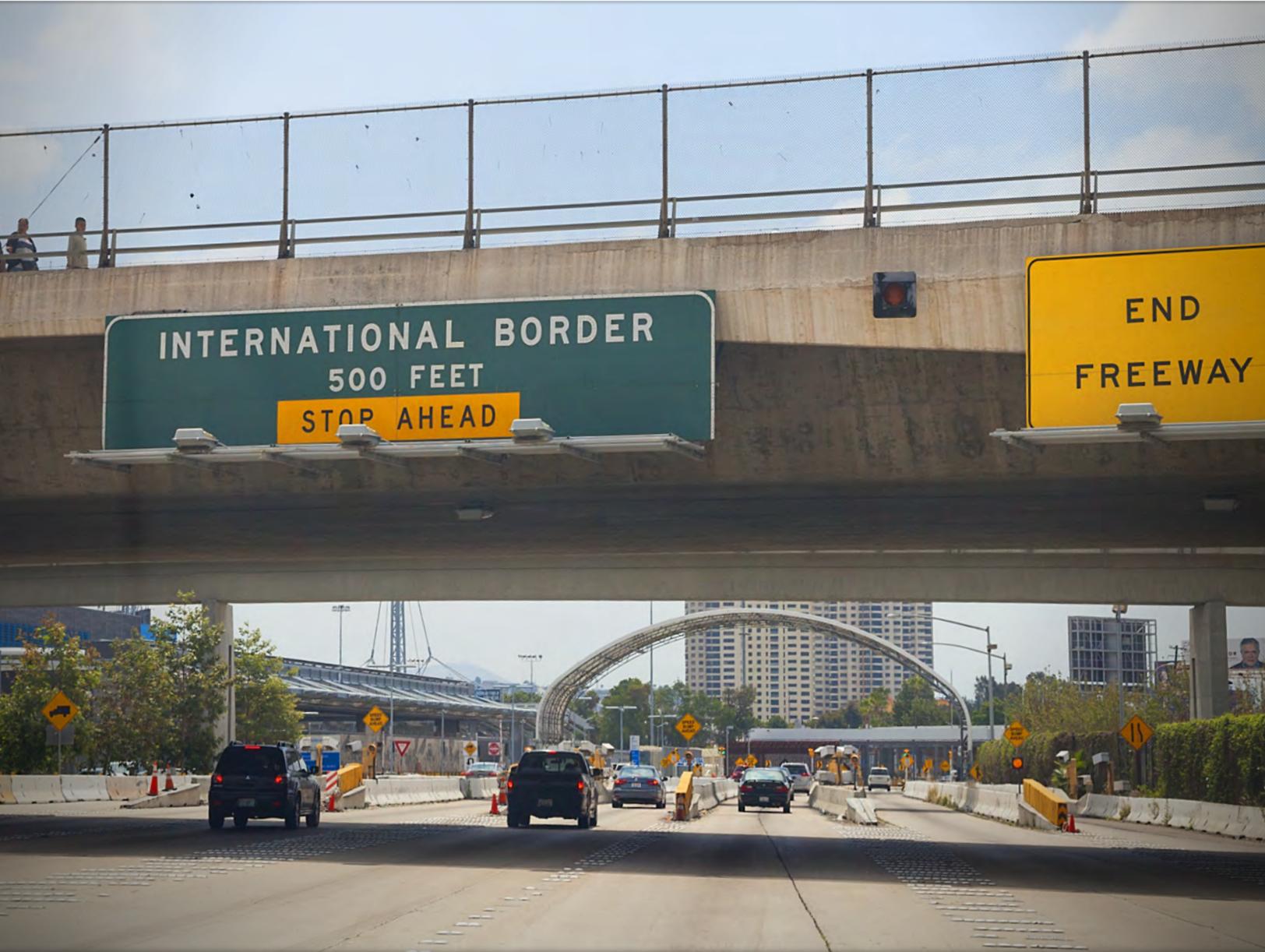


The California-Mexico Border Relations Council

A Summary of Council Activities Undertaken in 2015



Annual Report 2015

JULY 2016

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July 2016

Mission and Vision

The California-Mexico Border Relations Council (Council) is the central organizational body that coordinates interagency projects, program collaboration, initiatives, and partnerships along the California-Mexico border. It also serves as a representative body of the State of California whose goal is to continue to develop and enhance cross-border relations between the State and Mexico.

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Acronyms

ARB	Air Resources Board
BECI	Berkeley Energy and Climate Institute
BCSH	Business, Consumer Services and Housing Agency
BHCC	Border Health Consortium of the Californias
BIDS	Border Infectious Disease Surveillance Program
CDFA	California Department of Food and Agriculture
CDPH	California Department of Public Health
Caltrans	California Department of Transportation
Cal OES	California Governor's Office of Emergency Services
CHP	California Highway Patrol
CAISO	California Independent System Operator
CPUC	California Public Utilities Commission
CalREDIE	California Reportable Disease Information Exchange System
CSP	California State Parks
CDC	Centers for Disease Control
CURRV	Climate Understanding and Resilience in the River Valley
CONAFOR	Comision Nacional Forestal - National Forestry Commission
CBP	Customs and Border Protection
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
DGFAUT	Directorate of Environmental Urban Development and Tourism
GO-Biz	Governor's Office of Business and Economic Development
HPSA	Health Professions Shortage Areas
ICAC	Imperial County Agricultural Commissioner
IDE	Infectious Disease Epidemiology Program
IBWC	International Boundary and Water Commission
ITESM	Monterrey Institute of Technology and Higher Education
MRR	Mandatory Reporting Regulation
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding

MRV	Monitoring, Reporting and Verification
NOAA	National Oceanic and Atmospheric Administration
NAFTA	North American Free Trade Agreement
OBBH	Office of Binational Border Health
OEHHA	Office of Environmental Health Hazard Assessment
OBD	On-Board Diagnostic
OPSG	Operation Stonegarden
PDP	Pesticide Disposal Project
POE	Port of Entry
SAGARPA	Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food
SENER	Secretariat of Energy
SEMARNAT	Secretariat of Environment and Natural Resources
SWWG	Solid Waste Working Group
TRAM	Tijuana River Action Month
TRAN	Tijuana River Action Network
TRNERR	Tijuana River National Estuarine Research Reserve
US EPA	United States Environmental Protection Agency
USMBHC	United States-Mexico Border Health Commission
WREGIS	Western Renewable Energy Generation Information System

Welcome

Dear Honorable Members of the Legislature:



I am pleased to present the annual report of the California-Mexico Border Relations Council, pursuant to Assembly Bill 3021 (Núñez, Chapter 621, Statutes of 2006).

The Council is comprised of eight state secretaries or directors of state offices, appointed by Governor Edmund G. Brown Jr., collectively representing issues ranging from the environment and California's natural resources, to transportation, human health, food and agriculture, emergency and consumer services, housing, and business and economic development. Together, we coordinate the activities of state agencies on California-Mexico border issues. The relationship between the State of California and Mexico is integral to the future of both governments.

In 2015, the Council worked closely with state and local officials from Mexico and California to carry out the goals defined in the Memorandums of Understanding (MOUs) with the Mexican Government signed by Governor Brown in 2014.

In addition, the Council worked to implement projects related to solid waste and waste tire cleanup and regulatory recommendations contained in the New River Improvement Project Strategic Plan. Our work in the border region has also been defined and supported by the U.S. EPA's Border 2020 program, the latest national environmental border-related program implemented under the 1983 La Paz Agreement. It builds on the Border 2012 Environmental Program, emphasizing regional, bottom-up approaches for decision making.

The Council continues to work toward protecting the environment, improving infrastructure, and ensuring the health and safety of residents and visitors along both sides of the California-Mexico border.

Sincerely,

A handwritten signature in black ink, appearing to be a stylized name with a long horizontal stroke at the end.

California Environmental Protection Agency

Council Background

The issues affecting the U.S.—Mexico border region can be complex and difficult to resolve. Both the United States and Mexico are struggling to meet the demand for services produced by rapid population growth, urbanization, industrial expansion, and increasing flows of international trade. The region faces many cross-border challenges related to the environment, security, land use, and public health. Despite our common economic, social, and geographic links, barriers remain that make it difficult to jointly address these important issues.

Border relation initiatives with Mexico have a long history in our state. Legislation enacted in 1982 established the Office of California-Mexico Affairs within the Technology, Trade, and Commerce Agency. In 2003, the agency was abolished through AB 1757, (Committee on Budget, Chapter 229, Statutes of 2003), and the duties of the agency were reassigned to other state entities. In 2004, the California Research Bureau released a report listing California-Mexico programs operating in more than 100 state agencies; a majority of these programs are now defunct because no organizing entity existed to coordinate interagency cooperation.

AB 3021 (Núñez, Chapter 621, Statutes of 2006) was enacted to fill the need for statewide oversight and coordination of multi-agency involvement with Mexico. It created the California-Mexico Border Relations Council, which serves as the central organizing body that oversees and collaborates on California-Mexico border issues.

The Council:

- Coordinates cross-border programs, initiatives, projects, and partnerships within California state agencies.
- Establishes California state agency policies for the collection and sharing of cross-border data.
- Identifies and recommend changes in the law needed to achieve the goals of the Council.
- Provides an annual report of activities to the Legislature.

Council Members



Chair
Matthew Rodriguez,
Secretary
California Environmental
Protection Agency
www.calepa.ca.gov



Mark Ghilarducci, Director
California Governor's Office
of Emergency Services
www.caloes.ca.gov



John Laird, Secretary
Natural Resources Agency
www.resources.ca.gov



Diana S. Dooley, Secretary
California Health & Human
Services Agency
www.chhs.ca.gov



Karen Ross, Secretary
California Department of
Food and Agriculture
www.cdfa.ca.gov



Panorea Avdis, Director
California Governor's Office
of Business and Economic
Development
www.business.ca.gov



Brian Kelly, Secretary
California State
Transportation Agency
www.calsta.ca.gov



Alexis Podesta,
Acting Secretary
Business, Consumer Services
and Housing Agency
www.bcsh.ca.gov

Executive Summary

The California-Mexico Border Relations Council (Council) serves as the central organizing body within California state government for California-Mexico border issues.

This multi-agency council has made significant progress on issues impacting both sides of the border since its establishment in 2008.

This annual report to the Legislature, which is required pursuant to Government Code Section 8713, includes key highlights of activities from 2015¹:

Air Quality and Climate Change

The Air Resources Board (ARB) made progress in implementing the climate change, air quality, and clean vehicle goals identified in the Memorandum of Understanding signed by California and Mexico in July 2014. The ARB also continued long-standing programs, such as ensuring compliance with California's heavy-duty diesel regulations that provide air quality benefits on both sides of the border.

Waste Cleanup

The Border Region Solid Waste Working Group (SWWG) was formed and 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. The SWWG worked to update the Waste Tire Strategic Plan and solicited project proposals for the \$300,000 appropriation by the Legislature to implement projects related to the cleanup of solid waste and waste tires in the border region.

Water

The Tijuana River Valley Recovery Team (Recovery Team) advanced several of its top priorities for the Tijuana River Valley. The Recovery Team's priorities are outlined in its 2012 Tijuana River Valley Recovery Strategy (Recovery Strategy) and its 2015 Five-Year Action Plan (Action Plan).²

The Colorado River Basin Regional Water Board continues to provide technical assistance to Mexicali, Mexico, to address its sewage infrastructure problems and prevent discharges of raw sewage into the New River in Mexicali. It also continues to implement the regulatory recommendations contained in the Council's New River Improvement Project Strategic Plan.

¹ Please note that activities taking place in the current calendar year 2016 will be reflected in next year's report.

² The Recovery Strategy and Action Plan are available on the Recovery Team's web page: www.waterboards.ca.gov/rwqcb9/water_issues/tijuana_river_valley_strategy/index.shtml

Energy

The California Energy Commission continued to work aggressively to advance the clean energy and grid management goals defined in the Memorandum of Understanding signed by California Energy Commission Chair, Robert B. Weisenmiller and Secretary Joaquín Coldwell of Mexico's Secretary of Energy (SENER) on July 29, 2014³.

In an effort to encourage cooperation and joint implementation of programs that promote low carbon energy, clean technology, biofuels, and energy efficiency and to provide guidance and assistance to Mexico as it implements its energy reforms, the Energy Commission actively engaged in technical information exchanges, academic partnerships, and opportunities to provide training on energy sector regulation and grid management.

