the sediment is primarily transported to and deposited in landfills at a cost of up to \$100 per truckload. Finding alternatives to landfill disposal will reduce costs of excavation, allowing for greater excavation and restoration efforts valley-wide.

Sediment management options to be studied include reclamation of the Nelson Sloan Quarry, beach replenishment, construction aggregate and fill material, fill for Tijuana River Valley trails and dirt roads, fill for horse ranches and agriculture land, and landfilling. With sufficient funding, the sediment management plan could also include source identification and management options in Mexico. In developing the plan, existing studies that should be taken into account are the URS Trash and Sediment Characterization Study, the U.S. Army Corps of Engineers Regional Sediment Management Plan for San Diego County, and the City of San Diego Local Coastal Program Land Use Plan.

The sediment management plan will inform regulatory requirements (waivers, waste discharge requirements, etc.) in general, and specifically for Brown Property fill removal and sediment deposition/processing/reuse at the Nelson Sloan Quarry.

This project could potentially be coordinated with the sediment source identification study that is being proposed for the Tijuana River Water Quality Improvement Plan. The study could be leveraged to perform additional work in the Tijuana River Valley to address binational sources of sediment and/or further explores strategies for a sediment management plan.

This project was also proposed by the TRVRT to IBWC on October 22, 2014 as a minute project. The process to designate minute projects may be lengthy so the TRVRT will continue to move forward while IBWC and its Mexican counterpart, CILA, decide if this project could be implemented through a treaty minute.

**Project Lead:** City of San Diego preferred  
IBWC, alternate

**Desired Five-Year Outcome:** Valley-wide sediment management plan completed

**Task 1:** Secure Funding

- 1.2 On December 31, 2014, the San Diego Water Board submitted a request to the State Water Resources Control Board to provide CAA grant funds for conditions in the Tijuana River Valley as there are no viable responsible parties available to undertake the work. The CAA project that this request would fund is called “Phase I of the Tijuana River Valley Recovery Team Five-Year Action Plan Implementation.” The proposed CAA project consists of five components, A-E. Component C addresses development of a valley-wide SMP. As of the date of the CAA request, December 31, 2014, since no other funds were available to cover the cost of a SMP, \$300,000 was requested for this purpose. Agency point of contact: Melissa Valdovinos.
- 1.2 Funding from an alternative source will be requested if the abovementioned request is not approved, not approved fully, or not approved in a timely manner.

**Task 2:** Develop Sediment Management Plan

- 2.1 A sediment management plan will be developed that, at a minimum, achieves the following:
  - Describes problem and the utility of the sediment management plan;
  - Identifies responsibilities of authorities /agencies;
  - Identifies needs and collaborative opportunities, including common staging areas and common disposal/receiving sites;
  - Defines factors affecting short- and long-term sediment volumes and quality;
  - Identifies strategies and costs associated with sediment management options, including best management practices and green infrastructure;

- Identifies short- and long-term alternatives with costs and implementing recommendations;
- Identifies strengths and limitations of collaborative opportunities; and
- Identifies regulatory roles, subsequent environmental review, and permit obligations.

**PROJECT 4: Tijuana River Valley Recovery Team Mission Support**

**Background:** The Recovery Strategy acknowledges that implementation of priority projects should be carried out in an integrated and collaborative approach that may include bi-national cooperation, interagency coordination, and/or cost-sharing components. To support this approach and maintain momentum on priority projects, the TRVRT relies on administrative services, facilitation, translation, website enhancements, and mapping. Due to the many existing commitments of TRVRT members, time available often falls short of what is required to accomplish TRVRT goals. It would be highly beneficial to hire a contractor that could dedicate the time required to maintain momentum on priority projects.

An ideal first effort for a contractor hired to provide mission support would be to develop and implement an interagency agreement for the acquisition of Tijuana River Valley property from willing sellers. Acquisition of private property from willing sellers, included in the Recovery Strategy’s Priority Action Area of “Protect and Enhance Natural Resources,” would benefit greatly from TRVRT mission support in the form of administrative services, facilitation, translation (if needed), website enhancements, and mapping; Tasks 3-6 of this project pertain specifically to this. A coordinated effort by federal, state, and local governments to purchase private property in the Tijuana River Valley from willing sellers has already resulted in the purchase of over 1,700 acres since the 1980s. This effort is complemented by ongoing efforts in Mexico to secure conservation easements in open space areas. The expected results of property acquisition are reduced risks to public health and safety from flooding and erosion and improved natural habitat connectivity.

