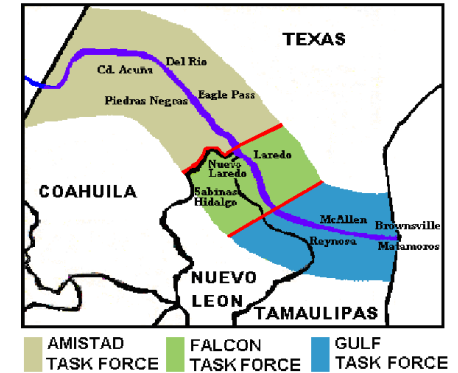


# BORDER 2020 2015-2016 Action Plan TX-COAH-TAMP-NL Regional Workgroup December 2016

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The Four-State Regional Workgroup is the most complex of the four regional workgroups because of its geographical extension and the number of municipalities. The region includes parts of three states and at least 29 municipalities on the Mexican side and 168 cities and towns on the U.S. side. Recognizing this, the workgroup divided itself into three geographically-based Task Forces—Amistad, Falcon, and Gulf—each of which established subject-specific committees related to its priority concerns.

Border 2020 has five goals and the regional work groups propose projects to implement these goals. These projects are tracked in two-year revolving work plans. The 2015-2016 version is the second of its kind. Several projects have been carried over from the 2013-2014 Action Plan. Due to consensus by the Four State Workgroup, a sixth goal for health and education projects was included. Projects are organized by Border 2020 goals and objectives.

During the first half of 2015 the three task forces held meetings to discuss initial priorities for the 2015-2016 Action Plan. Leaders held several conference calls in June 2015 to develop a consensus of priorities at the task force and regional workgroup levels.

## Regional Priorities

1. Improve air quality through the following approaches:
  - a. Increase energy efficiency at the consumption level and the use of renewable energy at all appropriate levels
  - b. Analyze emissions and emission sources in specific air sheds
  - c. A study on the possible health effects caused by climate change
2. Improve water quality by taking the following actions:
  - a. Evaluate the Rio Grande watershed in the region
  - b. Establish enforcement programs to prevent pollution on water bodies on the Mexican side
  - c. Improve water infrastructure as it pertains to treatment systems and distribution in rural areas
3. Address problems of improper waste disposal
4. Assist communities to build capacity for waste streams by implementing recycling, household hazardous waste and electronic waste collection and disposal programs and develop comprehensive plans for scrap tire disposal and alternative markets
5. Expand environmental education related to waste issues

6. Enhance joint preparedness for environmental response
  - a. Provide HAZMAT training to local first responders to reduce exposure to chemicals as a result of accidental chemical releases and/or spills
  - b. Coordinate emergency preparedness response table top or field exercises.
7. Develop a certified environmental health curriculum to train border community health workers and promotoras on pesticides and lead, mercury, and other heavy metals

### **Individual Task Force Priorities**

#### ***Amistad Task Force***

1. Generate plans to mitigate the impacts of climate change in Coahuila
2. Establish air quality monitoring stations and exchange data with Texas
3. Develop a database to measure emissions of hydraulic fracturing operations in Coahuila
4. Increased use of alternate and renewable energy sources (such as landfill gas and solar energy)
5. Develop water conservation and reuse programs for irrigation in Coahuila
6. Establish waste management programs in ten municipalities in Coahuila (including used electronics, household hazardous waste management and recycling)
7. Develop and promote scrap tire, recycling and solid waste management programs on the Kickapoo Reservation

#### ***Falcon Task Force***

1. Conduct a study on the use of methane gas for energy generation in landfills
2. Monitor drilling operations in the Eagle Ford Shale and on the Mexican side
3. Finalize the cross-border contingency plan
4. Generate studies and projects for water reuse and conservation
5. Develop adequate management, alternative markets (such as tire cutters) and ordinances for scrap tires
6. Establish used electronics and household hazardous waste programs in municipalities in the Falcon Task Force
7. Develop an assessment on the generation and alternative markets for construction waste in the Falcon Task Force
8. Develop a workshop on best practices related to public health and environmental education indicators

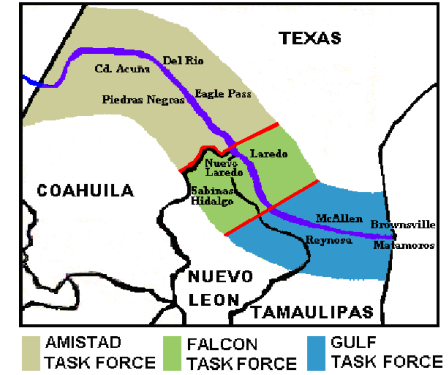
#### ***Gulf Task Force***

1. Outreach programs to improve energy efficiency
2. Educate the community on how to improve water quality
3. Improve or develop Industrial Pretreatment, Fats, Oil & Grease Management and Storm Water Programs
4. Increase environmental awareness and responsibility with regard to solid waste and water related health effects in city residents, rural communities and colonias
5. Healthy Homes training for promotoras along the Gulf Task Force U.S. - MX border

**Border 2020**  
**2015-2016 Action Plan Grid**  
**Four-State Regional Workgroup**

**Legend:**

- Activity covers at least two task force areas
- Gulf Task Force
- Falcon Task Force
- Amistad Task Force