Agriculture

The California Department of Food and Agriculture (CDFA) continues high-level coordination with the Mexican Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) on a variety of policy issues related to farm labor, climate smart agriculture, and trade. The Memorandum of Agreement (MOA) between the two agencies provides the opportunity for linking federal and state activities and initiatives within the border region.

The Department of Pesticide Regulation (DPR) participated in numerous events at the border during 2015 and provided support for trainings on pesticide illness and safety to farm workers near the border. In addition, DPR, in collaboration with the Imperial County Agricultural Commissioner's (ICAC) Office, began to develop a Pesticide Disposal Project to help farmers and growers in Imperial County to dispose of unwanted or outdated pesticides.

Transportation

Every year, tens of millions of motorists, commercial truckers, bicyclists, transit-users and pedestrians travel within the California-Mexico border region. Growing populations and increasingly integrated economies mean that more people and goods than ever are being funneled through California's land ports of entry. The California Department of Transportation (Caltrans) and the California Highway Patrol (CHP) continue to work on efforts to enhance border mobility, border infrastructure and border security.

Hazardous Waste

The Department of Toxic Substances Control (DTSC) continues to track imported and exported hazardous wastes through its Port of Entry (POE) program. In addition, DTSC actively participated in various Border 2020 bi-national meetings and local San Diego County Hazardous Waste Task Force meetings. DTSC's work resulted in several enforcement actions during 2015 amounting to \$166,000 in penalties collected.

³ www.climatechange.ca.gov/climate_action_team/intergovernmental/MOU-Ministry_of_Energy_Mexico.pdf

Health, Safety, and Emergency Management

The California Department of Public Health (CDPH), Office of Binational Border Health (OBBH) facilitated the creation of the Binational Border Health Consortium of the Californias, whose mission is to facilitate communication, coordination, and collaboration among public and private health institutions for the benefit of communities in the California—Baja California border region. OBBH monitored and investigated binational infectious disease cases and outbreaks in the border region. In an effort to enhance reporting of binational infectious disease cases throughout the State of California, OBBH launched the Binational Case component of the California Reportable Disease Information Exchange system at CDPH. OBBH continues to manage and coordinate the California Border Infectious Disease Program (BIDS) of the Centers for Disease Control and Prevention and community health workers trainings on pesticide illness and safety for farmworkers and their communities.

The Office of Environmental Health Hazard Assessment (OEHHA) is helping to coordinate the Border Environmental Program's efforts to maintain a healthy environment for people in the California-Mexico border region. Working with other State and Federal agencies, OEHHA is involved in three projects concerning border issues: the California Communities Environmental Health Screening Tool (CalEnviroScreen), the California Environmental Contaminant Biomonitoring Program, and the Fish Consumption Advisories for Spanish Speakers.

The California Governor's Office of Emergency Services (Cal OES) is responsible for the overall coordination of state agency response to disasters. Cal OES also performs its broader mission by actively participating in bi-national initiatives that discuss and resolve some of the most important issues beyond California's borders. These international efforts enhance the department's ability to support our stakeholders, protect our communities, and help create a resilient California. In 2015, Cal OES continued to maintain partnerships, emergency management agreements and initiatives in the California-Mexico border region, fostering cross-border coordination during emergencies and natural disasters. Cal OES also led the implementation of the California-Mexico MOU with respect to cooperation on combating wildfires in the border region.



Border Region Profile

The California-Mexico border spans just over 140 miles in length and is defined in the La Paz Agreement as the area of land 100 kilometers (62.5 miles) north and south of the international boundary. Although the term “border” defines separation by definition, in reality, the region has grown increasingly dynamic, interactive, and interdependent over time, connected by people, transportation, trade, supply-chains and economies, ecosystems, air and watersheds, security and health challenges, language, and many others. In this context, cooperative binational approaches that are closely coordinated within and across governments, such as the California-Mexico Border Relations Council, are essential.

In 2011, the estimated total population of the two California border counties was 3.4m, with Hispanics/Latinos constituting 33 percent of the total population in San Diego County, and 81 percent in Imperial County.⁴ The Woodrow Wilson Center’s Mexico Institute notes that central to the demographic expansion of border regions has been rapid urbanization, with cities like Tijuana and Mexicali transitioning from medium-sized urban areas in the 1960s, to burgeoning metropolises today. As these urban areas have grown, regions such as Tijuana-San Diego and Mexicali-Calexico have fused across the border, forming dynamic trans-border metropolises that share both challenges and opportunities, and are increasingly reliant on one-another for continued growth and prosperity.⁵

The challenges faced in the border region are many. Unemployment rates on both sides, but particularly the U.S. side, have historically been high—as high as 29.7 percent in Imperial Valley in 2010.⁶ Border communities often have fewer health workers and many are designated Health Professions Shortage Areas (HPSA), with ratios on the Mexican side of the border even lower (52 health workers per 10,000 residents amongst Mexican municipalities in 2007, as compared with 248 per 10,000 in Imperial in that same period).⁷ Over the past 25 years, rapid industrialization in Northern Baja California spurred by the “Maquiladora” program and the North American Free Trade Agreement (NAFTA) has created economic opportunities in the region, but has also put a strain on Mexican border communities, particularly around environmental and human resources.

While issues such as population and industrial growth, combined with the lack of public financial resources to meet the expanding needs, has led to pressures on public safety, ecosystems and infrastructure in the region, many opportunities also exist between California and Mexico to help address traffic congestion, water quality and availability, poor air quality, disposal of hazardous wastes, sewage infrastructure deficiencies, and contaminated beaches and waterways.

⁴ Border Health Status Report to the Legislature 2012. California Department of Public Health (CDPH). Available at: www.cdph.ca.gov/programs/cobbbh/Documents/HealthStatusReport-ShortVersionFinal_06172013PO.pdf.

⁵ www.wilsoncenter.org/sites/default/files/mexico_state_of_border_0.pdf

⁶ www.wilsoncenter.org/sites/default/files/mexico_state_of_border_0.pdf

⁷ www.wilsoncenter.org/sites/default/files/mexico_state_of_border_0.pdf

Public safety, health, environmental, and infrastructure issues affecting California are being addressed on the U.S. side of the border by the member agencies of the Council in close coordination with federal, state, tribal, and local governments, as well as nongovernmental organizations and members of the public. These issues present a challenge for California due to the lack of U.S. jurisdiction in Mexico, making the development of strong relationships with Mexican counterpart agencies essential. Despite these challenges, communities along the California-Mexico border are continuing to grow and thrive. Integrated cross-border urban planning, implementation of justice reforms in Baja, work to cooperate on water and clean energy, increased drug and firearm seizures, and many other cooperative efforts, have already paid dividends and improved the quality of life for residents on both sides of the California-Mexico border. The California-Mexico Border Relations Council will continue to support and advance these and other efforts to the benefit of our border region.

California Agencies' Border Activities

The Council is comprised of the state secretaries or office directors from the California Environmental Protection Agency (Chair); the California Health and Human Services Agency; the California Natural Resources Agency; the California State Transportation Agency; the California Department of Food and Agriculture; the California Governor's Office of Emergency Services; the Business and Consumer Services and Housing Agency; the California Governor's Office of Business and Economic Development; and the United States Environmental Protection Agency (ex-officio). The Council is governed by Government Code sections 99520-99524, and coordinates the activities of these agencies with respect to the border. It also conducts statewide planning and oversight of issues of concern between the State of California and the State of Baja California, as well as the United Mexican States more broadly.

Along with their boards, departments, and offices, these state leaders work toward improving and protecting trade opportunities, environment, health, safety, and infrastructure along the California-Mexico border. Through work under Memorandums of Understanding and other intergovernmental relationships, the entities within the Council have made significant progress in these areas.

The following discussion describes some of the major issues being considered by the Council, along with activities conducted and progress made by the Council's member agencies during the calendar year 2015:

Trade

Mexico remains one of California's top trading partners, behind China.

California exports to Mexico totaled \$26.8 billion in 2015, representing 16.2 percent of total California exports in 2015.

Figure 1. Trade statistics at a glance:

(\$ in billions)	2014	2015	Growth
U.S. Imports ⁸ from Mexico	\$294.16	\$294.74	+0.2%
U.S. Exports ⁹ to Mexico	\$240.30	\$236.40	-1.6%
All California Imports	\$403.45	\$408.20	+1.2%
All California Exports	\$174.13	\$165.40	-4.9%
California Imports from Mexico	\$41.25	\$45.10	+9.2%
California Exports from Mexico	\$25.42	\$26.80	+5.5%

⁸ <http://tse.export.gov/stateimports>

⁹ <http://Tse.export.gov>

Business and Economic Development MOU Overview

Under the 2014 California-Mexico Trade and Investment Memorandum of Understanding (MOU), GO-Biz has participated in various trade initiatives such as supporting trade missions, information sharing for trade and investment opportunities, and inviting potential investors into California.

Environment

The Council's member agencies work together to maintain a healthy environment in the California-Mexico border region. Substantial efforts over the past year have focused on air quality, tire recycling, cleanup efforts, land use, and water projects.

Good Neighbor Environmental Board

The Good Neighbor Environmental Board is a Federal Advisory Committee to the President and Congress on environmental issues along the U.S.-Mexico Border. California is represented on the board by Jose L. Angel, who is the Colorado River Basin Regional Water Board Assistant Executive Officer. The Board met in San Diego in October 2015 and sent a letter on December 11, 2015 to the President and Congress with recommendations to address the impacts of climate change.¹⁰

Air Quality and Climate Change

The California Air Resources Board has provided technical expertise and support on U.S.-Mexico border issues since the mid-1990s. ARB's border activities support ARB statewide programs and directly and indirectly contribute to reductions of air pollution in the border region. The U.S. EPA often cites projects that ARB spearheaded or supported, such as the ambient air monitoring network, as examples of successful collaboration between U.S. EPA, the states, and their Mexican counterparts. More recently, ARB has expanded its collaboration with Mexico beyond air quality issues to include climate change.

California–Mexico MOU Overview

In July 2014, California and Mexico signed a Memorandum of Understanding (MOU) to Enhance Cooperation on Climate Change and the Environment. The MOU is a four-year effort with four priority action areas: climate change, air quality, clean vehicles, and wildfires. The joint effort aims to improve and protect the environment while ensuring the sustainable use of natural resources to optimize quality of life and expand trade and investment opportunities.

Both California and Mexico have placed a strong emphasis on achieving tangible results from the MOU, and on establishing conditions and opportunities for cooperative action. To implement the MOU, bilateral working groups were formed for each of the priority action areas. The following

¹⁰ A copy of the advise letter can be downloaded from: www.epa.gov/sites/production/files/2015-12/documents/gneb_advice_letter_-_final_signed_0.pdf

describes progress made by the Air Resources Board in 2015 in implementing the climate change, air quality, and clean vehicles goals of the MOU.

MOU Climate Change Working Group

During 2015, the Climate Change Working Group made significant progress on knowledge exchange regarding the current status and implementation of climate regulations in California and Mexico. This exchange included discussions of California's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR), Mexico's reporting requirements, and the California Cap-and-Trade Program, with an initial focus on monitoring, reporting and verification (MRV) for greenhouse gases (GHGs). Mexico's Secretariat for Environment and Natural Resources (SEMARNAT) has reviewed ARB training materials related to verification and reporting, and ARB staff participated in a workshop in Mexico with SEMARNAT to further discuss verification requirements and processes both in Mexico and in California. Over the last several quarters, California has explained the MRR, the Cap-and-Trade Program, and how Renewable Energy Credits (RECs) from the California Renewable Portfolio Standard fit within the Cap-and-Trade Program.

Much of the discussion between SEMARNAT and ARB has been to describe the ongoing programs in California, including questions on implementation, policy choices, stakeholder input, and how requirements are enforced. ARB has shared substantial information regarding regulatory development, guidance materials, and stakeholder concerns and comments. The working group has discussed how ARB determined emissions thresholds, how caps are set, and how allowance distribution works in California (through auction, some free allocation, and bilateral and over-the-counter transactions).

ARB also continued discussions with officials at the Comision Nacional Forestal (CONAFOR). CONAFOR staff leads are now engaging with ARB directly through biweekly calls between ARB, SEMARNAT, and CONAFOR. Future discussions are planned to cover descriptions of Mexico's National Strategy to Reduce Emissions from Deforestation and Forest Degradation (ENA-REDD+) program, other forestry-related climate efforts, and how California's domestic forestry offset program and potential for international sector-based offset crediting for tropical forestry programs are advancing.

