BORDER .S. - MEXICO ENVIRONMENTAL OGRAM

BORDER 2020 FRONTERA 2020

HIGHLIGHTS REPORT AUTUMN 2018

EPA United States Environmental Protection Agency

SEMARNAT SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

ESTADOS UNIDOS MEXICANOS

Cover
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MESSAGE OM TIONAL OORDINATORS

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INTRODUCTION

Reaffirming itment, -2018.

The United States-Mexico border is a dynamic and unique geogra phic region facing many environmental challenges including poor air quality , unsafe drinking water and wastewater treatment, an d inadequate waste management p rograms and services. The border is home to over 15 million people where appro ximately 90% of the population resides in cities, while the remaining population is ound n mall owns r rural communities. The **Border 2020 Program** is the latest U.S. – Mexico environmental program implemented under the 1983 La Paz Agreement, focusi ng on communities 62 miles on either side of the 2000-mile border. The Border 202 0 Program encompasses a regional, bottom-up approach for decision making, prio rity setting, and project implementation to address the environmental and public hea lth challenges in the border

The Program is designed to draw from communities and local sta keholders, as well as work directly with federal, state, tribal and internati onal partners to implement environmental projects and solutions. Specifically, the fr amework and goals focus quality, ng trengthening - ness and response, fostering environmental stewardship and advocating for environmental health initiatives along the U.S-Mexico Border. This Acc omplishments Report shares election f ur rogram uccesses n he ast ouple of years (2016-2018) to improve hance

Program, we invite you to read the Border 2020 Framework Docume nt and/or if you are interested to know the accomplishments of the Program in it s first 4 years, please visit the Border 2020 hompage at: USEPA and/or SEMARNAT, ~~web pages~~ to see past Accomplishments Reports

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IMPROVING AIR QUALITY

Poor air quality can have significant community economic and social impacts, including increased illness, premature death, and lower quality of life. The U.S.-Mexico border region is vulnerable to the transboundary movement of pollutants between the two nati ons, ialuding inhalable parti culate matt er (soot and dust), ozone (smog), and carbon monoxide. Contributi ng binati onal sources includ dust from unpaved roads and open areas, smoke from illicit burning f rash nd ti res, nd obile sources such as heavy freight vehicles, private owned cars, and trucks idling at border crossings. The Border 2020 Program has supported mproving ir uality y xpanding monitoring networks with increased data access, improvement of air quality through State Implementati on Plans (U.S. an Mexico) ty ti onal

Energy fficiency orkshop amaulipas

Parti cipants first fficiency.

Increasing energy efficiency in Mexico has ecome trategy t ll evels f overnment to improve and build long-term sustainability within their public buildings and enhance security of their energy supply while minimizing the impact to the environment. The operation and installations of public lighting systems and the consumption of energy in public buildings represents one of the greatest expenses faced by municipalities, sometimes reaching up to 40% of their costs. This factor limits the ability for local governments to focus on other priorities and efforts. Through a Border 2020 Program ' Ministry of Urban Development and Environment held two training workshops on energy efficiency to 10 border municipalities within the state. The workshops' materials provided information on the basic tools needed to achieve greater energy efficiency in lighting public spaces, thus increasing

The orkshops ere art f eries f actions to improve energy efficiency in the state, including two energy forums: "First State Energy Forum: Tamaulipas, Energy that moves to Mexico" and the third International Congress on Renewable Energies: "Perspectives of Energy in Mexico." Coinciding with the Border project, the State launched a demonstration wind project, which included the start of operations of four wind turbines with the aim to promote the use f enewable nergies ithin he tate. The State also distributed over 10,000 booklets, "Practical Guidelines for Energy Savings," to help raise awareness in communities on the benefits of installing environmentally friendly technologies in their homes. As a result of these workshops, 10 municipalities committed to carrying out an energy audit in their buildings,

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Heal y esilient ez,

Low-income families often have limited resources to implement energy and water saving measures in their homes. This is often due to either a lack of knowledge, technical assistance, or financial resources. The lack of access to nancing o elp et heir conomic eeds, limits access to clean energy technologies and services. The Mexican not-for-profit Federation of rivate ssociations f ealth nd ommunity *Salud sarrollo munitario de Cd. Juarez, A.C.* FEMAP]), as een perating a Micro-Credit Program in the region for more than 30 years, during which time it has granted more than 40,000 small loans to low-income

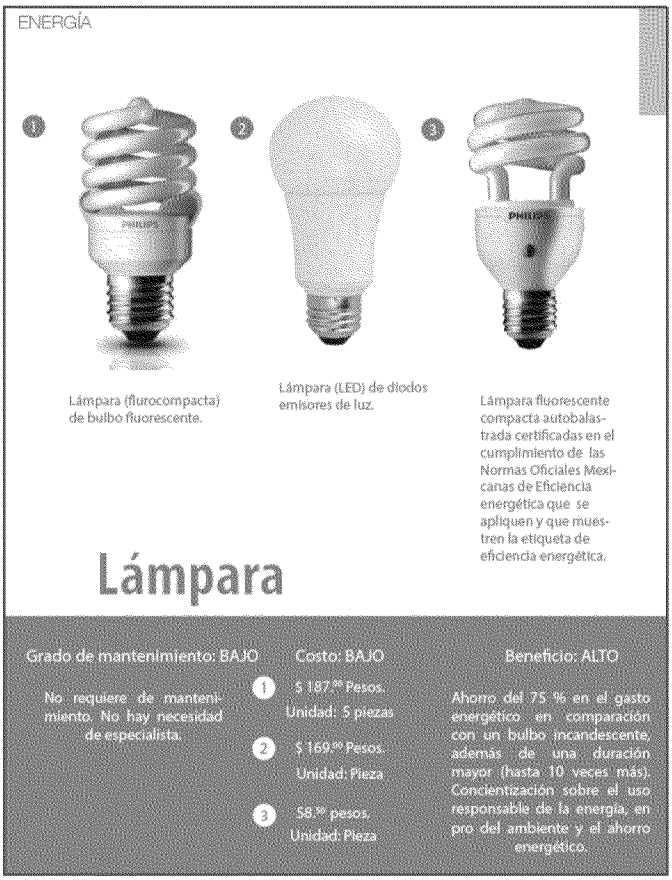
With the support of the Border 2020 Program,
and implement green infrastructure and energy saving elements to low-income families looking to improve their homes within a rapidly growing area of Ciudad Juarez. The project offered technical and financial assistance to 50 homes (over 200 persons) implementing these energy efficient materials and strategies. In coordination with academic, non-profit and private business, he esidents ad ccess o echnical xperts who guided and educated them on green infrastructure elements that could be incorporated and adopted by them, as well as, access to -friendly

The project resulted in an energy cost savings of $630 or 11.249 Kw/hr and water savings of 140,000 gallons of water or $500 following improvements of the 45 of 50 homes by installing:

- over
- 200
- 50 -flow
- 50
- ~~XX~~

Can't get #'s, so just leave as a description

In addition to the improvements made directly o heir omes, atalog f comaterials was developed with the support from the Architecture Program from the Autonomous University of Ciudad Juarez. This catalog includes information on best practices and an evaluation -
gies, identifying those that are viable for implementation in marginalized communities with older housing since the existing catalogs are mainly



Illustrati on. ti on g.

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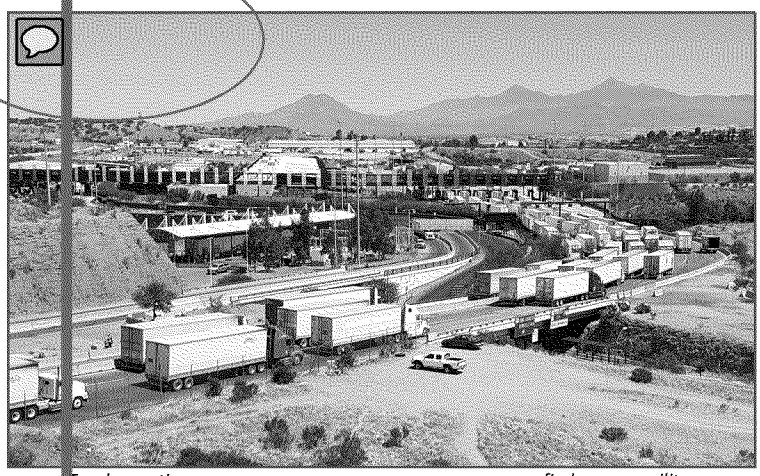
Quantifying eduction om educed Wait ort try.

The Mariposa Port of Entry (POE) in Nogales, rizona s n mportant and ort n the -Mexico - cle crossings per year, including 350,000 truck crossings. The POE is piloting an innovative program to conduct joint inspections with United States and Mexico inspectors in order to reduce commercial truck wait times at the Arizona-Sonora border. This pilot program is expected to ignificantly educe ait imes, rom ours to 1 hour, for northbound cargo trucks. This reduction in wait times will reduce emissions from idling vehicles and accelerate commerce. Nogales, Arizona, is currently in non-attainment for PM_{10} and $PM_{2.}$ U.S. regulations, which can cause respiratory and cardiac effects, especially in older adults and young children. The emissions improve air quality and public health in the region.

The (NARP) North American Research Partnership to study the amount of emission reduction benefits from this pilot project. Over 400 vehicles were surveyed for information about wait times and vehicle make and model, which allowed researchers



Trucks ti ng fied acility.

Survey ft er ti on.

EPA's Motor Vehicle Emissions Simulator (MOVES), a modeling system that estimates emissions for mobile sources at the national, county and project level for criteria air pollutants, is being used by researchers to quantify emission reductions from border wait times. Preliminary data shows that decreased wait times have reduced emissions from idling. In addition, reductions are occurring because vehicles processed through the Unified Cargo Processing Facility tend to be newer and are built with more emission reduction technologies. ~~The North American Research Partnership~~ NAR is currently working on data analysis of the surveys and emission reduction quantification and the final

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Reducing thma riggers or en through -home entions

The children of Imperial County, California, are living with high concentrations of asthma riggers n he ndoor nd utdoor nvironment, including cross border air pollution. These factors have contributed to Imperial County experiencing some of the highest rates of - nia.

To address this issue, the Border 2020 Program has partnered with and funded the Imperial Valley Child Asthma Program (IVCAP) from 2015-2017 to conduct in-home asthma interventions with workers on implementing healthy homes strategies. During this period, 94% of participants enrolled in the program reported no ER visits or hospitalizations. In addition, IVCAP reached over 2,000 people through outreach and education, program enrollment, and other community engagement

One
Imperial

EPA continues to support and positively impact low-income families by funding in-home asthma interventions to IVCAP by a Clean Air Act asthma grant. The 2017 funding has a goal to provide in-home environmental asthma assessments and tools to manage asthma triggers for families and children 17 and under. These home environmental observations will be carried ut y *promotoras*, or community health workers.

> *I enjoy educating parents of asthmatics on what they can do to improve their home environment, such as introducing them -toxic eaning*
>
> **Rubi**
> **Community** ***Promotora)***

To date, IVCAP has enrolled almost 90 additional asthmatics into their program with 80% of them reducing, avoiding, and/or eliminating two or more triggers identified after IVCAP's home environmental assessment. Families received tailored interventions for their unique

By the end of this 2017-18 effort, IVCAP hopes to reach up to 70 families and to conduct in-home asthma interventions. These interventions will decrease ER visits and hospitalizations. In addition to in-home visits, IVCAP will raise awareness by conducting outreach and educating residents living with asthma on the benefits of improving the indoor home environment to maintain long term control of asthma. For more information on asthma and environmental triggers, please visit: www.epa.gov/asthma.

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ENHANCING WATER QUALITY

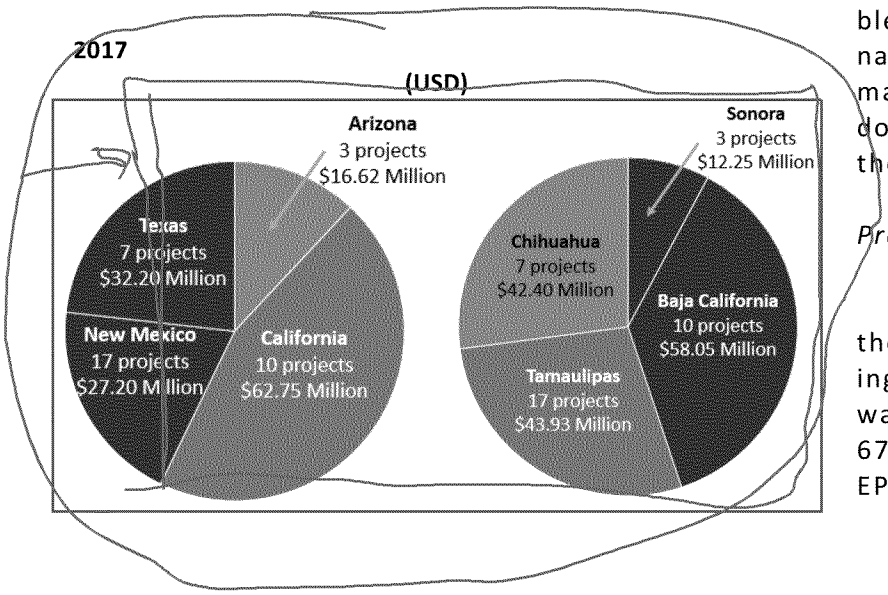
Rivers undaries fine ed stormwater and sewage from deteriorated infrastructure and extreme weather events can contaminate transboundary waterways, causing health concerns along the border region. The Border 2020 Program has improved water quality through the financing of stormwater miti gati on or management demonstrati on projects, ıch as green infrastructure, solid waste reducti on programs and research. Funds from the related Border Water Infrastructure Program (BWIP) have been used both to e.

U.S.-Mexico ater astructure ogram

The Environmental Protection Agency's U.S.-Mexico Border Water Infrastructure Program (BWIP) funds the planning, design, and construction of high priority water and wastewater infrastructure along the U.S.-Mexico border. BWIP assists disadvantaged communities in identifying and securing available funding sources and addressing funding gaps o nsure ccess o afe rinking ater and dequate anitation, ften or he irst time.

graph is to left

BWIP provides hands-on management and technical oversight for communities lacking technical and managerial capacity that can then complete project planning and design requirements, increasing funding opportunities for construction assistance from other programs, such as Texas' Economically Distressed Areas Program, the State Revolving Fund, United States 's Development Water and Environmental Programs, and the North American Development Bank



Rivers along the U.S.-Mexico border sometimes naturally define the international boundary like the Rio Grande or flow from Mexico nto he .S. uch s he ijuana iver. rojects funded under the BWIP address transboundary sewage discharges between the two countries. Treating raw sewage at the source before it enters shared border water bodies is the - ble option to prevent transboundary contamination. As part of this partnership, Mexico matches EPA's project's investments dollar for dollar, which helps protect public health and the

Program

Since 108 the program has provided access to safe drinking water to 70,000 homes and first-time wastewater collection and treatment to 673,000 homes. In 2017, through the NADB, EPA announced a new project application cycle

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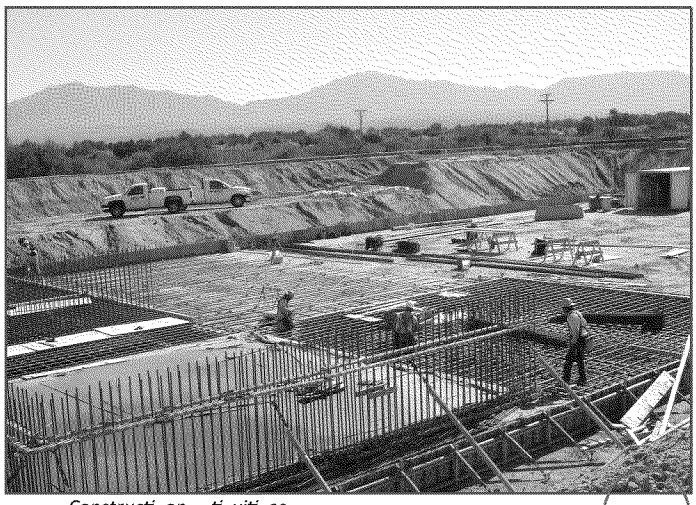
for BWIP funding. This identified over 60 eligible drinking water and wastewater projects with onstruction
million that address public health and environmental conditions along the U.S.-Mexico border.

Building techn l and managerial capacity at Sunland Park, New Mexico through partnerships.

The construction of a new treatment plant in Sunland Park, a small and disadvantaged community in New Mexico, started in August ional -
ty (CRRUA), the local wastewater utility, strug-



Constructi on ti viti es

gled with inadequate and aging infrastructure, environmental compliance, and lack of managerial capacity and resources. For close to two years, PA, ew exico nvironment epartment (NMED) and NADB, worked closely with CRRUA to implement a capacity building plan to ensure CRRUA could effectively manage a new wastewater treatment plant. EPA provided more than $816k to implement this plan and technical assistance for project planning and design. The plan was successfully implemented; EPA and NMED then funded the construction of a $12.7 million treatment plant. EPA contributed -
tional $3.7 million in state funding. The treatment plant will improve access to sustainable wastewater treatment services to approximately 6,440 residents of Sunland Park and Santa Teresa and will greatly reduce the risks of untreated -
charges.