**GOAL # 1: Reduce Air Pollution**

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of Funding	Contact(s)	2015-2016 Target	Progress Towards Target
<b>Objective 1: By 2020, reduce the number of vehicles operating in the border region that do not comply with the respective vehicle emissions standards, and reduce vehicle emissions at ports-of-entry through anti-idling and other feasible measures.</b>							
1.1.01	<p><b>Characterization of Drayage Activities &amp; Emissions Laredo-Nuevo Laredo Airshed</b></p> <p>Develop a detailed characterization of the drayage activity in the Laredo-Nuevo Laredo region and its air quality implications.</p>	Texas A&M Transportation Institute	\$89,750	Border 2020	Dr. Reza Farzaneh, TTI, <a href="mailto:Reza.Farzaneh@tamu.edu">Reza.Farzaneh@tamu.edu</a> (512) 467-0946	Gather activity information on drayage vehicles to estimate their emissions impacts in the Laredo and Nuevo Laredo airshed.	The study indicated that the World Trade Bridge had a high concentration of particulate matter due to idling by trucks when waiting to cross customs and that slower speed and their movement were factors that coincided with high particulate matter at the bridge and in urban areas, based on their destination. TTI organized an

							October 2015 workshop to share the findings. The study is complete.
1.1.02	<p><b>Emissions from Long Haul Mexican Diesel Trucks in Laredo-San Antonio Corridor</b></p> <p>Survey diesel truck activity and evaluate typical Mexican diesel truck emissions along Laredo-San Antonio Corridor.</p>	Texas A&M Transportation Institute	\$100,000	EPA, TCEQ	<p>Dr. Reza Farzaneh, TTI,  <a href="mailto:Reza.Farzaneh@tamu.edu">Reza.Farzaneh@tamu.edu</a>  (512) 467-0946</p>	<p>Collecting and analyzing data. TTI presented findings and reported in August 2015.</p>	<p>Mobile diesel emissions are expected to be a significant contribution to the emissions inventory of the Eagle Ford and San Antonio areas. In 2014-2015 the TCEQ managed a project with the Texas A&amp;M Transportation Institute to survey current volume and anticipate increases of long-haul Mexican diesel traffic in the IH-35 corridor between Laredo and San Antonio. The project findings helped planning to maintain air quality in San Antonio in the face of increasing diesel truck traffic. TTI submitted final report and findings to TCEQ. The project is complete.</p>

**Objective 3: By 2018, maintain effective air monitoring networks and provide real-time access to quality data.**

1.3.01	<p><b>Update of the Ecological Program Code for the Cuenca de Burgos Region, Tamaulipas</b></p>	SEDUMA	2 Million Pesos	SEMARNAT PEF 2015	<p>Dra. Silvia Casas González, SEDUMA,  <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a></p>	<p>Develop a Monitoring and Evaluating System for the most relevant environmental Indicators, considering performance, defining measurements that allow one to track the strategy's effectiveness and the code's defined policies.</p>	<p>The external consultant completed all program updates that included modifications to the current code model.</p> <p>The updated study was revised and certified by the Ecological Program Code Committee of Tamaulipas. The project is complete.</p>
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**Objective 4: By 2015, support completion of climate action plans in each of the six northern Mexican Border States and build the necessary capacity to guarantee sustained implementation.**

1.4.01	<b>Municipal Climate Action Plan of San Fernando, Tamaulipas</b>	SEDUMA, Gobierno Municipal de San Fernando, Tamaulipas	2.199 Million Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a>	Develop a public policy planning instrument for the development of strategies and actions to mitigate greenhouse gas emissions. Reduce municipal vulnerability to climate change by enhancing adaptability.	The project was not executed due the fact that funds were not allocated to the project by the government.
1.4.02	<b>Tamaulipas State Climate Change Program</b>	SEDUMA Tamaulipas	\$200,000	Banco Interamerica no de Desarrollo (BID)	Dra. Silvia Casas González, SEDUMA, <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a>	Update the greenhouse gas emissions inventory and develop the program's climate change adaptation agenda	The program was presented by the State Governor during the second session of the Secretarial Commission on Climate Change for the State of Tamaulipas (CICCTAM). They are in the process of publishing an article in the official state newspaper. The project is complete.
1.4.03	<b>Energy Efficiency in Municipal Public Lighting Systems of Tamaulipas</b>  Raise awareness and sensitize technical staff on the responsibility in the operation and use in the current administrations to save energy in lighting systems, buildings and facilities in the 10 border municipalities of the state.	SEDUMA Tamaulipas	\$9,385	Border 2020	Oc. Heberto Cavazos Llitas SEDUMA Tamaulipas <a href="mailto:heberto.cavazos@tamaulipas.gob.mx">heberto.cavazos@tamaulipas.gob.mx</a> 01 (834) 107-82-60	Train 30 public servants of 10 municipalities with basic tools to achieve greater energy efficiency and money saving.	Two workshops were taught on Energy Efficiency in Public Lighting and Municipal Buildings and facilities. In all, there were 30 participants, 17 in the first workshop and 13 in the second.  The benefiting population in the 10 municipalities is estimated at 733,000 inhabitants. The project is complete.