MOU Air Quality Working Group

The primary accomplishments of the Air Quality Working Group in 2015 were: coordination of air monitoring training, the initiation of a contract for a major air quality study in Mexicali, donation of surplus air monitoring equipment to Baja California, continued support of the Baja California Network with laboratory analytical services and certification of calibration standards, and recurring trans-border air quality meetings. Three separate training classes on different aspects of air monitoring were conducted for staff from Baja California's Secretaria de Proteccion al Ambiente (SPA) in 2015. Also, a contract was developed and awarded to conduct a two-year PM_{2.5} study in the City of Mexicali that will run through April 2018. PM_{2.5} is to be measured continuously at two locations, and the chemical and elemental constituents of PM_{2.5} are to be measured at one location. Meteorological measurements are also included in the field campaign. In addition, donation of surplus air monitoring

equipment was made, though the equipment has not yet crossed the border due to customs and other importation-related delays. Lastly, representatives from Mexican and U.S. national and state agencies participated in periodic Air Quality Task Force meetings and one U.S.-Mexico Air Quality meeting during 2015.

MOU Clean Vehicles Working Group

One of the key goals under the Clean Vehicles Working Group Action Plan is the alignment of Mexico's light-duty vehicle criteria and greenhouse gas emission standards with those set in California and the U.S. under the LEV III/Tier III and GHG emissions programs. ARB and SEMARNAT made considerable progress in 2015 towards this goal. ARB staff presented overviews of the California and U.S. standards, including the fleet averaging and credit provisions, at a workshop held in Mexico City in April 2015. From there, with the help of the International Council on Clean Transportation (ICCT), a plan to fully harmonize Mexico and California/U.S. light duty standards by 2022 for greenhouse gases, and by 2025 for criteria pollutants was drafted. Foundational work like emissions benefit modelling is currently underway. Draft regulatory documents are expected to be ready in 2016.

Another area of focus has been the development of effective standards and test procedures for in-circulation vehicles. ARB staff provided in-depth training on California's Smog Check program and how it uses vehicle On-Board Diagnostic systems as an inspection tool. SEMARNAT's Dirección General de Fomento Ambiental, Urbano y Turístico (DGFAUT) created a draft OBD Inspection guide to shape Mexico's vehicle inspection programs in a similar manner. After receiving ARB and ICCT comments on the draft, DGFAUT is currently in the process of refining the document with the goal of completing and releasing the guide in 2016. SEMARNAT has made progress on updating the in-circulation standards for other mobile sources in 2015 as well.

In August 2015, ARB staff traveled to Mexico City to participate in a workshop on the subject of motor vehicle fuels. Properly formulated fuels directly reduce vehicle emissions and can be very important to ensure successful implementation of advanced vehicle emission controls. ARB staff presented an overview of U.S. fuel specifications and provided a summary of the lessons that have been learned in the U.S. through the development and implementation of its regulations for gasoline and other fuels. Importation of California/U.S. vehicles into Mexico through the border region remains a topic of keen interest in the discussions of clean vehicles for Mexico. In addition, advancing on new clean vehicle or engine standards for the heavy-duty sector in Mexico is also emerging as an important priority. These two themes will likely capture some attention in the on-going collaboration between California and Mexico for the remainder of 2016 and into 2017.

Other Areas of Collaboration

In addition to implementing the 2014 MOU, ARB continued to support a number of longstanding programs that provide air quality benefits on both sides of the border:

Heavy-Duty Diesel Compliance

Outreach events at the U.S.-Mexico border in Imperial and San Diego counties are important to the success of ARB's Truck and Bus Regulation as well as Drayage Regulations. This is an active goods movement corridor with many fleets providing a short-haul "transfer" service across the border. ARB has conducted special outreach in these areas to ensure that operators are aware of the rule requirements and compliance milestones. During these events, ARB provides detailed regulatory information and an opportunity for attendees to ask questions, collect fact sheets, and learn about funding assistance programs.

During 2015, ARB offered seven classroom training sessions in the southern border region of California. These classes addressed diesel filter technologies and how operators can comply with ARB's heavy-duty diesel vehicle regulations. Three of these training sessions were conducted in Spanish. In addition, outreach and compliance assistance was offered at four drop-in events and two enforcement events at California Highway Patrol (CHP) scales. These events featured individualized interactions with truckers from both sides of the border in both English and Spanish and included information on regulations, enforcement, and funding assistance for cleaner vehicles. Along with on-site trainings and outreach events, 15 webinars on diesel regulation compliance were conducted throughout the year, including one in Spanish.

Additionally, in a joint effort by ARB and the CHP, commercial diesel vehicles were stopped at the border by the CHP and inspected by ARB for potential excess emissions and tampering with emission control devices, and to ensure the vehicles had U.S. EPA certified engines. ARB also verified that vehicles were complying with ARB regulations, specifically the Truck and Bus Rule¹¹, the Drayage Truck Rule¹², the Transport Refrigeration Unit Rule¹³, the Emission Control Label Program¹⁴, and the Truck Idling Program¹⁵. Approximately 2,803 diesel vehicles were inspected at three California border crossings and surrounding areas in 2015, and 662 citations, totaling more than \$570,000, were issued.

Imperial County Air Quality Website

ARB coordinates the development of an air quality website that gives the public access to real-time local air quality data, air alerts, and health impacts information at www.imperialvalleyair.org. The website

¹¹ Adopted by ARB in December 2008, the Truck and Bus Rule significantly reduces particulate matter, or PM, and oxides of nitrogen emissions from existing diesel trucks and buses (GVWR > 14,000 lbs) operating in California. Newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

¹² Adopted by ARB in December 2007, the Drayage Truck Rule applies to all on-road class 7 and class 8 (GVWR > 26,000 lbs) diesel-fueled vehicles that transport cargo to and from California's ports and intermodal rail yards regardless of the state or country of origin or visit frequency. By January 1, 2014, all drayage trucks were required to operate with a 2007 or newer model year engine.

¹³ Adopted by ARB in February 2004, the Transport Refrigeration Unit (TRU) Rule uses a phased approach over about 12 years to reduce diesel PM emissions from in use TRUs and TRU generator sets that operate in California, irrespective of where they are registered.

¹⁴ Each vehicle operating in California - including those in transit from Mexico, Canada, or any other state - must have a label, called an Emission Control Label, showing that the engine met the required federal emission standards applicable for the model year of the engine. If an inspected vehicle is found not to meet those standards, it is prohibited from operating in California.

¹⁵ Applies to heavy-duty diesel engines with a gross vehicle weight rating (GVWR) greater than 10,000 lbs. that operate on California highways including operators of both in-state and out-of-state registered sleeper berth equipped trucks. 2008 and newer model year engines must be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling.

also provides air quality forecasts during the ozone season, and the public may register to receive a notification when air quality in Imperial County is expected to reach unhealthy levels. In 2014, ARB began working with the District to add PM10 and PM2.5 forecasting to the website. Incorporating PM10 and PM2.5 alerts and forecasts will ensure that residents will be better informed when the air quality in Imperial County is forecasted to reach unhealthy levels.

ARB continues to coordinate with the Imperial County Air Pollution Control District and the website manager to monitor the site's accessibility and air quality forecasts. The website also served as a prototype for the real-time reporting of Baja California air quality data on the SPA website: www.spabc.gob.mx/dependencia/gestion-ambiental. U.S. EPA funded the development and operation of both the Imperial County and SPA websites.

Waste Cleanup

Border Region Solid Waste Working Group

CalRecycle, along with other state, local, and nongovernmental agencies, participated in the Border Region Solid Waste Working Group (SWWG). The Working Group, established via the 2015 Budget Act Trailer Bill (SB 83), is overseen by the Border Relations Council (Council) and 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 California-Mexico border region that result in degraded valuable estuarine and riparian habitats, and threaten water quality and public health.

In 2015, the Working Group outlined a Draft Strategic Plan related to viable waste tire management programs on the California-Mexico border. The Working Group identified the following principles to guide the development of the Final Strategic Plan:

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 understanding of market failures that drive solid waste and waste tire issues at the border, and long-term solutions to these issues.

Components of the Draft Strategic Plan include updating CalRecycle's 2009 Tire Flow and 2012 Tire Management Plan studies; these updates will be executed through a contract with San Diego State University. The working group also developed recommendations for the Border Relations Council's consideration on expenditure of \$300,000 appropriated to the Council by the Legislature in 2015.

2015 Tijuana River CalRecycle Activities

CalRecycle used its Solid Waste Cleanup Program contractor to assist and support the Tijuana River Action Network (TRAN) in its implementation of the fall 2015 Tijuana River Action Month (TRAM) Volunteer Cleanup Activities. The contractor provided approximately \$20,000 in labor and materials to remove tires, brush and waste materials from the Tijuana River Valley during this annual program. CalRecycle Chief Deputy Director Ken DaRosa and Senior Waste Management Engineer Steve Santa Croce were presenters at the June 18, 2015 meeting between the U.S.-Mexico Border Environmental Program (Border 2020) Task Force and Tijuana River Valley Recovery Team. They spoke about updates to pertinent legislation, CalRecycle's continued involvement in the border region, and completed and potential future projects for the Solid Waste Cleanup Program.

Water

Tijuana River Valley Recovery Team

The Tijuana River Valley Recovery Team consists of over thirty federal, state, and local government agencies, non-governmental organizations, and other interested parties. These parties work collaboratively to address sediment, trash, flooding, and water quality issues in the watershed. The Recovery Team's Steering Committee meets monthly and is chaired by the San Diego Regional Water Quality Control Board's Executive Officer, David Gibson. In 2015, the Recovery Team completed an Action Plan, outlining the Recovery Team's aspirations over a five-year period to advance its goals for the Tijuana River Watershed. In March 2015, the San Diego Regional Water Quality Control Board endorsed the Action Plan as well as a funding request of \$1.55 million from the State Cleanup and Abatement Account to fund Action Plan projects. The following summarizes some of the progress made in the Tijuana River Valley through collaborative Recovery Team efforts or efforts made by specific Recovery Team member agencies and organizations:

International Boundary and Water Commission Minute 320 Approved - International Boundary and Water Commission (IBWC) minutes implement the 1944 U.S.-Mexico Water Treaty. Minute 320 was signed in October 2015 and is the first IBWC agreement focused on sediment, trash, and water quality problems in the Tijuana River Watershed. It establishes a framework of binational cooperation to address these issues.

Nelson Sloan Management and Operations Plan and Cost Analysis Complete - Reclamation of the Nelson Sloan Quarry is a project in the Tijuana River Valley Recovery Team's Action Plan, and one of its tasks is to develop a management and operations plan with an associated cost analysis. In 2015, the California Coastal Conservancy agreed to provide funds to the County of San Diego to prepare this plan. The plan will allow the Recovery Team member agencies to decide what the ideal scenario is for management and operations of the quarry, which could be reclaimed with sediment from various excavation projects in the Tijuana River Valley.

Significant accomplishments on the Nelson Sloan Quarry effort during 2015 included the continued collaborative effort to develop an Operation Plan and Cost Assessment for use of the Nelson Sloan Quarry as a sediment receiving site. The plan has been contracted between the County of San Diego and an engineering consultant firm (AECOM); it will allow us to better understand costs, operational elements, and potential liabilities associated with management of the Nelson Sloan Quarry. During this period the Tijuana River National Estuarine Research Reserve (TRNERR) Manager contributed to review of various drafts of this plan. It is anticipated that the plan will be complete in 2016.

CA State Parks contributed to an additional advancement for scoping the Nelson Sloan Quarry project through the development of a cost estimate for feasibility studies and Environmental Review for implementing the Nelson Sloan Quarry. This cost estimate was completed at the request of the Governor's Office for consideration in the CA State budget for FY15.

Demonstration Project to Recover and Recycle Waste Tires Approved - In 2015, the regional Solid Waste Working Group was developed in accordance with State Senate Bill No. 83 to address problems associated with waste tires, solid waste, and excessive sedimentation. The SWWG made recommendations to the Council on the use of \$300,000 appropriated to the legislature to address waste issues, and two projects were approved in early 2016, one of which will involve a binational project to address waste tires and sediment in the Tijuana River Valley.