CRRUA's board chair, Josh Orozco, stressed the importance of finally being able to provide adequate wastewater treatment capacity in the community. During the July 2017 groundbreaking ceremony, he said this new plant "…will not only allow more homes and more businesses to be helped, but will also improve "

Protecting the Tijuan iver Watershed from transboundary

The -
ifornia, Mexico, crosses the U.S.-Mexico border in San Ysidro, California, and empties into the Pacific cean ust outh f mperial each, alifornia. Discharges of raw and poorly treated sewage in Tijuana can impact the economy, health, and environment of U.S. communities like Imperial Beach and Chula Vista in San Diego County. -stakeholder -
term effort to address these transboundary spills, a BWIP project is underway to repair some of the deteriorating wastewater collectors. These collectors carry sewage from households to the Tijuana wastewater treatment plant. If these collectors are not repaired, catastrophic collapses could occur, resulting in hundreds
flowing
beaches. The existing partnership between EPA and Mexico's water agencies, provided $7 million for the repair of more than 6 miles of sewage collectors and rehabilitated 30 manholes. A second phase for the construction of 2.5 miles of additional sewage lines is underway. The estimated cost of this project is $3 million with a projected EPA contribution of $1.4 million.

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Fat, ease each Campaign ownsville

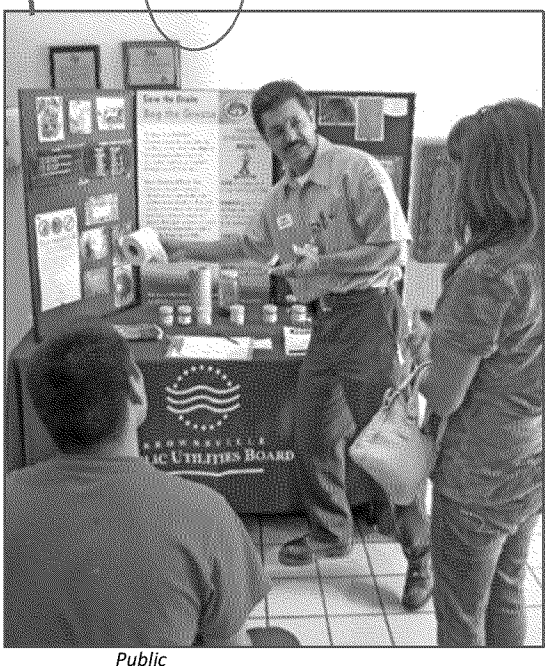
The Brownsville Public Utilities Board (BPUB) was awarded a grant of $25,000 ~~USD~~ from the Border 2020 Program in February, 2016, to provide outreach and education on the impact
water quality to the communities in Brownsville, Texas; and Matamoros, Tamaulipas. Historically, t he PUB, OG esidential nd ommercial service calls occurred on average five times a week, with increased occurrences during

BPUB entered a voluntary reduction program with the Texas Commission on Environmental Quality (TCEQ), Sanitary Sewer Overflow Initiative. This voluntary program requires BPUB to work on reducing unauthorized discharge of untreated or partially treated wastewater from the collection system or its components (e.g. manhole, lift station, or cleanout) before reaching a wastewater treatment facility as a result of FOG issues. Through educational campaign efforts to both the general public and to commercial establishments, the BPUB aimed to reduce the number of FOG related service calls and bring awareness about the proper disposal techniques in dealing with Fat,

Marketing

On March 16, 2016, the BPUB officially kicked-off its "Fat, Oil and Grease" public outreach
Brownsville. During the public meeting, they announced their collaboration with the City of Matamoros n he ew OG utreach rogram. BPUB reached communities from both sides of the border through a number of activities that included advertisements, educational fliers, ad videos, workshops, and press coverage. Social media platforms such as Facebook, Twitter and YouTube were also utilized to target younger audiences and share the educational video and audio -
out the project period, over 80 public outreach events and trainings with over 1,700 participants were conducted to the public in apartment and housing complexes, churches and educational institutions, as well as, commercial business.

More importantly, the BPUB through its outreach efforts has consistently been reducing the number of FOG service calls from 731 in 2013 to 417 in 2016, a 43% reduction in just four years. During the project period, in 2015 and 2016, the BPUB received 477 and 417 ser-



Public

vices calls related to FOG pollutants, respectively. verall, he roject et ts bjectives, including reducing the number of FOG related calls 3% r 0 alls. o ontinue o earn ore about BPUB's FOG efforts please visit its web page.

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Building astructure Valle venue

The border region of El Paso and Juarez lacks urban green spaces, especially in Juarez where is estimated to exist only 4.5 m^2 of green area per inhabitant while the World Health Organization (WHO) established a sustainability indicator where 9 m^2 of green area per inhabitant should exist. Since 2013, Juarez has actively been partnering with various organizations to increase green infrastructure and expand green spaces throughout the city. These projects not only can be cost-effective but can address flooding issues associated with a lack of stormwater
high

In 2016, the Border 2020 Program helped fund the rehabilitation of a park situated n alle el ol venue nd olares treet. Located ver alf ile rom he .S.-Mexico boundary, the park is the only green space in the area available to the community. Over many years, the park had heavily degraded due to ack f aintenance nd o onger erved as n rea here he ommunity embers could gather. The Instituto Tecnológico de Ciudad Juárez (ITCJ), the promoter of the project, transformed the park back to a usable space for community members, but also addressed flooding
events.

Passive ti ng

With funds granted by the Border 2020 Program, he TCJ eveloped his roject ith the

- Establish passive rainwater harvesting systems;
- Conserve
- Protect
- Incorporate and take advantage of the existing

The project began in June 2016 with the cleaning of the site and the reconditioning of the sidewalk, the construction of passive systems or ainwater ollection, s ell s he e-covery and reconfiguration of existing vegetation. The amount of rainfall monitored from July 2016 to November 2017 (17 months) captured a total volume of 472, 502 U.S. gallons of rainwater.

Presently, the passive water collection systems continue to function effectively and the park almost ntirely ith ainwater xcept n ases of xtreme ater tress r or he nitial upport

Thanks to a donation from the municipal authority, he ark oil s rotected rom ind erosion by a walnut shell cover which allows any

Finally, surveys conducted in the area showed hat he ocial alue f he ark n-creased substantially. Before the project, the space was viewed as a negative area within the community nd s ow een s sable ocial gathering

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Determining ale orous terial for exas ormwater

A number of communities in the Lower Rio Grande Valley in southern Texas have been evaluating various Low Impact Development (LID) methods to incorporate into their communities. provides - ditional management practices as: reducing or eliminating the need for large retention ponds; decreasing pollution to receiving waters; lessening erosion; more visually appealing within the community; flexibility in the layout of projects; and lowering cost. A research of Ho, f he niversity f exas io rande alley (UTRGV), valuated he se f ioswales n parking lots to determine the best performing locally available bioswale porous media material as well as design a standard that could be used by communities in the region. Bioswales are generally designed to manage runoff from large impervious surfaces such as parking lots and incorporate engineered porous soils and/or other landscape elements to remove debris and pollution

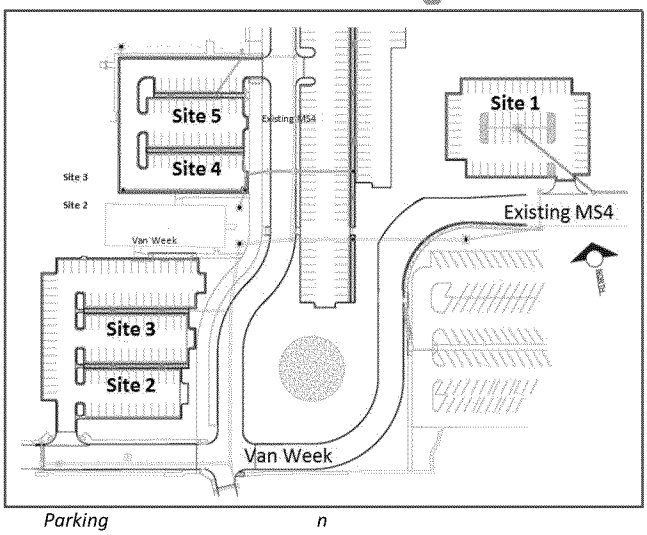
too left

BIOSWALE DRAINAGE

Sampling Sites	Bioswale	Porous	Drainage (acres)
Site	No	No	.237
Site	Bioswale	Pumice	.216
Site	Bioswale	Manufactured	.218
Site	Bioswale	Recycled	.209
Site	Bioswale	Natural	.206

Building on previous studies Dr. Ho conducted, his team evaluated five testing sites that utilized various bioswale porous media (no bioswale, pumice, manufactured sand, recycled crushed glass and natural sand) in parking lots on

The roject valuated he ydrological performance of the four different materials



Parking n

used at the five testing sites. Field testing indicating, Site 2 with the Pumice material, showed the best hydrologic performance taking into account the four decision criteria of runoff volume reduction, peak flowrate reduction, peaktime attenuation, and runoff solids filtration. Pumice showed the highest filtration of the materials with 58% and a peaktime attenuation of 64%.

The soil column test results show that any mixtures containing pumice more than 40% of the volume produced promising results. Three 40% pumice mixtures (with manufactured sand, natural sand, and recycled crushed glass) achieved 30% of specific retention and 52% of filtration

Overall, based on the field testing, pumice performed the best of the bioswale porous medias, with testing showing that at least 40% pumice material mix is the ideal material for this egion. owever, t hould e oted hat further studies need to be conducted to consider
project construction to determine the overall practicality

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Green astructure or trol and otection ales

The International Outfall Interceptor (IOI) sewage from Nogales, Sonora, and Nogales, Arizona (Ambos Nogales) to the Nogales International Wastewater Treatment Plant nine miles north of the border in Rio Rico, Arizona. Since the n as a combined sanitary-stormwater conveyance, over the years sediment inflows and infiltration of stormwater in Sonora have caused failure of the IOI in Arizona. Erosion (scouring) from the sediment has weakened the conveyance system resulting in breaks in the IOI, most recently in July 2017, leading to sewage spills into the Nogales Wash. Repeated failure of the IOI could result in contamination of Arizona groundwater resources.

Rain flood

The Watershed Management Group (WMG), -based -profit, 2020 Program funded project to demonstrate the potential of green infrastructure (GI) to diminish the amount of sediment during flood events hat s couring he OI. reen nfrastructure, according to EPA, uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. The project used a three-pronged approach

- Capacity building (community trainings in planning, design and implementation activities);
- Demonstration sites (two projects for sediment
- Policy development (resolution to expand and strengthen GI practices in Nogales, Sonora).

Working with local government and Nogales, Sonora, residents, WMG completed two demonstration sites covering close to 10,000 m^2, imilar o he rea f arge occer field. In addition, 88 residents attended a training and over 500 community members were informed about green infrastructure concepts via community events and project participation. One demonstration site is a rain park that now harvests a volume of 50,000-70,000 liters of rainfall per rain event. These GI modifications will nearly eliminate the park's contribution to flood events downstream in the Ambos Nogales area.

The project attracted support from a Nogales also on the State of Sonora Commission for Energy, Environment and Climate Change. This project moved beyond the local level, spurring the Sonora Congress to adopt a green infrastructure law in April of 2017, the first of its kind

This project increased community capacity to use green infrastructure to reduce flooding in the Ambos Nogales area and prompted the local government to support future green infrastructure

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Protecting 's ater Resources ty, ornia

Located in Imperial County, the City of Holtville's wastewater treatment plant (WWTP) was not meeting discharge requirements for ammonia and other pollutants that were flowing nto he ear rain, hich eeds he lamo River and ultimately the Salton Sea in southern California. Thanks to funding from EPA's Border Water Infrastructure Program and the State of California Clean Water State Revolving Fund, the existing WWTP was upgraded and now provides wastewater service to 100% of the service area

Already considered an impaired water body, the polluted discharges from Holtville exacerbated the treacherous conditions faced by wildlife and plant communities living in the Salton ea. ver he ears, ater evels n he alton Sea have dropped rapidly due to evaporation and have increased salinity and pollutant concentrations. The exposed lakebed has succumbed
dust onto the surrounding communities. These dust particles may contribute to asthma attacks throughout Imperial Valley. The Holtville WWTP that now meets discharge requirements will not only increase the chances of survival for the various organisms dependent on the sea, but the influx of properly treated water will keep dust from being exposed to the wind and away from

Building ti on.

Some
the Holtville WWTP include an automatic bar screen that maximizes the removal of large objects and an activated sludge system enhancing treatment effectiveness and improving the quality of the effluent. A rehabilitated operations building within the treatment plant was also quipped ith odern ab quipment, nsuring that tested effluent meets discharge requirements.

> ***EPA is committed to helping communities across Imperial Valley protect the state's vital water resources. Our investments renew aging infrastructure, which can be costly for smaller communities like***
>
> **Tomas**
> **Water**
> **U.S.**

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PROMOTING CLEAN LAND

In e .S.-Mexico rder egion, olid aste nagement as t kept increasing ti on, resulti ng in unmanaged trash and overburdened waste services and infrastructure; as well as potenti al valuable materials being lost in landfills or illegally dumped. Poorly managed waste contaminates land and adversely public health such as creati ng fire hazards contributi ng to poor air quality or serving as breeding habitats for mosquitos and the potenti ally spreading of vector-borne diseases such as Zika. Sustainable Materials Management (SMM) promotes a life cycle approach which begins by opti mizing design to final production of goods and services to reduce waste, eliminate toxicity, and maximize reuse. The Border 2020 Program partners have advanced SMM through clean-ups and projects to recycle household hazardous waste, electronics and scrap ti res.

Supporting o ecyclers.

Every year vehicles are stockpiled along the U.S.-Mexico border when they reach the end Often, vehicles have not been processed properly to recover dispose of hazardous materials these vehicles have. As the discarded vehicles are piled up, they ecome n yesore o he ocal ommunities and pose a risk to human health and the environment. The vehicles often contain hazardous materials like antifreeze, used oil, or lead and when abandoned, they become a liability

In response to address the needs of auto recyclers n he order egion, .S. PA nd SEMARNAT have produced an End-of-life Vehicle uide Guide). he uide as reated o share effective practices for preparing an end-of-life vehicle so that the vehicle can be recycled properly and contribute to the U.S.-Mexico Border 2020 Program's goal to reduce waste through the safe and responsible recovery of materials.

The Guide and other materials form a packet comprising the guide, a set of quick reference a inform handling facilities and technicians on prepping the vehicles for processing in an environmentally sound manner. Additionally, the Guide discusses responsible disposal, cost recovery, health, safety and security, industry standards, and a listing of vehicles containing mercury

Specific waste streams that pose a high risk to workers and the environment are highlighted in the Guide and on a set of waste cards complete with diagrams. Waste streams include: lead, mercury switches, refrigerants, waste batteries, waste fluids and waste fuel. Overall, he uide rovides aterials hat echnicians can use to dispose of old vehicles using environmentally

EPA and SEMARNAT will work together to disseminate the folders to the relevant stakeholders along the border region in fall 2018. All materials are available in both English and

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Scrap es aste along .S.-Mexico

The Border 2020 Program has aimed at building a more sustainable, integrated approach waste to minimize and reduce the impact to the environment and improve public health. However, in a geographic region where population, socioeconomic conditions and environmental regulations can vary significantly, different border communities have had to take varying and creative approaches to build sustainable communities.

City

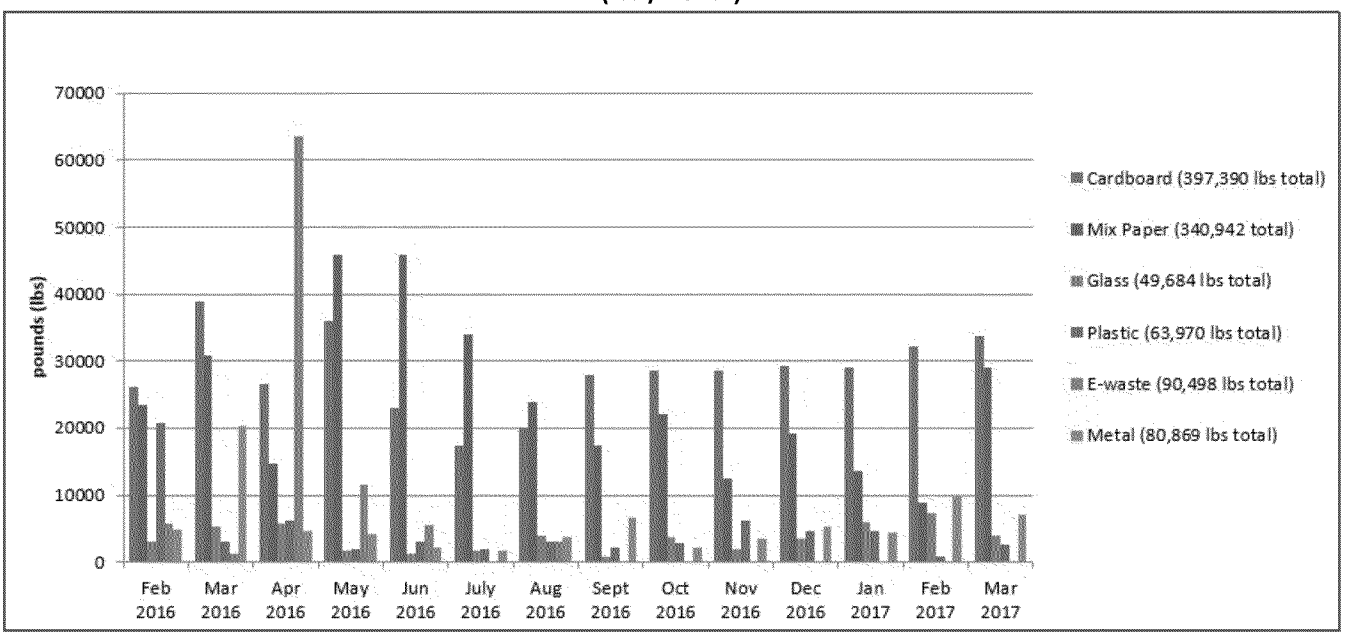
Over he ears, he ity f harr as mplemented greater sustainability tools within the Public Works Department to make the city one f he leanest n he ower io rande Valley. In 2016, Pharr received a Border 2020 Program grant for $36,000 USD to continue improving their recycling and education efforts within the community to reduce the city's dependency - munity. Over a 14-month period, the city collected:

- Over
- 60
- 1,023,353 lbs. of recycled material diverted

Staff launched a bilingual public education campaign of the city's recycling and sustainability efforts, stormwater pollution and illegal dumping of scrap tires, through social media, brochures, public service announcements and over 100 outreach activities (20 meetings, 40 events, 50 presentations). The project also increased recycling efforts in some Pharr schools by promoting an environmental education contest and providing 75 recycling bins for school classrooms and dozens of 95-gallon recycling bins within the school district. To earn ore bout harr's ublic ork epartment and their efforts, please visit its web page.