Objective 5: By 2020, reduce emissions and associated impacts, through energy efficiency and/or alternative/renewable energy projects.							
1.5.01	<p><b>Coahuila Climate Action Plan</b></p> <p>Initiate Phase 2 of the State Climate Action Plan (PEAC, in Spanish) for Coahuila: Quantification of the mitigation policies selected in Phase 1.</p>	Coahuila State Government and BECC	\$275,000	BECC	Tomás Balarezo, BECC, <a href="mailto:tbalarezo@cocef.org">tbalarezo@cocef.org</a>	Econometric evaluation of the mitigation policies selected in Phase 1.	The project is currently in the Microeconomic and Public Policy Phase for Coahuila. Meetings have been held with the Technical Working Groups, the Advisory Group, and the Climate Change Committee. The project is still in progress.
1.5.02	<p><b>Air Quality Network in Coahuila</b></p> <p>Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.</p>	SEMA (Coahuila), Municipalities of Piedras Negras, Acuña, Nava, Sabinas, Saltillo	12 Million Pesos	SEMARNAT	Santiago Barrios, SEMA/Coahuila, <a href="mailto:santiago.barrios@sema.gob.mx">santiago.barrios@sema.gob.mx</a>	Establish an operating ambient air quality monitoring network in the Piedras Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila.	The project has been authorized and is in the review phase prior to bidding.
1.5.03	<p><b>Tamaulipas Climate Action Plan</b></p> <p>Initiate Phase 2 of the State Climate Action Plan (PEAC) for Tamaulipas: Quantification of the mitigation public policies selected in Phase 1.</p>	Tamaulipas State Government and BECC	\$300,000	BECC, BID	Tomás Balarezo, BECC, <a href="mailto:tbalarezo@cocef.org">tbalarezo@cocef.org</a>	Select a number of prioritized mitigation public policies for climate change.	The Identification of Mitigation Politics Report was presented in the month of February. Currently, the ISBN is in progress. The project is complete.
1.5.04	<p><b>Ambient Air Monitoring System</b></p> <p>Strengthen Tamaulipas' ambient air monitoring system.</p>	SEDUMA Tamaulipas	Annually: 250,000 Pesos (150,000 Municipal & 100,000 State)	SEDUMA, City Council of Matamoros	Biól. Jorge García, <a href="mailto:jgarciah@tamaulipas.gob.mx">jgarciah@tamaulipas.gob.mx</a> 834 1078291	By 2014, the system will operate at 100% with programmatic consistency standards.	Currently there are 8 PM10 monitors operating. They are planning an operational post for four monitors in Matamoros in January 2017. Of the systematic samples collected in these cities, it was determined that air quality is satisfactory and that their values are located below the maximum permissible limits.

1.5.05	<b>Green Infrastructure Workshop</b>	SEMA, COCEF		SEMA, COCEF	Tomás Balarezo, COCEF, <a href="mailto:tbalarezo@cocef.org">tbalarezo@cocef.org</a>	Train municipalities on Green infrastructure.	Two workshops were held. On April 21, 2015, 05 municipalities from the Southeast region participated. A second workshop on May 27, 2015 included attendees from 10 municipalities in the Central and Desert regions. The Green Infrastructure Forum was held on September 21 and 22 with the participation of states along the border.
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## Goal # 2: Improve Access to Clean and Safe Water

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Contact(s)	2015-2016 Target	Progress Towards Target
<b><u>Objective 2: Help drinking water and wastewater service providers in the border region to implement sustainable infrastructure practices to reduce operating costs, improve energy efficiency, use water efficiently and adapt to climate change.</u></b>							
2.2.01	<b>Upgrade Nuevo Laredo Sewer Line Infrastructure</b> Install new or upgrade selected existing sewer lines and connect them to Nuevo Laredo's wastewater treatment plant to prevent contaminated discharges through the stormwater system to the Rio Grande	COMAPA and Municipio de Nuevo Laredo	\$5 Million	NADB	Delfino González C.P., COMAPA, <a href="mailto:dgcdelfino@comapanuevolaredo.gob.mx">dgcdelfino@comapanuevolaredo.gob.mx</a>	Complete the project by January 2015.	The BECC certified the project in September 2012. Of the five sewer lines, one was completed during the first half of 2014. The remaining four lines are under repair and discharge about 1.6 MGD to the storm water system. Another discharge point was identified by COMAPA in the Arroyo La Joya and will be repaired.
2.2.02	<b>Nuevo Laredo Management of Fats, Oils, and Grease (FOG)</b>	Comisión Municipal de Agua Potable y Alcantarillado, Nuevo León.	\$32,533	Border 2020	Ing. Juan Carlos Pérez, COMAPA Nuevo Laredo,	Hold workshops and follow-up with commercial establishments	COMAPA organized workshops with the support of students from the Technical University to educate commercial

	Reduce the amount of fats, oils, and grease in the effluent coming from restaurants and hotels and industrial dining facilities in Nuevo Laredo				<a href="mailto:jcarlos_faz@hotmail.com">jcarlos_faz@hotmail.com</a> 01152867 717-24-44	on implementation of FOG programs	establishments and residents on best practices.  The last workshop was held in August 2015 and included a tour of the International Waste Water Treatment Plant. All the establishments that participated in the workshops have grease traps and are applying control and operating techniques. The project is complete.
2.2.03	<b>Ideal Biological Filtration Material South Texas Storm Water Management</b>  Identify the best locally available material for use in bio-swale in the Lower Rio Grande Valley & South TX.	University of Texas RGV	\$26,022	Border 2020	Jungseok Ho, Ph.D., P.E. Assistant Professor (956) 665-3104 <a href="mailto:jungseok.ho@UTRGV.edu">jungseok.ho@UTRGV.edu</a>	The proto-type bioswale will be tested in a newly constructed parking lot on the Edinburg campus of the University of Texas RGV.	The recycled ground glass of medium porosity demonstrated good hydrologic performance in the biological filtration process.
2.2.04	<b>Decision Making Tool for Determining Storm Water Detention</b>  Promote research and educational topics emphasizing how green infrastructure strategies can be utilized to mitigate storm water runoff, to maximize local storm water runoff detention at development projects, to minimize localized flooding in urban, rural, and colonia settings, and to manage oil and grease and other illicit discharges.	Texas A&M University-Kingsville	\$38,885	Border 2020	Javier Guerrero, E.I.T., M.S. Texas A&M University-Kingsville (956) 929-7189 <a href="mailto:Javier.Guerrero@tamuk.edu">Javier.Guerrero@tamuk.edu</a>	Conduct educational workshops to identify existing green infrastructure (GI) structures and BMPs, draft a Quality Assurance Project Plan. DMTG model development, calibration and implementation. Host workshops to showcase the innovative tool.	