Improving Our Understanding of Tijuana River Valley Hydrology - The Brown Property is also one of the three high priority restoration projects identified in San Diego Water Board Resolution No. R9-2015-0041; Resolution to Support Restoration of Aquatic Ecosystems in the San Diego Region. The Property, within the Tijuana River Valley, was the site of unauthorized fill activities in the past. Removal of the fill and restoration of the site to riparian forest floodplain would substantially improve the hydrology of the Tijuana River Valley. Brown Property restoration is one of the Action Plan projects and one of its tasks is to prepare a study to explore the hydrologic impacts due to various fill removal and restoration scenarios. Although funds have not been secured for a hydrology study specific to the Brown Property, the Army Corps of Engineers is conducting a hydrology and hydraulics study in the Tijuana River Valley. The Recovery Team has requested that the Brown Property be included as one of the projects areas, perhaps with supplemental funding, if available. The resolution includes a summary of how the San Diego Water Board provides support for the implementation of its high priority restoration projects.

Goat Canyon Sediment Basins - In 1997, the Coastal Conservancy, the Southwest Wetlands Interpretive Association (SWIA), and the California State Parks (CSP) responded to increased sedimentation and habitat loss issues by beginning the planning process for the Goat Canyon Enhancement Project. Between 2003 and 2005, two sediment basins were constructed in series within the upper floodplain of Goat Canyon to annually retain over 40,000 cubic yards (y³) of sediment. As a result, sedimentation to downstream marsh habitats has been reduced. However, due to the location of the basins downstream from the urbanized and degraded

watershed in Mexico, regular sediment removal and maintenance is required. The Sediment Basins require annual maintenance which currently cost the State roughly \$1.8million/year.

Over \$8 million has been spent directly on basin management by CSP through one-time grants, and other special interest groups since the construction of the Sediment Basins in 2005. In Fiscal Year 2013-14, CSP received funding from the State Parks and Recreation Fund (SPRF) of \$1,001,000 per year for three years through a Budget Change Proposal.

In Fiscal Year 2015, CSP submitted a follow-up Budget Change Proposal requesting ongoing funding of \$1,886,000 from the California Tire Recycling Management Fund beginning in Fiscal Year (FY) 2016-17 to maintain the Goat Canyon Sediment Basins (Sediment Basins) at Border Field State Park (BFSP) by excavating and processing sediment and trash, disposing trash and reject material, exporting sediment, and testing and monitoring contaminants and conditions, and maintenance of facilities. The proposal will be evaluated by the Governor and Legislature in 2016 budget negotiations.

In 2015, TRNERR Manager and TRNERR Stewardship Coordinator worked to close-out the 2014 Sediment Basin Maintenance Project. The FY14 maintenance action resulted in the haul-off of 35,000 y₃ of deposition material at a cost of nearly \$800,000, which was completed in 2015. TRNERR staff furthered Sediment Basin management in 2015 through the development of the 2015 maintenance contract and initiation of that project. The 2015 maintenance project was awarded at nearly \$900,000 for excavation and haul-off of 20,000 y₃ of deposition material, the project will be complete in 2016.

NOAA Marine Debris Community-Based Clean-Up Grant - TRNERR was awarded \$150,000 in spring 2014 from the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program Community-Based Clean-Up Grant Initiative. The majority of this grant was implemented in 2015 and focused on a range of clean-up and education and outreach efforts focused on resolving land-based sources of marine debris, such as the trash flows in the Tijuana River Valley. Efforts include haul-off of debris sorted from the sediment basin, upgrade of, and clean-out behind, the trash booms in the sediment basin, clean-up in natural habitat areas, outreach to schools in Tijuana, and support of Tijuana River Action Month (TRAM). The grant includes TRNERR staff support, and contracts and sub-awards to various partners including WILD Coast and San Diego Urban Corps.

Accomplishments under this grant in 2015 include:

- TRNERR, Surfrider, and WILD Coast partnered on a volunteer clean-up event on 3/7/15. CSP provided the dumpster. NOAA funded staff coordination time. The clean-up site was an arroyo in Goat Canyon, located between the international border and sediment basin complex at Border Field State Park. 134 community volunteers participated in the March 7 clean-up.

- State Parks staff repaired and upgraded the trash boom in the upper sediment basin. The middle 12 boom sections were upgraded to a “double boom” design with netting and heavy duty rails that provide greater stability. Old booms were replaced, screens straightened, and plastic fencing attached to provide for greater debris capture. The entire system was lengthened at the advice of the State Parks engineer, to handle larger amounts of trash. This is the only debris capture device currently employed in the Tijuana River Valley.
- TRNERR contracted with Urban Corps of San Diego completed a five day clean-up effort in November, removing 1,820 pounds of trash and hundreds of tires from riparian and mulefat scrub habitats in Goat Canyon. Urban Corps leveraged this effort with an additional 10 days picking up trash and tires in Goat Canyon, as part of a project funded by SDG&E.
- Bid was awarded to The Chigosi Company for the hauling of 400 tons of existing debris previously excavated from the sediment basin complex, located on the sediment processing pad. The contract will be executed in 2016.
- TRNERR staff managed registration, logistics, website updates, event promotion on TRNERR website and newsletter, attendance and training of long-term volunteers for Tijuana River Action Month (TRAM) events at the Reserve. Events included: 4Walls International event at Border Field State Park (9/12/15), Coastal Cleanup Day at Border Field SP (9/19/15), and National Public Lands Day at Tijuana Slough NWR (9/27/15).
- WILD Coast worked on Tijuana River Action Month outreach, planning, funding and education. Together with Tijuana River Action Network partners, the San Diego Regional Water Quality Control Board organized four monthly Tijuana River Action Network meetings (May-August) and presented at various community meetings to engage community members and organizations in TRAM 2015. (e.g. Presented at Imperial Beach Collaborative- a group of community stakeholders, churches, and organizations).
- Debris clean-up activities at various locations during Tijuana River Action Month were very successful and clean-up and volunteer contributions included: Los Laureles clean-up 10/3 (4.74 tons; 158 volunteers); Los Sauces clean-up 10/17 (3.76 tons; 183 volunteers); Tecate clean-up 10/10 (4.66 tons; 250 volunteers); Goat Canyon clean-up 10/17 (3.59 tons; 115 volunteers); Urban Corps of San Diego clean-up contract (0.91 tons).
- TRNERR Education Staff conducted a needs assessment with grade schools in Tijuana to better understand the state of educational content related environmental issues and including trash and marine debris. Following this assessment, staff will select partner schools with which to develop marine-debris-based curriculum.
- TRNERR Staff worked to submit a new grant application to NOAA Marine Debris Program Community-Based Clean-Up Grant Initiative for the 230126 award period. This request is for roughly \$160,000 and builds upon the grant received from this program in 2014.

FloodRISE - The Flood Resilient Infrastructure and Sustainable Environments (FloodRISE) is a UC Irvine-led research project funded by the National Science Foundation to promote resilience to coastal flooding in Southern California and Tijuana, Mexico recognizing that flood planning is best achieved when leaders are well-informed and impacted communities are

prepared. During the 2015 year, social science and engineering research took place on both sides of the U.S.-Mexico border, in the Tijuana River Valley (U.S.) and Los Laureles Canyon (MX) adjacent to one of the last intact coastal wetlands in Southern California, the Tijuana River Estuary. Community partners at the Tijuana River National Estuarine Research Reserve (TRNERR) undertook research that sought to better understand perceptions of risk and levels of preparedness and with that information, will seek to assist flood-prone communities by coupling detailed information about flood risk with communications strategies tailored to local conditions.

Monument Road - Within the Reserve, Monument Road extends roughly 1.5 miles, connecting the entrance to Border Field State Park with the Reserve's day-use facility atop Monument Mesa in the southwest corner of the United States. The facility offers stunning views of the Reserve, Mexico, downtown San Diego and the surrounding mountain ranges; it is also the location of Friendship Park—an area long-cherished by the local community as a gathering place for people in the U.S. and Mexico to come together and meet at the International Border Fence. Aside from the Department of Homeland Security access road (typically not available to the public) Monument Road is the only vehicle-based access to this location, however, due to sedimentation and flooding, the road has been heavily damaged and remains flooded for up to 7 months of the year—significantly impacting public access to the Reserve, and effective Reserve operations. A sustainable fix to Monument Road has long been a priority of the Reserve. The recent settlement of a long-term lawsuit between the United States, the Department of Homeland Security, and the State of California, related to the acquisition of State land for the purpose of border infrastructure, has resulted in \$5.9 million to CA State Parks; Parks staff, Legislators, and the public are focused on the possibility of this funding being used to address the issues with Monument Road.

During this period, allocation of the \$5.9 million received significant attention from interested public and elected officials. The TRNERR Manager worked closely with CA State Parks management in Sacramento to respond to public requests and interest from California Legislature to direct the \$5.9 million to Border Field State Park for repairs to Monument Road. Ultimately the Legislature included language in the CA State Budget for FY15 to direct nearly \$700,000 to Border Field State Park for preliminary studies toward repairs to the road. The Legislature also included intent language to direct the remainder of the funding toward subsequent phases of the project. The kick-off meeting for the Monument Road repair project was held at the Tijuana Estuary on November 17, 2015.

A sewage spill in summer 2015 in the Tijuana neighborhood of Playas de Tijuana resulted in the release of thousands of gallons of raw sewage which crossed the border through Los Sauces/ Yogurt Canyon and flooded the Park Entrance Road. The TRNERR Manager worked with International Boundary and Water Commission to respond to clean-up efforts. The IBWC, in partnership with the City of Tijuana Waste Water Utility (CESPT), pumped the contaminated water off the road and disposed of it in the International Wastewater Treatment Plan.

Border Gateway to Nature - The “Border Gateway to Nature” project involves re-design and improvements at the entrance of Border Field State Park, the primary public access point to the southern portion of the Reserve. The project seeks to not only beautify the entrance and increase visitor serving facilities and public access at this location, but also intends to educate the public about the primary pollution issues in the Tijuana River. The project has received significant funding from the San Diego Foundation, and design and implementation has involved a variety of partners, including 4Walls International, A Reason To Survive, AMEC, NOAA’s Marine Debris Program, Reliable Tire, Tijuana River Action Network, Veolia, and CA State Parks Southern Service Center. At the core of the project is the work of 4Walls International—a non-profit organization based in the San Diego—Tijuana Region that specializes in re-purposing waste into building materials. Through this project, solid waste such as plastic, foam, and tires, is pulled from the Tijuana River and used as the raw material for park infrastructure such as benches, parking lot bollards, informational kiosks, and signage. Much of the work is accomplished by volunteers through community clean-up and building efforts.

In 2015, the TRNERR Manager worked with TRNERR Stewardship and Education, in partnership with 4Walls International, to bring in an additional \$60,000 in grant funding from the San Diego Foundation for Change. This funding allowed for the design efforts of 4Walls International, AMEC, and CA State Parks for the largest element of this project to-date: a mini-amphitheater/gathering space to accommodate roughly 30 people. The element will utilize over 200 waste tires pulled from the Tijuana River and is anticipated to be complete in 2016.

CURRV - The Climate Understanding and Resilience in the River Valley project is led by the TRENRR Coastal Training Program and is funded with nearly \$300,000 through NOAA’s Climate Office; the project is focused on the development of a climate change vulnerability assessment and adaptation plan for the Tijuana River Valley and looks at flooding from the Tijuana River as well as sea level rise vulnerabilities. During this period the CURRV project began developing the adaptation elements of the plan. The vulnerability assessment and adaptation plan is expected to be complete in 2016.

TIME - In 2015, the Reserve completed the “TIME” Project—Temporal Investigations of Marine Ecosystems. Funded through NOAA’s NERRS Science Collaborative program at nearly \$500,000, the study brings together historic estuary data, current monitoring information, and assessments of future climate change impacts to complete an analysis that will guide Tijuana Estuary management, considering trajectories of change from the past into the future, and considering how management actions (e.g., salt marsh restoration) might achieve desired outcomes.

The New River

In 2015, the Colorado River Basin Regional Water Board continued to work cooperatively with U.S. EPA, the International Boundary and Water Commission, and Mexico to address New River pollution originating from Mexico, and emerging sewage infrastructure problems in Mexicali, Baja California,

Mexico. The Regional Water Board participated in bi-monthly Binational Technical Committee meetings and binational observations of the New River in Mexicali to assist Mexico with the sewage infrastructure problems. The Regional Water Board continued to implement its monthly water quality monitoring program for the New River at the International Border with Mexico to track the river's cleanup progress, track compliance with California water quality standards, and track emerging pollutants of concern. The Board also updated its webpage for the New River/Mexicali Sanitation Program.