RECYCLABLE RR,

(lbs./month)



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Valle

In 2014, the state of Tamaulipas passed legislation hat utlined ts rogram or ntegrated Waste Management and Prevention. Within his rogram, ased n actors uch s population growth and solid waste generated per capita, the state prioritized municipalities where it was vital to establish a municipal integrated waste management and prevention program. It also outlined specific strategies and actions that these municipal plans should address including short, medium and long-term implementation as well as associated costs. The implementation of the municipal plans is done in three phases: conducting a diagnostic of current conditions; adoption by the municipality of their plan; and finally implementation, monitoring

The tate ecretariat or rban evelopment and Environment in Tamaulipas (*Secretaría de Desarrollo Urbano y Medio Ambiente* [SEDUMA]) received a $20,000 ~~USD~~ grant from Program assist municipalities of *Valle Hermoso* and *Rio Bravo* complete their diagnostic study on local waste management. The diagnostic study, which took place -month

- Current operations, staff, equipment, solid aste ollected nd lassification f waste;
- Specific strategies recommended to be implemented over a short, medium, long-term
- Costs associated with implementation of strategies
- Monitoring
- Potential

On August 22, 2016, SEDUMA presented both municipalities with the diagnostic assessment f heir urrent aste anagement ystem. In March, 2017, *Valle Hermoso* officially published and registered the diagnostic assessment ith he tate, oving nto he hird phase. Next steps include the municipality of Rio Bravo's city council approval of the assessment

too left

TOTAL

VALLE ***RIO*** ,

Strategy	Total lement (USD) Rio	Valle
Management/Operati ons	$4,776,923.00	$1,296,428.00
Recycling	$1,648.00	Not
General	Not Community	$10,989.00
Public ti on	$16,373.63	$17,032.00
Private ti cipati on/Partnerships	No	Not mmunity
Insti tuti onal	$155,495.00	$122,527.00
Finance/Legislati ve	No	Not mmunity

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Addressing tional llenges onic aste Texas

Rapid advancements in technology and the use of electronics by consumers mean that electronic products quickly become obsolete and are disposed. Unlike other recyclable materials, electronic waste (e-waste) s ot s asily recyclable due to the toxic metals (lead, mercury, cadmium and arsenic) found in them. The challenge with recycling e-waste is often improper disposal in local landfills and the lack of infrastructure in communities to properly support

In 2016, through two Border 2020 Program rants, ne o he ecretary f nvironment f he tate f oahuila *Secretaría de Medio* nd r en Tec-osos, an environmental group within the Technological Institute of Piedras Negras (*Instituto Tecnológico de Piedras Negras*), e-waste recycling projects were launched in the communities of Ciudad Acuña, Piedras Negras and te Pass, Texas. These projects aimed to prevent the e-waste generated in the municipalities from being illegally dumped in the Rio Grande riverbed, around the Amistad Dam, as well as in streams, region. They also informed and educated the community about the benefits of reusing electronic

Permanent ti on ti es Public

To - manent e-waste collection centers were established among the four communities. Through community events, the projects yielded the collection of over 113 tons of e-waste. In addition, with the assistance of over 60 partners through workshops, trainings and media outlets, residents were educated on the positive impacts of recycling lectronic aste as n he nvironment.

too ical

COLLECTION
FEBRUARY, - MARCH,

Type ti on	E-waste (tons)	Residents
22 Negras	32.22	45,000-50,000
Schools Nava ti es	8.83	5,500
Businesses	5.56	2,500
Eagle	14.83	28,765

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Campo ances ero aste actices.

In the border region, unmanaged trash causes potential transboundary impacts such as impairing water quality, clogging streamflow, and creating habitat for disease vectors. In 2015, the Campo Band Tribe, located in California, raised concerns about transboundary solid waste issues to representatives implementing the Border 2020: U.S.-Mexico Environmental Program. In 2016, the Program provided funds to onduct olid aste ssessment nd repare a zero-waste plan. The zero-waste plan lays he oundation or eveloping ero-waste program, etting oal o ignificantly educe waste and establish diversion practices to eventually

Campo ti ng ti fying

The zero-waste plan was completed in January 2018. Along with the recommendations in this plan, the Campo Band is actively exploring other materials management activities including short and long-term goals to develop a self-sustaining waste and recycling program and transfer station. This plan was an important first-step/tool for the Tribe to accomplish their solid waste goals and improve the Tribe's and border region's health. The Campo Band continues to leverage other resources such as EPA's General

Campo eighing

their solid waste goals, creating practices that makes sense for their community, and using the zero-waste lan s aluable ool o ccomplish their needs. The Campo Band Tribe is estimated to be funded by GAP for $18,000 USD for the Fiscal Year 2019 to continue to move forward -waste

format to fit column?

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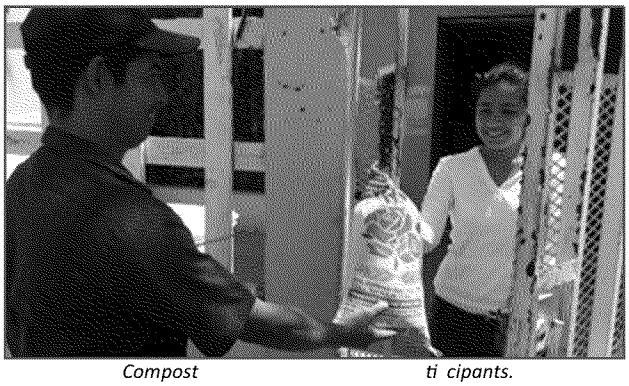
Composting erts aluable ganic om



Compost ti cipants.

Compost is a valuable resource made from food waste, landscape cuttings or other organic material. However, based on the 2018 study "Characterization and Management of Organic Waste" released by the Commission on Environmental Cooperation (CEC), organics in the U.S. and Mexico are predominantly sent to landfills. The Border 2020 Program has worked to increase diversion rates, estimated to be 32% or he .S. nd % or exico, y orking with overnment, cademic, on-profits, nd industry stakeholders to improve the management - es 's food

In 2012, the Border 2020 Program awarded the organization "*Tijuana Calidad de Vida*" a grant resulting in the first border municipal landscape compost pilot program that produces compost and educates future composters. In 2016, EPA Region 9's Environmental Finance Center funded a grant to identify compost niche markets in Tijuana for businesses needing o chieve aste eduction oals or their corporate social responsibility ratings. In 2017, the Colegio de la Frontera Norte (COLEF, by its acronym in Spanish) conducted a pilot program working with nearly 120 households in Tijuana and training them in a total of 27 workshops. This resulted in the diversion of 10,067 kg of household food scraps. The compost created was used at Eco-parque, a campus program to model and teach sustainable practices and 107 sacks of compost were donated to household participants. The findings of these grants n 's

On June 13, 2018, the University of Arizona (UA) Compost Cats celebrated the award of a $91,000 USD grant from the Border 2020 Program to establish the Santa Cruz County (SCC) ompost enter, uch-needed lternative to landfilling waste produce. Nearly 3,000,000 tons of produce crosses the nearby Mariposa-Nogales Port of Entry, one of the busiest land crossings along the U.S.-Mexico border, ound arkets ross he nited ates each year. About 8,000 tons of waste produce are generated yearly, equivalent to two dump trucks er ay or n ntire ear, nd s hen disposed of in the Rio Rico Landfill. The new SCC compost center will offer both environmental and economic benefits to the region (Press release for compost-center). In its first year, SCC Compost Center will compost 3,000 tons of waste produce, creating 9,000 cubic yards of compost.
covered ith ne oot f ompost. he oal s to ns

The SCC Compost Center will be modeled after the successful UA Compost Cats program in Tucson, which not only composts but works with local food banks to divert good food from campus to hungry people. In 2015, their work was acknowledged with EPA's "Food Recovery Challenge" award for reducing food waste on the UA main campus and in the City of Tucson. Similarly, the SCC Compost Center will serve as an agricultural learning center for high school and college students and recover this valuable resource from taking up space in

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STRENGTHENING EMERGENCY PREPAREDNESS AND RESPONSE

Recognizing that chemical hazardous events and other environmental emergencies, regardless of an internati onal border, can threaten both local and binati onal communiti es, U.S. and Mexican partners conti nue to work together to ehance preparedness and response for internati onal emergencies. The Border 2020 Program and partners support binati onal training, exercises, essenti al equipment and emergency plan updates, which have increased communicati on and esponse capability. Together, they of y

Binational raining educes Impacts der

The Border 2020 Program had allowed to strengthen the cooperation between federal, state and local agencies on both sides of the border to provide exercises and training as well as to ensure that first responders have proper personal protective gear to respond safely and effectively. Since - fighters, emergency management officials, police, military, industry representatives, medical staff and other relevant community leaders have received training through: 153 training courses, 32 binational exercises and 245 drill notifications between the U.S. and Mexico throughout the Arizona-Sonora and California-Baja

> ***Thanks of the city of Douglas, Arizona, who have participated as instructors to enrich ur AZMAT nowledge. ith his we re repared or ny mergency. ur aim is to protect the communities in our sister ities. hanks o PA or roviding us with the equipment since, due to its high cost, it is out of our reach. Thanks for trusting and believing in the firefighters***
>
> **Lieutenant H.**

Firefighters fire.

Getting equipment and personnel in a timely manner across an international border crossing to help respond to fires has always been a challenge. It requires a coordinated effort among a wide range of agencies and organizations. Binational training and exercises with first responders, customs officials, other government agencies, military, industry and the public have laid the groundwork for efficient responses -life

Binational

When a major tire fire sent dangerous billows of smoke from Agua Prieta, Sonora, into Douglas, Arizona, in December 2017; Douglas firefighters crossed the border and helped put it out in four hours. Binational training and tab-

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Parti cipants

letop exercises conducted four months prior to the fire greatly assisted in increasing the efficiency of the response and reducing the scale and impact of the incident. Additionally, border patrol at the port of entry on both sides provided timely crossings to the binational firefighters.

The binational collaboration with the addition of the Douglas firefighters prevented the fire from growing larger and potentially crossing into the U.S. and reduced the amount of smoke that can cause respiratory problems for sensitive populations such as children, elders and

aining

A 200-hour HAZMAT Tech training for Douglas and Agua Prieta firefighters has been ongoing on weekends and will finish up by Fall 2018. As a result of this training, the Fire Department of Douglas will have additional HAZMAT and Prieta will have its first full HAZMAT Tech team. This firefighters will be better trained and equipped to respond to incidents and assist each

n May 26th, 2018, the training course was interrupted and postponed due to a binational response to a tire fire in Agua Prieta. The recently updated Sister City Contingency Plan ilized where the Douglas Fire Department assisted in getting the fire under control in under three hours.

Gerardo Romo, a firefighter of the Douglas Fire Department, commented: "Thanks to the binational efforts and the HAZMAT class being presented been able to respond to incidents in a more prompt and efficient way. In the past, Agua Prieta Fire Department had willingly attended to fire mergencies nd howed heir est fforts; however, ow hat hey re eceiving he AZMAT training by Douglas Fire Department, they understand the need of proper personal protective quipment o espond nd ace he isk f each vent uch s he ire ires. ersonally saw the firefighters using the proper respiratory protection equipment during the tire fire that th".

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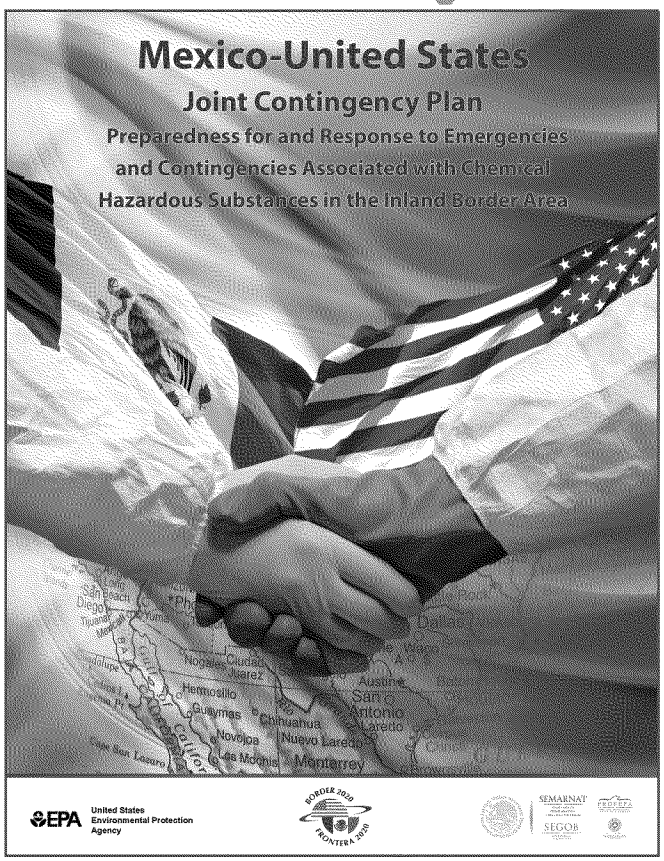
Enhance eparedness or vironmental Response der ogram

Chemical and other hazardous substances emergencies do not respect international boundaries. Preparing for a possible emergency in the border region improves the ability to respond to incidents and protect the environment and public from hazards that could result in serious

Annex II of the 1983 La Paz Agreement established the U.S.-Mexico Joint Contingency Plan - nation mechanism for protecting human health and the environment and responding to significant chemical and oil contingencies or emergencies that affect the inland border area between the U.S. and Mexico. Two previous versions f he exico-U.S. CP ave een evised and updated. Most recently, on November 17, 2017, in Mexico City, the most up-to-date version of the JCP was signed by the Secretariat of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales* [SEMARNAT]), through the Office of the Federal Deputy Attorney of Industrial Inspection (*Procuraduría Federal de Protección al Ambiente* [PROFEPA]) and the National Coordination for Civil Protection within the Secretariat of Interior (*Secretaría de Gobernación* SEGOB]). Previously, for the U.S., EPA's Office of Emergency Management (OEM) signed the updated JCP.

The updated JCP has a robust binational notification system that has been restructured to reflect lessons learned from actual emergencies and notification drills. The changes to the notification system were coordinated with the U.S. National Response Center (NRC), Mexico's National National - tem of Civil Protection (*Centro Nacional de Comunicaciones / Sistema Nacional de Protección Civil* CENACOM]) nd ROFEPA s ell s ith EPA's



Cover ti ngency

The ability to plan and prepare binationally improves the probability of adequately responding to incidents and protecting the environment and public from exposure to harmful contaminants and possible serious environmental or health impacts. This binational partnership is also increasing emergency response capacity through training events designed to enhance cooperation, strengthen binational contingency plans at the local, state, regional and national levels to reduce the risks of emergencies and disasters throughout the border region.

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FOSTERING ENVIRONMENTAL STEWARDSHIP

The ant cross-border t consumer goods and hazardous materials desti ned for recycling ordisposal. When mismanaged, the hazardous materials pose an immediate transboundary environmental health threat. In response, federal, state, and local enti ti es are partnering to conduct nortand south-bound surveillance, provide cross-border compliance assistance, and improve access to informati on about potenti al industi sources of toxic substances through rainings nd orkshops. hese acti ons increase transboundary compliance, foster environmental stewardship, and reduce overall risks posed by hazardous waste and

Legislative eform vironmental ducation in o edo, amaulipas.