**Objective 3: Work binationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.**

2.3.01	<p><b>Removal of Invasive Plants</b></p> <p>Implement a program to remove invasive plants in the Rio Grande.</p>	SEMA Coahuila, CONANP, PROFAUNA, WWF, Slim Foundation	1.5 Million Pesos Annually	SEMA Coahuila, CONANP, Profauna WWF, Slim Foundation	Alejandra Carrera, SEMA Coahuila, <a href="mailto:alejandra.carrera@sema.gob.mx">alejandra.carrera@sema.gob.mx</a> 01152844 410-0014	Plant Control: removal by year, in hectares (ha) 2015: <i>Tamarix</i> 34 ha and Carrizo 40 ha  2016: <i>Tamarix</i> 34 ha and Carrizo 40 ha.	Since 2014 PROFAUNA and CONANP with the support of WWF and the Slim Foundation have annually eradicated 34 hectares of the <i>Tamarix</i> plant and 40 hectares of Carrizo cane. To date they have continued to protect the same quantity of land and it is anticipated that they will eradicate this amount in 2016.
2.3.02	<p><b>Conservation of Arroyo Las Vacas</b></p> <p>Design and implement actions to improve water quality and promote an adequate habitat for flora and fauna species in the Arroyo Las Vacas.</p>	Ciudad Acuña Environment Department, SEMA Coahuila	\$44,200	Border 2020	Lic. Alejandra Carrera, Secretaria de Medio Ambiente de Coahuila, <a href="mailto:alejandra.carrera@sema.gob.mx">alejandra.carrera@sema.gob.mx</a> 01152844 410-0014	Implement actions to improve water quality and promote an adequate habitat for flora and fauna in Las Vacas.	SEMA Coahuila and TCEQ organized a binational surface water quality monitoring workshop in October 2015 at Amistad Dam. Participants learned about surface water quality monitoring programs, sampling techniques and data comparison on specific water quality parameters. SEMAC is interested in creating a program similar to Texas' Clean Rivers Program. SEMAC and its partners conducted water quality sampling at 15 sites along the Arroyo Las Vacas. A closing ceremony of the Las Vacas project was held in Ciudad Acuña in February 2016.
2.3.03	<p><b>Lower Rio Grande Binational Water Quality Initiative (LRGWQI)</b></p> <p>Implement a binational Lower Rio Grande Water Quality Initiative (from Falcon to the Gulf of Mexico) that characterizes the state of the river, develops a strategic plan to</p>	TCEQ, EPA, IBWC, CILA, CONAGUA, and federal, state, and local government agencies		TCEQ, EPA, IBWC, and federal, state, and local government agencies	Kelly Holligan, TCEQ, 512-239-2369, <a href="mailto:Kelly.holligan@tceq.texas.gov">Kelly.holligan@tceq.texas.gov</a>		In April, 2016, the Binational Technical Work Group (BTWG) completed the last of four binational synoptic water quality surveys. The BTWG also completed a preliminary hydrologic and hydraulic calibration of state to state water

	improve environmental conditions, and proposes a monitoring plan to document progress						quality models of the Rio Grande/Río Bravo. Finally, the BTWG completed a preliminary draft of a watershed characterization associated with the project.
2.3.04	<p><b>Fat, Oil and Grease (FOG) Public Outreach Campaign</b></p> <p>Provide outreach and education to improve water quality by reducing the number of sanitary sewer overflows from commercial and residential customers while increasing environmental awareness of how fat, oil and grease contribute to a potential health hazard if not handled correctly</p>	Brownsville Public Utilities Board	\$25,000	Border 2020	Alicia Gracia, Brownsville Public Utilities Board agracia@brownsville-pub.com (956) 983-6483	Create and implement a Fat, Oil and Grease Public Outreach campaign to reach at least 250,000 citizens. Host four workshops and provide one-on-one assistance to at least 50% of the businesses in need of further education.	From February to April 2016 a total of 26 “Cease the Grease” training sessions, were performed. A total of 256 people participated in these trainings. The FOG trouble call history showed a reduction of 22 service call requests generated compared to same period in 2015. Public service announcements, flyers, social media, TV interviews and digital billboards has been used to promote the FOG Campaign.
2.3.05	<p><b>Dissemination and Awareness of the Regulations for the Control of Discharges</b></p> <p>Promotion and dissemination of local discharge regulations among stakeholders to enable their implementation and enforcement through training workshops</p>	Junta de Aguas y Drenaje – Matamoros, Tamaulipas	\$25,000	Border 2020	Arkelao López JAD Matamoros 868 150-21-30 <a href="mailto:arkelao57@gmail.com">arkelao57@gmail.com</a>	Work on a municipal wastewater discharge ordinance. Hold educational workshops on FOG program. Perform wastewater lab testing on commercial users.	The project was canceled.
2.3.06	<p><b>Supporting Local Stakeholder Participation in the Lower Rio Grande/Rio Bravo Water Quality Initiative</b></p>	University of Texas at Austin	\$58,575	Border 2020	Dr. David Eaton <a href="mailto:eaton@mail.utexas.edu">eaton@mail.utexas.edu</a>	Organize five workshops on local water quality issues. Develop a	

