Submitted by:	Alpha Forma, LLC
Submitted to:	Dave Gibson, SDRWQCB
Project Title:	Detection, Mapping and Communication of Solid Waste Pollution Sources in the Tijuana River Valley
Date:	December 6, 2012

I. PROJECT SUMMARY

Contractor:	Alpha Forma, LLC
Lead Investigator:	Oscar Romo
Project title:	Detection, Mapping and Communication of Solid Waste Pollution Sources in the Tijuana River Valley
Site Location:	San Diego County, Tijuana River Watershed
	Tijuana River Valley flood plain (located in the lower Tijuana River Valley/U.S.) and the Tijuana River Valley Flood Control Zone
	State Senate District number 40
	State Assembly District number 79
	Congressional District number 51
Start Date:	January 1, 2013
Water Resource:	Tijuana River Valley Floodplain

Project Scope:

The purpose of this project is to implement a strategy for the eradication of solid waste pollution sources that threaten water quality and sensitive wetland areas of the Tijuana River Valley, which includes the National Estuarine Research Reserve. The reserve encompasses beach, dune, mud flat, salt marsh, riparian, coastal sage and upland habitats and is home to eight threatened and endangered species, including the Light-footed clapper rail, California least tern, Least Bell's vireo, salt marsh bird's beak, cordgrass, white and brown pelicans, and numerous shorebirds.

Project tasks include:

1. Produce Comprehensive Record of Uncontrolled Open Dump Sites that drain into the Tijuana River Valley Flood Plain
   - Field Observations: Team headed by Lead Investigator, Oscar Romo will scout and record locations and attributes of illegal open dumpsites that drain trash into the Tijuana River Valley
   - GIS mapping of dumpsites in Los Sauces/Yogurt and Matadero/Smuggler's Gulch Canyons
   - Create database of dumpsite attributes

2. Coordinate and Host Community Outreach & Public Agency Meetings
   - Publish and distribute maps and reports to stakeholders and decision makers
   - Address issue of trash problem with municipal agencies
   - Discuss alternatives to illegal dumping with community members

3. Facilitate Implementation of Public Policies
   - Host meetings with municipal agencies
   - Share information with community
   - Provide solutions
   - Advise agencies on policy development
   - Public presentations (Border 2020, TRVRT Quarterly Workshops)
   - Media coverage

Project Period:	6 months
Permits:	Local Access Agreement
Funding request:	$20,000
Overall Project Cost:	$30,000
Partner Support:	SEMARNAT DAU IMPLAN SPA

II. PROJECT NARRATIVE

A. Importance and Applicability of Proposal

The purpose of this project is to produce a comprehensive record of Tijuana, B.C. dumpsites that drain marine debris/solid waste into San Diego County's Tijuana River Valley. This record will serve as a technical implementation tool that will be used to affect policy change toward the eventual eradication of illegal dumping practices in Tijuana; thereby reducing the volume of marine debris that impair and endanger valuable natural and cultural resources. The research strategy for this project includes direct observation in the field and GIS spatial analysis of dumpsite locations and geography and hydrology of coastal canyons. Data collected will be shared with stakeholders and decision makers on both sides of the U.S.-Mexico international border during the community outreach and policy implementation phases of the work plan. This project was designed in accordance with the implementation component of the *Tijuana River Valley Recovery Strategy* and builds upon the results of Alpha Forma's *2010-2011 Trash-Tracking Study* conducted in the Los Laureles/Goat Canyon; research which led to the closure of 171 illegal open dumpsites in Tijuana.

The Tijuana River Watershed, (a category I impaired watershed), covers 1,750 sq. miles and is intersected by an international border. One-third of the watershed lies in California and two-thirds in Baja California (see watershed map appendix B). The watershed is a place of natural and cultural beauty that is threatened by unplanned urbanization, mechanisms of globalization and land-use changes that have created environmental disturbance in the region. Natural topography and hydrology of watershed sub-basins, located in Tijuana, facilitate the flow of trash from unmanaged open dumpsites; these

dumpsites are a major source of land-based marine debris in our coastal watershed. The Tijuana River flows from Mexico into the Tijuana River Estuary in the U.S. and then into the Pacific Ocean; the water at the discharge point into the ocean contains some of the highest concentrations of trash, suspended solids, Cadmium, Copper, Nickel, Zinc, Lead and Polychlorinated Biphenyls measured in Southern California (*A Binational Vision for the Tijuana River Watershed*, SDSU, 2005). U.S. agencies are paralyzed by the absence of international regulatory agreements and the lack of jurisdictional authority to police cross-border flows of trash. This proposal outlines an innovative approach to marine debris source reduction that specifically addresses the environmental problem of illegal open dumpsites in Tijuana that drain debris into the streams, riparian habitats, and coastal wetlands of the Tijuana River Valley and provides implementable solutions that will lead to the delisting of these waters from the California 303(d) impaired waters list. Effective January 1, 2012, the Tijuana River Mouth was designated as one of 50 Marine Protected Areas in California.