The Autonomous University of Tamaulipas UAT, y ts cronym n panish) eceived Border 2020 Program grant to continue educating border communities on the environmental challenges (i.e. water pollution, urban solid waste, fats-oils-grease) that persist in this geographic region. The project focused on the following

Web ntal regulati ons ti es es maulipas

- Educate school students and environmental municipal inspectors about the most common environmental challenges in the region.
- Update the municipal environmental legislation for environmental protection in Nuevo Laredo and some of the surrounding municipalities and present it to the city
- Create an online database with the existing environmental regulations or ordinances of all the border sister cities within

The project resulted in environmental conservation training to over 23[illegible] students, 50 public school directors, and 20 environmental inspectors of the city of Nuevo Laredo. Additionally, the project aided in the development and delivery to municipal authorities a proposed new ordinance of "Territorial Ecological Planning" of the Municipality of Nuevo Laredo, Tamaulipas. Lastly, the municipalities of Ciudad Mier, amargo, iménez nd aumave n amaulipas adopted environmental ordinances that will

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Port of Entry Inspectors Safeguarding

Enforcing the Resource Conservation and Recovery Act's (RCRA) import/export regulations protects public health and the environment
waste and materials being mishandled and spilled. It also reduces the amount of binational "scam" businesses who implement illegal practices, creating unfair business competition. EPA funds California's Department of Toxic Substances (DTSC), a Border 2020 partner, to safeguard -Mexico

DTSC and San Diego County inspectors work closely with Customs and Border Patrol (CBP) to conduct surveillance and enforce compliance to ensure hazardous materials and waste products are safely transported across the orts f ntry POE) nd nward o heir final destination between the U.S. and Mexico. These HAZMAT trained inspectors work with U.S. ustoms AZMAT nspectors nd erve s part f he mergency esponse eam, irst line of defense in the event of a hazardous spill or accident at the POE. DTSC and the San Diego County, CBP,
in special operations such as inspections of cargo utside f ays nd ours llowed or azardous materials. To increase compliance, the two countries provide compliance assistance outreach and training to facilitate the U.S. and Mexico's industries to understand regulatory requirements.

On June 20, 2018, with funding from the Border 2020 Program and RCRA program, DTSC hosted an import/export workshop in Tijuana, Baja California, in coordination with SEMARNAT, PROFEPA, and Baja California's Secretariat of Environmental Protection (SPA, by its acronym in Spanish), for Mexican hazardous waste and special waste industrial generators operating in Baja California. The workshop focused on import/export requirements including: transport, new electronic manifest system and verification, defining hazardous waste and materials, and differences between federal and state requirements. Nearly 200 people representing industry, government, and academia attended, demonstrating the demand for this type of information and industry willingness to comply.

Att endees

Based on the last repor f he .S.-Mexico Consultative Mechanism, 33 Mexican businesses are permitted by SEMARNAT to treat, store or dispose hazardous waste generated by the hundreds of businesses in the region. Offering these hazardous waste compliance workshops in Tijuana assists industry and informs key stakeholders on compliance requirements for U.S. regulations, ultimately protecting

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ADVOCATING ENVIRONMENTAL HEALTH

Environmental health focuses on how the natural and built environment affect human health and how it can be managed to improve quality of life. Our most vulnerable populati ons such as children the elderly and those with respiratory ssues re ft en he ostimpacted by the combinati on of poor indoor and outdoor air quality, contaminated water, unmanaged waste and other environmental conditi ons. The Border 2020 Progam and its partners have supported binati onal environmental health conferences, train-the-trainer acti viti es for promotoras (community health workers), interacti ve mapping applicati ons to identi fy environmental challenges and implement soluti ons and other key public xico

Teaming o ess -Border disease ownsville, exas.

In 2016, the Zika outbreak in the continental United States emerged as a significant threat to the public. In November of that year, the case within the state. The City worked with the Center for Disease Control (CDC), the Texas Department County and Brownsville's Health Departments to learn more about the transmission and precautions

In 2017, EPA partnered with the City of Brownsville Health Department to identify hotspots and the factors that led to the spread of *aedes aegypti* a holistic approach to identify the underlying conditions that allow mosquito breeding and how to prevent it. The project mapped the risk areas ithin he ity y ooking t xisting nvironmental data coupled with socioeconomic and mosquito data. To date, the city is using a crowdsource application platform in which residents can report potential mosquito breeding sites and upload georeferenced photos. The website also provides recommended actions that residents can take to combat mosquito risk.

The City of Brownsville Health Department is also working with *promotoras*, who serve as public community liaisons, to educate residents through a train-the-trainer model. The project is ongoing and researchers at EPA have presented their initial findings at a conference literature

We combined environmental data (land cover, precipitation, and temperature) with socioeconomic and mosquito activity data in order to paint a more accurate picture f isk. o ur nowledge, his s he first vector mitigation study to take into account both 1x1 meter land cover data and

Pai-Yei

Project's A

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EPA ages o arget Children's vironmental

According to the World Health Organization, in 2012 it was estimated that 1.7 million children nder he ge f ive ied ue o nvironmental
-Mexico border are particularly vulnerable due to the region having higher than the U.S. national verage ates or hildren iving n overty, being uninsured, and having chronic diseases (Pan American Health Organization, 2014).

Over the past several years, partnerships between PA's ffice f hildren's nvironmental Health, the U.S.-Mexico Border 2020 Program, the U.S.-Mexico Border Health Commission under the U.S. Department of Health and

> ***Families in Nogales, Arizona are very happy with the healthy homes evaluation and especially with the smoke alarms installed by Sonora Environmental Research Institute, Inc. (SERI) staff. Many families mentioned that Nogales does ot ave any hildren's environmental health programs available to low -income families, and they are grateful for this opportunity to participate in the program.***
>
> **Jacobo**
> **SERI**

Healthy homes training
- Valley Center, CA
- El Centro, CA
- Phoenix, AZ
- Nogales, AZ
- Las Cruces, NM
- Deming, NM
- Anthony, NM
- Chaparral, NM
- Eagle Pass, TX
- Brownsville, TX
- Laredo, TX
- McAllen, TX
- El Paso, Tx

Healthy school + childcare training
- El Centro, CA

Healthy school renovation training
- Tucson, AZ

Environmental health training
- San Diego, CA
- El Centro, CA
- Nogales, AZ

CEH symposium
- San Diego, CA
- El Paso, TX
- Brownsville, TX

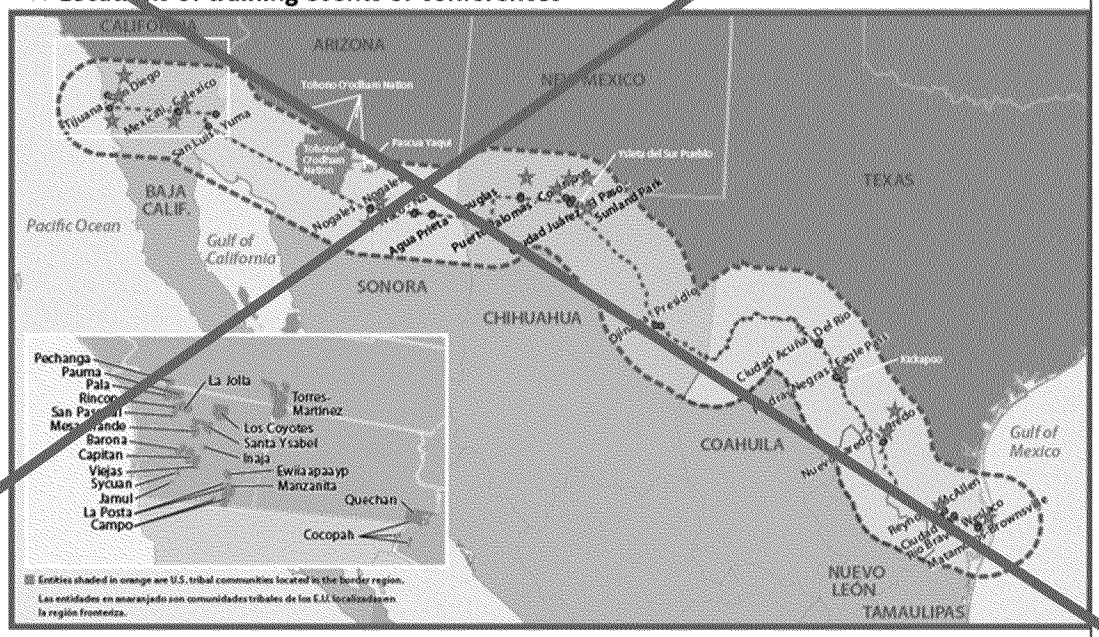
Vector-borne disease prevention symposium
- Mexicali, Baja CA, Mexico
- Nogales, Sonora, Mexico

Lead poisoning prevention training
- Las Cruces, NM
- El Paso, TX

Healthy childcare training
- Webb County, TX

Zika RESES project
- Brownsville, TX

★ **Locations of training events or conferences**



Base map source: https://www.epa.gov/sites/production/files/documents/Border2020-map.pdf

Figure ti es g

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Human Services and local organizations, have worked on collaborative projects to identify environmental health needs and provide opportunities or ocal ction o mprove he ives f children living along the U.S.-Mexico border. These opportunities have included three children's health symposiums from south Texas to California, as well as federal grants to educate families, community health workers, educators and medical professionals (Figure 1) on how to address

In 2018, EPA awarded more than $214,000 USD to fund five projects aimed at addressing children's environmental health in border ommunities n exas, ew exico nd Arizona. These five projects addressed environmental health issues related to lead-based paint, indoor air quality, and integrated pest management.

Many of these projects are establishing new ways of improving current environmental health programs and initiatives for agencies who work within communities located in the U.S.-Mexico border region. These projects will train nearly 350 specialists, including community health workers, childcare givers and medical providers, and reach over 2,000 community members on environmental health topics such as improving indoor air quality, reducing lead-based paint exposure and implementing integrated pest management strategies. Through these projects, and continued leadership from border communities, children's environmental health

> *Chronic diseases such as asthma, cardiovascular diseases, and diabetes are linked to air pollution. We will provide education on a variety of environmental hazards to* promotoras, *parents at elementary and middle schools, and pregnant women. The education will provide participants the knowledge needed to identify indoor and outdoor pollutants, harmful chemicals in pesticides used at home, and how they can change or control them without exposing their children*
>
> **Genny**
>
> **Texas**
>
> **Health**

> *Mariposa Community Health Center is excited to have been awarded this funding. Protecting our children by ensuring a healthy living environment is essential to their long-term health and well-being. These funds will provide education to Health Workers the U.S.-Mexico border to assist them in identifying environmental pollutants and train parents and caregivers in appropriate methods to reduce or eliminate in*
>
> **Ed**
>
> **CEO,**

> *The Southwest Center for Pediatric Environmental ealth s ery leased o ear that we have been awarded this grant. It ill erve o ugment utreach o isadvantaged children on the border from El Paso to Brownsville. Based at Texas Tech University Health Sciences Center in El Paso, we have partnered with colleagues rom he niversity f exas io Grande Valley School of Medicine to extend our reach. The funds will go to production of training guides for* promotoras, *as well as two* promotora *orkshops. t ill ikewise upport he evelopment of -learning used in their new senior medical student elective vironmental*
>
> **Director**
>
> **Southwest**
>
> **Environmental**

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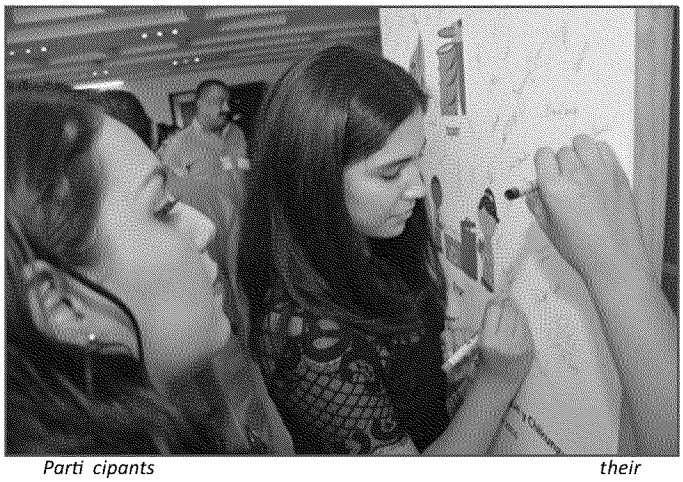
Responding o a eat der.

Besides the shared environment between the U.S. and Mexico along the border, the Border 2020 Program also recognizes that, "[t]he movement of people and products between the two countries creates a unique binational environment for preventing and controlling diseases spread through food and water, from insects or animals, and between people" (Center for Disease Control, 2018). In response to these risks, the Border 2020 Program has supported efforts to increase awareness and provide training on the use of integrated pest management to prevent the spread of vector-borne diseases, like zika transmitted by mosquitos.

In Fall 2016, two binational environmental health conferences on vector-borne diseases were held in Mexicali, Baja California, and Nogales, Sonora. Partners included: the Autonomous University of Baja California (UABC, by its acronym in Spanish), the Technical Institute of ogales ITN, y ts cronym n panish), *El Colegio* nter for Disease Control (CDC) and their Mexican counterpart, the National Center for Preventive Programs and Disease Control (CENAPRECE, by its



Parti cipants their homes r.

Over 360+ people attended, such as medical students, faculty, health practitioners, government officials, and 30 vector borne disease experts. Key topics included preventive measures to combat Zika and other vector-borne diseases, integrated pest management strategies, and the appropriate usage of insect repellants.

In 2017, to confirm long-term impact of the events, the venue hosts (UABC and ITN) contacted the attendees and learned three key findings:

- After the symposia, three out of four respondents shared the environmental and public health information they learned with
- In half - ents - or
- Of critical importance, nearly half of attendees have started pouring standing water out of flower pots to eliminate mosquitos' eggs, thereby reducing breeding

As seen by the evaluation, the conferences have increased knowledge and influenced behavior. To learn more about these events, please visit the U.S.-Mexico Border 2020 webpage

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¡Visit
www.epa.gov/border2020
www.gob.mx/semarnat

MISSION TATEMENT

As a result of the partnership among U.S. Border Tribes and federal, state and local governments in the United States and Mexico, the mission of the Border 2020 Program o:

Protect the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustaina-ble .

Imperial Valley, California
Photo:

BORDER 2020: UNITED STATES - MEXICO ENVIRONMENTAL PROGRAM

HIGHLIGHTS REPORT AUTUMN 2018

United States Environmental Protection Agency

SEMARNAT

Cover photo:
Chisos Mountains, Texas
Photographic Archives
National Commission for Protected Natural Areas of México (CONANP)

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MESSAGE FROM THE NATIONAL COORDINATORS

The Border 2020 Program continues to provide a strong and dynamic basis for our binational partnership providing solutions to environmental and public health challenges in the border region. Collaboration is key to achieving successful, sustainable and long-term results. As National Coordinators, we are committed to working together to advance the mission of the Border 2020 Program: to protect the environment and public health along the United States-Mexico border region.

Our collaborative efforts with the U.S. Border Tribes and United States and Mexican federal, state, and local governments have proven to benefit our shared environment and residents on both sides of the border. We have built partnerships and invested our resources into projects that address topics such as air quality, water quality, wastewater treatment, solid waste management, emergency response, and environmental stewardship.

This report highlights the accomplishments of the Border 2020 Program during the last two years. We present 22 projects that have been implemented and show the progress of our efforts to improve conditions for border communities and our shared environment. Through these projects, we have also been able to perform studies or apply best management practices to achieve successful outcomes of the Program's goals.

Reaffirming our commitment to the Border 2020 Program, we, as National Coordinators, support our partners including government at all levels, U.S. Border Tribes and Mexican indigenous communities. We would like to take this opportunity to express our gratitude to the devoted individuals, communities and organizations that support and participate in Program activities to improve environmental and public health conditions along the border region. We recognize the importance and value of our partners' dedication, commitment, and contribution to the success of the Program.

The United States-México environmental cooperation in our border region is without a doubt a success story and sets an example to the world, which is certainly worth to keep building upon. We welcome you to reflect on our recent accomplishments and ask that you continue to support and engage in finding solutions to the challenges that still exist in the border region.

Thank you!

Jane Nishida
National Coordinator
United States of America

Enrique Lendo
National Coordinator
México

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INTRODUCTION

Reaffirming our commitment, 2017-2018

The United States-Mexico border is a dynamic and unique geographic region facing many environmental challenges including poor air quality, unsafe drinking water and wastewater treatment, and inadequate waste management programs and services. The border is home to over 15 million people where approximately 90% of the population resides in cities, while the remaining population is found in small towns or rural communities. The **Border 2020 Program** is the latest United States-Mexico environmental program implemented under the 1983 La Paz Agreement, focusing on communities 62 miles on either side of the 2000-mile border. The Border 2020 Program encompasses a regional, bottom-up approach for decision making, priority setting, and project implementation to address the environmental and public health challenges in the border region.

The Program is designed to draw from communities and local stakeholders, as well as work directly with federal, state, tribal and international partners to implement environmental projects and solutions. Specifically, the framework goals focus on improving air and water quality, promoting clean land, strengthening preparedness and response, fostering environmental stewardship and advocating for environmental health initiatives along the border. This Accomplishments Report shares a snap shot of our Program successes in the last couple of years (2016-2018) to improve the quality of life and enhance our shared environment.