In March 2015, the Regional Water Board Executive Officer and Assistant Executive Officer provided testimony before the State Assembly Committee on Environmental Safety and Toxic Materials regarding pollution in the river and implementation of the California-Mexico Border Relations Council's New River Improvement Project Strategic Plan. The Regional Water Board continues to implement the Plan's recommended regulatory actions under its jurisdiction to address impairments of the New River in the Imperial Valley, including the adoption, in January 2015, of a Conditional Waiver of Waste Discharge Requirements to address water quality impacts from agriculture in the Imperial Valley. The Waiver brings approximately 450,000 acres of prime agricultural farmland under regulation of the Regional Water Board, and requires farmers in the Imperial Valley to submit and implement Water Quality Improvement Plans for their farm fields, and to implement management practices to address pollutants of concern, including pesticides and nutrients. The Imperial Irrigation District (IID) and the Imperial County Farm Bureau formed a coalition to assist farmers to be in compliance with the Conditional Waiver. The Conditional Waiver also requires the IID to implement MPs to address the water quality impacts that its O&M activities of the Imperial Valley drains have on water quality. Excess agricultural irrigation flows from the Imperial Valley and Imperial Valley drains are the main source of flows into the Salton Sea, California's largest inland lake. These flows could increase pollution of the Salton Sea and harm aquatic species. With the Conditional Waiver, 98 percent of all irrigated farmland in the Region is now under regulation. More information on the Hearing and the waiver can be found at the following links:

- http://aesm.assembly.ca.gov/sites/aesm.assembly.ca.gov/files/Jose_Angel_CESTM_3202015_Testimony.pdf
- www.waterboards.ca.gov/coloradoriver/water_issues/programs/irrigated_lands/index.shtml

At the request of the Regional Water Board, the U.S. members of the Binational Technical Committee (U.S. EPA, the U.S. component of the IBWC, Regional Water Board, Imperial Irrigation District, and Imperial County) held a policy meeting in Calexico, located in Imperial County, in May 2015 to establish priorities to address the emerging sewage infrastructure problems in Mexicali.

In addition, in November 2015, the Regional Water Board adopted a \$460,225 fine against the Date Gardens Mobile Home Park Wastewater Treatment Plant, located in the City of El Centro, for violating its permit for discharges to the New River. The owner of the park settled the fine. Under the terms of the settlement, the owner paid \$201,000 in mandatory minimum penalties, \$244,850 in discretionary

penalties, and \$14,375 in staff costs. Of the discretionary penalty, the Regional Water Board suspended \$122,425 contingent on the owner of the park spending that amount on an Enhanced Compliance Action to increase the reliability of the treatment plant. The remaining liability was paid to the state.

Salton Sea Management Program

The Regional Water Board is assisting the California Natural Resources Agency implement the Governor's directive to develop and implement 9,000-12,000 acres of shallow habitat to address the Salton Sea problems.

Energy

In 2015, the Energy Commission's engagement with Mexico was widely expanded in line with administrative priorities. The following list summarizes the 2015 activities.

Staff Exchange and Training—Mexican Federal Government

From April 20 to 25, the Energy Commission hosted government officials from the Mexican Energy Commission (CRE) and the Mexican Independent System Operator (CENACE), the agencies responsible for setting up the framework to implement the clean energy certificates in Mexico's new energy market. This exchange was conducted in partnership with the National Association of Regulatory Utility Commissioners (NARUC), in collaboration with the California Public Utilities Commission (CPUC), United States Agency for International Development (USAID), California ISO (CAISO), the Western Renewable Energy Generation Information System (WREGIS), and APX. The Mexican government officials traveled to California to examine some experiences in the state related to the establishment, implementation, and management of a clean energy certificates scheme within an electric wholesale market, including the designing issues, applicable regulation, management system, and a monitoring, reporting and verification system for these certificates. The Mexican officials spent time at the Energy Commission shadowing staff and learning about renewable energy certification, verification, and tracking; compliance with renewable portfolio standard (RPS) requirements; energy efficiency; demand response; and energy storage. In addition, the officials attended presentations by Commissioners, Commission staff, WREGIS staff, and APX representatives. The Energy Commission also organized a trip to CAISO headquarters to train the officials on grid integration and operation by an independent systems operator. Finally, the Mexican officials spent time at the CPUC learning about investor-owned utilities and various CPUC regulatory programs.

Workforce Development

In May 2015, the Energy Commission began working with USAID and the California Community Colleges to advise the development of an energy curriculum to train young people in Mexico to fill new jobs created as a result of the energy reforms. Given the new energy market, it is expected that Mexico will experience higher demand for labor in the energy sector. More power plant operators, technicians, and other energy workers will be needed to implement the reforms and develop the market.

In November 2015, the relevant national authorities in Mexico approved the first of three modules of the proposed energy curriculum, which, as of February 2016, is currently being taught in the classroom. The second and third modules of the curriculum are expected to be completed in March 2016. Once completed, the curriculum will be available in both English and Spanish.

The Energy Commission will continue to support the development of this curriculum to train thousands of future workers that will implement the energy reform and help build Mexico's new market.

Workshop to Promote Joint Research and Development

In June, the Energy Commission, in collaboration with representatives from the Monterrey Institute of Technology and Higher Education (ITESM) from Monterrey, Mexico; the Berkeley Energy and Climate Institute (BECI); the Lawrence Berkeley National Laboratory (LBNL); and the UC-Mexico Initiative Energy Working Group, convened for a two-day collaborative workshop focused on decarbonization, resiliency, renewable energies, and transitional pathways to lower-carbon futures. This workshop has helped foster joint research and development projects focused on technological innovation for clean energy among universities, the academic sector, and research institutions.

Since the collaborative workshop, three important steps have been taken to strengthen joint research and development:

1. BECI submitted a \$10 million joint proposal to SENER to develop a joint sustainability fund to support The Bi-National Laboratory on Smart Sustainable Energy Management and Technology Training. SENER accepted BECI's proposal in December 2015, and has since committed funding for this project.
2. BECI and the ITESM signed an agreement to fund the seed project Low-Cost Energy Management Systems for Residential and Small Commercial Buildings. This project would take a demand-side approach that includes the latest hardware and software advances, but most critically, engages the occupant of a building. Further, the project will include investigation and evaluation of green initiatives and control technology applications to improve the energy efficiency of residential and small commercial buildings.
3. BECI hired Dr. Sergio Castellanos, from the Massachusetts Institute of Technology (MIT), as the ITESM-BECI Energy Fellow for January 2016 – January 2017 to work on joint research and development projects.

In 2016, the Energy Commission will prepare a follow-up workshop in collaboration with ITESM and BECI to continue to promote additional joint research and development opportunities.

Staff Exchange and Training—State of Jalisco

On July 13 and 14, the Energy Commission hosted representatives from the Office of the Governor of the State of Jalisco to discuss Jalisco's plan to create a new energy agency to help shift the state toward

clean transportation and energy efficiency and to work toward meeting Jalisco's electricity needs with renewable energy resources, given that the state only produces about 4 percent of the electricity used within its borders. The Energy Commission spent many hours preparing presentations and discussing these important issues with officials. In addition, the Energy Commission arranged meetings for the representatives at the Governor's Office.

San Diego Technical Workshop

In August, the Energy Commission organized a technical workshop in San Diego, in collaboration with SENER, the University of California, San Diego (UCSD), the UC-Mexico Initiative, and the Institute of the Americas. The workshop focused on exchanging information on clean technologies, strategies, and policies being explored and implemented in California and Mexico to modernize the energy sector. The Energy Commission and its Mexican counterparts presented research and development on advanced renewable energy and grid technologies (geothermal, solar and wind development); integration of renewables onto the grid; smart grids and microgrids; energy storage; forecasting variable resources; and water-energy nexus issues. In addition, policy discussions were held, and future collaborations were planned. Part of this event included tours of the groundbreaking microgrids at Borrego Springs and UCSD.

This event achieved specific Energy MOU goals by developing and expanding cooperation between California and Mexico in the areas of renewable energy, grid technologies, energy storage, and forecasting variable resources. The Energy Commission is establishing itself as a bridge to both countries by bringing together key scientists, engineers, and financial experts, members of the private sector, utilities, and relevant government agencies at the federal, state, and local levels.

Clean Tech Trade Mission

The Energy Commission conducted the Clean Tech Trade Mission to Mexico City and Monterrey, Mexico, in September. This trade mission was conducted in partnership with the Governor's Office of Business and Economic Development (GO-Biz), Stanford University's Bill Lane Center for the American West, Stanford's Precourt Institute for Energy, and in coordination with the United States Commercial Service, the U.S. Embassy in Mexico City, Mexico's Foreign Ministry, Mexico's Energy Ministry, and Promexico, Mexico's federal business development agency.

The 2015 trade mission built on relationships developed by Governor Brown and Chair Weisenmiller during the 2014 trade mission to Mexico and further implemented the Energy MOU to accelerate clean energy investment and development in Mexico and California and to strengthen cooperation in addressing global climate change. The trade mission included 24 high-level delegates from various sectors: business, government, academy, and non-governmental organizations (NGOs). These delegates explored investment opportunities in Mexico's emerging energy markets and met key regulators, policy makers, nongovernmental organizations, academics, and businesses shaping these markets.

Moreover, the 2015 trade mission promoted collaboration, education, and dialogue on:

- The status of Mexico’s comprehensive energy reforms by key Mexican agencies.
- The development of a regulatory framework for Mexico’s evolving clean energy sector.
- Investment opportunities in clean technology and infrastructure for California businesses.
- Clean energy research and development opportunities in Mexico.
- Strategies to address environmental concerns in each country.

Some of the most significant outcomes of the trip included:

- Preliminary conversations with Mexico City about signing Governor Brown’s Under 2 MOU, an agreement to reduce greenhouse gas emissions at the subnational level.
- Development of an agreement among Stanford University, Tecnológico de Monterrey, and SunPower to build a solar research center at the PIIT Research Park in Monterrey, Mexico.
- Establishing key relationships with states in Mexico.
- Establishing key relationships with top academic institutions in Mexico.

Collaboration with Academic Institutions

Emilio Camacho, Advisor to Chair Weisenmiller on California-Mexico Issues, was invited to become a member of the UC-Mexico Initiative energy working group, which includes prestigious universities in Mexico and various UC campuses. UC President Janet Napolitano launched this initiative in January 2014, with UC Riverside as the lead campus. The objective of the initiative is to create a sustained, strategic, and equal partnership between UC campuses and Mexican institutions to identify common areas of interest, address critical issues and educate the next generation of leaders. This year, the UC-Mexico energy working group sponsored the technical workshop in San Diego.

Collaboration with Individual Mexican States

In 2015, Governor Brown signed a first-of-its-kind agreement with international leaders from other states and provinces to limit the increase in global average temperature to below 2 degrees Celsius – the warming threshold at which scientists say there will likely be catastrophic climate disruptions. The states of Jalisco and Baja California, Mexico, were among the 12 founding signatories to the “Under 2 MOU.”

The Energy Commission has continued to build key relationships with various Mexican states: Jalisco, Monterrey, Yucatan, Baja California Norte, Estado de Mexico, and Mexico City. The Commission will work with these states in 2016 to promote renewable energy, clean transportation, energy efficiency, and grid operation, and to address climate change.

The Energy Commission has scheduled follow-up conversations and is drafting action plans with each state. The plans will include exchanges to send Energy Commission staff to Mexico and opportunities to host Mexican energy officials at the Commission. The Energy Commission also plans to coordinate the visits with other state agencies (CPUC, California ISO and the California Air Resources Board) and research institutions such as Stanford University, campuses of the University of California, and research labs such as LBNL and Lawrence Livermore Lab.

Under 2 MOU

The Under 2 MOU is an extremely important effort by Governor Brown to address global climate change. To date, 123 jurisdictions have signed or endorsed the Under 2 MOU, collectively representing more than \$19.9 trillion in combined GDP and 720 million people. If the signatories represented a single country, it would be the largest economy in the world by Gross Domestic Product (GDP), surpassing the United States.