The Tijuana River National Estuarine Research Reserve (TRNERR) preserves one of the largest remaining examples of coastal wetland habitats in the southern California sub-region, including beach, dune, mud flat, salt marsh, riparian, coastal sage and upland habitats. The 2,293 acre Tijuana River Reserve is located in Imperial Beach, Calif., situated in a highly urbanized location, 15 miles south of San Diego and immediately adjacent to Tijuana, Mexico. Three quarters of the reserve's watershed is in Mexico, so reserve programs apply an international perspective to critical issues of habitat restoration, endangered species management, and trash and sediment flows from Mexico (TRNERR management plan). The reserve is recognized as a 'wetland of international importance' by the Ramsar Convention. The Tijuana River Estuary is one of the few salt marshes remaining in Southern California, where over 90% of wetland habitat has been lost to development. The site is an essential breeding, feeding, nesting ground and key stopover point on the Pacific Flyway for over 370 species of migratory and native birds, including the endangered Light-footed clapper rail, California least tern, Least Bell's vireo, and white and brown pelicans (www.TRNERR.org). The objective of this project is to reduce marine debris flows that threaten this sensitive wetland ecosystem.

During the 2010-2011 Storm Season, Alpha Forma, LLC conducted a pilot project to test the hypothesis that identification of marine debris sources in Tijuana would lessen the impact of trash flows into TRNERR acreage. Measurable results of this pilot included a one-third reduction in the amount of trash and sediment collected in the southern sediment basin at the Reserve (see appendix D letter of support from acting reserve manager Chris Peregrin dated 11/29/2011).

B. Technical Implementation/Scientific Merit

Current research on land-based sources of trash suggests that although Mexico has adopted environmental protection policies at the Federal level, a lack of local ordinances and policy enforcement contributes to persistent illegal waste disposal in border-region coastal canyons. As such, there is a fundamental need to produce a comprehensive record of the illegal trash issue as a necessary first-step in the development and implementation of local source control policies (*Border Planning in the San Diego-Tijuana Region*, Oscar Sosa. 2008).

Implementation Plan:

1. Produce Comprehensive Record of Uncontrolled Open Dump Sites (months 1-3)*

- Field Observations: Team headed by Lead Investigator, Oscar Romo and Research Assistant, Jennifer Hazard will scout and record locations and attributes of illegal open dumpsites that drain trash into the Tijuana River Estuary and Reserve to include:
    a) Los Sauces/Yogurt Canyon (see map Appendix C)
    b) Matadero/Smuggler's Gulch Canyon (see map Appendix C)
- Create maps and database of dumpsite attributes to include:

Geo-location	Trash attributes (ex: industrial,
Land-use	commercial, household, hospital)
Soil conditions	Estimated volumes
Siting and drainage	

2. Coordinate and host community Outreach & public agency meetings (months 4-6)
    - Publish and distribute maps and reports to stakeholders and decision makers
    - Share trash issue and research findings with media
    - Discuss alternatives to illegal dumping with community members
    - Target audience to include:
        Chamber of Commerce
        Chamber of Industry
        Economic Development Agency
        Media
        Private and Public Entities

3. Facilitate Implementation of Public Policies (months 3-6)
    - Host government agency meetings (State and local officials)
    - Share information
    - Provide solutions
    - Provide advice to facilitate policy development

**no permits are required for this effort; however, Alpha Forma has obtained an agreement to access the project area.*

Technical Basis:

Source Reduction Goals for the following MS4 provides the technical basis for this project:
California Regional Water Quality Control Board, San Diego Region - San Diego Municipal Storm Water Permit Order No. R9-2007-0001 - *Receiving Waters and Urban Runoff Monitoring and Reporting Program*

MS4 source reduction goals were utilized as a guide in the development of proposed project activities:
Permit Goal 4: Characterize urban runoff discharges
Permit Goal 5: Identify sources of specific pollutants;
Permit Goal 6. Prioritize drainage and sub-drainage areas that need management actions;
Permit Goal 7: Detect and eliminate illicit discharges and illicit connections to the MS4

In addition, our expected results address the following core management questions as outlined in the *Receiving Waters and Urban Runoff Monitoring and Reporting Program*:

- What is the relative urban runoff contribution to the receiving water problem(s)?
- What are the sources of urban runoff that contribute to receiving water problem(s)?

