
**CALIFORNIA-MEXICO BORDER RELATIONS COUNCIL
BORDER REGION SOLID WASTE WORKING GROUP UPDATE**

**PREPARED AND PRESENTED BY CALRECYCLE
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BACKGROUND

The 2015 Budget Act's accompanying trailer bill (SB 83) establishes the Border Region Solid Waste Working Group (Working Group) within the Border Relations Council. The group is tasked with developing and coordinating long-term solutions to address and remediate problems associated with waste tires, solid waste, and excessive sedimentation along the border that result in degraded valuable estuarine and riparian habitats, and threaten water quality and public health in California. (Government Code §99523(c))

Additionally, the trailer bill:

- Modifies CalRecycle's waste tire abatement plan requirements, vis-à-vis border region activities conducted in coordination with CalEPA, to include coordination with the Border Relations Council, and also to provide for the abatement of solid waste. (Public Resources Code §42885.5(b)(8)(C))
- Appropriates \$300,000 from the California Tire Recycling Management Fund to CalEPA to support the Council. (SB 83, Section 48)

At the Border Relations Council's July 2015 meeting, CalRecycle presented a Waste Tire Strategic Plan (Plan) proposal. (The Draft Strategic Plan will be presented to the Council at its July 216 meeting.) The proposal identified specific areas the Plan will address, including:

- An update to CalRecycle's 2009 Tire Flow and 2012 Tire Management Plan studies.
- A review and status evaluation of the recommendations provided in the 2009 Tire Flow and 2012 Tire Management Plan studies.
- A revised or renewed set of recommendations on concrete actions that CalRecycle and other responsible agencies can take to address border tire issues. These recommendations will address the fundamental drivers of the used tire and solid waste issues at the border and will include a consideration of alternative and economically viable uses of waste and used tires at the border.
- Short and longer-term clean-up needs, projects, and opportunities.
- Recommendations on how to leverage and enhance cooperation between and amongst entities including US and Mexican state and federal governments, the Border 2020 Program, the Border Environmental Cooperation Commission and non-governmental entities.

Additionally, the Working Group indicated it would develop spending recommendations for the \$300,000 appropriation to CalEPA, for the Border Council's consideration, and would present these recommendations in January 2016.

The Working Group began meeting in October 2015, and has prepared the following updates and recommendations for the Council.

STRATEGIC PLAN UPDATE

The Working Group has identified the Principles that will guide its Strategic Plan development. The Plan's goals and objectives should reflect:

1. Cross-border benefits to facilitate cross-border collaboration.
2. The inclusion of local and regional government in California and Mexico, ensuring they have a role in the Plan's goals.
3. Environmental justice.
4. A consideration of natural ecosystems restoration.

5. Market failures that drive solid waste and waste tire issues at the border, and long-term solutions to these issues.

The Working Group will continue meeting and begin identifying goals, strategies and timelines consistent with the Plan scope presented last July.

TIRE FLOW STUDY UPDATE

As noted previously, and consistent with the Strategic Plan, CalRecycle is updating the 2009 Tire Flow and 2012 Tire Management Plan studies. A contract with San Diego State University (SDSU) was executed on December 15, 2015, and the associated work plan is under development.

Once the work plan (i.e., timelines and deliverables schedules) is approved SDSU will focus on the following tasks:

- Determining the ultimate disposition of all used tires that are being transported from California into Baja California.
- Estimating the flow and number of used and waste tires transported into the border area since 2009 (i.e., the last year of data in the 2009 study).
- Determining and quantifying the collection, processing, manufacturing, brick and cement kiln, landfill infrastructure, and authorized engineering uses in Baja California that currently handles tires.
- Updating the 2009 and 2012 reports with respect to changes in the used and waste tire management regulatory framework at the Mexican federal and state levels.
- Reviewing the recommendations provided in the 2009 study and evaluating the implementation and effectiveness of those recommendations to date. Additionally, providing a revised/renewed set of recommendations to address used tire and solid waste issues, including specific recommendations on the use of tire fee funds to address persistent drivers of used tire and solid waste challenges.
- Providing a draft report to CalRecycle (by June 30, 2017) who will seek input from stakeholders before submitting to the California-Mexico Border Relations Council. This task also includes participating in up to two meetings with the California-Mexico Border Relations Council upon request by CalRecycle.