In 2015, the Energy Commission devoted many hours to educate subnational governments about California's policies, the Under 2 MOU agreement, and the specific commitment involved. The agreement brings together subnational governments willing to make several key commitments, including either reducing GHG emissions equivalent to 80 to 95 percent below 1990 levels, or to 2 metric tons or less per capita by 2050.

Signatories also commit to establishing midterm targets needed to support long-term reduction goals; sharing technology, scientific research, and best practices to promote energy efficiency and renewable energy; coordinating on issues from transportation to short-lived climate pollutants; working toward consistent monitoring, reporting, and verification of their emissions; and assessing the projected impacts of climate change on communities. All signatories submit an appendix to the MOU that outlines their unique set of actions and plans to reach their reduction goals.

Given Energy MOU efforts in 2015, advisor Camacho from the Energy Commission developed key relationships with Mexican governors that resulted in the following states signing the Under 2 MOU with California prior to the COP 21 in Paris: Hidalgo, Estado de Mexico, Yucatán, and Mexico City.

Delegations

Part of the Energy Commission's international work includes hosting international delegations. In 2015, the Energy Commission hosted 49 delegations; five of these came from Mexico. The interest of the international delegations has spanned the Commission's subject areas, including biomass, energy efficiency programs, transportation, research and development, and renewable energy. Several recent delegations have been interested in learning more about renewable energy, California's Renewables Portfolio Standard, and how California has managed to integrate increasing amounts of renewable energy into the grid while maintaining safe and reliable service.

The Energy Commission has partnered with the CPUC and the California ISO to share knowledge with other jurisdictions interested in following California's lead in renewable integration and greenhouse gas emissions reduction. This type of international knowledge sharing and guidance is invaluable in expanding the value and effect of California's climate change and clean energy policies, which help improve the world.

Educational/Policy Panels

Given the Energy Commission's extensive work in energy and collaborative efforts with the Mexican federal government and various Mexican states, Advisor Camacho in 2015 participated in various panel

discussions and conferences to educate individuals on various energy issues and discuss California's work and involvement with Mexico's energy reforms and the opportunities for further binational collaboration.

Agriculture

The California Department of Food and Agriculture (CDFA) has maintained close ties with government of Baja and is working to renew cooperation agreements between California and Baja on agricultural issues. CDFA also participates in the Tri-National Agricultural Accord, which brings together state/national agricultural representatives to discuss issues of shared concern. The 2015 Tri-National Agricultural Accord was held in Guadalajara, Jalisco.

Animal Health and Food Safety

CDFA's California- Mexico activities have continued to focus on coordination and collaboration with border state government counterparts in regards to animal health issues.

CDFA's Animal Health and Food Safety Services Division participated with the states of Sinaloa, Chihuahua, and Coahuila in their animal health status reviews for bovine tuberculosis an important process which helps to facilitate approximately 48,000 Mexican feeder cattle (FY2015) imports into California. Further representatives from the department also participated in bi-lateral working groups focusing on animal health issues (Binational Bovine Tuberculosis, Brucellosis, and Cattle Fever Ticks). CDFA continues cooperation with Mexican counterparts on shared animal health issues and has recently assigned a border coordinator as a representative of the State Veterinarian on animal health issues.



Pest Prevention and Plant Health

CDFA's Plant Health and Pest Prevention Services Division continues to work with Border State counterparts in addressing plant pests of mutual concern. Recent activities have focused on detection and monitoring for Asian Citrus Psyllid (ACP) as well as addressing the spread of Pink Mealybug. The Division also continues to participate in the California-Baja California Integration Group, which includes representatives from the USDA Animal and Plant Health Inspection Service, U.S. Customs and Border Protection, Imperial and San Diego County Agricultural Commissioner's Offices, and representatives from Mexico's local, state, and national governments.

Pesticides

The Department of Pesticide Regulation (DPR) continues to be involved in conferences, roundtables, summits, radio communications workshops and other events around the border region. Some of the highlights include participation in community fairs, binational health weeks and binational conferences throughout multiple cities in California. DPR staff also provided support for trainings on pesticide illness and safety. These statewide trainings provided underserved populations and their communities with the knowledge and tools necessary to implement pesticide safety measures. Seven training workshops were conducted between March 2015 and August 2015, with a combined total of 147 participants. It is estimated that these participants would be able to train an additional 14,800 people in the span of one year.

Imperial County Agricultural Pesticide Disposal Project (PDP)

Imperial County in California is a highly productive agricultural area. Imperial County covers approximately 2,942,080 acres and of that, approximately 488,374 acres is in agricultural production. The county shares a border with the State of Arizona on the East and the Country of Mexico on the South. Some of the crops grown in Imperial County include alfalfa, Bermuda grass and Sudan grass hay, corn, wheat, melons, leafy vegetables, citrus, dates, broccoli, cauliflower, carrots and many other vegetables. When farms are sold or there is a change in ownership, there is anecdotal evidence that unwanted or outdated pesticides may remain in barns, sheds or other storage areas and are not disposed of. In addition, local adverse weather conditions (extreme heat) can cause breakdown of the pesticide storage containers and product when stored for extended periods, rendering them unusable or unsafe for continued storage. By not disposing of the pesticides over time, there is a chance that the containers may leak, or pose harm to human health, children, wildlife, the environment or domestic water supply. The Imperial County PDP began work in 2015 to assist local farmers and growers with proper disposal of unwanted or outdated pesticides.

Transportation

Innovative solutions that expand opportunities to create a safe, integrated and efficient transportation system connecting the California-Mexico border region are vital to achieving the region's economic, public health, and air quality objectives. New projects, like the flagship Otay Mesa East Land Port of Entry, which will reduce border crossing wait times and facilitate more efficient movement of traffic between California and Mexico, bring the State closer to meeting binational trade, economic and environmental objectives.



Border Mobility

In 2015, the California Department of Transportation (Caltrans) worked on two important studies looking at ways to make border mobility more integrated and more sustainable:

California's Integrated Border Approach Strategy Study - In 2015, Caltrans entered into an agreement with the University of California, Berkeley to continue Phase 2 of this strategy study, with a completion goal of August 2016. This study examines regional mobility impacts resulting from the flow of people and goods across California's border communities. Results will be used to enhance coordination between agencies and improve project delivery under a single decision-making body. Caltrans completed Phase 1 of this study in 2014.

California-Baja California Binational Region - A Fresh Look at Impacts of Border Delays - A \$420,000 State Planning Research grant awarded to Caltrans will refine models developed to assess the economic impacts of delays at California's six land-based ports of entry. This new research will also look at practices to automate border wait time data collection at the land-based ports of entry and recommend options for ongoing data collection. Additionally, the project will propose strategies to reduce greenhouse gas emissions at the border region and estimate air quality impacts of passenger and commercial vehicles resulting from border delays at the six California international points of entry. This work builds upon previous San Diego Association of Governments, Imperial County Transportation Commission, and the California Department of Transportation (Caltrans) studies. The estimated completion date for this study is fall 2017.

Together these efforts explore innovative approaches for planning and funding border infrastructure projects and identify opportunities for Caltrans and its partners to improve coordination along California's international border.

Border Infrastructure

Tens of thousands of personal and commercial vehicles travel between San Diego, California and Tijuana, Mexico every day. These travelers are plagued by unpredictable border-crossing traffic congestion and delays. Wait times routinely exceed two hours at existing ports of entry. These delays are not only frustrating for drivers, but they also have a significant negative impact on the economy.

A recent study by the San Diego Association of Governments found that more than eight million trips in the region are lost per year as drivers chose to simply avoid battling the congestion. This equates to a loss of nearly \$1.3 billion in potential revenues.

In addition to economic loss, border congestion also harms air quality.

Otay Mesa East Project

In an effort to improve mobility and reduce wait times at the border, Caltrans is partnering with local, state, and federal stakeholders in the U.S. and Mexico to create the state's first tolled vehicle border crossing. The Otay Mesa East Land Port of Entry (Otay Mesa East) is sited on the border of San Diego and Tijuana and is expected to be open to traffic by the end of 2018. The port will connect to California's highway system via a new roadway, State Route 11.

Caltrans, in coordination with the San Diego Association of Governments, is developing and constructing the new tolled port of entry and State Route 11. The project will be built in three segments:

- Segment 1: This segment constructs a four-lane freeway, State Route 11, between State Route 905 and Enrico Fermi Drive. Construction began in December 2013 and was completed in late 2015. In October 2015, construction began on three connectors linking State Route 905 and State Route 11 to northbound State Route 125. Completion is expected in spring 2016.
- Segment 2: The second phase of State Route 11, this segment completes the roadway by extending it to the border. Segment 2 also constructs a new Commercial Vehicle Enforcement Facility and a tolled four-lane highway from State Route 11 at Enrico Fermi Drive to the new Otay Mesa East port facility.
- Segment 3: This final segment is construction of the new Otay Mesa East port facility.

Financing to purchase the majority of the right-of-way needed for segments 2 and 3 has been secured. Construction of the new Otay Mesa East port of entry facility (segment 3) is contingent on securing additional funds.

A federal interagency committee, including U.S. Customs and Border Protection and U.S. General Services Administration, is meeting regularly to strategize project development and policy issues with the San Diego Association of Governments and Caltrans to develop a scope of work for the project.

Subject-specific policy and technical teams are meeting regularly with Mexican counterpart agencies at the federal, state, and local levels to coordinate the design of an Intelligent Transportation System.

Intelligent Transportation Systems combine traditional transportation infrastructure, communications and computer technologies to create a system that emphasize operations in an efficient, safe and integrated manner. By working with Mexico to develop these systems, the state and Mexico can better manage congestion at the border.

One important piece of the overall Otay Mesa East Point of Entry Intelligent Transportation System strategy is a pilot project to measure southbound cross-border wait times at the San Ysidro Port of Entry. The goal of this project is to provide travelers with better information to help them make more informed decisions on when and how to travel across the border. At the same time, more accurate wait time predictions help local, state and federal agencies in border operations and traffic management. This pilot project will be fully implemented in May 2016 and is expected to last about two years.

Multiagency coordination is also important to the success of the Otay Mesa East project. In the summer of 2014, the California State Transportation Agency agreed through a Memorandum of Understanding with the Mexican Secretariat of Communications and Transportation to form a binational committee tasked with expediting the Otay Mesa East project. The binational committee met in April 2015 and continues to monitor major project milestones and coordinate project development in the coming years.

The United States and Mexico recently issued a joint statement through the High-Level Economic Dialogue forum stating that both countries would continue binational cooperation on the design of Otay Mesa East, calling the project “one of the top infrastructure priorities for both countries.” Otay Mesa East, the statement said, aims to be the port of entry of the future and a new paradigm for binational planning.¹⁶

Other Significant Border Infrastructure Projects

Another important California-Mexico border project began operation in 2015. This privately funded and operated facility, the Cross Border Xpress, serves as a binational terminal connecting Abelardo L. Rodriguez International Airport, located in Tijuana, Mexico, to California, via a two way pedestrian bridge with its northern terminus in San Diego. This bridge can only be accessed by ticketed passengers and provides a new option to easily cross over the U.S.-Mexico border and avoid the busy San Ysidro and Otay Mesa ports of entry.

Caltrans, in partnership with the city of Calexico, the State Water Resources Control Board, and U.S. Federal Highway Administration, is also preparing to submit an Active Transportation Program grant application to develop bicycle paths adjacent to the New River in Calexico, California.

¹⁶ www.whitehouse.gov/the-press-office/2016/02/25/joint-statement-2016-us-mexico-high-level-economic-dialogue

The Federal Highway Administration authorized \$1.6million to develop the contract plans in the preliminary phase. The National Environmental Policy Act review process is expected to be cleared in March 2016. The project will then move to final design, with a completion goal set for federal fiscal year 2016/17.

Enforcement and Border Crime

The purpose of the California Highway Patrol is to assure the safe, convenient and efficient transportation of people and goods along our state's highway system. For the CHP Border Division – which operates in San Diego, Imperial, Orange and Riverside counties –that mission comes with a unique set of assignments.

The Border Division coordinates and participates in investigative task forces and community outreach programs like Operation Stonegarden, a U.S. Department of Homeland Security border enforcement grant program; the San Diego Regional Auto Theft Task Force; and the CHP El Protector Program. These programs enhance the CHPs ability to fight crime along the border and keep California's residents safe.

Because the CHP has the primary responsibility for the recovery of stolen vehicles, but does not have jurisdiction in Mexico, officers have developed close ties with Mexican authorities through the Regional Auto Theft Task Force and the CHP Mexican Liaison Unit. This team of local law enforcement agencies works to intercept stolen vehicles headed across the border.