The Tijuana River Watershed Urban Runoff Management Program (WURMP) has been established by the Co-permittees to plan and implement activities in order to ensure compliance with the waste discharge requirements of the Municipal Storm Water Permit of 2007-01 (Municipal Permit) and reduce the impacts of urban activity on receiving water quality within the watershed. No TMDL's have been established for the Tijuana River; therefore, the WURMP has established an "Effectiveness Assessment" scale to measure outcomes. Outcome levels addressed by proposed project activities are as follows:

Outcome Level 2 - Changes in Attitudes, Knowledge, and Awareness – Level 2 outcomes are measured as increases in knowledge and awareness among target audiences such as residents, businesses, and municipal employees.
Outcome Level 3 - Behavioral Change– Level 3 outcomes measure the effectiveness of activities in affecting behavioral change and BMP implementation.
Outcome Level 4 - Load Reductions – Level 4 outcomes measure load reductions which quantify changes in the amounts of pollutants associated with specific sources before and after a control measure is employed.
Outcome Level 5 - Changes in Urban Runoff and Discharge Quality – Level 5 outcomes are measured as changes in one or more specific constituents or stressors in discharges into or from MS4s.
Outcome Level 6 - Changes in Receiving Water Quality – Level 6 outcomes measure changes to receiving water quality resulting from discharges into and from MS4s.

To access full version of MS4 go to:
http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/phase1r9_2007_0001.pdf
(attachment)

Measurable Results:

Outputs:

- 2 Tijuana drainage basins mapped and recorded
- 8 community outreach/public agency meetings held
- 6 dumpsites closed - based on past performance: http://www.tijuanahoy.com.mx/2011/10/13/remueve-ayuntamiento-171-tiraderos-clandestinos/
- $1 million anticipated to address source control and prevention (based on past performance)
- 1 policy or local ordinance implemented to enforce illegal dumping practices in the coastal watershed
- 3 source reduction practices implemented to reduce trash inputs to watershed

Outcomes:

- Comprehensive record of illegal dumpsites that drain trash into Tijuana River Valley Floodplain
- Sources of waste are identified
- Policy makers are educated on issue of illegal dumpsites and are equipped with solutions

- Substantial reduction in trash discharged to coastal streams as a result of collaborative partnerships
- Measurable amounts of marine debris prevented from entering TRNERR as result of source reduction policies (1/3 reduction in volume anticipated based on previous results)
- Capacity building at the local level to address nonpoint sources of trash from entering the watershed
- Measurable volume of trash reduced from business and industry commitments against illegal dumping
- Trash volume reduced as a result of behavioral changes towards proper waste disposal

C. Previous Success

Storm Season 2010-2011:
Trans-border Trash Tracking Study, Funding Agencies: City of Imperial Beach; State Water Resources Control Board

- 75 dumpsites recorded and mapped in the 4.6 square mile Los Laureles Canyon
- Gained cooperation of Tijuana's Secretaries of Social and Urban Development
- Media attention to illegal waste disposal in Tijuana
- Participation of local residents in area clean-ups
- Less trash in TRNERR sediment basin
- 2010: $50,000 (U.S.) temporary employment grant from SEMARNAT (Federal EPA Mexico). The task was the realignment of the creek, trash removal and cobble stone surfaces. 1.25 mile clean-up, 2,000 native plants planted. 406 tons of trash removed.
- 2010: $35,000 (U.S.) temporary employment grant from SEMARNAT. Project resulted in 38,000 sq. meters of re-vegetation and 294 tons of trash removal. Native plants acquired through Coastal Conservancy funding were planted.
- 2011: $27,500 (U.S.) temporary employment grant from SEMARNAT. 35 community residents produced pervious pavers to cover 3,000 sq. meters of surface walkways and roads within the Border 2012 Park. Creation of 20,000 eco-bricks made from plastic water bottles removed from dump sites within the Los Laureles sub-basin. Improvements to the soccer field which removed and retained 4,000 waste tires from the sub-basin.
- $850,000 (U.S.) from Tijuana Mayor Carlos Bustamante, allocated for Public Works' clean-ups in Tijuana canyon sub-basins that drain directly into the Tijuana River Valley. For details please refer to Tijuana Hoy news article: "Remueve Ayuntamiento 171 tiraderos clandestinos" (Removal of 171 Clandestine Dumpsites) http://www.tijuanahoy.com.mx/2011/10/13/remueve-ayuntamiento-171-tiraderos-clandestinos/