- Holding at least two information sharing workshops with CalRecycle and Baja California agency staff to facilitate understanding of structure and function of government agencies relevant to tire flow and tire disposal. The final report on this contract is due November 1, 2017.
- CalRecycle has asked Dr. Richard Ganster, SDSU's research lead on this project, to attend the Border Relations Council's July meeting for a more in-depth update.

WORKING GROUP PROJECT PROPOSALS

Pursuant to Public Resources Code section 71103, the “Council, upon request, shall inform any community-based nonprofit environmental organization, responsible local government, and special district within the California-Baja California border region that it may request funding pursuant to section 71102 (for environmental and public health projects within the Border region).” That statute authorizes the Council to award grants for these purposes.

In accordance with that statute, and consistent with the Council’s direction in July 2015, the Working Group discussed spending ideas relative to the \$300,000 appropriation. The group members were provided the opportunity to suggest ideas for the broader group’s consideration.

The following project proposals were submitted:

- CalRecycle proposed hiring a project manager or consultant to help assess tire and solid waste management needs and conduct long term planning on the California/Mexico Border.
- The San Diego Regional Water Quality Control Board proposed a project to assess feasibility and identify effective locations for tire and trash capture/interception devices (including booms) in Smugglers Gulch and the main channel of the Tijuana River (U.S. side), including an evaluation of the two trash booms in the Goat Canyon sediment basins.
- The United States Environmental Protection Agency offered two concepts. The first was a pilot Construction and Demolition Material Reuse Center in Baja. The project would provide technical expertise from CalRecycle to assist Baja in developing the scope for a construction and demolition (C&D) pilot program and seed funding to launch the initial operation and maintenance, in addition to regulatory considerations to address health and safety issues and overall protect public health and the environmental.

The second project proposed would provide technical assistance (e.g., assessing scrap tire market conditions) to Baja's Secretary for Environmental Protection on the most viable reuse markets for scrap tires in Baja, especially in Mexicali and Tijuana.

- WILDCOAST proposed a demonstration project to recover and recycle waste tires in the California-Mexico border region of the Tijuana River. The goal of this project is to reduce the significant impact of discarded waste tires on public health, safety, and sensitive ecosystems of the San Diego-Tijuana border region.
- The Sonoran Institute proposed a demonstration project to implement an ecological sanitation model in the Calexico-Mexicali region that would include a needs assessment, drain sanitation, environmental education, and communication strategies.

These proposals were evaluated based on the following considerations, which were identified by the Solid Waste Working Group, and in the context of the overall issues identified in the Waste Tire Strategic Plan proposal:

- Does the proposed project provide cross-border implementation strategies or otherwise consider cross-border benefits?
- What are each project's short-term and long-term impacts? In particular, in light of the anticipated impacts of El Niño on the border region, what benefits does the project provide to mitigating those impacts?
- To what extent does a project complement work underway or planned?
- Conversely, to what extent does a project not duplicate work underway or planned?
- Who are the potential project partners, and to what extent do those partnerships reflect regional collaboration?

Every proposed project demonstrated potential merit and benefits, and each project's budget was at or below the \$300,000 threshold. Further, all projects proposed had

direct or in-direct cross-border benefits. However, only a few projects (i.e., US EPA, WILDCOAST, and the Sonoran Institute) demonstrated potential long-term, cross-border benefits, and only two projects addressed the New River region (i.e., US EPA and the Sonoran Institute).

In examining the projects, and considering the criteria developed by the Solid Waste Working Group, the Group's consensus was that the WILDCOAST and Sonoran Institute projects would best yield both short-term and long-term benefits, demonstrate regional cross-border collaboration, and provide an opportunity to address both the Tijuana River and the New River regions. As such, these two projects are the Working Group's recommendations to the California-Mexico Border Relations Council to receive grant funding.

PROJECT DETAILS AND OBJECTIVES

WILDCOAST: A Demonstration Project for Waste Tire Recovery and Recycling in the California-Mexico Border Region of the Tijuana River (\$100,000)

WILDCOAST will conduct a one-year demonstration pilot project to clean up tires in Tijuana in order to: a) demonstrate the financial effectiveness of investing resources in Mexico, and; b) to prevent tires from crossing the border and impacting the sensitive riparian and estuarine habitat of the Tijuana River Watershed. The project's specific objectives, to be completed between May 2016 and May 2017, are to:

- Recover up to 100,000 tires from areas in close proximity to the border and adjacent to tributaries of the Tijuana River. Thirteen illegal waste tire-dumping sites have been identified by Baja California Secretariat of Environmental Protection (SPA) including the Cañon Los Laureles, Zona Rio Tijuana and Cañon Matadero.
- Promotora Ambiental De La Laguna, S.A. de C.V. (PASA), the company that provides waste services to Tijuana and 74 cities in Mexico, will pick up waste tires from the sites.
- Collected waste tires will be shredded by PASA at their facility.
- Shredded scraps will be recycled further by selling them to companies that can use them for tire-derived products such as asphalt, light

bricks, energy, and other options.