A recent missed opportunity was the former Yamamoto Property on Dairy Mart Road, which was advertised for sale. The Recovery Team had a great deal of interest in the acquisition and restoration of the property but none of the agencies involved had sufficient funds to purchase it outright. The Trust for Public Land was interested in partnering with the U.S. Navy, County of San Diego, City of San Diego, and California State Parks to acquire the option on the property if not the outright purchase of the property. These are issues that merit discussion by local elected officials and agency heads as an example of how the TRVRT can achieve its highest goals and priorities through collective rather than individual efforts. Agency commitment and the process for acquisition should ultimately be formalized in a property acquisition agreement.

**Project Lead:** County of San Diego preferred

**Desired Five-Year Outcome:** Effective partnerships with government agencies to facilitate implementation of the Five-Year Action Plan, including implementation of an interagency agreement for the acquisition of Tijuana River Valley property from willing sellers

**Task 1: Secure Funding**

- 1.1 On December 31, 2014, the San Diego Water Board submitted a request to the State Water Resources Control Board to provide CAA grant funds for conditions in the Tijuana River Valley as there are no viable responsible parties available to undertake the work. The CAA project that this request would fund is called “Phase I of the Tijuana River Valley Recovery Team Five-Year Action Plan Implementation.” The proposed CAA project consists of five components, A-E. Component D addresses TRVRT mission support services. As of the date of the CAA request, December 31, 2014, since no other funds were available to cover these needs, \$300,000 was requested to cover the costs of administration, facilitation, and translation needs for a period of two years. Agency point of contact: Melissa Valdovinos.
- 1.2 Funding from an alternative source will be requested if the abovementioned request is not approved, not approved fully, or not approved in a timely manner.

**Task 2: Identify Specific Mission Support Needs**

- 2.1 Once funding is secured under Task 1, the TRVRT will identify specific administrative, facilitation, and/or translation needs at that time and for a period of two years. These tasks will directly tie into building effective partnerships with government agencies to facilitate implementation of the Five-Year Action Plan. These needs will be in addition to the already identified need to implement an interagency agreement for the acquisition of Tijuana River Valley property from willing sellers.

**Task 3: Information Gathering and Outreach for Property Acquisition**

- 3.1 Discussion will be coordinated with San Diego River Conservancy and other relevant organizations to gather insight on land acquisition processes.
- 3.2 Once funds are secured under Task 1, a current geographical information system (GIS)-based map will be developed; indicating parcels, ownership, and associated information. This is the baseline and is needed for clear communication and discussion between agencies and with interested parties.
- 3.3 Outreach to private land owners will be coordinated to assess interest and willingness to participate in a property purchase program.

**Task 4:** Establish Prioritization Process for Property Acquisition

- 4.1 Individual parcels will be prioritized based on feasibility, relative importance, and connectivity to existing publically-owned parcels. This will be the basis to determine priority parcel funding needs and potential funding sources. This may be based on the Conservation Area Plan (CAP) process, which takes into consideration habitat type, connectivity, and other parameters. The targeted ecological habitat outcome of each parcel should be identified with the goal of maintaining that outcome with minimal anthropogenic maintenance in the face of changing climate, storm events, and other ecological factors.

**Task 5:** Identify Funding for Property Acquisition

- 5.1 A process will be established to identify, on an ongoing basis, grants and other funding sources that may finance property purchase and management.

**Task 6:** Develop Agreement for Property Acquisition

- 6.1 A formal agreement will be developed to describe the property acquisition process and identify who will purchase, manage, and provide long-term operation and maintenance funding for individual parcels.

**PROJECT 5: Targeted Sediment and Trash Removal Projects**

**Background:** Several agencies and NGOs perform trash and sediment removal projects in the Tijuana River Valley. For example, Tijuana River Action Month (TRAM) is a series of education and stewardship events that have been held in September and October since 2010 to benefit the Tijuana River Watershed. The following summarizes TRAM events/successes:

- 2010: 2,812 volunteers, 56 tons of trash and 3,000 waste tires removed
- 2011: 2,647 volunteers, 31 tons of trash and 350 waste tires removed, 1,230 native plants installed, South Bay water quality workshop, presentation on Tijuana water infrastructure and its impacts on the Tijuana River Estuary, binational tours, bird and nature walks, TRAM volunteer appreciation celebration
- 2012: 2,908 volunteers, 31 tons of trash and 687 waste tires removed, 100 native plants installed, bilingual nature walk, TRAM volunteer appreciation celebration
- 2013: 2,723 volunteers, 51 tons of trash and 185 waste tires removed, 120 native plants installed, 11 acres of habitat improved, 170 participants in watershed and native plant talks, 2,800 eco-bricks created from reused solid waste from the watershed, photo exhibit at the binational garden, TRAM volunteer appreciation celebration