D. Past Media Attention to Trash Issue

KUSI News:
"Getting Control of Border Pollution"
http://www.kusi.com/story/14159179/getting-control-of-border-pollution

San Diego Union Tribune:
"Blue Bottles show Tijuana Garbage Trails"
http://www.signonsandiego.com/news/2011/feb/22/blue-bottles-show-tijuana-garbage-trails/
"Using Trash to Track Tijuana's Trash"
http://www.signonsandiego.com/news/2011/feb/13/tracking-trash-trash/

Mexico's National Public Radio (IMER) 102.5 FM (Mar Sin Fronteras):
Oscar Romo hosts this one hour environmental information talk show "Oceans without Borders" every Monday morning at 10:00am Alpha Forma will have access to this excellent media resource for the length of the project. Link: http://tunein.com/radio/FUSION-IMER-1025-s68035/

San Diego City Beat:
"Trash Man"
http://www.sdcitybeat.com/sandiego/article-8694-the-trash-man.html

Woodrow Wilson International Center for Scholars:
Alpha Forma's 2010-2011 trash tracking project was nominated as one of the top 12 success stories in U.S.-Mexico Collaboration for 2011 and our findings were published in "Our Shared Borders" January 2012.
http://www.wilsoncenter.org/publication/our-shared-border-success-stories-us-mexico-collaboration

E. Overall Qualifications of Applicants:

Alpha Forma has a proven track record of promoting partnerships for conservation, successfully mobilizing communities for the purpose of improving infrastructure and public services, and creating binational working groups to address regional environmental concerns. By including decision-makers from both sides of the border in all phases of the project, the environmental outcomes of this project will be sustainable long after the project period concludes.

Alpha Forma focuses on human and environmental health challenges found in the San Diego-Tijuana area of the U.S.-Mexico border region, with an emphasis on conservation of the Tijuana River Valley, San Diego County wetlands, and Los Laureles Canyon sub-basin of Tijuana, Mexico. The organization promotes international partnerships to protect natural resources in the region and promotes healthy practices within communities so that they may become self-sustaining. Stakeholder participation on both sides of the border is encouraged in order to protect the ecological systems of the border region. Alpha Forma also addresses socioeconomic issues by promoting initiatives that reduce poverty, create jobs, and improve the general health of neighborhoods that lack sanitation and healthcare through educational outreach and community involvement in sustainable projects. Focusing on biodiversity and a watershed based approach to planning, Alta Terra's projects address a multitude of issues that are essential to the health and maintenance of all communities and ecosystems along both sides of the international border.

Alpha Forma's mission is to lead in the restoration, protection, conservation and sustainable development of the Tijuana River Watershed through the design and implementation of innovative and effective educational outreach, scientific research, and infrastructure projects that promote healthy terrestrial and aquatic ecosystems. Alpha Forma's executive director, Oscar Romo, has thirty years of experience in developing successful approaches to solving environmental problems. The proposed activities of this project will fill gaps identified during the past 10 years of research conducted by Mr. Romo in the Tijuana River Watershed.

Project Leader Bios:

Oscar Romo, Alpha Forma Lead Investigator is a former United Nations diplomat who most recently served as the watershed coordinator at the Tijuana River National Estuarine Research Reserve (TRNERR) and currently teaches Sustainable Development and World Systems courses for the University of California San Diego's Urban Studies and Planning Program. Mr. Romo also serves as a delegate to the United Nations Commission on Sustainable Development, and chairs the U.S. EPA Border 2020 Water Task Force and the Tijuana River Recovery Team Bi-national Task Force. In Mexico, he is a member of the Border Environment Cooperation Commission, Baja California Task Force, the City of Tijuana Urban Planning and Ecology Sub-Committee, and serves as projects coordinator for the Los Laureles Watershed Council. Mr. Romo is also an advisor to the Baja California State Assembly and serves as a representative of Mexican environmental NGO's for the City of Tijuana. In April 2007, Romo was recognized as one of the Environmentalists of the Year by the U.S. Environmental Protection Agency, in 2009 received the Visionary Award from the Urban Land Institute, and in 2012 received the SD Coastkeeper "Runoff Rockstar" award. He received his academic credentials in Architecture from La Salle University in Mexico, Urban Studies and Social Housing from the Complutense University, the National Institute for Social Housing in Spain, and Environmental Sciences from La Salle University in Louisiana. Mr. Romo also holds a seat on the Los Laureles Watershed Council, charged with implementation of the Plan.