- Maintenance and long-term viability will be supported by activities to increase public awareness about the effects of pollution for those living close to the sites such as posting educational signs and training permanent staff to guard and maintain the sites.
- The project activities will prevent 100,000 tires from impacting habitat at the terminus of the Tijuana River Watershed, preventing tires from crossing the border and impacting the sensitive riparian and estuarine habitat of the Tijuana River Watershed. Approximately one million waste tires that originate in California are exported to Mexico each year. In Tijuana, once they are discarded, they are carried with the rains impacting United States county, state, and federally protected areas such as Border Field State Park, Tijuana River Valley Regional Park, Tijuana River National Estuarine Research Reserve, and the Tijuana River Mouth State Marine Conservation Area.
- The project will demonstrate the benefits of multi-level collaboration between government agencies, the private sector and nongovernmental organizations. The partnership will include collaboration amongst Baja California agencies to engineer and develop cooperative management and recycle-and-reuse waste-tire projects. This includes working with PASA.
- Regular updates and an end-of-project report will be completed to help inform the Border Region Solid Waste Working Group's *Waste Tire Strategic Plan* goals.

This report will include specific information collected through the project including data related to financial outputs from tire shredding and recycling in Mexico, and the effectiveness of cross-border partnerships.

Sonoran Institute: An Integrated Approach for Addressing Solid Waste Pollution Sources in the New River, Calexico/Mexicali Region (\$200,000)

The Sonoran Institute will conduct a one-year a pilot project with the objective to reduce the illegal disposal of solid waste in drains in the City of Mexicali that contribute to the pollution of the New River. The project's intent is to:

- Eliminate public health risks
- Improve the urban landscape in Mexico
- Improve water quality of the New River as it flows into California
- Provide a project report that will inform the Border Region Solid Waste Working Group's *Waste Tire Strategic Plan* goals

The project will implement the Ecological Sanitation Model in Mexico, in sections of the International, Mexicali, Tula, Colector and the Xochimilco drains, and examine the possibility of replicating the model in Calexico. In 2015, Sonoran Institute developed and implemented a comprehensive Ecological Sanitation Project to address the problem of illegal dumping in a portion of the International Drain in Mexico, which discharges into the New River. The project integrated sanitation activities, environmental education of local community members, institutional collaboration, and community participation to rehabilitate the urban landscape. The project successfully removed 2,000 cubic meters (m³) of waste from the international drain and has become a model for other ecological sanitation projects in the area.

Collaboration throughout the implementation of the project will include government agencies, private agencies, civil organizations, and members of the local communities. Additionally, the pilot project will be completed within one year with goals to further collaborate with agencies and develop partnerships with corporations in Mexicali to acquire additional funding to sustain the project's efforts in the long run.

The pilot project encompasses four tasks:

1) Needs Assessment and Action Plan

Tasks include:

- Compiling information on both trash issues and potential impacts of El Niño.
- Identifying stakeholders for the New River sanitation project in Calexico. These could include local authorities, private and government agencies, community members, and any local initiatives already addressing illegal dumping.

- Conducting at least six stakeholder meetings and two workshops in the US and Mexico.
- Conducting several visits to areas along the New River, in Mexico and the United States, to identify illegal dumping sites and their sources.
- Generally characterizing the type of solid waste found in dump sites along the river in the US and along drains in Mexicali. This will be done through direct observation only and will not include separation and/or analysis of waste.

Expected results include:

- Needs Assessment and Action Plan for the New River on the US side that will serve as an informational tool for future sanitation actions.