For more information on the details of the goals and objectives of the Border 2020 Program, we invite you to read the Border 2020 Framework Document or if you are interested to know more accomplishments of the Program, please visit its homepage at EPA and/or SEMARNAT internet sites to see past reports and other information of interest.

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IMPROVING AIR QUALITY

Poor air quality can have significant community economic and social impacts, including increased illness, premature death, and lower quality of life. The United States-Mexico border region is vulnerable to the transboundary movement of pollutants, including inhalable particulate matter (soot and dust), ozone (smog), and carbon monoxide. Contributing binational sources include dust from unpaved roads and open areas, smoke from illicit burning of trash and tires, and mobile sources such as heavy freight vehicles, private owned cars, and trucks idling at border crossings. The Border 2020 Program has supported improving air quality by expanding monitoring networks with increased data access, improvement of air quality through State Implementation Plans (U.S. and Mexico) and indoor air quality educational programs.

Energy Efficiency Workshop in Tamaulipas

Participants of the first training workshop on energy efficiency.

Increasing energy efficiency in Mexico has become a strategy at all levels of government to improve and build long-term sustainability within their public buildings and enhance security of their energy supply while minimizing the impact to the environment. The operation and installations of public lighting systems and the consumption of energy in public buildings represents one of the greatest expenses faced by municipalities, sometimes reaching up to 40% of their costs. This factor limits the ability for local governments to focus on other priorities and efforts. Through a Border 2020 Program grant, the State of Tamaulipas' Ministry of Urban Development and Environment held two training workshops on energy efficiency to 10 border municipalities within the state. The workshops' materials provided information on the basic tools needed to achieve greater energy efficiency in lighting public spaces, thus increasing their economic savings.

The workshops were part of a series of actions to improve energy efficiency in the state, including two energy forums: "First State Energy Forum: Tamaulipas, Energy that moves to Mexico" and the third International Congress on Renewable Energies: "Perspectives of Energy in Mexico." Coinciding with the Border project, the State launched a demonstration wind project, which included the start of operations of four wind turbines with the aim to promote the use of renewable energies within the State. The State also distributed over 10,000 booklets, "Practical Guidelines for Energy Savings," to help raise awareness in communities on the benefits of installing environmentally friendly technologies in their homes. As a result of these workshops, 10 municipalities committed to carrying out an energy audit in their buildings, benefitting 1.7 million residents.

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Healthy and Resilient Housing in Ciudad Juarez

Low-income families often have limited resources to implement energy and water saving measures in their homes. This is often due to either a lack of knowledge, technical assistance, or financial resources. The lack of access to financing to help meet their economic needs, limits access to clean energy technologies and services. The Mexican not-for-profit Federation of Private Associations of Health and Community Development (*Salud y Desarrollo Comunitario de Ciudad Juarez, A.C.* [FEMAP]), has been operating a Micro-Credit Program in the region for more than 30 years, during which time it has granted more than 40,000 small loans to low-income residents for home improvements.

With the support of the Border 2020 Program, FEMAP developed a project to identify and implement green infrastructure and energy saving elements to low-income families looking to improve their homes within a rapidly growing area of Ciudad Juarez. The project offered technical and financial assistance to 50 homes (over 200 persons) implementing these energy efficient materials and strategies. In coordination with academic, non-profit and private business, the residents had access to technical experts who guided and educated them on green infrastructure elements that could be incorporated and adopted by them, as well as, access to eco-friendly materials.

The project resulted in an energy cost savings of $630 or 11.249 Kw/hr and water savings of 140,000 gallons of water or $500 following improvements to 45 of 50 homes by installing:

- over 250 LED light bulbs.
- 200 windows sealing.
- 50 low-flow shower heads.
- 50 drinking water filters.
- Roof and wall insulations.

In addition to the improvements made directly to their homes, a catalog of eco-materials was developed with the support from the Architecture Program from the Autonomous University of Ciudad Juarez. This catalog includes information on best practices and an evaluation of each of the selected Eco technologies, identifying those that are viable for implementation in marginalized communities with older housing since the existing catalogs are mainly focused on new housing.

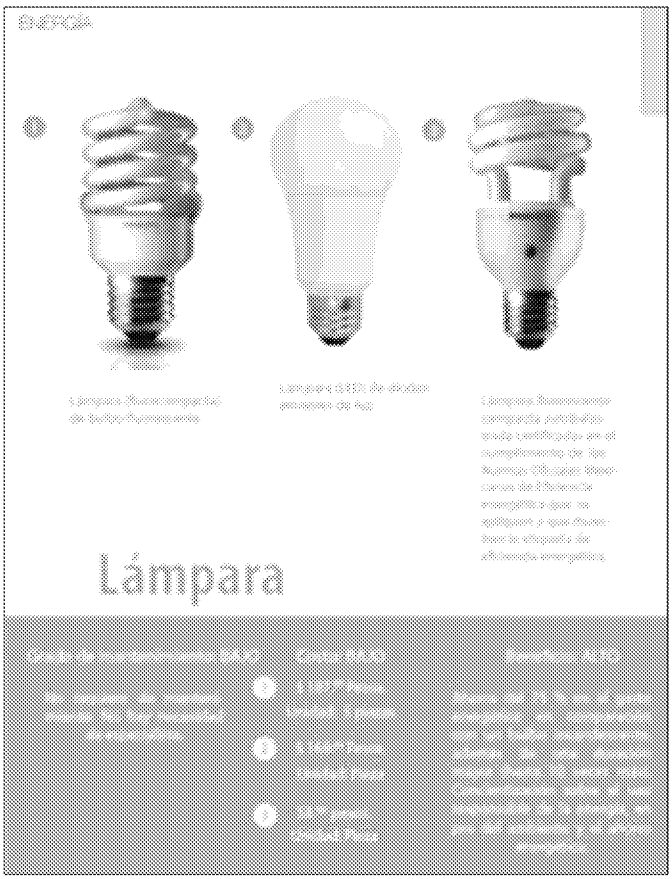

Illustration. Description of types of light bulbs in the catalog.

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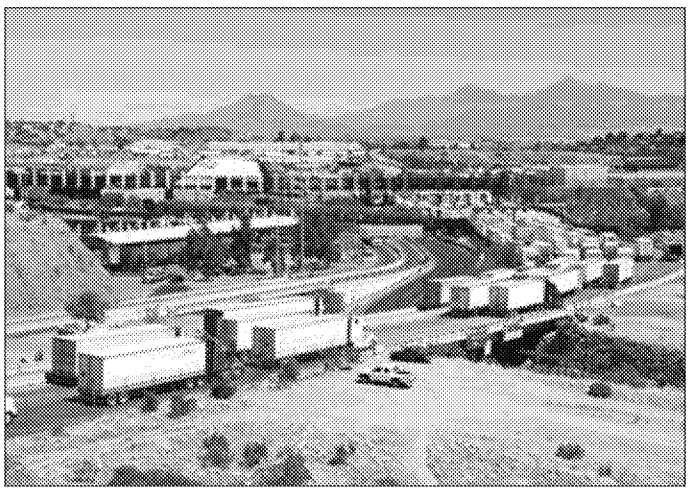
Quantifying Emission Reduction from Reduced Wait Times at Mariposa Port of Entry

The Mariposa Port of Entry (POE) in Nogales, Arizona is an important land port in the United States-Mexico border with over 7 million vehicle crossings per year, including 350,000 truck crossings. The POE is piloting an innovative program to conduct joint inspections with inspectors from both countries in order to reduce commercial truck wait times at the Arizona-Sonora border. This pilot program is expected to significantly reduce wait times, from 8 hours to 1 hour, for northbound cargo trucks. This reduction in wait times will reduce emissions from idling vehicles and accelerate commerce. According to United States regulations Nogales, Arizona, is in non-attainment for PM_{10} and $PM_{2.5}$. These pollutants can cause respiratory and cardiac effects in older adults and young children. The emissions reductions from these mobile sources may improve air quality and public health in the region.

The Border 2020 Program has funded the North American Research Partnership (NARP) to study the amount of emission reduction benefits from this pilot project. Over 400 vehicles were surveyed for information about wait times and vehicle make and model, which allowed researchers to calculate emissions.



Trucks waiting for processing through the Nogales Unified Cargo Facility.

Survey of a truck driver after inspection.

EPA's Motor Vehicle Emissions Simulator (MOVES), a modeling system that estimates emissions for mobile sources at the national, county and project level for criteria air pollutants, is being used by researchers to quantify emission reductions from border wait times. Preliminary data shows that decreased wait times have reduced emissions from idling. In addition, reductions are occurring because vehicles processed through the Unified Cargo Processing Facility tend to be newer and are built with more emission reduction technologies. The NARP is currently working on data analysis of the surveys and emission reduction quantification and the final report will be available in late 2018.

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Reducing Asthma Triggers for Children through In-home Interventions

The children of Imperial County, California, are living with high concentrations of asthma triggers in the indoor and outdoor environment, including cross border air pollution. These factors have contributed to Imperial County experiencing some of the highest rates of asthma emergency room (ER) visits in California.

To address this issue, the Border 2020 Program has partnered with and funded the Imperial Valley Child Asthma Program (IVCAP) from 2015-2017 to conduct in-home asthma interventions and work with housing maintenance workers on implementing healthy homes strategies. During this period, 94% of participants enrolled in the program reported no ER visits or hospitalizations. In addition, IVCAP reached over 2,000 people through outreach and education, program enrollment, and other community engagement activities.

One of the community events held at Imperial County.

EPA continues to support and positively impact low-income families by funding in-home asthma interventions to IVCAP by a Clean Air Act asthma grant. The 2017 funding has a goal to provide in-home environmental asthma assessments and tools to manage asthma triggers for families and children 17 and under. These home environmental observations will be carried out by *promotoras*, or community health workers.

> *"I enjoy educating parents of asthmatics on what they can do to improve their home environment, such as introducing them to non-toxic cleaning products."*
>
> **Rubi Alvarez**
> **Community Health Worker (*Promotora*)**

To date, IVCAP has enrolled almost 90 additional asthmatics into their program with 80% of them reducing, avoiding, and/or eliminating two or more triggers identified after IVCAP's home environmental assessment. Families received tailored interventions for their unique set of triggers in their homes.

By the end of this 2017-18 effort, IVCAP hopes to reach up to 70 families and to conduct in-home asthma interventions. These interventions will decrease ER visits and hospitalizations. In addition to in-home visits, IVCAP will raise awareness by conducting outreach and educating residents living with asthma on the benefits of improving the indoor home environment to maintain long term control of asthma. For more information on asthma and environmental triggers, please visit EPA's asthma web page.

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ENHANCING WATER QUALITY

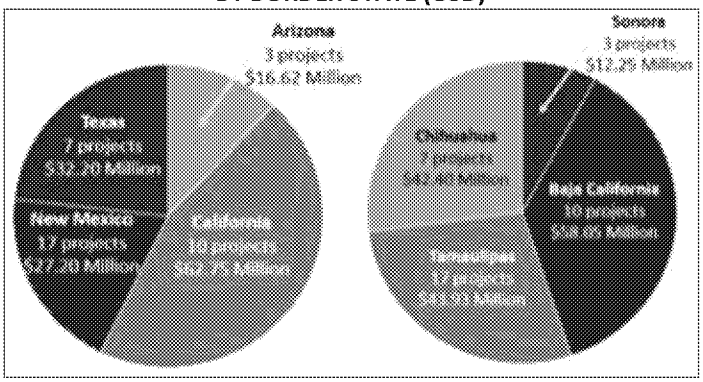
Rivers and watersheds know no boundaries and, in some areas, define the United States-Mexico border. Polluted stormwater and sewage from deteriorated infrastructure and extreme weather events can contaminate transboundary waterways, causing health concerns along the border region. The Border 2020 Program has improved water quality through the financing of stormwater mitigation or management demonstration projects, such as green infrastructure, solid waste reduction programs and research. Funds from the related Border Water Infrastructure Program (BWIP) have been used both to rehabilitate and to build water and wastewater infrastructure.

United States-Mexico Border Water Infrastructure Program

The Environmental Protection Agency's United States-Mexico Border Water Infrastructure Program (BWIP) funds the planning, design, and construction of high priority water and wastewater infrastructure along the border region. BWIP assists disadvantaged communities in identifying and securing available funding sources and addressing funding gaps to ensure access to safe drinking water and adequate sanitation, often for the first time.

BWIP provides hands-on management and technical oversight for communities lacking technical and managerial capacity that can then complete project planning and design requirements, increasing funding opportunities for construction assistance from other programs, such as Texas' Economically Distressed Areas Program, the State Revolving Fund, United States Department of Agriculture's (USDA) Rural Development Water and Environmental Programs, and the North American Development Bank (NADB).

2017 PROJECTS PRIORITIZATION BREAK DOWN BY BORDER STATE (USD)



Rivers along the United States-Mexico border sometimes naturally define the international boundary like the Rio Grande or flow from Mexico into the United States such as the Tijuana River. Projects funded under the BWIP address transboundary sewage discharges between the two countries. Treating raw sewage at the source before it enters shared border water bodies is the most technically feasible and financially viable option to prevent transboundary contamination. As part of this partnership, Mexico matches EPA's project's investments dollar for dollar, which helps protect public health and the environment.

Program Accomplishments

Since 2003, through 108 projects funded, the program has provided access to safe drinking water to 70,000 homes and first-time wastewater collection and treatment to 673,000 homes. In 2017, through the NADB, EPA announced a new project application cycle for BWIP funding. This identified over 60 eligi-

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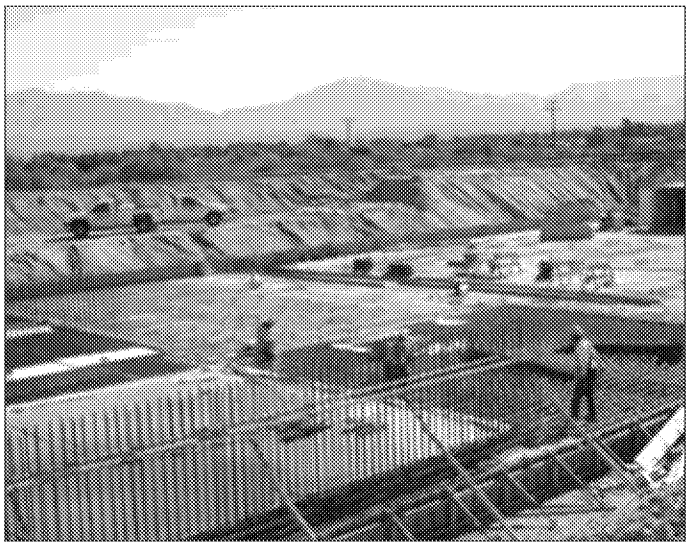
ble drinking water and wastewater projects with a total estimated construction cost of $296 million dollars that address public health and environmental conditions along the border.

Building technical and managerial capacity at Sunland Park, New Mexico through partnerships

The construction of a new treatment plant in Sunland Park, a small and disadvantaged community in New Mexico, started in August 2017. Camino Real Regional Utility Authority (CRRUA), the local wastewater utility, struggled with inadequate and aging infrastructure, environmental compliance, and lack of managerial capacity and resources. For close to two years, EPA, New Mexico Environment Department (NMED) and NADB, worked closely with CRRUA to implement a capacity building plan to ensure CRRUA could effectively manage a new wastewater treatment plant. EPA provided more than $816,000 dollars to implement this plan and technical assistance for project planning and design. The plan was successfully implemented; EPA and NMED then funded the construction of a $12.7 million dollars treatment plant. EPA contributed with $9 million and NMED provided the additional $3.7 million in state funding. The treatment plant will improve access to sustainable wastewater treatment services to approximately 6,440 residents of Sunland Park and Santa Teresa and will greatly reduce the risks of untreated or inadequately treated wastewater discharges.



Construction activities for the new Sunland Park treatment plant.

CRRUA's board chair, Josh Orozco, stressed the importance of finally being able to provide adequate wastewater treatment capacity in the community. During the July 2017 groundbreaking ceremony, he said this new plant "…will not only allow more homes and more businesses to be helped, but will also improve the health of our community."

Protecting the Tijuana River Watershed from transboundary contamination

The Tijuana River, originating in Baja California, Mexico, crosses the United States-Mexico border in San Ysidro, California, and empties into the Pacific Ocean just south of Imperial Beach, California. Discharges of raw and poorly treated sewage in Tijuana can impact the economy, health, and environment of United States communities like Imperial Beach and Chula Vista in San Diego County. As part of a multi-stakeholder and long-term effort to address these transboundary spills, a BWIP project is underway to repair some of the deteriorating wastewater collectors. These collectors carry sewage from households to the Tijuana wastewater treatment plant. If these collectors are not repaired, catastrophic collapses could occur, resulting in hundreds of millions of gallons of untreated sewage flowing into the United States and onto San Diego County beaches. The existing partnership between EPA and Mexico's water agencies, provided $7 million dollars for the repair of more than 6 miles of sewage collectors and rehabilitated 30 manholes. A second phase for the construction of 2.5 miles of additional sewage lines is underway. The estimated cost of this project is $3 million dollars with a projected EPA contribution of $1.4 million.