A tireless supporter and advocate of environmental projects on both sides of the Tijuana-San Diego border, Mr. Romo has spent the past decade working to make the Los Laureles sub-basin a healthier place. As a watershed coordinator and UCSD professor, he educates members of the regional community about watersheds, wetlands, sustainability and stewardship. He encourages student volunteers and local residents to participate in scientifically-based projects that improve canyon life, empower canyon residents and repair degraded ecosystems. Mr. Romo believes that local participation in sub-basin projects teaches residents that their actions have both consequences and benefits. In partnership with U.S. and Mexican Environmental Protection Agencies and the City of Tijuana, he has spearheaded sub-basin projects and studies such as:

- sustainable homebuilding
- pervious road paving
- sediment basin construction
- waste tire legislation
- community park design and construction
- community center design and construction
- creation of native plant nurseries
- canyon healthcare fairs
- environmental conservation workshops

- job training and temporary employment programs for canyon residents
- revalorization of trash into building materials
- sewage treatment plant design and construction
- retaining wall design and construction
- development and implementation of the *Partial Urban Improvement Plan*
- trash and sediment flow studies
- soil contamination studies
- community survey design and implementation

Jennifer Hazard assumed the position of research assistant for Alpha Forma after a series of diversified career experiences that involved an NOAA internship at TRNERR. Ms. Hazard's most recent successes include completion of the *Los Laureles Canyon Trash Tracking Study* in Tijuana, Baja California, Mexico for the Tijuana River National Estuarine Research Reserve (funded by the California State Water Resources Control Board) and the *Building Assets through Community Mobilization* Project (funded by the Ford Foundation). Under these auspices Ms. Hazard worked with TRNERR's Watershed Coordinator and Tijuana officials toward affecting policy change in environmental regulations and enforcement of waste management laws. She is currently working with the UCSD Superfund conducting soil sampling and monitoring and with the IRPS Center for U.S.-Mexico Studies designing a public health survey. Her work also includes serving as a member of Tijuana River Valley Recovery Team and sustainable development lecturer at UC San Diego.

Ms. Hazard was a NOAA Hollings Scholar at UC San Diego where she received her Bachelor's degree in Urban Studies and Planning, *Summa Cum Laude.* Ms. Hazard's goals for Alpha Forma are dedicated to improving bi-national advocacy for sustainable planning and development. Her focus is on diversity of involvement between administrative government and local users, and her work has resulted in noticeable regional awareness to the trash issue in Mexico. She is an advocate for workplace diversity believing strongly that a team of individuals with varying backgrounds and experiences promotes innovative solutions and adds relevance to programs and services provided to diverse communities.

F. Project Costs

Overall Project Cost:	$30,000
SDRWQCB Funding Request:	$20,000

Associated Tasks and Budget Justification:

Produce Comprehensive Record of Uncontrolled Open Dump Sites: $15,000

- Field Observations
- Create maps and database of dumpsite attributes

Coordinate and host community Outreach & public agency meetings: $2,500

- Publish and distribute maps and reports to stakeholders and decision makers
- Share trash issue and research findings with media
- Discuss alternatives to illegal dumping with community members

Facilitate Implementation of Public Policies: $2,500

- Host government agency meetings (State and local officials)

- Share information
- Provide solutions
- Provide advice on policy development

Budget Detail:

