
CALIFORNIA—MEXICO BORDER RELATIONS COUNCIL

BORDER REGION SOLID WASTE WORKING GROUP

SOLID WASTE & WASTE TIRE STRATEGIC PLAN

[DRAFT 1]

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INTRODUCTION

This draft Solid Waste and Waste Tire Strategic Plan identifies the objectives that the Border Region Solid Waste Working Group will address regarding the development and coordination of long-term solutions to remediate problems associated with waste tires, solid waste, and excessive sediment that threaten water quality and public health in California and Mexico.

BACKGROUND

CalRecycle is responsible for the state's solid waste management and waste recycling programs' and their regulatory oversight and policy development. In addition to the solid waste, organics infrastructure, beverage container recycling, and e-waste recovery programs, among others, CalRecycle is tasked with managing approximately 42 million used and waste tires in California annually.

In 2014, CalRecycle was instrumental in diverting 85 percent of tires generated in California, or 36 million tires, and while the majority of tires managed by CalRecycle are waste tires, each year a portion of the used tires generated in California are of sufficient quality to either be reused within the state or exported abroad, primarily to Baja.

The market demand for used tires is considerable. In fact, based on 2008 data, formal used tire imports from California into Mexico generate \$13 million in used tire business revenues (SDSU/CIWMB Tire Flow Study [2009]). However, used tires eventually become waste tires, and the 2009 study estimated that Baja must address the disposal of 1.5 million waste tires annually (not all of which originate from California).

Previous estimates indicate that nearly one-third of these tires are illegally disposed, and some end up in the Tijuana River Valley. The waste tires' presence in the border region is a serious environmental concern given their impact on riparian habitats, contaminant risks, and the

public health implications associated with vector-borne disease. But it also is important to recognize that waste tires are not an isolated environmental problem in the border region. The region faces a number of other challenges that are compounded by waste tire, solid waste, and sediments issues.

ISSUE SUMMARY

Waste tires, solid waste, and sediments present a significant and persistent environmental issue along the California and Mexico border. This problem is pronounced within the Tijuana River Estuary and the New River.

Some of the problem results from a complicated circumstance of market demand for California's used tires in Mexico (i.e., imported tires suitable for reuse in passenger or freight vehicles) moving through formal and legitimate commerce, as well as the informal flow of used tires via scrap vehicles and the illegitimate disposal of waste tires. The situation is further complicated by limited disposal and recycling program infrastructure, or other forms of source management in Mexican border communities.

Addressing this problem requires multi-media and multi-agency short-term, and long-term, cleanup and restoration efforts to address the presence of waste tires and solid waste in the environment. Moreover, fully addressing the problem requires a collaborative cross-border effort, in partnership with regional entities to develop viable and lasting regulatory programs that effectively manage the flow, collection, and appropriate disposition of waste tires and solid waste. This scope should guide the strategic plan's development and implementation.

This plan provides the outline by which agencies, designated by the Council to formally participate, will implement solutions for the management of waste tires, solid waste, and excessive sediment along the California and Mexico border.

GUIDING PRINCIPLES

With a consideration for the aforementioned strategic plan scope, the Waste Tire Strategic Plan's objectives will reflect the following principles:

- 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) An awareness of market conditions that drive solid waste and waste tire issues at the border, and long-term solutions to these issues

OBJECTIVES AND GOALS

1) Update the Tire Flow (2009) and Tire Management (2012) Studies

The 2009 Tire Flow Study and the 2012 Tire Management Plan provided a set of recommendations of concrete actions CalRecycle and other agencies could pursue to address waste tire border issues. A review of these recommendations is necessary to evaluate the status of implementation of these ideas, and the impact thus far.

A contract to update both studies was executed with San Diego State University (SDSU) in December 2015 and the associated work plan is under development. A draft report will be submitted to the Council by June 30, 2017. SDSU also will conduct two workshops with CalRecycle and Baja California agency staff.

The studies will determine the ultimate disposition of used tires transported from California into Baja and estimate the flow and number of used and waste tires transported into the border area since 2009.

Dr. Richard Ganster, the research lead of both studies, will attend the Border Relation Council's July 2016 meeting and provide a project update. The final report is due November 1, 2017.

2) Implement Cross-Border Pilot and Demonstration Programs to Manage Waste Tires and Solid Waste

Enhancing cross-border cooperation and leveraging cooperation among entities such as the US and Mexican state and federal governments, the Border 2020 Program, and the Border Environmental Cooperation Commission and non-governmental entities is key to successful pilot and demonstration projects.