	Foster a sense of ownership among local stakeholders of a binational plan to restore and protect the water quality in the Lower Rio Grande and establish a sustainable forum for local information exchange and cooperation among of the binational community of water users in the Lower Rio Grande					Memorandum of Understanding (MOU) between stakeholders and binational partnerships.	
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### Goal # 3: Promote Materials Management, Waste Management, and Clean Sites

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact(s)	2015-2016 Target	Progress Towards Target
<b>Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices</b>							
3.1.01	<p><b>Nuevo Laredo Environmental Education Program</b></p> <p>Establish an environmental organization to develop environmental awareness and clean-up programs in Nuevo Laredo in affiliation with Keep America Beautiful</p>	Keep Laredo Beautiful, Keep America Beautiful, and the Municipality of Nuevo Laredo		City of Laredo Environmental Services, local partners, and Keep America Beautiful	Lynne Nava, Keep Laredo Beautiful, <a href="mailto:lnava1@ci.laredo.tx.us">lnava1@ci.laredo.tx.us</a> 956-794-1650	Establish an environmental organization affiliated with Keep America Beautiful by 2016.	Keep Laredo Beautiful met with officials of the Technological University of Nuevo Laredo in October of 2015 and January 2016 to discuss the general requirements for an organization to be affiliated with Keep America Beautiful. Officials of the University will start a recruiting process to form a board of directors in Nuevo Laredo. As of September 2016, Keep Laredo Beautiful is awaiting guidance by the city manager on establishing the account and will require a Memorandum of Cooperation with Nuevo Laredo to move forward with this process.

3.1.02	<b>Characterization of Municipal Solid Waste, Waste Streams &amp; an Evaluation Regarding Generation/Management of Waste</b> Study and characterize the municipal solid waste stream in Sabinas Hidalgo, Nuevo León. Analyze the generation of solid and “special management” of waste in six border municipalities in Nuevo León.	Secretariat of Sustainable Development Nuevo León and Municipio of Sabinas Hidalgo, Nuevo León	\$47,000	Border 2020, BECC	Norma Rangel Sevilla, SDS, Nuevo León, <a href="mailto:normaarangel@gmail.com">normaarangel@gmail.com</a> 0115281 20 33-19-38	Analyze the generation of solid and “special management” wastes in six border municipalities and characterize the solid waste stream in Sabinas. Complete the study in 2015.	Project completed. The study was finished in June 2015. More details of the study will be provided at a later date.
3.1.03	<b>Operation of an Electronic and Household Hazardous Waste Collection Center</b>	Municipality of Nuevo Laredo, Tamaulipas	3.626 Million Pesos	Municipality of Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretario de Obras Públicas, Desarrollo Urbano y Medio Ambiente, <a href="mailto:cdeandah@hotmail.com">cdeandah@hotmail.com</a>	Develop the municipal infrastructure for collecting, managing, and disposing of electronic and hazardous waste	The collection center received the corresponding authorization from the SEMARNAT federal delegation in the state of Tamaulipas. Operations began July 8, 2016. It is noted that this is the only Electronic and Household Hazardous Waste Collection Center in Mexico. The project is still in progress.
3.1.04	<b>Environmental Ordinance for the Disposal of Construction Waste</b>	Municipality of Nuevo Laredo, Tamaulipas	The project is funded through money paid by residents for the management and processing of waste.	Municipality of Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretary of Public Works, Urban Development & the Environment, <a href="mailto:cdeandah@hotmail.com">cdeandah@hotmail.com</a>	Generate an alternative for the community for the disposal of construction waste and mitigate illegal dumping.	This project has operated continuously and generated an important effect on the community. It charges 123 pesos per cubic meter when the waste is no greater than two cubic meters. If it is three to ten cubic meters, the service costs 88 pesos. If it exceeds 10 cubic meters, 100 pesos are charged per cubic meter. The project is still in progress.
3.1.05	<b>Keep Pharr Beautiful Clean-up Campaign</b>	Public Works Department, City of Pharr	\$20,000	Border 2020	Grace Gonzalez, Pharr Public Works Department,	Reduce illegal dumping in residential and industrial sectors	The project was completed and the majority of objectives were attained. Various public awareness events and monthly

	Support monthly cleanup program Keep Pharr Beautiful with strong public outreach.				<a href="mailto:grace.gonzales@pharr-tx.gov">grace.gonzales@pharr-tx.gov</a>	and encourage residents to take responsibility for the beautification of their communities.	clean-ups were organized. A workshop was organized for the community about the reduction of illegal dumping. The City plans to continue clean-up campaigns and environmental education activities.
3.1.06	<b>Alamo's Recycling TEAM Includes Everyone</b> Implement the Alamo's Recycling TEAM Includes Everyone (ARTIE) Project, which strives to enhance the management of solid waste in the city.	City of Alamo	\$54,838	Border 2020	Melissa Gonzales, City of Alamo	Increase recycling efforts by at least 25%, increase awareness of non-point pollution and solutions and establish partnerships that will promote environmental stewardship.	Various presentations were organized in 12 different locations that reached 700 students. Bilingual signs about not littering were posted. The project was completed.
3.1.07	<b>Clean-up of Urban Solid Waste Disposal Site in Guerrero, Tamaulipas</b>	SEDUMA, Municipio de Guerrero, Tamaulipas	3.169 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a>	Legalize and encourage compliance with NOM-083-SEMARNAT-2003, regarding the closure of final disposal sites.	Due to a budget cuts suffered by the Housing Ministry at SEMARNAT, the project did not receive funding in 2015. The project will not be funded this year.
3.1.08	<b>Construction and Equipment of the First Phase of the Type A Landfill in Río Bravo, Tamaulipas</b>	SEDUMA, Municipio de Río Bravo, Tamaulipas	19.359 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a>	Ensure adequate and modern infrastructure for the final disposal of urban solid waste.	Project certified by SEMARNAT and documentation for the adjudication of resources is being processed.