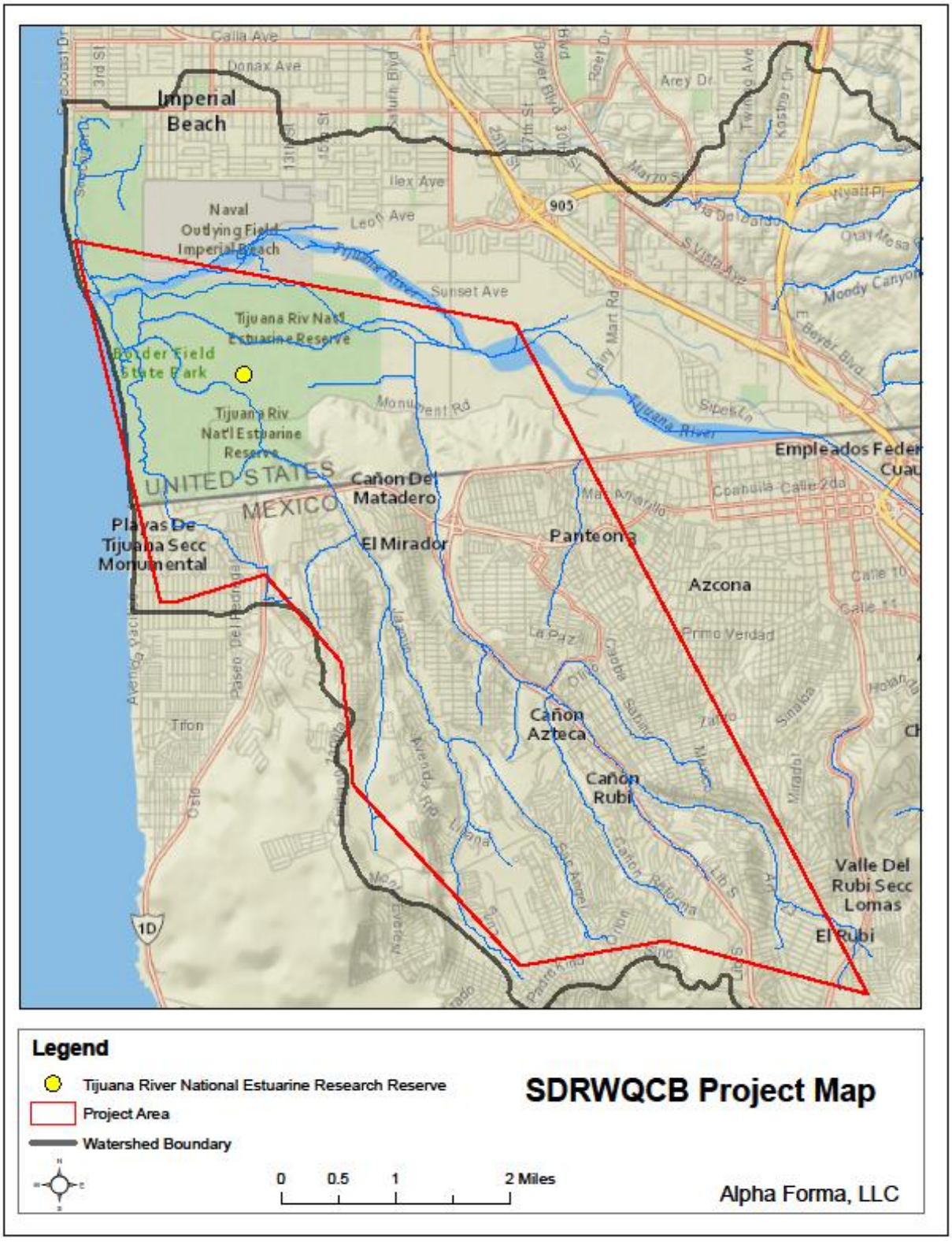
$20,000 SDRWQCB Funding	***$10,000 In-Kind Contribution Alpha Forma**	
Principal Investigator, Oscar Romo $50 per hour	240 hours	$12,000
Research Assistant/GIS, Jennifer Hazard $25 per hour	240 hours	$ 6,000
Office Supplies & Printing		$ 1,000*
Field Station Expenses (rent, electricity, maintenance, internet)		$ 3,600*
Travel (gas for field vehicles)		$ 1,200*
Field Equipment		$ 4,200*
Grant Administration (10% City of Imperial Beach)		$ 2,000
	Total Costs	**$30,000**

Economic Cost Benefits to Community:

The City of Imperial Beach (I.B.) shares borders with Mexico, the Pacific Ocean, the City of Coronado, the San Diego Bay, and the City of San Diego. The City also shares two watersheds, (Otay River Watershed and Tijuana River Watershed), and encompasses a variety of unique and sensitive natural resources. The City has more available shoreline than do most other California coastal cities. Of the 17,600 feet of shoreline, approximately 12,000 feet or 68% is either publicly owned or has direct vertical or lateral access. This includes 6,000 linear feet of sandy beach owned fee simple by the State of California within the Borderfield State Park in the extreme southwest corner of the City (City of Imperial Beach, General Plan. October, 2010). Shared borders, shared watersheds, and shared natural resources, such as the coastal habitats within the Tijuana River National Estuarine Research Reserve (TRNERR), neighboring salt ponds, San Diego Bay, and Pacific coastline create a unique opportunity for eco-tourism that is threatened by trash flows from Mexico.