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Fat, Oil and Grease Public Outreach Campaign in Brownsville

The Brownsville Public Utilities Board (BPUB) was awarded a grant of $25,000 dollars from the Border 2020 Program in February, 2016, to provide outreach and education on the impact of Fat, Oil and Grease (FOG) pollution on water quality to the communities in Brownsville, Texas; and Matamoros, Tamaulipas. Historically, at the BPUB, FOG residential and commercial service calls occurred on average five times a week, with increased occurrences during the month of December.

BPUB entered a voluntary reduction program with the Texas Commission on Environmental Quality (TCEQ), Sanitary Sewer Overflow Initiative. This voluntary program requires BPUB to work on reducing unauthorized discharge of untreated or partially treated wastewater from the collection system or its components (e.g. manhole, lift station, or cleanout) before reaching a wastewater treatment facility as a result of FOG issues. Through educational campaign efforts to both the general public and to commercial establishments, the BPUB aimed to reduce the number of FOG related service calls and bring awareness about the proper disposal techniques in dealing with Fat, Oil and Grease.

Marketing and Education efforts

On March 16, 2016, the BPUB officially kicked-off its "Fat, Oil and Grease" public outreach campaign at its monthly public meeting in Brownsville. During the public meeting, they announced their collaboration with the City of Matamoros on the new FOG outreach program. BPUB reached communities from both sides of the border through a number of activities that included advertisements, educational fliers, ad videos, workshops, and press coverage. Social media platforms such as Facebook, Twitter and YouTube were also utilized to target younger audiences and share the educational video and audio campaigns that were developed. Throughout the project period, over 80 public outreach events and trainings with over 1,700 participants were conducted to the public in apartment and housing complexes, churches and educational institutions, as well as, commercial business.

Public outreach event in Brownsville.

More importantly, the BPUB through its outreach efforts has consistently been reducing the number of FOG service calls from 731 in 2013 to 417 in 2016, a 43% reduction in just four years. During the project period, in 2015 and 2016, the BPUB received 477 and 417 services calls related to FOG pollutants, respectively. Overall, the project met its objectives, including reducing the number of FOG related calls 13% or 60 calls. To continue to learn more about BPUB's FOG efforts please visit its web page.

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Building Green Infrastructure in the Valle del Sol Avenue Public Space

The World Health Organization (WHO) established a sustainability indicator of 9 m^2 of green area per inhabitant. The border region of El Paso and Ciudad Juarez lacks urban green spaces, especially in Ciudad Juarez where an estimated 4.5 m^2 of green area per inhabitant exist. Since 2013, Ciudad Juarez has actively been partnering with various organizations to increase green infrastructure and expand green spaces throughout the city. These projects not only can be cost-effective but can address flooding issues associated with a lack of storm-water infrastructure and beautify areas that see high pedestrian traffic.

In 2016, the Border 2020 Program helped fund the rehabilitation of a park situated on Valle del Sol Avenue and Solares Street. Located over a half a mile from the border, the park is the only green space in the area available to the community. Over many years, the park had heavily degraded due to a lack of maintenance and no longer served as an area where the community members could gather. The *Instituto Tecnológico de Ciudad Juárez* (ITCJ, by its acronym in Spanish), the promoter of the project, transformed the park back to a usable space for community members, but also addressed flooding issues that this area experienced during rain events.

Passive rainwater harvesting systems at the park.

With funds granted by the Border 2020 Program, the ITCJ developed this project with the following objectives:

- Establish passive rainwater harvesting systems;
- Conserve water used for watering;
- Protect the soil from wind erosion; and
- Incorporate and take advantage of the existing urban infrastructure.

The project began in June 2016 with the cleaning of the site and the reconditioning of the sidewalk, the construction of passive systems for rainwater collection, as well as the recovery and reconfiguration of existing vegetation. The amount of rainfall monitored from July 2016 to November 2017 (17 months) captured a total volume of 472, 502 U.S. gallons of rainwater.

Presently, the passive water collection systems continue to function effectively and the vegetation is thriving. The park is supported almost entirely with rainwater except in cases of extreme water stress or for the initial support of some new plant seedlings.

Thanks to a donation from the municipal authority, the park soil is protected from wind erosion by a walnut shell cover which allows any moisture in the soil to be conserved.

Finally, surveys conducted in the area showed that the social value of the park increased substantially. Before the project, the space was viewed as a negative area within the community and is now seen as a usable social gathering park.

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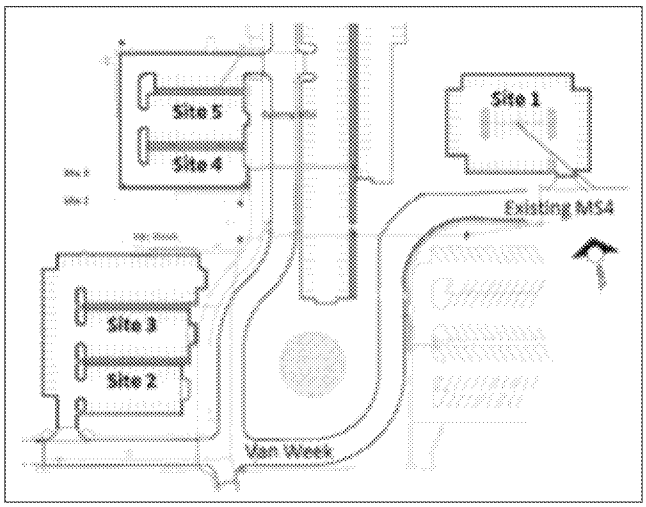
Studying Low Impact Development Methods for South Texas Stormwater Management

A number of communities in the Lower Rio Grande Valley in southern Texas have been evaluating various Low Impact Development (LID) methods to incorporate into their communities. LID provides several advantages over traditional stormwater management practices such as: reducing or eliminating the need for large retention ponds; decreasing pollution to receiving waters; lessening erosion; more visually appealing within the community; flexibility in the layout of projects; and lowering cost. A research team under the direction of Dr. Jungseok Ho, of the University of Texas Rio Grande Valley (UTRGV), evaluated the use of bioswales in parking lots to determine the best performing locally available bioswale porous media material as well as design a standard that could be used by communities in the region. Bioswales are generally designed to manage runoff from large impervious surfaces such as parking lots and incorporate engineered porous soils and/or other landscape elements to remove debris and pollution from surface runoff.

BIOSWALE POROUS MEDIA MATERIALS AND PARKING LOT DRAINAGE SIZE

Sampling Sites	Bioswale	Porous Materials	Drainage Size (acres)
Site 1	No bioswale	No bioswale	.237
Site 2	Bioswale 1	Pumice	.216
Site 3	Bioswale 2	Manufactured sand	.218
Site 4	Bioswale 3	Recycled crushed glass	.209
Site 5	Bioswale 4	Natural Sand	.206

Building on previous studies Dr. Ho conducted, his team evaluated five testing sites that utilized various bioswale porous media (no bioswale, pumice, manufactured sand, recycled crushed glass and natural sand) in parking lots on the UTRGV Edinburg campus.



Parking lots located north of Van Week Street in UTRGV campus.

The project evaluated the hydrological performance of the four different materials used at the five testing sites. Field testing indicated Site 2 with the Pumice material showed the best hydrologic performance taking into account four decision criteria: 1) runoff volume reduction; 2) peak flowrate reduction; 3) peaktime attenuation; and 4) runoff solids filtration. Pumice showed the highest filtration of the materials with 58% and a peaktime attenuation of 64%.

The soil test results show that any mixtures containing pumice more than 40% of the volume produced promising results. Three 40% pumice mixtures (with manufactured sand, natural sand, and recycled crushed glass) achieved 30% of specific retention and 52% of filtration on average.

Overall, based on the field testing, pumice performed the best of the bioswale porous medias, with testing showing that at least 40% pumice material mix is the ideal material for this region. However, it should be noted that further studies need to be conducted to consider the local availability, cost of the material and project construction to determine the overall practicality to be used by the communities.

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Green Infrastructure for Sediment Control and Flood Protection in Ambos Nogales

The International Outfall Interceptor (IOI) is an aging pipeline that conveys untreated sewage from Nogales, Sonora, and Nogales, Arizona (Ambos Nogales) to the Nogales International Wastewater Treatment Plant nine miles north of the border in Rio Rico, Arizona. Since the wastewater collection system in Sonora acts as a combined sanitary-stormwater conveyance, over the years sediment inflows and infiltration of stormwater in Sonora have caused failure of the IOI in Arizona. Erosion (scouring) from the sediment has weakened the conveyance system resulting in breaks in the IOI, most recently in July 2017, leading to sewage spills into the Nogales Wash. Repeated failure of the IOI could result in contamination of Arizona groundwater resources.

Rain park designed to harvest rainfall and prevent flood events.

The Watershed Management Group (WMG), a Tucson-based non-profit, led a Border 2020 Program funded project to demonstrate the potential of green infrastructure (GI) to diminish the amount of sediment during flood events that is scouring the IOI. Green infrastructure, according to EPA, uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. The project used a three-pronged approach including:

- Capacity building (community trainings in planning, design and implementation activities);
- Demonstration sites (two projects for sediment control); and
- Policy development (resolution to expand and strengthen GI practices in Nogales, Sonora).

Working with local government and residents of Nogales, Sonora, WMG completed two demonstration sites covering close to 10,000 m^2, similar to the area of a large soccer field. In addition, 88 residents attended a training and over 500 community members were informed about green infrastructure concepts via community events and project participation. One demonstration site is a rain park that now harvests a volume of 50,000-70,000 liters of rainfall per rain event. These GI modifications will nearly eliminate the park's contribution to flood events downstream in the Ambos Nogales area.

The project attracted support from a Nogales member of the Sonora Congress, who is also on the State of Sonora Commission for Energy, Environment and Climate Change. This project moved beyond the local level, spurring the Sonora Congress to adopt a green infrastructure law in April of 2017, the first of its kind approved in Mexico.

This project increased community capacity to use green infrastructure to reduce flooding in the Ambos Nogales area and prompted the local government to support future green infrastructure development.

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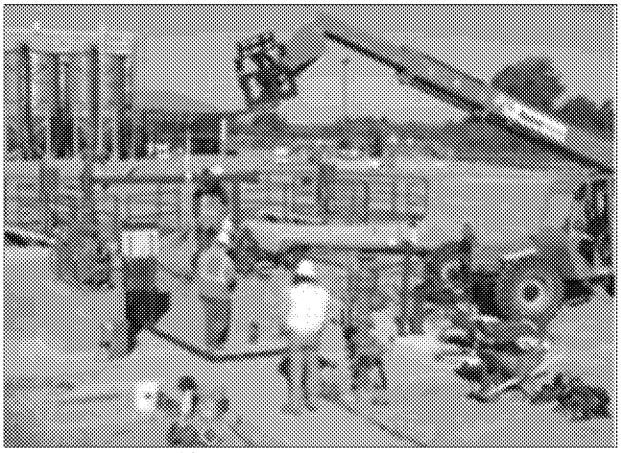
Protecting the City of Holtville's Water Resources in Imperial County

Located in Imperial County, California, the City of Holtville's wastewater treatment plant (WWTP) was not meeting discharge requirements for ammonia and other pollutants that were flowing into the Pear Drain, which feeds the Alamo River and ultimately the Salton Sea in southern California. Thanks to funding from EPA's Border Water Infrastructure Program and the State of California Clean Water State Revolving Fund, the existing WWTP was upgraded and now provides wastewater service to 100% of the service area or 6,594 residents of Holtville.



Building a stormwater pump station.

Already considered an impaired water body, the polluted discharges from Holtville exacerbated the treacherous conditions faced by wildlife and plant communities living in the Salton Sea. Over the years, water levels in the Salton Sea have dropped rapidly due to evaporation and have increased salinity and pollutant concentrations. The exposed lakebed has succumbed to desert winds that now carry polluted dust onto the surrounding communities. These dust particles may contribute to asthma attacks throughout Imperial Valley. The Holtville WWTP that now meets discharge requirements will not only increase the chances of survival for the various organisms dependent on the sea, but the influx of properly treated water will keep dust from being exposed to the wind and away from vulnerable urban residents.

Some of the new components installed in the Holtville WWTP include an automatic bar screen that maximizes the removal of large objects and an activated sludge system enhancing treatment effectiveness and improving the quality of the effluent. A rehabilitated operations building within the treatment plant was also equipped with modern lab equipment, ensuring that tested effluent meets discharge requirements.

> *"EPA is committed to helping communities across Imperial Valley protect the state's vital water resources. Our investments renew aging infrastructure, which can be costly for smaller communities like Holtville."*
>
> **Tomas Torres**
> **Water Division Director**
> **U.S. EPA Region 9 Office**

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PROMOTING CLEAN LAND

In the United States-Mexico border region, solid waste management has not kept pace with increasing population, resulting in unmanaged trash and overburdened waste services and infrastructure; as well as potential valuable materials being lost in landfills or illegally dumped. Poorly managed waste contaminates land and water, and adversely impacts public health such as creating fire hazards and contributing to poor air quality or serving as breeding habitats for mosquitos and the potentially spreading of vector-borne diseases such as Zika. Sustainable Materials Management (SMM) promotes a life cycle approach which begins by optimizing design to final production of goods and services to reduce waste, eliminate toxicity, and maximize reuse. The Border 2020 Program partners have advanced SMM through clean-ups and projects to recycle household hazardous waste, electronics and scrap tires.

Supporting Auto Recyclers

Every year vehicles are stockpiled along the United States-Mexico border when they reach the end of their useful lives. Often, these stockpiled vehicles have not been processed properly to recover the reusable or recyclable materials nor dispose of hazardous materials these vehicles have. As the discarded vehicles are piled up, they become an eyesore to the local communities and pose a risk to human health and the environment. The vehicles often contain hazardous materials like antifreeze, used oil, or lead and when abandoned, they become a liability to local governments.

In response to address the needs of auto recyclers in the border region, EPA and SEMARNAT have produced an "End-of-life Vehicle Guide" (Guide). The Guide was created to share effective practices for preparing an end-of-life vehicle so that the vehicle can be recycled properly and contribute to the Border 2020 Program's goal to reduce waste through the safe and responsible recovery of materials.

The Guide and other materials form a packet comprising of the guide, a set of quick reference waste cards, and a poster can be used to inform handling facilities and technicians on prepping the vehicles for processing in an environmentally sound manner. Additionally, the Guide discusses responsible disposal, cost recovery, health, safety and security, industry standards, and a listing of vehicles containing mercury switches.

Specific waste streams that pose a high risk to workers and the environment are highlighted in the Guide and on a set of waste cards complete with diagrams. The waste streams included are: lead, mercury switches, refrigerants, waste batteries, waste fluids and waste fuel. Overall, the Guide provides materials that technicians can use to dispose of old vehicles using environmentally sound management practices.

EPA and SEMARNAT will work together to disseminate the folders to the relevant stakeholders along the border region in fall 2018. Printed copies of the materials are available in Spanish while both English and Spanish versions can be found on EPA's website.

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Scrap Tires and Solid Waste Management along the United States-Mexico Border

The Border 2020 Program has aimed at building a more sustainable, integrated approach to waste materials management in order to minimize and reduce the impact to the environment and improve public health. However, in a geographic region where population, socioeconomic conditions and environmental regulations can vary significantly, different border communities have had to take varying and creative approaches to build sustainable communities.

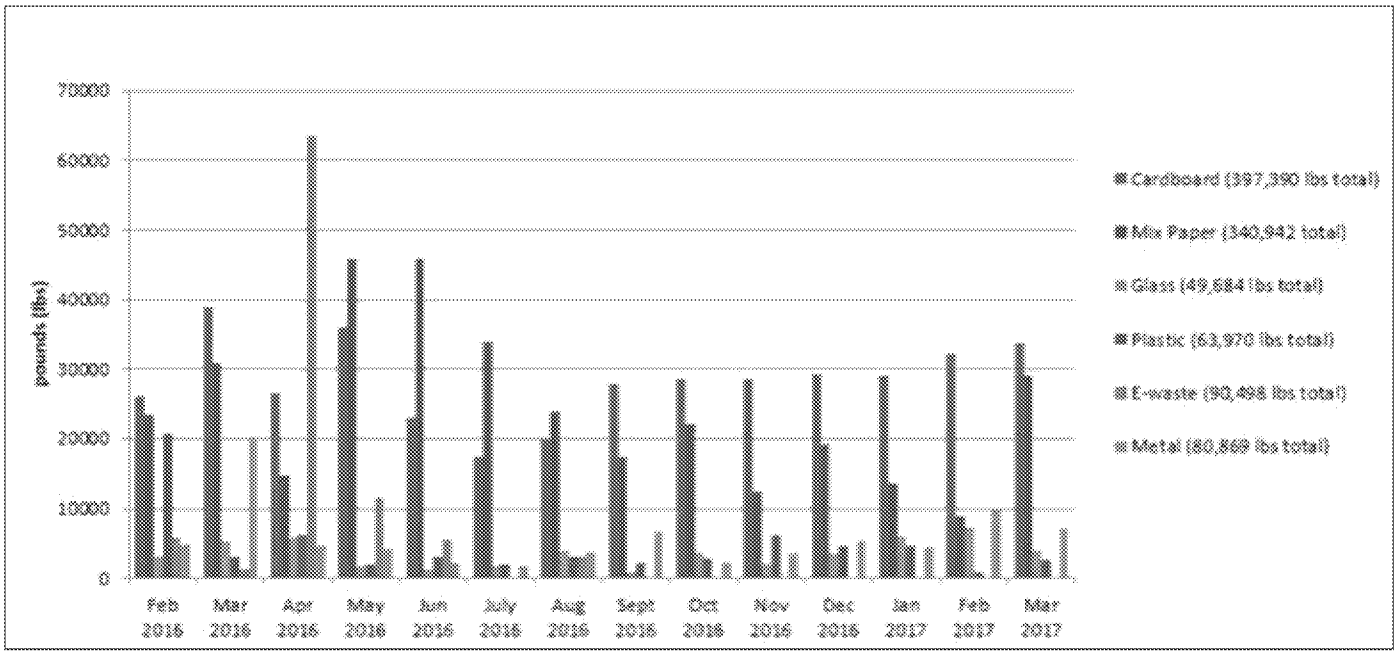
City of Pharr, Texas

Over the years, the city of Pharr has implemented greater sustainability tools within the Public Works Department to make the city one of the cleanest in the Lower Rio Grande Valley. In 2016, Pharr received a Border 2020 Program grant for $36,000 dollars to continue improving their recycling and education efforts within the community to reduce the city's dependency on landfills and build a healthier community. Over a 14-month period, the city collected:

- Over 5,700 scrap tires;
- 60 tons of mixed waste (Figure 1); and
- 1,023,353 lbs. of recycled material diverted from the landfill.

