List of Solid Waste and Waste Tire Strategic Plan Recommendations from Solid Waste and Waste Tire Strategic Plan

Recommendation	Potential Location	Description	Strategic Plan Reference Page
Waste Tire:			
Pay tipping fees to haulers when they deliver tires to a TPID	CA	Pay tipping fees to haulers only when they deliver tires to a TPID, rather than the current system in which tipping fees are paid when tires are picked up.	Page 19
Convert the tire tracking paper manifest system to an electronic manifest system	CA	CalRecycle would change from a paper tracking system to an electronic tracking system, requiring a new computer program.	Page 19
Upgrade the Tire Hauler Program	CA	Upgrade the Hauler Program by increasing the difficulty of the exam haulers must pass to obtain a permit and increase the amount of bond required.	Page 19
Share import and export data regionally and binationally	CA and MX		Page 19
Disseminate BECC's Strategic Model to create a self-sustaining tire policy	MX	Share information about best practices and existing models, such as the BECC Scrap Tire Management Strategic Model, which was successfully implemented in Ojinaga, Chihuahua, to create self-sustaining tire policy. BECC's Strategic Model provides a methodology to involve local stakeholders for local solutions.	Page 20
Encourage border jurisdictions to apply for Waste Tire Amnesty Grants	CA	Encourage border jurisdictions to apply for Waste Tire Amnesty Grants through CalRecycle and to include the local conservation corps in their applications.	Page 21
Provide online access to technical materials, best practices, and research reports on the use of crumb rubber in engineering applications	CA	Share information through websites and webinars, or host workshops.	Page 22
Connect technical experts with MX engineers to support use of tire rubber in projects in MX	CA and MX	Share information through websites and webinars, or host workshops.	Page 22
Invite MX officials to attend amnesty events to observe how they work and to offer technical assistance	CA and MX	CalRecycle to host events.	Page 21
Identify opportunities for California government and industry experts to attend meetings or other forums on expansion of the waste tire and tire rubber industry in Mexico.	CA and MX		Page 20
Encourage market infrastructure investments on the border	CA and MX	This could include tire industry equipment at the border, such as tire shredders, and conveyer belts for border crossing of shred tire material.	Page 20
Enable CA waste tire businesses to import waste tires from MX when markets allow	CA	Importation laws and regulations are prohibitive at this time; while industry experts indicate there is equilibrium between supply and demand in CA, understanding the obstacles to importation may yield future benefits should demand increase.	Page 20

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Assign each border crossing a Tire Program Identification Number (TPID) to report on tires leaving the state	Border	Assign each border crossing a Tire Program Identification Number (TPID) to report on tires leaving the state, rather than the current system of assigned TPIDs to end destinations, such as tire shops in Mexico.	Page 19
Revisit import rules and other barriers	MX		Page 19
Re-examine the existing regulatory structure	MX	Re-examine the existing regulatory structure. Where a regulatory structure needs to be established, set oversight and enforcement responsibilities.	Page 19
Explore fee structures that could fund investments in a waste tire industry and product manufacturing sector in MX	MX		Page 20
Set up regular amnesty events at the two public waste tire storage facilities funded by the waste tire disposal fee to encourage legal disposal of waste tires	MX	At tire amnesty events, the public is invited to dispose of waste tires at no charge.	Page 21
Set up waste tire collection routes that result in disposal at the public waste tire facilities	MX	Encourage facilities to recycle instead of burning waste tires.	Page 21
Adopt codes and regulations that implement sound engineering standards for use of tires and tire-derived products in civil engineering applications	MX	Studies show civil engineering projects that effectively use tire-derived aggregate include drainage applications for highways, local roads, and backfill around foundation walls.	Page 22
Establish a Tire Management Program in MX - see various Models below	MX	In order to overcome a lack of funding to promote safe waste tire disposal and tire rubber markets, MX could choose from several successful models globally, such as CA's waste tire fee charged on new tire sales.	Page 22
Establish a Tire Management Program in MX, imposing a set fee on new and used tires based on tire size in a tiered format.	MX		Page 22
Establish a Tire Management Program in MX, imposing a fixed tire set fee on all vehicle registrations.	MX	Vehicle owners would be given certification of the fee payment, which would provide a discount on future tire purchases.	Page 22
Establish a Tire Management Program in MX, imposing a tiered fee structure based on annual income	MX	This would moderate the impact on low-income drivers.	Page 22
Establish a Tire Management Program in MX based on models common in Europe	MX	As cited in the Product Stewardship Institute's Tire Stewardship Briefing Document.	Page 22