The city's geographic location, at the lowest northwestern corner of the Tijuana River Watershed, coupled with its flat topography (20 feet above sea level) causes drainage from multiple municipalities to pass through I.B. before reaching the Pacific Ocean. The primary source of solid waste and waste water flows, that cause an average of 80 beach closures per year, is Tijuana. The Tijuana River and three canyon sub-basins drain into the geographic boundaries of Imperial Beach and San Diego City and County. This drainage seriously affects the natural resources of the Tijuana River Valley including the Tijuana Estuary. The Estuary plays a key role in the city's burgeoning eco-tourism industry and annual clean-out of sediment basins, which collect trash from only one 7 sq. mile micro-basin, cost the estuary approximately $1 million annually. Creating logical and holistic solutions to the trash problem that impacts San Diego County, the City of San Diego and the sensitive natural resources of Imperial Beach is an important and necessary step in establishing long-term economic sustainability for the San Diego Region and, as such, this project has the support of the local community (see attached letters of support).

Appendix A: Project Area Map

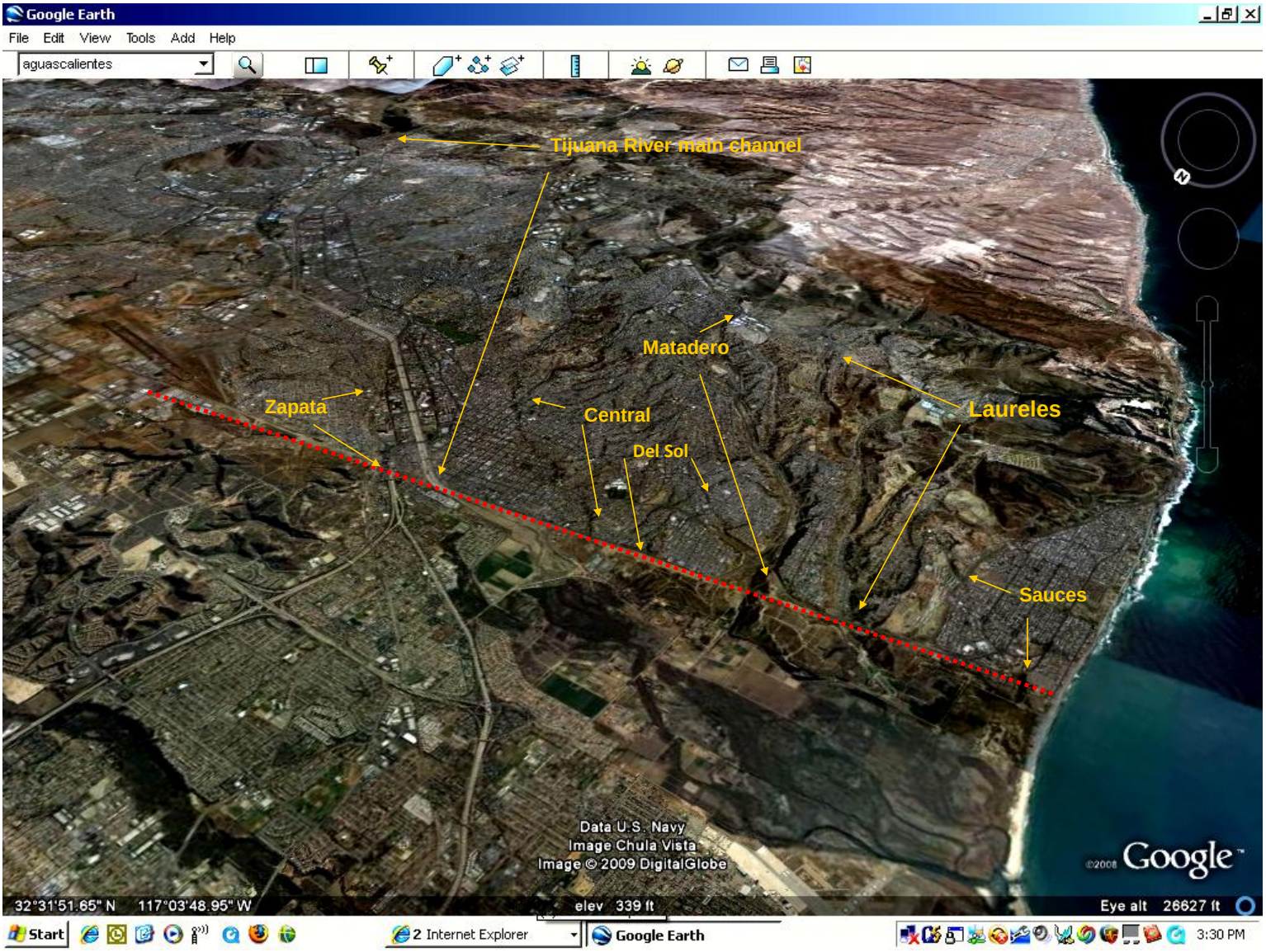


Appendix B: Tijuana River Watershed Map

Hydrologic Unit 911.11 - 911.85

Hydrologic Areas:	Tijuana Valley Potrero Barrett Lake Monument Morena Cottonwood Cameron Campo	911.1 911.2 911.3 911.4 911.5 911.6 911.7 911.8
Major Water Bodies:	Tijuana Estuary, Tijuana River, Cottonwood Creek, Pine Valley, Campo Creek, Barrett Lake, Lake Moreno	
CWA 303(d) List:	Barrett Lake: color, manganese, pH; Morena Reservoir: color, manganese, pH; Pacific Ocean Shoreline: indicator bacteria; Pine Valley Creek (Upper): enterococcus, phosphorus, turbidity; Tijuana River: eutrophic, indicator bacteria, low dissolved oxygen, pesticides, solids, synthetic organics, trace elements, trash; Tijuana River Estuary: eutrophic, indicator bacteria, lead, low dissolved oxygen, nickel, pesticides, thallium, trash, turbidity	
Major Impacts:	surface water quality degradation, trash, sedimentation, eutrophication, habitat degradation and loss, flooding, erosion, and invasive species	
Constituents of Concern:	Freshwater: coliform bacteria, nutrients, trace metals, pesticides, miscellaneous toxics, low dissolved oxygen, and trash Groundwater: TDS, nitrates, petroleum, MTBE, and solvents	
Sources / Activities:	urban runoff, sewage spills, industrial discharges, agricultural, orchards, livestock, domestic animals, and septic systems	

Source of information: http://www.projectcleanwater.org/html/ws_tijuana.html