3.1.09	<b>Construction of and Equipment for Type A Landfill in the Coal Deposit Region</b>	SEMA, SEMARNAT, Municipalities of Múzquiz and Sabinas	25 Millones Pesos	SEMARNAT PEF 2015	Oscar Flores, SEMA, <a href="mailto:Oscar.flores@sema.gob.mx">Oscar.flores@sema.gob.mx</a>	Construction and operation.	Conduct soil studies. Under analysis prior to request for bids. The project is still in progress.
3.1.10	<b>Construction of and Equipment for a Regional Landfill in the Municipalities of Juárez and Progreso, Coahuila</b>	SEMA, Municipality of Juárez and Progreso	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, <a href="mailto:Oscar.flores@sema.gob.mx">Oscar.flores@sema.gob.mx</a>	Construction and operation.	Under analysis prior to request for bids. The project is still in progress.
3.1.11	<b>Construction of and Equipment for two Urban Solid Waste Transfer Stations in the Municipality of Múzquiz, Coahuila</b>	SEMA, Municipio de Múzquiz	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, <a href="mailto:Oscar.flores@sema.gob.mx">Oscar.flores@sema.gob.mx</a>	Construction and operation.	Under analysis prior to request for bids. The project is still in progress.
3.1.12	<b>RECOLECTRÓN Program</b> Collection program for used electronics in the municipalities.	SEMA, Municipalities of Acuña, Allende, Nava and Sabinas	2 Million Pesos	SEMA	Griselda Salas Alemán, SEMA, <a href="mailto:griselda.salas@sema.gob.mx">griselda.salas@sema.gob.mx</a>	In 2015 collect 44.91 tons. In 2016 collect 56.14 tons.	To date 44.89 tons has been collected. The project is still in progress.
3.1.13	<b>Responsible Disposal of Tires</b> Operation of a scrap tire disposal center. Using three slices, reduce the volume and risk of standing water, a breeding ground for mosquitoes (vectors for dengue fever).	Municipality of Acuña, Coahuila	\$12,000	Municipio de Acuña Coahuila	Biól. Carlos Alejandro Flores Diego, Director of Ecology, <a href="mailto:floresdiegocarlos@yahoo.com.mx">floresdiegocarlos@yahoo.com.mx</a>	Develop the municipal infrastructure for storing, managing, and disposing of scrap tires.	A regulatory framework regulates management and a program is underway for storage, but infrastructure is required for final disposal. To date more than 50,000 tires have been collected, resulting in 95% mitigation of vectors. The project is still in progress.

3.1.14	<p><b>Disposal of Used Electronic and Hazardous Waste</b></p> <p>Create a storage center for the special management of waste, in which</p>	Municipality of Acuña, Coahuila	\$12,500	Municipality of Acuña Coahuila	<p>Biól. Carlos Alejandro Flores Diego, Director de Ecología,  <a href="mailto:floresdiegocarlos@yahoo.com.mx">floresdiegocarlos@yahoo.com.mx</a></p>	<p>Develop the municipal infrastructure for storing, managing, and disposing of used electronic and hazardous waste.</p>	<p>The regulatory framework was approved by the city council as well as changes to municipal environmental regulations regarding to approve an operating license for six months and certification of training workshops. Partnering with CECATI #197 for certification. To date 29 tons of waste have been collected. The program is carried out in coordination with SEMA. The project is still in progress.</p>
3.1.15	<p><b>Scrap Tire Management Program</b></p> <p>Design and implement a state scrap tire management program that includes valuation.</p>	SEDUMA Tamaulipas	400 Million Pesos	SEDUMA, SEMARNAT, EPA	<p>Biól. Jorge García,  <a href="mailto:jgarciah@tamaulipas.gob.mx">jgarciah@tamaulipas.gob.mx</a>        834 1078291</p>	<p>Work with each of the state's northern border cities to systematically regulate the temporary storage and collection of used tires.</p>	<p>Two projects in the area of environmental impact have been authorized in the municipalities of Reynosa and Valle Hermoso, in which 350,000 tires shall be processed annually. The State Government of Tamaulipas with the participation of state funds acquired a tire shredder which processed 63,000 tires between 2013 and 2016 in the southern part of the state.</p>