In 2015, 817 vehicles, valued at approximately \$2 million, were recovered, 111 arrests were made, and 93 suspects were prosecuted in Mexico. These relationships have also led to cooperation in other enforcement areas such as murders, bank robberies, kidnappings, insurance fraud, and locating fugitives.

The Border Division also operates two commercial vehicle inspection facilities at the Otay Mesa and Calexico East ports of entry. In 2015, the CHP inspected 52,582 vehicles, issuing just over 13,000 citations at the two inspection facilities. On average, 3,100 vehicles pass through the Otay Mesa inspection facility per day, and 1,100 vehicles pass through the Calexico East facility.

The Border Division's Canine Unit is among one of its busiest units. In 2015, the Canine Unit made 112 seizures, amounting to 223 pounds of marijuana, 244 pounds of methamphetamine, 135 pounds of cocaine, and 45 pounds of heroin. The Canine Unit also assisted in seizing more than \$9 million in U.S. currency and making 172 arrests.

State Threat Assessment Center

The State Threat Assessment Center (STAC) is California's primary fusion center and is operated by Cal OES, in collaboration with the California Highway Patrol and the California Department of

Justice (DOJ). The STAC supports Cal OES by monitoring, reporting, and sharing information with local, state, federal and international law enforcement, public safety, and non-governmental partners. Efforts include a wide range of border and transnational crime issues within California and along the California-Mexico border.

The CHP Border Division is also participating in efforts to end human trafficking and slavery along the border, with one full-time CHP investigator assigned to the Orange County Human Trafficking Task Force. In 2015, the task force processed 35 cases, with 24 arrests made and 27 victims – including 6 juveniles – freed from the human trafficking industry.

The State Threat Assessment System (STAS), which is comprised of five regional fusion centers and the STAC, coordinates with local and state partners of the California Regional Anti-Human Trafficking Task Force (CRHTTF) to train, identify, investigate, and combat the threat of human trafficking statewide. This program supports and funds nine local task forces, four of which are based in Southern California, to identify human trafficking victims and prosecute traffickers. In 2015, a Southern California task force and their regional Mexican Consulate partnered with leaders in the Hispanic Community to expand anti-human trafficking efforts by providing training and outreach to the community.

Statewide, CRHTTF was responsible for over 160 investigations initiated throughout the state, resulting in 165 arrests of human trafficking perpetrators. The program also trained over 8,100 individuals on human trafficking awareness.

In addition to producing a broad spectrum of Intelligence Products, the STAC partners with multiple U.S. Customs and Border Protection (CBP) offices throughout California, and collaborates with the El Paso Intelligence Center (EPIC). The STAC also coordinates information sharing and analytic research with other southwest border fusion centers such as the Texas Fusion Center (Austin, TX) and the Arizona Counter Terrorism Intelligence Center (ACTIC), and provides regular law enforcement and executive briefs on these issues.

Operation Stonegarden Program

In 2015, the federal government awarded the Border Division just over \$1.1 million to San Diego and Imperial counties as part of Operation Stonegarden (OPSG) to enhance law enforcement operations along the California-Mexico border. Just under \$100,000 of that award went to the CHP Coastal Division to monitor “Panga” fishing boats used for human and narcotics trafficking along California’s coast. In 2015, 6,260 citations were issued and 51 arrests were made.

In addition, the California Governor’s Office of Emergency Services (Cal OES) also administered approximately \$9.3 million in grant funds to the Imperial County Sheriff’s Office and the San Diego County Sheriff’s Department for OPSG to assist local, state and federal governments in conducting

border-centric, intelligence driven operations with the goal of reducing or eliminating any threats, risks, and vulnerabilities along the California-Mexico border region.

The OPSG Program provides additional law enforcement and border security personnel to enhance interagency cooperation and coordination between local, state and federal law enforcement agencies. San Diego County, in partnership with the Regional Coordinating Mechanism (ReCoM) of California, coordinates with Mexico's federal agencies such as the Secretaria de Marina (SEMAR) to jointly secure U.S. and Mexico borders and territories. In addition, the program provides enhanced equipment and technology such as fully-equipped patrol vehicles, wireless hand-held microphones, surveillance cameras, and night vision goggles to improve intelligence gathering, and integrated and collaborative operational planning.

Driver Education and Assembly Bill 60

The CHP Border Division continues efforts to provide community engagement and education through efforts like the El Protector Program.

According to CHP statistics, Hispanic children make up nearly half of all fatal accidents involving children under the age of four, as the result of improper child seat use. Through more targeted, effective education, the CHP hopes to increase driver safety education in these communities.

In 2015, the bilingual El Protector CHP officer facilitated 40, two-day educational events on the Assembly Bill (AB) 60 Driver License regulation change. The new law allows undocumented individuals living in California, regardless of immigration status, to apply for and receive a driver's license. Applicants must meet all other qualifications for licensure and provide satisfactory proof of identity and California residency. The El Protector events were conducted in Spanish and attended by over 1,600 individuals. Topics covered law enforcement procedures, traffic regulations, as well as safety and familiarization with the California Driver's License examination workbook.

The Mexican Foreign Ministry and the California Department of Motor Vehicles, in 2014, signed a memorandum of understanding to collaborate on the implementation of AB 60 and ensure that Mexican identification documents were accepted as sufficient identification for Mexican applicants under the program.

In January 2015, DMV successfully implemented the AB 60 program. After the program's first year, approximately 830,000 individuals applied for an AB 60 driver's license, and approximately 605,000 successfully completed the full licensing process and were issued licenses.

Hazardous Waste

The Department of Toxic Substances Control (DTSC) is responsible for tracking imported and exported hazardous wastes through its Port of Entry (POE) program. During 2015, DTSC received at least 18 import notifications, and 24 export notifications for the POE program. Data from the notifications and reports are continuously being entered into the POE database.

Emphasis was placed on tracking imported and exported wastes. Import notices were reviewed and the receiving California facilities were checked to assure that they were permitted to accept the wastes in question. Information identifying the types and volumes of wastes imported and exported, and the companies that import and export hazardous wastes, were retained.

The DTSC San Diego Border Office also conducts coordinated inspections with the U.S. Customs and Border Protection (CBP) at the Otay Mesa and Calexico East Ports of Entry. All northbound trucks importing hazardous waste and/or hazardous materials are inspected, and the office notifies Mexico's Federal Enforcement Agency (PROFEPA) of any rejected hazardous waste shipments. During this reporting time frame, there were more than 2,538 trucks inspected, with 6 Summary of Violations issued to Importers of Record and/or Transporters.

In 2015, DTSC also conducted southbound truck stop inspections at the CBP Calexico East POE. A limited number of these coordinated inspections were conducted as they required the assistance from CBP officers. During the month of September, 2015, approximately 115 trucks transporting hazardous materials and other regulated materials were inspected. No hazardous waste violations were observed during these special southbound inspections.

DTSC is an active participant in the Border 2020 bi-national meetings and the local San Diego County Hazardous Waste Task Force meetings. DTSC staff has direct communication with Mexico's Federal Enforcement Agency (PROFEPA) and SEMARNAT officials to request information on facilities operating south of the border that are importing hazardous waste and electronic waste from California. This open communication is essential for investigations and enforcement activities. DTSC plans, organizes, and implements training on the import and export requirements to the maquiladoras, Mexican government officials, industry, and nongovernmental agencies. Two training workshops have been conducted as a joint effort with the two groups. DTSC also provides support to the U.S. Customs and Border Protection agency on special projects related to imports/exports of hazardous waste/hazardous material.

In 2015, DTSC participated in several binational meetings in the San Diego border region including the U.S.-Mexico Border 2020 Waste Policy Forum, the Border Coordinators Exchange of Information Meeting, the California Border Environmental Task Force Meeting, and the Border 2020 Baja California/California Waste and Enforcement Task Force Meeting. In addition, DTSC also participated

in several special operations with the U.S. Customs and Border Protection (CBP), some of which lead to formal enforcement actions. Some of these enforcement actions included:

- A penalty of \$160,000 for the shipment of hazardous waste to an unauthorized facility
- A penalty of \$4,000 for accepting and transporting a leaking container of hazardous waste
- A penalty of \$2,000 for failing to properly package hazardous waste during transport

Health and Safety

Binational Border Health

The mission of the California Department of Public Health, Office of Binational Border Health (OBBH) is to protect and improve the health of California communities by facilitating communication, coordination, and collaboration among California and Mexico health officials and health professionals, while working closely with communities on both sides of the border.

A voluntary statewide community advisory group convenes twice a year to develop a strategic plan with goals for implementation and to advise CDPH and the California members of the U.S.-Mexico Border Health Commission. The group of 12 members includes representatives from Los Angeles, San Diego, and Imperial Counties' health departments, an association of local health officers, local government, hospitals, health plans, community-based organizations, and universities. In 2015, two public meetings were held by the OBBH Advisory Group, developing the Office's three-year strategic plan.

In 2015, OBBH border health programs continued to focus on border and binational communities throughout California and Baja California by sustaining partnerships and enhancing communications between state and federal officials in California and Mexico. OBBH's Annual Border Health Status Report to the Legislature presents important health indicators for border and binational communities in California and describes the border region experiences in terms of public health challenges and issues that are distinctive to the region. Health issues that impact the region's 3.5 million residents are important to California statewide. Significant geographic and ethnic disparities exist for each of the health issues covered in this report including demographics, access to health care, obesity, diabetes, tuberculosis, HIV/AIDS, immunizations, and vaccine-preventable diseases.

In partnership with the County of San Diego, Health and Human Services, and the United States-Mexico Border Health Commission (USMBHC)-Baja California Section, OBBH facilitated the Border Health Consortium of the Californias (BHCC), consisting of public, private and academic representatives to improve health along the California-Baja California border region.

The goals of the BHCC are to:

- Identify the common challenges and align with the USMBHC's Healthy Border 2020
- Optimize articulation and the three C's (Communication, Coordination, and Collaboration)
- Training and Development

The BHCC has developed small work groups to address specific health issues (initial topics selected: obesity, tuberculosis, mental health, and HIV/AIDS); they have also agreed to create a binational directory of participating individuals and organizations; and schedule two general binational meetings per year during the months of May and November alternating between California and Baja California. The BHCC held a Binational Health Summit in October 2015, in Tijuana, Baja California focusing on expert discussions on: obesity, tuberculosis, mental health, and HIV/AIDS.

The Infectious Disease Epidemiology (IDE) Program within OBBH focuses on enhancing the detection and response capabilities to infectious disease incidents and threats in the border region. During 2015, OBBH-IDE monitored and investigated binational infectious disease cases and outbreaks in the border region. OBBH-IDE worked collaboratively with state, local, and federal partners focused on surveillance and monitoring of infectious diseases, developed routine and emergency binational communication protocols, facilitated the cross-border exchange of information, investigated binational infectious disease cases and outbreaks, and facilitated communications between public health officials in California and Baja California on infectious disease matters of binational interest. As part of these efforts, OBBH-IDE worked closely with public health professionals in Baja California and California to facilitate exchange of information and cross-border investigation activities. OBBH-IDE also conducted surveillance for syndromic and virologic influenza in the border region. Results of this surveillance are published weekly during the influenza season in the California Department of Public Health (CDPH) Influenza Surveillance Program report.

OBBH-IDE also continued monitoring all binational infectious diseases cases throughout the State of California via the California Reportable Disease Information Exchange (CalREDIE) system at CDPH. CalREDIE is a computer based application that CDPH has implemented for web-based disease reporting and surveillance. The purpose of CalREDIE is to improve the efficiency of surveillance activities and the early detection of public health events through the collection of more complete and timely surveillance information on a statewide basis.

OBBH-IDE continues to manage and coordinate the California Border Infectious Disease Program (CA-BIDS) of the Centers for Disease Control and Prevention (CDC). CA-BIDS is a collaboration between CDPH, CDC, the County of San Diego Health and Human Services Agency, and the Imperial County Public Health Department. CA-BIDS activities focus on enhancing surveillance, laboratory testing, and reporting of urgent and routine infectious diseases in the border region.

During 2015 OBBH-IDE convened quarterly binational California-Baja California epidemiology meetings to enhance situational awareness as it relates to infectious disease matters in California and Baja California. More specifically the meetings provided a platform for sharing information on current infectious disease cases and/or outbreaks and other matters of public health concern. Participants included key local and state public health officials from both states.