Google Earth
File Edit View Tools Add Help
aguascalientes
Tijuana River main channel
Matadero
Zapata
Central
Laureles
Del Sol
Sauces
Data U.S. Navy
Image Chula Vista
Image © 2009 DigitalGlobe
©2008 Google
32°31'51.65" N 117°03'48.95" W
elev 339 ft
Eye alt 26627 ft
Start
2 Internet Explorer
Google Earth
3:30 PM

Appendix D: Letter of Support

Tijuana River National Estuarine Research Reserve
California Department of Parks and Recreation
301 Caspian Way • Imperial Beach • CA • 91932
(619) 575-3613 • Fax (619) 575-6913 • www.tijuanaestuary.org

11/29/2011

David W. Gibson
Executive Officer
San Diego Water Board
9174 Sky Park Ct. Suite 100
San Diego, CA 92123-4353

Dear Mr. Gibson,

I would like to express my support for continued funding from the State Water Board toward the Tijuana River Valley trash tracking study managed by Oscar Romo. Resolving the trash issue in this watershed is one of our high priorities, and I believe that understanding and documenting the source and movement of this trash is critical.

As you know, the State of California, San Diego County and The City of San Diego invest significant resources toward trash clean-up in the Tijuana River Valley. I have had direct responsibility for trash capture and clean-up within Goat Canyon sediment and associated downstream deposits and understand how time-consuming, dangerous, and operationally difficult it is to remove trash once it has flowed into the native habitats of the river valley.

Through a grant provided by the US EPA, I have managed trash clean-up projects in the Goat Canyon riparian habitat since September 2010. I have noted that the trash volume in this region appeared significantly lower from 2009/2010 rain year deposits compared to the to 2010/2011 rain year deposits. This was evidenced by ground-truthing the trash deposits and also by the fact that we spent three times the clean-up effort for the 2010/2011 rain year and collected significantly less than three times the trash when compared to the 2009/2010 effort. I feel that the solid waste clean-up efforts in Los Laureles Canyon (managed through Alter Terra, Alpha Forma, and the TRNERR Watershed Program) significantly reduced the trash clean-up burden upon CA State Parks downstream.

Although I feel that trash capture and clean-up within the U.S. is important and must be pursued, I believe that the ultimate solution to the issue is to clean-up and control the issue upstream in Mexico. I feel the trash tracking study will play an important part in accomplishing source control in Mexico.

Sincerely,

Christopher M. Peregrin
Stewardship Coordinator, Tijuana River National Estuarine Research Reserve