Past Projects

CalRecycle has provided funding for, and participated in, several cleanup projects near the border over the last six years, and these projects indicate there is more to address than just tires along the border. For example, among the projects CalRecycle participated in over the last several years, two sediment remediation projects in Goat Canyon yielded the following:

A 2009 project (\$1.9 million) removed 57 tons of tires, 1,555 tons of solid waste, and approximately 75,000 tons of sediment.

A 2012 project (\$1.04 million) removed 80 tons of tires, 1,500 tons of solid waste and approximately 75,000 tons of sediment.

Current Projects

Grants were executed on March 1, 2016 to two demonstration projects to inform the Border Region Solid Waste Working Group of reasonable goals and efficient strategies for achieving waste tire abatement. Project updates will be presented at the Border Relations Council's July 2016 meeting.

Description of the two grantee's projects:

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.

Future Projects

Further efforts to manage waste tires, remove sediment, and remove solid waste will be informed by the outcomes of The Sonoran Institute and WILDCOAST demonstration projects.

3) Assessment of Long-Term Funding

Funding Needs

Additional funding and flexibility to spend funds is needed when introducing or implementing policy programs to address the management of waste tires, excessive sediment, and solid waste. Substantial costs include program administration, enforcement, and other prioritized program elements. These costs will need to be identified and addressed for any successful policy program.

Current Funding Sources

At present, the Board of Equalization collects a \$1.75 tire fee assessed at the point of purchase of new tires in California. From that fee, 75 cents is transferred to the Air Pollution Control Fund and the remaining \$1 is transferred to CalRecycle where it is dedicated to managing waste tire-related issues. California state law prohibits the use of California tire fee outside the state's jurisdictional borders except under limited circumstances.

Financial constraints in the State of Baja California and the local municipalities limits funding for integrated waste tire management programs. These financial limitations are compounded by limited support from the federal level, as well as difficulty in securing financial support for cross-border collaboration due to legal restrictions on the expenditure of California tire fees in Baja California.

Funding Opportunities

For the long-term success of border clean-up and waste management projects, sustainable funding sources must be identified and established. Sources could include, but are not limited to, taxes, local and state user and processor fees, tipping charges, federal budget allocations, and international partnerships and cooperation. The type of funding can be determined by the overall program strategy, but in general, the funding source should ensure the funds raised are dedicated to the waste tire management plan.

If the traditional sources of funding listed above are not politically feasible, efficient, or flexible enough, California may forego these options and pursue an Extended Producer Responsibility (EPR) Model. With the implementation of an EPR, shared responsibility for the end-of-life management of tires is placed on the producers, and all entities involved in the tire production and distribution chain, instead of the state and the general public. This encourages product design changes and the minimization of a negative impact on human health and the environment at every state of the tire's lifecycle.

An EPR program would allow the costs of treatment and disposal to be incorporated into the total cost of tire production and distribution. This places primary responsibility on the producer, or brand owner, and creates a setting of markets that more accurately reflect the negative externalities and environmental impact of used and waste tires.

An EPR program for waste tire management in the California-Mexico border region could establish clearly defined responsibility and provides that fees would be assessed at a level sufficient to meet all of the requirements of the tire management plan.

Recommended Use of Tire Fee Funds

Specific recommendation—to be decided by the Working Group

4) Examination of Waste Streams

The Solid Waste and Waste Tire Strategic Plan aims to develop long-term, sustainable, and diverse market demand for used tire and waste tire derived products while ensuring the protection of public health and environmental health. Development of efficient supply infrastructure to meet demand is advanced by accurate information and technology development. Relative to these efforts, environmental protection and solid waste management is achieved with supply and demand in equilibrium. Examination and understanding of waste streams within Mexico and waste streams flowing into Mexico via California is the primary action necessary to foster this market.

Waste Streams within Mexico

Electronic Waste

Mexico has converted to digital television signal broadcasting, which may lead to a surge in disposal of outdated cathode ray tube televisions. As cathode ray tubes contain lead and mercury, there are potential contamination hazards and public health risks associated with mismanagement of these materials. It is necessary to create an electronic waste management infrastructure in Mexico and determine where the material will originate and how it will be disposed.

Waste Streams Flowing into Mexico via California

Strengthening the California tire tracking system is a priority of the working group in order to accurately quantify used tires flowing from California and through California and into Baja California. Elimination of gaps in the current system is essential to ensure that used tires can be tracked from point of origin to ultimate disposal, including formal and informal export to Mexico.

In addition, there is a need to develop arrangements with neighboring U.S. states to track tire shipments that originate outside of California but are transported into Mexico through California ports of entry.

Opportunities to Manage these Materials

Fundamental Market Drivers

Under development

Market Limitations

Under development

Alternative and economically viable uses of waste and used tires at the border

Under development