Through OBBH, the United States-Mexico Border Health Commission (USMBHC) works in coordination with the other U.S. and Mexico Border States and both federal governments on priority topics of both countries, such as tuberculosis, obesity/diabetes, access to care, research, and strategic planning. The USMBHC's Community-based healthy border initiatives were implemented by CDPH throughout the California-Baja California Border Region to improve capacity-building such as Safety Pesticide Trainings for Promotores in several California counties. In partnership with the California Department of Health Care Services-Office of Rural Health, U.S. Environmental Protection Agency, and Department of Pesticide Regulation, these workshops were intended to train promotores or community health workers on pesticide illness and safety to educate farmworkers and local community members in border and binational communities throughout the State of California.

CDPH will continue to focus on border and binational communities through the efforts of border health programs.

California Communities Environmental Health Screening Tool (CalEnviroScreen)

CalEnviroScreen is a screening tool developed by OEHHA that scores all California census tracts based on 19 indicators of pollution burden and population vulnerability. CalEnviroScreen is being used by the California Environmental Protection Agency (CalEPA) to identify "disadvantaged communities" for the implementation of Senate Bill 535 (Chapter 830, Statutes of 2012). This law requires that a portion of monies from the Greenhouse Gas Reduction Fund be allocated to communities considered disadvantaged based on geographic, socioeconomic, public health, and environmental hazard criteria. For the purposes of SB 535, CalEPA has designated census tracts in the highest 25 percent of CalEnviroScreen scores as disadvantaged.

OEHHA released version 2.0 of CalEnviroScreen in August 2014, and updated it in October 2014. CalEnviroScreen 2.0 results have shown that several communities in Imperial County along the California-Baja California border are among the most impacted in the state and eligible for SB 535 money.

Communities near the border face pollution impacts from sources in both California and Mexico. Currently, OEHHA is identifying and collecting data on environmental impacts from sources in Mexico to incorporate into CalEnviroScreen. The initial focus has been on sources in three municipalities in Baja California: Tijuana, Tecate, and Mexicali. In these efforts, OEHHA is collaborating and meeting with various governmental and local agencies, including the US Environmental Protection Agency Region 9 Border Office, the Baja California Secretariat for Environmental Protection, City of Tijuana and Tecate Environmental Protection Director, City of Mexicali Ecology Director, and the San Diego Association of Governments.

In CalEnviroScreen 2.0, OEHHA updated the tool by incorporating potential environmental impacts of diesel particulate matter emissions and traffic in Baja California. Diesel particulate matter emission estimates where commercial truck crossings occur were included in this update. In addition, traffic

data from roads in Tijuana, at the ports of entry, and within 150 meters of the border have been incorporated. More information regarding these updates can be found at <http://oehha.ca.gov/ej/pdf/CES20SummaryMajorChanges.pdf>.

Additional environmental impacts from sources in Mexico are being identified, collected, and analyzed for potential incorporation into an updated version of CalEnviroScreen. These include:

- Emissions from facilities that report to SEMARNAT, including hazardous waste generators and facilities. Facilities within 49 kilometers (30 miles) south of the CA-Baja California border were modeled along with facilities in California using U.S. EPA's Risk Screening Environmental Indicators Model (RSEI Version 2.3.4).
- Most recent air monitoring data from the border area is being evaluated by the Air Resources Board to make recommendations to OEHHA related to the following:
 - Fine particulate matter (PM 2.5) air concentration data collected by the San Ysidro Port of Entry U.S. EPA-funded air monitor.
 - PM 2.5 and ozone air concentration data collected at a monitor in Otay Mesa by the San Diego Air Pollution Control District.
 - PM 2.5 air concentration data collected in Imperial County by Comite Civico del Valle, the Public Health Institute's California Environmental Health Tracking Program, and the University of Washington through a grant from the National Institutes of Health.
- Supplemental information on diesel particulate matter emissions in the vicinity of the border, including airport sources, is being evaluated by ARB. A U.S. EPA-funded project on diesel and gasoline emissions from idling commercial and passenger vehicles in Calexico West and East ports of entry may also contribute to a better understanding of impacts from this source in the border area.
- Additional information on traffic volumes for roads in Tecate and Mexicali, within 150 meters of the border are being investigated as a source of information on traffic density near the border. However, representative traffic volume information has not been obtained.

There are efforts in place to collect additional environmental data from Mexico. OEHHA will continue to track progress of:

- Air pollution data from a community-based air monitoring study in San Ysidro. This two-year OEHHA-funded study began in January 2016. Twelve air monitors will be deployed July 2016 (see additional information below).
- A two-year PM 2.5 study in Mexicali that will begin collecting data in April 2016.

Full reports on CalEnviroScreen 2.0 can be found at:

- English language version <http://oehha.ca.gov/ej/pdf/CES20FinalReportUpdateOct2014.pdf>

- Spanish language version (versión en español)
<http://oehha.ca.gov/ej/pdf/SpanishCES20FinalReport2014.pdf>

Additional information about CalEnviroScreen 2.0, including a mapping tool showing the most affected communities, is available at <http://oehha.ca.gov/ej/ces2.html>

San Ysidro Community-Based Air Monitoring Study

This two-year San Ysidro air monitoring research study, funded by the OEHHA, has as a primary objective to improve the understanding of impacts of pollution from Mexico on the border community of San Ysidro. A network of 12 low-cost air monitors will be deployed to:

1. Measure how much pollution is in the air,
2. Evaluate where and how it changes over time, and
3. Identify areas of San Ysidro that are most impacted.

San Ysidro community members, through collaboration with Casa Familiar, a local non-profit organization, along with researchers and state government, are helping to decide where the low-cost air monitors will go and how to maintain the monitoring network. The information collected may also provide information on pollution burden that is suitable for incorporating into CalEnviroScreen. Academia, industry, and government have traditionally been the primary “owners” of environmental data. In this study, the San Ysidro community members are leading and owning the science, resulting in “Citizen Science.” OEHHA is promoting this state government effort to support community collaboration that could serve as a model for future “Citizen Science” efforts. Further information about the study can be found here: <http://deohs.washington.edu/syairstudy>

Fish Consumption Advisories for Spanish Speakers

OEHHA evaluates the health risks from chemical contamination of sport fish and advises the public on which fish are safe to eat and those that should not be eaten or should be consumed only in limited amounts. There are nineteen fish advisories available in Spanish which are posted on OEHHA’s website and published in the California Department of Fish and Wildlife Sport Fishing Regulations booklets under the “Public Health Advisory on Fish Consumption” section. Many local agencies also post signs containing the advisories at popular fishing locations.

For more information on this program, go to www.oehha.ca.gov/fish.html or send an email to fish.advisory@oehha.ca.gov. Fish advisories and fact sheets in Spanish are posted at www.oehha.ca.gov/fish/pescado.html

Emergency Management

In Fiscal Year (FY) 2015-16, Cal OES is responsible for administering more than \$533 million in funds for homeland security, emergency management, justice programs and victim services, a majority of which are distributed to local and regional entities to enable the most effective prevention, detection, and response and recovery efforts.

Interagency Wildfires Working Group

In 2014, California and Mexico signed the Memorandum of Understanding to Enhance Cooperation on Climate Change and the Environment during the Governor's California Trade Mission to Mexico. The MOU focuses on four priority areas including climate change, air quality, clean vehicles, and wildfires in an effort to reduce greenhouse gas emissions, combat climate change, and support wildfire suppression. Each priority area is led by a working group and is comprised of state officials from California and Mexico to help support the goals and objectives of the MOU.

The Wildfire Work Group is led by Cal OES and partners with the Department of Forestry and Fire Protection (CAL FIRE) and the National Forestry Commission of Mexico (CONAFOR) to enhance cooperation for wildfire assistance through bi-national coordination across the border region. In 2015, the work group held several meetings to develop an action plan, participated in the Border Agency Fire Council in San Diego, and provided interagency training opportunities that aim to strengthen technical and institutional capacities on fire management.

The Wildfire Work Group Action Plan identified training opportunities that allow Mexican counterparts to participate in courses such as the Forest Fire Protection Training Course in Baja California to gain knowledge in incident management. In addition, Mexican firefighters will have the opportunity to participate in a wildfire simulation exercise in southern California and observe an Incident Management Team in the field. These collaborative efforts will continue to promote capacity building opportunities in areas such as technical expertise in personal protective equipment and best practices in fire suppression and personal safety.

Baja California Earthquake Cooperation

Cal OES continues to maintain a long-standing partnership with Baja California. In 2009, the State of California and Baja California established a Memorandum of Understanding on risk prevention and emergency response. Under this agreement, California has collaborated with Baja California on emergency management efforts such as human trafficking, disaster assistance, and earthquake preparedness.

In 2015, Cal OES, in coordination with the State of Baja California Office of Civil Protection, partnered with the Earthquake Engineering Research Institute (EERI) and their members to update the San Diego-Tijuana Earthquake Scenario. This scenario is a response plan for catastrophic earthquakes

affecting the California-Mexico border region and aims to reduce the impacts and risks of earthquakes and promote research and collaboration. The San Diego-Tijuana Earthquake Scenario details how state, federal, and local agencies from both sides of the border coordinate and integrate operations to support local government following a magnitude 6.8 earthquake significantly impacting both the San Diego and Tijuana metropolitan areas.

For 2016, Cal OES will continue to coordinate with Baja California to share information and experience on emergency preparedness, response and recovery, and provide technical training.

Southwest Border Communications Working Group

Cal OES, along with officials from both the U.S. and Mexico, continue to participate in the Southwest Border Communications Working Group (SWBCWG) to discuss emergency communication efforts towards terrorist threats, hazmat incidents, natural disasters, border violence, escapes and evasions, and medical emergencies. In 2015, SWBCWG held three meetings throughout the year focusing on a Cross Border Security Communications Network (CBSCN). As a result, the Bi-National Working Group (BWN), comprised of representatives from the U.S. Government and the Government of Mexico, was established to explore and develop a communications network which increases interoperability and information sharing across the border between the U.S. and Mexico.

The working group continues to serve as a forum to share information on common emergency communications issues, collaborate on existing and planned activities, and facilitate federal involvement in multi-agency projects within the southwest border region, which includes Arizona, California, New Mexico, and Texas. The group also continues to build partnerships among emergency communications practitioners in the southwest border region, identify best practices and lessons learned for border area communications, and share information regarding key regulatory issues that impact emergency communications in the border region.



Border Area Chaptered Legislation 2015

SB 83 (Gatto) requires the California-Mexico Border Relations Council to establish the Border Region Solid Waste Working Group to develop and coordinate long-term solutions to address and remediate problems associated with waste tires, solid waste, and excessive sedimentation along the border. The bill also requires border region activities to include the development of projects in Mexico in the California-Mexico border region that address the movement of used tires from California to Mexico, and support the cleanup of illegally disposed waste tires and solid waste along the border that could negatively impact California's environment. In addition, the bill appropriates \$300,000 from the California Tire Recycling Management Fund to the California Environmental Protection Agency to support the California-Mexico Border Relations Council. **Statute Chapter 24.**

AB 965 (Garcia) adds the Secretary of State and Consumer Services Agency as a member of the California-Mexico Border Relations Council and provides that the Regional Administrator of the United States Environmental Protection Agency, Region 9, may appoint a representative from his or her staff to serve as an ex-officio, non-voting member of the Council. Requires the Council to invite the participation of representatives of the State of Baja California and the Mexican government to participate in meetings. **Statute Chapter 668.**

AB 1059 (Garcia) amends current law requiring the California Environmental Protection Agency to identify disadvantaged communities as part of a 3-year investment plan by the Department of Finance for the moneys collected by the State Air Resources Board resulting from a market-based compliance mechanism. This bill requires the Office of Environmental Health Hazard Assessment, in the next update of the California Communities Environmental Health Screening tool, developed by the agency and the office to implement the above requirements, no later than January 1, 2017, to report to the Legislature on specified data necessary for updating the indicators in the tool for communities in the California-Mexico border region, including barriers to accessing that data and studies and plans for obtaining that data. **Statute Chapter 584.**

AB 1071 (Garcia/Atkins) requires each board, department, and office within the California Environmental Protection Agency that has enforcement authority to establish a specified policy on supplemental environmental projects that benefits disadvantaged communities. **Statute Chapter 585.**

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