Staff launched a bilingual public education campaign of the city's recycling and sustainability efforts, stormwater pollution and illegal dumping of scrap tires, through social media, brochures, public service announcements and over 100 outreach activities (20 meetings, 40 events, 50 presentations). The project also increased recycling efforts in some Pharr schools by promoting an environmental education contest and providing 75 recycling bins for school classrooms and dozens of 95-gallon recycling bins within the school district. To learn more about Pharr's Public Work Department and their efforts, please visit its web page.

RECYCLABLE MATERIAL COLLECTED AND DIVERTED FROM LANDFILL AT PHARR, TEXAS. (lbs./month)



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Valle Hermoso and Rio Bravo, Tamaulipas

In 2014, the state of Tamaulipas passed legislation that outlined its Program for Integrated Waste Management and Prevention. Within this program, based on factors such as population growth and solid waste generated per capita, the state prioritized municipalities where it was vital to establish a municipal integrated waste management and prevention program. It also outlined specific strategies and actions that these municipal plans should address including short, medium and long-term implementation as well as associated costs. The implementation of the municipal plans is done in three phases: conducting a diagnostic of current conditions; adoption by the municipality of their plan; and finally implementation, monitoring and evaluation of the municipal program.

The State Secretariat for Urban Development and Environment in Tamaulipas (*Secretaría de Desarrollo Urbano y Medio Ambiente* [SEDUMA]) received a $20,000 dollars grant from the Border 2020 Program to assist the municipalities of *Valle Hermoso* and *Rio Bravo* complete their diagnostic study on local waste management. The diagnostic study, which took place over a two-month period, looked at:

- Current operations, staff, equipment, solid waste collected and classification of waste;
- Specific strategies recommended to be implemented over a short, medium, long-term period;
- Costs associated with implementation of strategies (Table 1);
- Monitoring program parameters; and
- Potential funding mechanisms.

On August 22, 2016, SEDUMA presented both municipalities with the diagnostic assessment of their current waste management system. In March, 2017, *Valle Hermoso* officially published and registered the diagnostic assessment with the State, moving into the third phase. Next steps include the municipality of Rio Bravo's city council approval of the assessment and registration of the program.

TOTAL COSTS TO IMPLEMENT SHORT, MEDIUM AND LONG TERM STRATEGIES IN *VALLE HERMOSO* AND *RIO BRAVO*, TAMAULIPAS.

Strategy Considered for Municipality	Total Cost for Municipality to implement over short, medium and long term (USD)	
	Rio Bravo	Valle Hermoso
Management/Operations	$4,776,923.00	$1,296,428.00
Recycling	$1,648.00	Not Considered / Not Applicable for Community
General Services	Not Considered / Not Applicable for Community	$10,989.00
Public Outreach & Education	$16,373.63	$17,032.00
Private Industry Participation/ Partnerships	No cost to municipality	Not Considered / Not Applicable for Community
Institutional Building Capacity	$155,495.00	$122,527.00
Finance/Legislative	No cost to municipality	Not Considered / Not Applicable for Community

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Addressing the Binational Challenges of Electronic Waste in Texas and Coahuila

Rapid advancements in technology and the use of electronics by consumers mean that electronic products quickly become obsolete and are disposed. Unlike other recyclable materials, electronic waste (e-waste) is not as easily recyclable due to the toxic metals (lead, mercury, cadmium and arsenic) found in them. The challenge with recycling e-waste is often improper disposal in local landfills and the lack of infrastructure in communities to properly support handling and recycling.

In 2016, through two Border 2020 Program grants, one to the Secretary of Environment of the State of Coahuila (*Secretaría de Medio Ambiente* [SEMA]) and the other to Green Tec-osos, an environmental group within the Technological Institute of Piedras Negras (*Instituto Tecnológico de Piedras Negras*), e-waste recycling projects were launched in the communities of Ciudad Acuña, Piedras Negras and Guerrero, in the state of Coahuila and Eagle Pass, Texas. These projects aimed to prevent the e-waste generated in the municipalities from being illegally dumped in the Rio Grande riverbed, around the Amistad Dam, as well as in streams, vacant lots and sanitary landfills of the region. They also informed and educated the community about the benefits of reusing electronic products.

COLLECTION COMMUNITY EVENTS AT TEXAS AND COAHUILA FEBRUARY, 2016 - MARCH, 2017

Type of Location	E-waste Collected (tons)	Residents Served
22 neighborhoods of Piedras Negras	32.22	45,000-50,000
Schools from Piedras Negras and Nava del Estado municipalities	8.83	5,500
Businesses and others	5.56	2,500
Eagle Pass	14.83	28,765

Permanent collection center in the facilities of the Public Works Department of Eagle Pass, Texas.

To improve sustainable practices, 10 permanent e-waste collection centers were established among the four communities. Through community events, the projects yielded the collection of over 113 tons of e-waste. In addition, with the assistance of over 60 partners through workshops, trainings and media outlets, residents were educated on the positive impacts of recycling electronic waste has on the environment.

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Campo Band Advances Zero Waste Practices

In the border region, unmanaged trash causes potential transboundary impacts such as impairing water quality, clogging streamflow, and creating habitat for disease vectors. In 2015, the Campo Band Tribe, located in California, raised concerns about transboundary solid waste issues to representatives implementing the Border 2020: U.S.-Mexico Environmental Program. In 2016, the Program provided funds to conduct a solid waste assessment and prepare a zero-waste plan. The zero-waste plan lays the foundation for developing a zero-waste program, setting a goal to significantly reduce waste and establish diversion practices to eventually eliminate waste sent to the landfill.

The zero-waste plan was completed in January 2018. Along with the recommendations in this plan, the Campo Band is actively exploring other materials management activities including short and long-term goals to develop a self-sustaining waste and recycling program and transfer station. This plan was an important first-step/tool for the Tribe to accomplish their solid waste goals and improve the Tribe's and border region's health. The Campo Band continues to leverage other resources such as EPA's General Assistance Program (GAP) to address their solid waste goals, creating practices that makes sense for their community, and using the zero-waste plan as a valuable tool to accomplish their needs. The Campo Band Tribe is estimated to be funded by GAP for $18,000 USD for the Fiscal Year 2019 to continue to move forward with the zero-waste plan.

Campo Band Tribe members sorting and identifying types of waste.

Campo Band Tribe members weighing types of waste.

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Composting Diverts Valuable Organic Materials from Landfills

Compost donated to Ecoparque program participants.

Compost is a valuable resource made from food waste, landscape cuttings or other organic material. However, based on the 2018 study "Characterization and Management of Organic Waste" released by the Commission on Environmental Cooperation (CEC), organics in the United States and Mexico are predominantly sent to landfills. The Border 2020 Program has worked to increase diversion rates, estimated to be 32% for the United States and 7% for Mexico, by working with government, academic, non-profits, and industry stakeholders to improve the management of organic waste through compost practices and EPA's food recovery hierarchy practices.

In 2012, the Border 2020 Program awarded the organization "*Tijuana Calidad de Vida*" a grant resulting in the first border municipal landscape compost pilot program that produces compost and educates future composters. In 2016, EPA Region 9's Environmental Finance Center funded a grant to identify compost niche markets in Tijuana for businesses needing to achieve waste reduction goals for their corporate social responsibility ratings. In 2017, the *Colegio de la Frontera Norte* (COLEF, by its acronym in Spanish) conducted a pilot program working with nearly 120 households in Tijuana and training them in a total of 27 workshops. This resulted in the diversion of 10,067 kg of household food scraps. The compost created was used at *Ecoparque*, a campus program to model and teach sustainable practices and 107 sacks of compost were donated to household participants. The findings of these grants were included in the CEC's 2018 report.

On June 13, 2018, the University of Arizona (UA) Compost Cats celebrated the award of a $91,000 dollars grant from the Border 2020 Program to establish the Santa Cruz County (SCC) Compost Center, a much-needed alternative to landfilling waste produce. Nearly 3,000,000 tons of produce crosses the nearby Mariposa-Nogales Port of Entry, one of the busiest land crossings along the U.S.-Mexico border, bound for markets across the United States each year. About 8,000 tons of waste produce are generated yearly, equivalent to two dump trucks per day for an entire year, and is then disposed of in the Rio Rico Landfill, so the new SCC compost center is expected to offer both environmental and economic benefits to the region (Press release for compost-center). In its first year, SCC Compost Center will compost 3,000 tons of waste produce, creating 9,000 cubic yards of compost. This is equivalent to 4.3 football fields covered with one foot of compost. The goal is to compost the 8,000 tons produced annually.

The SCC Compost Center will be modeled after the successful UA Compost Cats program in Tucson, which not only composts but works with local food banks to divert good food from campus to hungry people. In 2015, their work was acknowledged with EPA's "Food Recovery Challenge" award for reducing food waste on the UA main campus and in the City of Tucson. Similarly, the SCC Compost Center will serve as an agricultural learning center for high school and college students and recover this valuable resource from taking up space in the landfill.

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STRENGTHENING EMERGENCY PREPAREDNESS AND RESPONSE

Recognizing that chemical hazardous events and other environmental emergencies, regardless of an international border, can threaten both local and binational communities, the United States and México continue to work together to enhance preparedness and response for international emergencies. The Border 2020 Program and partners support binational training, exercises, essential equipment and emergency plan updates, which have increased communication and response capability. Together, we have reduced the magnitude of incidents and enhanced safety in the border region.

Binational Training Reduces Danger and Impacts to Border Communities

The Border 2020 Program had allowed to strengthen the cooperation between federal, state and local agencies on both sides of the border to provide exercises and training as well as to ensure that first responders have proper personal protective gear to respond safely and effectively. Since its inception, over 10,500 firefighters, emergency management officials, police, military, industry representatives, medical staff and other relevant community leaders have received training through: 153 training courses, 32 binational exercises and 245 drill notifications between the U.S. and Mexico throughout the Arizona-Sonora and California-Baja California border region.

Firefighters from both countries responding to the December fire.

> *"Thanks to EPA, as well as the firefighters of the city of Douglas, Arizona, who have participated as instructors to enrich our HAZMAT knowledge. With this we are prepared for any emergency. Our aim is to protect the communities in our sister cities. Thanks to EPA for providing us with the equipment since, due to its high cost, it is out of our reach. Thanks for trusting and believing in the firefighters of Agua Prieta."*
>
> **Lieutenant Jose Romero**
> **H. Fire Department of Agua Prieta**

Getting equipment and personnel in a timely manner across an international border crossing to help respond to fires has always been a challenge. It requires a coordinated effort among a wide range of agencies and organizations. Binational training and exercises with first responders, customs officials, other government agencies, military, industry and the public have laid the groundwork for efficient responses in real-life emergencies.

Binational Fire Response in Winter 2017

When a major tire fire sent dangerous billows of smoke from Agua Prieta, Sonora, into Douglas, Arizona, in December 2017; Douglas firefighters crossed the border and helped put

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Participants in the HAZMAT Tech training.

it out in four hours. Binational training and tabletop exercises conducted four months prior to the fire greatly assisted in increasing the efficiency of the response and reducing the scale and impact of the incident. Additionally, border patrol at the port of entry on both sides provided timely crossings to the binational firefighters.

The binational collaboration with the addition of the Douglas firefighters prevented the fire from growing larger and potentially crossing into the U.S. and reduced the amount of smoke that can cause respiratory problems for sensitive populations such as children, elders and those with asthma along the border.

Training Tested by a Tire Fire

A 200-hour HAZMAT Tech training for Douglas and Agua Prieta firefighters has been ongoing on weekends and will finish up by Fall 2018. As a result of this training, the Fire Department of Douglas will have additional HAZMAT techs and the Fire Department of Agua Prieta will have its first full HAZMAT Tech team. This firefighters will be better trained and equipped to respond to incidents and assist each other in cross border emergencies.

On May 26th, 2018, the training course was interrupted and postponed due to a binational response to a tire fire in Agua Prieta. The recently updated Sister City Contingency Plan was activated and utilized for the response where the Douglas Fire Department assisted in getting the fire under control in under three hours.

Gerardo Romo, a firefighter of the Douglas Fire Department, commented: "Thanks to the binational efforts and the HAZMAT class being presented to Agua Prieta Firefighters, they have been able to respond to incidents in a more prompt and efficient way. In the past, Agua Prieta Fire Department had willingly attended to fire emergencies and showed their best efforts; however, now that they are receiving the HAZMAT training by Douglas Fire Department, they understand the need of proper personal protective equipment to respond and face the risk of each event such as the tire fires. I personally saw the firefighters using the proper respiratory protection equipment during the tire fire that occurred on May 26th".

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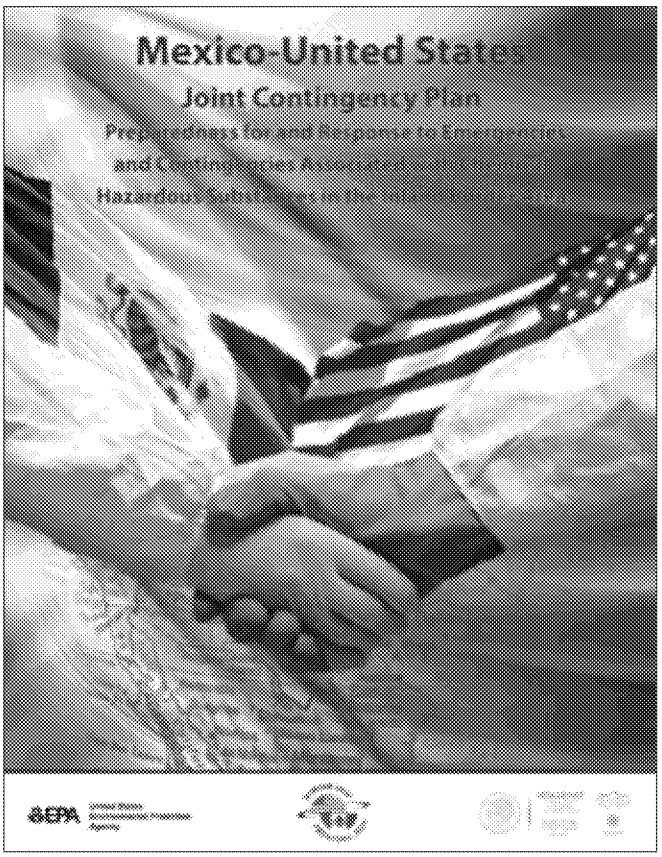
Enhance Joint Preparedness for Environmental Response under the Border 2020 Program

Chemical and other hazardous substances emergencies do not respect international boundaries, so maintaining an adequate preparation for a possible emergency in the border region is essential to improve the ability to respond to incidents and protect the environment and public from hazards that could result in serious environmental and health impacts.

Annex II of the 1983 La Paz Agreement established the United States-Mexico Joint Contingency Plan (JCP). The JCP provides a binational coordination mechanism for protecting human health and the environment and responding to significant chemical and oil contingencies or emergencies that affect the inland border area between both countries. Two previous versions of the JCP have been revised and updated. Most recently, on November 17, 2017, in Mexico City, the most up-to-date version of the JCP was signed by the Secretariat of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales* [SEMARNAT]), through the Office of the Federal Deputy Attorney of Industrial Inspection (*Procuraduría Federal de Protección al Ambiente* [PROFEPA]) and the National Coordination for Civil Protection within the Secretariat of Interior (*Secretaría de Gobernación* [SEGOB]). Previously, for the United States, EPA's Office of Emergency Management (OEM) signed the updated JCP.