2) Preliminary risk analysis to address potential impacts of El Niño. Drain Sanitation

Tasks include:

- Removing and properly disposing of approximately 4,000 m³ of solid waste from five drains in Mexicali (International, Mexicali, Tula, Xochimilco, and Colector) and surrounding areas, including vacant lots and abandoned houses.
- Installing two screens at critical sites to retain large trash items.
- Installing trash containers in strategic sites along the drains to prevent and reduce the amount of trash thrown in drains and surrounding areas.
- Working with private and government agents to implement two bulky trash collections at each drain during the project's life with the purpose of reducing the large items, such as furniture, that end in or adjacent to the drains.
- Coordinating with community members and government agencies, including Municipal Public Security and the Municipal Public Services.

Expected results include:

- A reduction of solid waste pollution along five drains and surrounding areas (equivalent to 4,000 m³) that contributes to the pollution of the New River.
- Household reduction of solid waste volume disposed of in drains.
- Reduction of open-air burning of tires and other waste.
- Reduction of water contamination in the New River.
- Reduction of health risks and diseases associated with having open-air contamination in drains.
- Improvement of urban living space.
- Continue collaboration among multiple government agencies to promote and enforce a culture of law abidance.
- Strengthen law abidance by providing community members with adequate information on regulations and penalties to sensitize them to the importance of adhering to environmental laws for the benefit of the community.

3) Environmental Education

Tasks include:

- Working with the State Educational System of Baja California (SEE) in the Mexicali Delegation to engage with selected schools surrounding the five proposed drains.
- Implementing talks/workshops in primary and secondary schools on recycling, waste management, and environmental benefits of green spaces.
- Establishing a volunteer program with high school students to train them on recycling activities in their schools and communities.
- Training local schoolteachers and administrators on the importance of recycling and proper solid waste management so that they become promoters of good waste management practices in the classroom.
- Implementing community workshops to inform them about the importance of reducing waste production in their homes and appropriate waste disposal and separation methods.

- Teaching households' members on the proper separation of household solid waste and informing them on the options to dispose of their waste, including selling to local recycling businesses.

Expected results include:

- 10,000 school-aged children and young adults will be knowledgeable on the importance of recycling, proper waste disposal and benefits from clean environments.
- Young environmental stewards (high school students) promoting recycling practices in their schools and communities.
- Increase the volume of recycling materials at households and schools
- Increase the collection and disposal of recycling materials from households and schools.
- Reduction of the volume of household solid waste and schools.
- Integration of the "Conservation and pollution prevention at a shared border" curriculum for grades 1 through 6 in teachers' daily lessons in all the schools chosen around the drains.

4) Communication and Dissemination

Tasks include:

- Developing an engagement strategy that describes a protocol for recruiting, contacting, presenting information, and following up with stakeholders.

The protocol will outline the recruitment criteria, script for first contact (phone call), letter of presentation, follow-up plan, and benefits for involved businesses and organizations.

- Designing outreach materials to support the awareness campaign.
- Creating a media strategy that identifies media outlets for dissemination of project progress, activities, community events, and duration of promotion (e.g., billboards, signage, and social media).

Expected results include:

- Approximately 100,000 habitants of Mexicali are aware of the importance of maintaining sanitary drains and the community and environmental benefits.
- New household recycling initiatives emerged in communities along drains in Mexicali.
- Reduction in illegal dumping in drains and adjacent areas in Mexicali.

(Note: WILD Coast's original budget exceeded the funds available. The revised budget as presented above reduced funds allocated to the dissemination and communications component. Activities related to the design of the communication strategy and materials remained unchanged, but the scope of the implementation of the strategy has been reduced, including printing and dissemination of materials and information. For example, the project will only have a billboard for six months instead of two billboards, information about the project will be published in newspapers every three months instead of every month, information will be posted on social media every other week rather than every week, and two media tours will be implemented to project sites instead of five tours. The Sonoran Institute decided to ensure the design of the communication's strategy and materials to make it feasible and easier to seek additional funds from public and private sources, including in-kind, for implementation of the strategy, thus minimizing the impact of the reduced budget on the expected project results. In addition, the proposal eliminated the expected result regarding the emerging of new cleanup initiatives in communities along drains in Mexicali due to the reduction of activities associated with the implementation of the communication strategy, which results in less exposure of Mexicali citizens to project's needs and progress results.)

These efforts will be subject to regular updates, and an end-of-project report will be completed to help inform the Border Region Solid Waste Working Group's *Waste Tire Strategic Plan* goals.

NEXT STEPS

Should the Council support these recommended projects, CalRecycle will work with Agency staff and the grantees to execute the grants no later than March 1, 2016, and will provide project updates at the Council meeting schedule for July 2016.