3.1.16	<p><b>Strengthen Solid Waste Programs</b></p> <p>Design of a strategic planning tool that will comply with the National and State Programs for the Prevention and Management of Municipal Solid Waste in the municipalities of Río Bravo and Valle Hermoso, Tamaulipas.</p>	SEDUMA Tamaulipas	\$20,866	Border 2020	Oc. Heberto Cavazos Lliteras , SEDUMA, <a href="mailto:ssma@tamaulipas.gob.mx">ssma@tamaulipas.gob.mx</a>	Update the municipal solid waste environmental management system. Evaluate the management of municipal solid waste. Prepare a study on municipal solid waste generation.	Two programs were developed regarding the Prevention and Integral Development of Solid Wastes in Río Bravo and Valle Hermoso. In the same municipalities, a study was conducted “Creation and Composition of Solid Wastes.” The planning documents were given to participating municipal representatives. The project is complete.
3.1.17	<p><b>Let’s Clean it Up and Green it Up</b></p> <p>Reduce littering and illegal dumping in all areas of the city, and improve the overall aesthetics of the city and offer viable solid waste disposal options for residents.</p>	City of Pharr	\$36,390	Border 2020	Grace Gonzalez, Pharr Public Works Department, <a href="mailto:grace.gonzales@pharr-tx.gov">grace.gonzales@pharr-tx.gov</a>	Offer more solid waste, recyclables and tire disposal events. Install convenient recycling drop off areas. Host recycling and tire and illegal dumping education workshops.  Improve existing residential tire tagging system.	The project conducted various storm water management and recycling workshops that reached students and residents, Social media and public service announcements were used to promote recycling and storm water activities.
3.1.18	<p><b>Electronic Waste Recycling</b></p> <p>Develop an educational campaign aimed at reducing used electronics by creating an integrated electronic waste recycling program and promoting sustainable practices</p>	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	\$36,054	Border 2020	Ing. Víctor Ibarra, Instituto Tecnológico de Piedras Negras, <a href="mailto:ing_victor_m@prodigy.net.mx">ing_victor_m@prodigy.net.mx</a>	Conduct workshops and campaigns at schools and public events on used electronics.	In Piedras Negras, two municipal collection centers were installed and collected 14,145 kilos of electronic waste. 18,000 inhabitants were visited in 10 city neighborhoods and an electronic waste workshop was held for 55 associates of Green



							Tec-Osos. The first walk was held in March 2016 with more than 1,200 participants. The First Environmental Impact Health and Education Symposium was held in 2016 and was attended by 410 teachers and students from 17 schools. Electronic waste was one of the topics. The project is still in progress.
3.1.19	<b>Used Electronic Recycling</b> Inform and educate the population of the benefits of reusing used electronic products, including sustainable management of consumer electronic goods and adequate disposal practices	SEMA Coahuila	\$16, 777	Border 2020	Ing. Oscar Flores, SEMA, 01152844 698-10-91 ext.7268 <a href="mailto:oscar.flores@sema.gob.mx">oscar.flores@sema.gob.m</a> <a href="#">x</a>	Conduct an assessment as well as training of municipal ecology staff on used electronics and implement actions for adequate disposal.	The same project is listed in 3.1.12. The project is still in progress.

## Goal #4: Enhance Joint Preparedness for Environmental Response

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact(s)	2015-2016 Target	Progress Towards Target
<b>Objective 2: By 2020, at least eight (8) of the sister city joint contingency plans will be supplemented with preparedness and prevention related activities such as certified training, risk analysis, and/or capacity building.</b>							
4.2.01	<b>Update Cross-Border Contingency Plan</b> Develop a cross-border contingency plan for the Solidarity Bridge, involving first responders from Colombia (Nuevo León), Nuevo Laredo (Tamaulipas), and Laredo	Laredo Fire Department, Civil Protection of Nuevo Laredo, and CILA, CODEFRONT, and the City of Laredo		EPA, COCEF, PROFEPA, and Protección Civil	Steve Landin, Laredo Fire Department, <a href="mailto:slandin@ci.laredo.tx.us">slandin@ci.laredo.tx.us</a> 956-795-2150  Juan Ochoa,	Hold new meetings of the staff of the two cities in order to revisit the language of the draft revision and possibly develop alternative language	At a binational meeting held in July in Nuevo Laredo, the Laredo and Nuevo Laredo mayors approved the final versions in English and Spanish and signed the Los Dos Laredos Cross-Border Contingency Plan. The plan will be reviewed by both

	(Texas), recognizing that Colombia, upstream from the other two cities, is much smaller and yet shipments of hazardous materials in the area are currently directed to this bridge.				Protección Civil Nuevo Laredo, <a href="mailto:Juan.u8a@hotmail.com">Juan.u8a@hotmail.com</a> 01152867 712-46-35	and include Colombia in the plan.	cities every two years and it also specifies that the Laredo Fire Department will assist in an advisory capacity with any contingency plans on the Mexican side.
4.2.02	<b>Hazardous Materials First Responder Binational Training in McAllen-Mission-Pharr, TX and Reynosa, Tamaulipas</b>	City of McAllen Fire Department	\$75,000	Border 2020	Juan A Gloria Jr, Deputy Chief McAllen, <a href="mailto:jgloria@mcallen.net">jgloria@mcallen.net</a> 956 681-2540	Hold an Incident Command System (ICS) training with firefighters from McAllen, Mission, Pharr, and Reynosa. Enhance binational communications and hazmat response. Update regional sister city plan contact information.	On August 2015, McAllen and Pharr Fire Department hazmat certified technicians provided an ICS training to 30 first responders from Reynosa, San Fernando and Miguel Alemán, Tamaulipas. All participants trained with new tanker simulators. A full tabletop and functional exercise was conducted at the Pharr- Reynosa international bridge. The regional sister city plan contact list was updated.
4.2.03	<b>Binational Tabletop and Functional Exercises between the cities of Harlingen and Matamoros</b>	City of Harlingen Fire department	\$60,000	Border 2020	Rogelio Rubio Harlingen Fire Chief <a href="mailto:rrubio@myharlingen.us">rrubio@myharlingen.us</a>	Hazmat training, a tabletop and functional exercise, partnering with first responders from Matamoros and the Cameron County Local Emergency Planning Committee.	The project was completed in May 2016 with a week-long Hazmat training culminating with a functional exercise involving response to a chlorine incident. The city of Harlingen and Matamoros have established the ability to implement standardized response in real time communication in the event of hazardous materials incidents.