- 2014: 2,181 volunteers, 38 tons of trash and 106 waste tires removed, 190 native plants installed, 8.3 acres of habitat improved, 25 eco-bricks created from reused solid waste from the watershed, photo exhibit at the friendship garden, bi-national planting ceremony with U.S. and Mexican elected officials at the border friendship garden, butterfly release, TRAM volunteer appreciation celebration

It is important for the TRVRT to continue supporting and, when possible, expand these clean-up efforts concurrent with efforts to reduce sources in Mexico.

**Project Lead:** City of San Diego preferred  
WILD Coast, alternate

**Desired Five-Year Outcome:** Downstream trash clean-ups performed on a regular basis that produce measurable increase in trash removal efficiency due to enhanced approaches

**Task 1: Secure Funding**

- 1.1 On December 31, 2014, the San Diego Water Board submitted a request to the State Water Resources Control Board to provide CAA grant funds for conditions in the Tijuana River Valley as there are no viable responsible parties available to undertake the work. The CAA project that this request would fund is called “Phase I of the Tijuana River Valley Recovery Team Five-Year Action Plan Implementation.” The proposed CAA project consists of five components, A-E. Component E addresses targeted trash removal projects. As of the date of the CAA request, December 31, 2014, since no other funds were available to cover these efforts, \$150,000 was requested to cover the costs for a period of two years. Agency point of contact: Melissa Valdovinos.
- 1.2 Funding from an alternative source will be requested if the abovementioned request is not approved, not approved fully, or not approved in a timely manner.

**Task 2: Support TRAM Clean-up Activities**

- 2.1 Once funding is secured under Task 1, support will be provided to TRAM clean-up activities, including allowing small vehicles or draft horses to be used in sensitive, forested areas to remove larger, heavier debris.

### 3.0 TIER 2 PROJECTS

Tier 2 task descriptions are currently less defined than the higher priority Tier 1 projects. Funding to carry these projects to completion may be requested from sources such as the Integrated Regional Water Management (IRWM) program, California Department of Fish and Wildlife, and CAA funds. Several of these projects cannot be controlled exclusively by agencies within the U.S. In these cases, the TRVRT will work through the appropriate lead agency, IBWC, to partner with Mexico.

#### **PROJECT 6: Binational Tijuana River, Estuary, Offshore, and Watershed Monitoring and Assessment Project**

**Background:** During the meetings between IBWC, CILA, and the TRVRT, the subject of monitoring being performed on both side of the border was brought up as a potential area for partnership. The San Diego Water Board has suggested developing a binational monitoring and assessment project for be implemented in part through the National Pollutant Discharge Elimination System (NPDES) Permit Monitoring and Reporting Programs associated with the South Bay Ocean Outfall by the City of San Diego and IBWC. We will enlist the support of the Southern California Coastal Water Research Project (SCCWRP) to develop the monitoring and assessment plan. The project would include watershed, river, and estuary monitoring as well as offshore monitoring from south of Punta Bandera to Point Loma using the question-driven format of the Monitoring Framework adopted by the San Diego Water Board in December 2012. We may design and implement the project in partnership with the aforementioned agencies, WILDCOAST, San Diego Coastkeeper, SCCWRP, Comisión Estatal de Servicios Públicos de Tijuana (CESPT), and Secretaría del Medio Ambiente y Recursos Naturales (SEMARNAT) in coordination with SCCWRP's Bight Monitoring Project in 2016. Since this is a binational project, IBWC is the appropriate lead agency.

**Project Lead:** IBWC by default (binational project)

**Desired Five-Year Outcome:** Binational monitoring and assessment program that includes watershed, river, and estuary, and offshore (south of Punta Bandera to Point Loma) monitoring

**Tasks include:**

- Develop outline for a binational monitoring and assessment plan. (completed)
- Develop statement explaining how NPDES permit compliance could be expanded. (completed)
- Develop a draft IBWC minute project for binational program to implement monitoring plan, support enforcement of existing requirements (e.g., spill reporting/investigations), and improve data sharing (e.g., posting of CESPT upstream river sampling results).