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Recommendation	Potential Location	Description	Strategic Plan Reference Page
Establish a Tire Management Program based on the Free Market System	MX	Free market systems are active in Austria, Germany, Ireland, Switzerland and the UK.	Page 22-23
Establish a Tire Management Program based on Government Responsibility financed through a tax system	MX	Under this system, producers pay a tax, and the state is responsible for administering tax collection and makes payments to recyclers. This system is active in Croatia, Denmark, and the Slovak Republic.	Page 23
Establish a Tire Management Program based on a Producer Responsibility System	MX	End of life tire regulations mandate producer responsibility generally through a collective system. The law provides the legal framework and assigns responsibility to tire manufacturers and importers/producers to organize the management of scrap tires. Producers generally contribute to a collective fund that enhances collection, transportation, education and communication, recycling and recovery. This system is in place in several countries, including Belgium and France.	Page 23
Expand markets for tire-derived products	MX	Work with existing industry to expand markets for tire derived products.	Page 20
Update information on import permit quotas, actual imports, permit enforcement and accounting improvements	MX	May be included in an Update to the Tire Flow Study.	Page 19
Assess the size of tire piles, how they accumulate, and potential solutions	MX	May be included in an Update to the Tire Flow Study.	Page 19
Collect data on the number of tires recycled into tire-derived products, used in brick or cement kilns, or used in unauthorized construction in border areas	MX	May be included in an Update to the Tire Flow Study.	Page 20
Research and describe local collection systems, including financing and operational capacity	MX	May be included in an Update to the Tire Flow Study.	Page 20
Create and implement methods for CalRecycle and Baja California environmental protection staff to assist each other	CA and MX	May be included in an Update to the Tire Flow Study.	Page 20
Update information on existing institutional infrastructure	MX	May be included in an Update to the Tire Flow Study.	Page 20
Continue to conduct or support R&D on new tire rubber marketable products	CA		Page 22
Solid Waste and E-Waste:			
CalRecycle to offer technical assistance related to its Covered Electronic Waste Program	CA and MX	Could be used as a potential model for funding the collection and safe disposition of electronic waste in MX.	Page 31
Install boom in Smuggler's Gulch cross-border canyon	CA	Annual solid waste volume in Smugglers Gulch and its downstream pilot channel is up to 30,000 cubic yards of combined sediment, trash, and tires. Install a boom similar to boom in Goat's Canyon.	Page 29

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Recommendation	Potential Location	Description	Strategic Plan Reference Page
Ensure local officials have drain-cleaning equipment, such as dump trucks, skip loaders and back hoes	CA and MX	Identify funding sources, establish public-private partnerships based on successful demonstration projects, explore feasibility of donated equipment.	Page 30
Include Solid Waste as a priority action area in the 2014 CA and MX MOU to Enhance Cooperation on Climate Change and the Environment	CA and MX	Incorporate Solid Waste into the MOU by creating a Solid Waste Working Group.	Page 30
Install boom in Stewart's Drain	CA	Annual volumes in the main channel are about 30,000 cubic yard of sediment, 1,000 tons of trash, and 400 tires. Install a boom similar to boom in Goat's Canyon.	Page 29
Share program information regarding CA's e-waste program	CA and MX	This includes overviews of both CalRecycle's and the Dept. of Toxic Substances Control's roles, program history, and regulations.	Page 31
CA to share information on financing and fee mechanisms to support materials management programs, including extended producer responsibility programs	CA and MX		Page 31
CA to share information on market development strategies, providing successful examples	CA and MX	Successful examples to share include loan, grant and incentive payment programs for various waste materials and recycling commodities.	Page 31

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USEPA to disseminate best practices from BECC Mexicali E-Waste Management Infrastructure project	MX	Through Border 2020 program.	Page 33
Install boom in Los Laureles	MX	Install a boom similar to boom in Goat's Canyon.	Page 29
Sedimentation:			
Secure funding for maintenance of Goat Canyon Sediment Basins	CA	These sediment basins generate up to 60,000 cubic yards per year. Need funding for continued removal of sediment and trash; transport and disposal of trash; transport and landfill disposal or reuse of sediment.	Page 38
Reclamation of Nelson Sloan Quarry	CA	Requires reclamation and restoration of native upland habitat; planning, construction of infrastructure, and operation of the quarry; use sediment in the valley from routine excavations from cross-border flows.	Page 40-41
Restoration of the Brown Property	CA	Requires removal of previous fill; restoration of the site to riparian forest floodplain.	Page 41
Support restoration of the Tijuana Estuary	CA	Restoration of the estuary, including increased tidal prism, and other estuarine functions, will improve the estuary's ability to naturally flush sediments from the system and sustainably accommodate relatively higher levels of pollution.	Page 41
Designate a lead entity on all solid waste, sedimentation and waste tire issues	CA	A lead entity should serve as the key point of facilitation and communication.	Page 42
Install sediment retention basins/weirs to capture sediment and non-floatable trash in Stewart's Drain	CA	Annual volumes in the main channel are about 30,000 cubic yard of sediment, 1,000 tons of trash, and 400 tires.	Page 39
Install sediment retention basins/weirs to capture sediment and non-floatable trash in Smuggler's Gulch	CA	Annual solid waste volume in Smugglers Gulch and its downstream pilot channel is up to 30,000 cubic yards of combined sediment, trash, and tires.	Page 39
Install boom sediment retention basins/weirs to capture sediment and non-floatable trash in Los Laureles	MX		Page 38-39
Re-vegetation of upstream habitats	MX	This prevents erosion downstream in MX and CA.	Page 38-39
Installation of Pervious Pavers to distribute rainwater evenly on soil	CA and MX	To prevent erosion.	Page 38
Channel runoff into storm drains	CA and MX	To prevent erosion.	Page 38
CA to provide technical support to MX government agencies regarding upstream erosion prevention measures	MX	This will reduce sedimentation in CA.	Page 38-29
Install sediment retention basin in Yogurt Canyon	MX	This will reduce sedimentation in CA.	Page 39
Install sediment retention basin in City of Tijuana	MX	This will reduce sedimentation in CA.	Page 39
Road paving improvements in Tijuana canyon communities, such as Los Laureles and Matadero Canyons	MX	Paving dirt roads in Los Laureles Canyon would reduce sediment loads into Goat Canyon by 40%.	Page 40
Green infrastructure improvements in Tijuana canyon communities	MX	This includes vegetated infiltration basins, biofilters, pervious paving, rainwater capture. This would help restore hillside vegetation.	Page 40
Establish Conservation Areas/Easements in Mexico Urban Canyons	MX	Opportunities exist to establish conservation areas throughout the City of Tijuana, particularly in the open spaces of Los Sauces, Los Laureles, and Materadero Canyons. This would help prevent invasive species and damaging pollutants, and serve as vegetative buffers to filter storm water and sediment.	Page 40