## Promote Cross-Cutting Efforts Related to Environmental Health & Environmental Education

Project N°	Project Title Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact(s)	2015-2016 Target	Progress Towards Target
Projects potentially related to some <u>combination</u> of air quality, water quality, water conservation, or waste management							
6.0.01	<b>Piedras Negras Urban Forest</b>	SEMA, Municipio of Piedras Negras, SEMARNAT	15 Million Pesos	SEMARNAT	Alejandra Carrera, SEMA Coahuila, <a href="mailto:alejandra.carrera@sema.gob.mx">alejandra.carrera@sema.gob.mx</a>	Develop a 15 hectare urban forest in the city of Piedras Negras.	98% percent of the project is complete. The project is still in progress.
6.0.02	<b>Strengthening School Networks and Global Climate Change Surveillance “Casa de Tierra”</b>	SEDUMA, Municipal Government of Reynosa	\$ 66 Million	Gobierno del Estado de Tamaulipas, SEMARNAT	Dra. Silvia Casas González, SEDUMA, <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a>	Build, equip, and operate three “Casas de Tierra” to help the residents in the northern, central, and southern areas of the State. 160,000 annual visitors.	CDT Victoria operating since December of 2013. CDT Reynosa operating since January 2015. CDT operating since August 29, 2016.
6.0.03	<b>Expansion of Environmental Management Systems Program</b> Expand Tamaulipas’ state program in promoting environmental management systems (EMS, or SIMA, in Spanish) to more schools and government offices	SEDUMA Tamaulipas	\$ 300,000	SEDUMA, Empresas Participantes	Dra. Silvia Casas, SEDUMA, <a href="mailto:silvia.casas757@gmail.com">silvia.casas757@gmail.com</a>	Implement and operate EMS (SIMAs) in schools and government offices in the main cities.	With SIMAs (2011-2016), more than 458 tons of waste were recycled (mainly old files), preventing the cutting down of 786,000 trees, a savings 12.4 million liters of water and more than a thousand cubic meters of space in the land fill.

6.0.04	<p><b>Information Model for Health &amp; Environmental Planning Along the Texas-Mexico Border</b></p> <p>Development of a conceptual framework for a binational environmental and health information repository.</p>	El Colegio de la Frontera del Norte	\$39,875	Border 2020	Dr. Felipe Uribe, COLEF, <a href="mailto:ursafeja@gmail.com">ursafeja@gmail.com</a> 878 782 7207	Identify required tools and needed capacity, compare existing systems, identify and recommend training or educational needs, and develop an indicator system to measure environmental health.	A theoretical framework to identify information on health and the environment has been worked on. Various key actors were interviewed. Information was obtained about health and environmental indicators through the development of Memoranda of Understanding between academic institutions involved in the project and the respective Secretariats of Health and the Environment of the state of Coahuila. The project is still in progress.
6.0.05	<p><b>Promotora-Led Environmental Health Education for Children</b></p> <p>Support the development of an integrated approach for educating families on the dangers of exposure to mercury, lead, and pesticides, especially the effects on respiratory health, specifically asthma. These modules will be used to provide training to health promotoras, who subsequently will provide educational information in elementary schools, child care settings and to colonia residents.</p>	La Amistad AHEC and Southwest Border AHEC	\$69,083	Border 2020	Rosa Elvira Martinez, Southwest Area Border Health Education Center, <a href="mailto:rose.martinez@swbah.ec.org">rose.martinez@swbah.ec.org</a> (830) 758-1111	Conduct training and provide educational information on pesticide awareness to elementary schools and homes in colonias.	34% of homes completed the pre assessments within 7 to 8 weeks and 14% of the homes completed the training in less than four weeks. Each of the 29 homes completed the post-assessments. The results indicated that 27 questions of the 44 in the pre and post assessments showed an improvement in the scores and nine houses remained constant both in the pre and post assessments. The project ended in December 2015.
6.0.07	<p><b>Environmental Education and Legislative Action Reforms</b></p>	Universidad Autónoma de Tamaulipas, Facultad de	\$11,000	Border 2020	Dr. Juan Herrera Izaguirre, Universidad Autónoma de Tamaulipas, 0115286719-42-50	Update Nuevo Laredo's environmental regulations in	Training was held for staff in the Environment and Climate Change Division regarding knowledge related to

	<p>Improve the implementation of environmental legislative reforms by exchanging information on environmental education and enforcement regulations that will improve air quality, environmental compliance and solid waste management in Laredo and Nuevo Laredo</p>	<p>Comercio, Administración y Ciencias Sociales de Nuevo Laredo</p>			<p><a href="mailto:jaherrera@uat.edu.mx">jaherrera@uat.edu.mx</a></p>	<p>accordance with state and federal regulations, develop a database of environmental regulations in Tamaulipas border municipalities, train 15 Nuevo Laredo code enforcement and ecology staff on municipal environmental regulations, and promote sustainable management of waste and water conservation at schools.</p>	<p>environmental legislation, the protection of water and recycling. The sessions expounded on topics related to federal, state, and municipal law through the use of technology as well as how to identify the jurisdiction in the three areas mentioned above. A conference was held about the role of inspectors, their administrative duties and how it relates to the environment. The project is still in progress.</p>
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