- Review protocol Mexican non-governmental organization (NGOs) are developing with the City of Tijuana. Organization point of contact: John Holder, WILDCOAST.
- Identify current water quality monitoring and assessment activities in watershed (and related offshore activities); the purpose is to see how these could be better coordinated and/or augmented. Organization point of contact: Jeff Crooks, Tijuana River National Estuarine Research Reserve (TRNERR).
- TRVRT member to attend an upcoming Clean Beaches meeting in Tijuana (generally once a month); the purpose is to expand network. Organization point of contact: Margarita Diaz, Proyecto Fronterizo de Educación Ambiental (PFEA).
- Finalize IBWC minute project for binational program.

**PROJECT 7: Partnering with Mexico on Source Reduction of Sediment and Trash**

**Background:** The City of Tijuana, SEMERNAT, and La Comisión Nacional del Agua (CONAGUA) have constructed sediment basins and performed accelerated trash and sediment removal in its storm drain system. They have also implemented trash pick-up and education campaigns in Los Laureles Canyon, and demonstrated the recycling potential of tires and plastic bottles as well as certain low-impact development techniques in Tijuana. A new sediment basin constructed in Los Laureles Canyon with a capacity of 20,000 cubic yards will significantly reduce the sediment and trash deposited in the Goat Canyon basins from the smaller storm events, but its overall efficacy will be determined by the maintenance and operations performed by Tijuana. The TRVRT will work through IBWC to partner with Mexico on source reduction of sediment and trash.

**Project Lead:** IBWC by default (binational project)

**Desired Five-Year Outcome:** Measurable decreases in cross-border sediment and trash deposition due to IBWC minute projects

**General Task:**

- Develop specific trash and sediment control maintenance and improvement projects as IBWC minute projects.



**PROJECT 8: Channel Improvement and Trash Interception in Stewart’s (Puerta Blanca) Drain**

**Background:** The City of Tijuana has identified flooding and trash issues in Puerta Blanca (Stewart’s Drain). Stewart’s Drain is a source of trash to the main river channel and a structure and source control project there may alleviate that source of trash. The flooding, however, may be a larger engineering issue associated with the highway and maximum size of the culverts and deserves binational study. Since this is a binational project, IBWC is the appropriate lead agency.

**Project Lead:** IBWC by default (binational project)

**Desired Five-Year Outcome:** Measurable decreases in cross-border trash deposition due to upstream interception

**General Task:**

- Develop a channel improvement and trash interception project as an IBWC minute project.

**PROJECT 9: Climate Change and Adaptation Plan for the Estuary and River Valley**

**Background:** The Climate Understanding and Resilience in the River Valley (CURRV) project was funded by the National Oceanic and Atmospheric Administration (NOAA) and is being carried out by TRNERR with substantial stakeholder involvement. It is considering how habitat and infrastructure in the Tijuana River Valley and Estuary may be adapted to adjust to rising tides and storm surges and changing river hydrology as a result of drier conditions and more intense, though less frequent, storm events.

**Project Lead:** TRNERR

**Desired Five-Year Outcome:** Provide recommendations to coastal decision-makers on how to consider climate change in managing natural resources and built infrastructure

**Tasks include:**

- Conduct workshops to 1) generate input from stakeholders on a climate adaptation strategy for the Tijuana River Valley and 2) promote an understanding of climate change, resilience, and adaptation amongst regional decision-makers. Organization point of contact: Jeff Crooks, TRNERR.
- Provide recommendations to coastal decision-makers on how to consider climate change in managing natural resources and built infrastructure. Organization point of contact: Jeff Crooks, TRNERR.

**PROJECT 10: Tijuana River Watershed Education/Outreach Program**

**Background:** Participants at the June 5, 2014 binational summit acknowledged:

- Education of schoolchildren will transform the perception of waste and lead to healthy growth;
- TRNERR educational programs could be extended from the U.S. into Mexico, with the focus being on trash as it travels from the watershed into the estuary and ocean;
- Monitoring programs should plug in to education (citizen stewardship); and
- Existing watershed protection information that can be exported to Mexico should be evaluated.

**Project Lead:** County of San Diego

**Desired Five-Year Outcome:** Well-coordinated binational education network that allows for convenient sharing of information and other resources

**Tasks include:**

- Prepare write-up for San Diego State University faculty, describing volunteer TRVRT student position(s) in exchange for spring 2015 academic credit. Agency point of contact: Melissa Valdovinos, San Diego Water Board.
- Coordinate watershed protection materials information exchange event in Tijuana. Agency point of contact: Gladys Gonzalez, County of San Diego.
- Prepare binational elected officials training. Agency point of contact: Melissa Valdovinos, San Diego Water Board.