The updated JCP has a robust binational notification system that has been restructured to reflect lessons learned from actual emergencies and notification drills. The changes to the notification system were coordinated with the U.S. National Response Center (NRC), Mexico's National Communications Center / National System of Civil Protection (*Centro Nacional de Comunicaciones / Sistema Nacional de Protección Civil* [CENACOM]) and PROFEPA as well as with EPA's Regional Offices 6 and 9. Extensive reviews were conducted by EPA's Office of General Counsel regulation experts, the International Law office and the Office of International and Tribal Affairs, in addition to the Department of State.



Cover of the Joint Contingency Plan.

The ability to plan and prepare binationally improves the probability of adequately responding to incidents and protecting the environment and public from exposure to harmful contaminants and possible serious environmental or health impacts. This binational partnership is also increasing emergency response capacity through training events designed to enhance cooperation, strengthen binational contingency plans at the local, tribal, state, regional and national levels to reduce the risks of emergencies and disasters throughout the border region.

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FOSTERING ENVIRONMENTAL STEWARDSHIP

The United States-Mexico Border is a vibrant economic region with daily cross-border movement of a myriad of consumer goods and hazardous materials destined for recycling or disposal. When mismanaged, the hazardous materials pose an immediate transboundary environmental health threat. In response, federal, state, and local entities are partnering to conduct north and south-bound surveillance, provide cross-border compliance assistance, and improve access to information about potential industry sources of toxic substances through trainings and workshops. These actions increase transboundary compliance, foster environmental stewardship, and reduce overall risks posed by hazardous waste and materials.

Legislative Reform and Environmental Education in Nuevo Laredo

The Autonomous University of Tamaulipas (UAT, by its acronym in Spanish) received a Border 2020 Program grant to continue educating border communities on the environmental challenges (i.e. water pollution, urban solid waste, fats-oils-grease) that persist in this geographic region. The project focused on the following objectives:

Web page of the UAT with the documents of the generic environmental regulations that can be adapted by the municipalities of the states of Tamaulipas and Nuevo León.

- Educate school students and environmental municipal inspectors about the most common environmental challenges in the region.
- Update the municipal environmental legislation for environmental protection in Nuevo Laredo and some of the surrounding municipalities and present it to the city for adoption.
- Create an online database with the existing environmental regulations or ordinances of all the municipalities within Tamaulipas' border region.

The project resulted in environmental conservation training to over 2,300 students, 50 public school directors, and 20 environmental inspectors of the city of Nuevo Laredo. Additionally, the project aided in the development and delivery to municipal authorities a proposed new ordinance of "Territorial Ecological Planning" of the Municipality of Nuevo Laredo, Tamaulipas. Lastly, the municipalities of Ciudad Mier, Camargo, Jiménez and Jaumave in Tamaulipas adopted environmental ordinances that will benefit approximately 300,000 residents.

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Port of Entry Inspectors Safeguarding Communities

Enforcing the Resource Conservation and Recovery Act's (RCRA) import/export regulations protects public health and the environment by providing safeguards against hazardous waste and materials being mishandled and spilled. It also reduces the amount of binational "scam" businesses who implement illegal practices, creating unfair business competition. EPA funds California's Department of Toxic Substances (DTSC), a Border 2020 partner, to safeguard the California-Mexico border.

DTSC and San Diego County inspectors work closely with Customs and Border Patrol (CBP) to conduct surveillance and enforce compliance to ensure hazardous materials and waste products are safely transported across the Ports of Entry (POE) and onward to their final destination between the United States and Mexico. These HAZMAT trained inspectors work with U.S. Customs HAZMAT inspectors and serve as part of the emergency response team, a first line of defense in the event of a hazardous spill or accident at the POE. DTSC and the San Diego County, upon request from CBP, also participate in special operations such as inspections of cargo outside of days and hours allowed for hazardous materials. To increase compliance, the two countries provide compliance assistance outreach and training to facilitate both countries industries to understand regulatory requirements.

On June 20, 2018, with funding from the Border 2020 Program and RCRA program, DTSC hosted an import/export workshop in Tijuana, Baja California, in coordination with SEMARNAT, PROFEPA, and Baja California's Secretariat of Environmental Protection (SPA, by its acronym in Spanish), for Mexican hazardous waste and special waste industrial generators operating in Baja California. The workshop focused on import/export requirements including: transport, new electronic manifest system and verification, defining hazardous waste and materials, and differences between federal and state requirements. Nearly 200 people representing industry, government, and academia attended, demonstrating the demand for this type of information and industry willingness to comply.

Attendees of the import/export workshop held in Tijuana.

Based on the last report of the United States-Mexico Consultative Mechanism, 33 Mexican businesses are permitted by SEMARNAT to treat, store or dispose hazardous waste generated by the hundreds of businesses in the region. Offering these hazardous waste compliance workshops in Tijuana assists industry and informs key stakeholders on compliance requirements for United States regulations, ultimately protecting public health and the environment.

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ADVOCATING ENVIRONMENTAL HEALTH

Environmental health focuses on how the natural and built environment affect human health and how it can be managed to improve quality of life. Our most vulnerable populations such as children, the elderly and those with respiratory issues are often the most impacted by the combination of poor indoor and outdoor air quality, contaminated water, unmanaged waste and other environmental conditions. The Border 2020 Program and its partners have supported binational environmental health conferences, train-the-trainer activities for promotoras (community health workers), interactive mapping applications to identify environmental challenges and implement solutions and other key media strategies to improve public health along the United States-Mexico border.

Teaming up to Address *Zika* disease in Brownsville

In 2016, the *Zika* outbreak in the continental United States emerged as a significant threat to the public. In November of that year, the City of Brownsville, Texas, reported the first case of the *Zika* virus transmitted by a mosquito within the state. The City worked with the Center for Disease Control (CDC), the Texas Department of State Health Services (TDSHS), Cameron County and Brownsville's Health Departments to learn more about the transmission and precautions for the public to take.

In 2017, EPA partnered with the City of Brownsville Health Department to identify hotspots and the factors that led to the spread of the *aedes aegypti* mosquito. The project took a holistic approach to identify the underlying conditions that allow mosquito breeding and how to prevent it. The project mapped the risk areas within the city by looking at existing environmental data coupled with socioeconomic and mosquito data. To date, the city is using a crowdsource application platform in which residents can report potential mosquito breeding sites and upload georeferenced photos. The website also provides recommended actions that residents can take to combat mosquito risk.

The City of Brownsville Health Department is also working with *promotoras*, who serve as public community liaisons, to educate residents through a train-the-trainer model. The project is ongoing and researchers at EPA have presented their initial findings at a conference and recently published a literature review.

> *"We combined environmental data (land cover, precipitation, and temperature) with socioeconomic and mosquito activity data in order to paint a more accurate picture of risk. To our knowledge, this is the first vector mitigation study to take into account both 1x1 meter land cover data and socioeconomic determinants."*
>
> **Pai-Yei Whung, Ph.D.**
> **Project's lead and EPA senior scientist**

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EPA Engages Communities to Target Children's Environmental Health

Jacobo Sandoval at one community outreach event in Nogales, Arizona.

> *"Families in Nogales, Arizona, are very happy with the healthy homes evaluation and especially with the smoke alarms installed by Sonora Environmental Research Institute, Inc. (SERI) staff. Many families mentioned that Nogales does not have many children's environmental health programs available to low-income families, and they are grateful for this opportunity to participate in the program."*
>
> **Jacobo Sandoval**
> **SERI Program Manager**

According to the World Health Organization, in 2012 it was estimated that 1.7 million children under the age of five died due to environmental factors. Children living along the United States-Mexico border are particularly vulnerable due to the region having higher than the United States national average rates for children living in poverty, being uninsured, and having chronic diseases (Pan American Health Organization, 2014).

Over the past several years, partnerships between EPA's Office of Children's Environmental Health, the Border 2020 Program, the United States-Mexico Border Health Commission under the U.S. Department of Health and Human Services and local organizations, have worked on collaborative projects to identify environmental

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health needs and provide opportunities for local action to improve the lives of children living along the border. These opportunities have included three children's health symposiums from south Texas to California, as well as federal grants to educate families, community health workers, educators and medical professionals on how to address children's health needs.

In 2018, EPA awarded more than $214,000 dollars to fund five projects aimed at addressing children's environmental health in border communities in Texas, New Mexico and Arizona. These five projects addressed environmental health issues related to lead-based paint, indoor air quality, and integrated pest management.

Many of these projects are establishing new ways of improving current environmental health programs and initiatives for agencies who work within communities located in the border region. These projects will train nearly 350 specialists, including community health workers, childcare givers and medical providers, and reach over 2,000 community members on environmental health topics such as improving indoor air quality, reducing lead-based paint exposure and implementing integrated pest management strategies. Through these projects, and continued leadership from border communities, children's environmental health will continue to improve.

> *"Chronic diseases such as asthma, cardiovascular diseases, and diabetes are linked to air pollution. We will provide education on a variety of environmental hazards to Promotoras, parents at elementary and middle schools, and pregnant women. The education will provide participants the knowledge needed to identify indoor and outdoor pollutants, harmful chemicals in pesticides used at home, and how they can change or control them without exposing their children to the damaging effects."*

Genny Carrillo, M.D.
Texas A&M University
School of Public Health

> *"Mariposa Community Health Center is excited to have been awarded this funding. Protecting our children by ensuring a healthy living environment is essential to their long-term health and well-being. These funds will provide education to Community Health Workers along the U.S.-Mexico border to assist them in identifying environmental pollutants and train parents and caregivers in appropriate methods to reduce or eliminate exposure within their homes."*

Ed Sicurello
CEO, Mariposa Community Health Center

> *"The Southwest Center for Pediatric Environmental Health is very pleased to hear that we have been awarded this grant. It will serve to augment outreach to disadvantaged children on the border from El Paso to Brownsville. Based at Texas Tech University Health Sciences Center in El Paso, we have partnered with colleagues from the University of Texas Rio Grande Valley School of Medicine to extend our reach. The funds will go to production of training guides for Promotoras, as well as two Promotora workshops. It will likewise support the development of e-learning modules to be used in their new senior medical student elective on pediatric environmental health."*

Director Stephen Borron, M.D.
Southwest Center for Pediatric
Environmental Health

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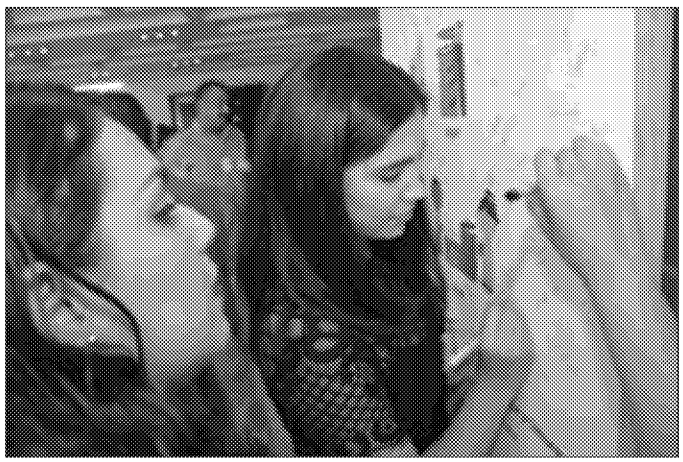
Responding to *Zika* Threat Along the Border

Besides the shared environment between the United States and Mexico along the border, the Border 2020 Program also recognizes that, "[t]he movement of people and products between the two countries creates a unique binational environment for preventing and controlling diseases spread through food and water, from insects or animals, and between people" (Center for Disease Control, 2018). In response to these risks, the Border 2020 Program has supported efforts to increase awareness and provide training on the use of integrated pest management to prevent the spread of vector-borne diseases, like *Zika* transmitted by mosquitos.

In Fall 2016, two binational environmental health conferences on vector-borne diseases were held in Mexicali, Baja California, and Nogales, Sonora. Partners included: the Autonomous University of Baja California (UABC, by its acronym in Spanish), the Technical Institute of Nogales (ITN, by its acronym in Spanish), *El Colegio de la Frontera Norte* (COLEF), the Center for Disease Control (CDC) and their Mexican counterpart, the National Center for Preventive Programs and Disease Control (CENAPRECE, by its acronym in Spanish), among others.



Participants commit to addressing sources of vectors by keeping their homes and environment clean and free of trash and standing water.

Over 360+ people attended, such as medical students, faculty, health practitioners, government officials, and 30 vector borne disease experts. Key topics included preventive measures to combat *Zika* and other vector-borne diseases, integrated pest management strategies, and the appropriate usage of insect repellants.

In 2017, to confirm long-term impact of the events, the venue hosts (UABC and ITN) contacted the attendees and learned three key findings:

- After the symposia, three out of four respondents shared the environmental and public health information they learned with people they knew.
- In addition, more than half of all respondents reported they now read the label prior to using insect repellents.
- Of critical importance, nearly half of attendees have started pouring standing water out of flower pots to eliminate mosquitos' eggs, thereby reducing breeding habitats.

As seen by the evaluation, the conferences have increased knowledge and influenced behavior. To learn more about these events, please visit the U.S.-Mexico Border 2020 webpage.

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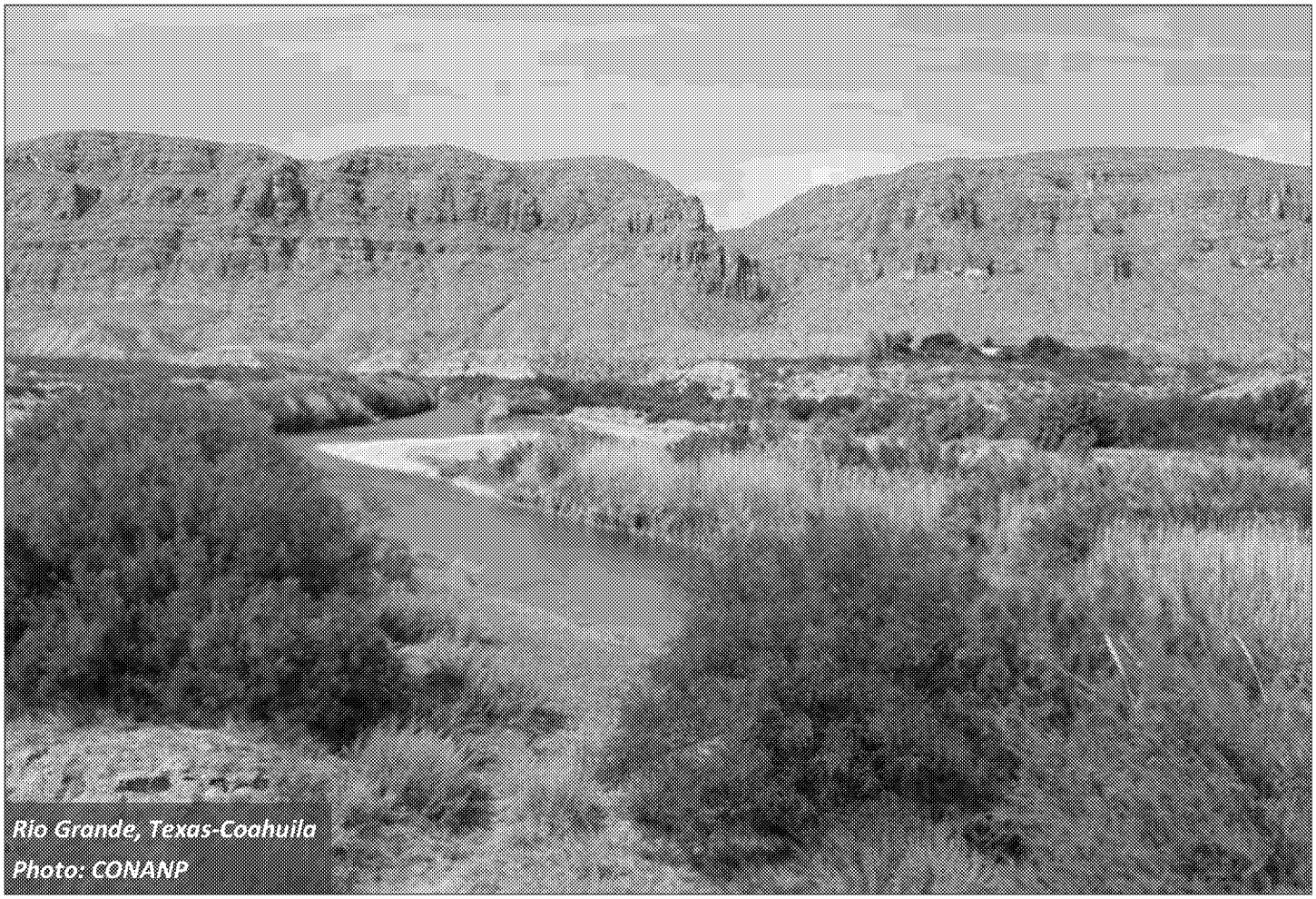
¡Visit our web pages!
www.epa.gov/border2020
www.gob.mx/semarnat

MISSION STATEMENT

As a result of the partnership among U.S. Border Tribes and federal, state and local governments in the United States and Mexico, the mission of the Border 2020 Program is to:

Protect the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development.



Rio Grande, Texas-Coahuila
Photo: CONANP

Protecting the Environment and Public Health

IN THE U.S.–MEXICO BORDER REGION

BORDER 2020
FRONTERA 2020

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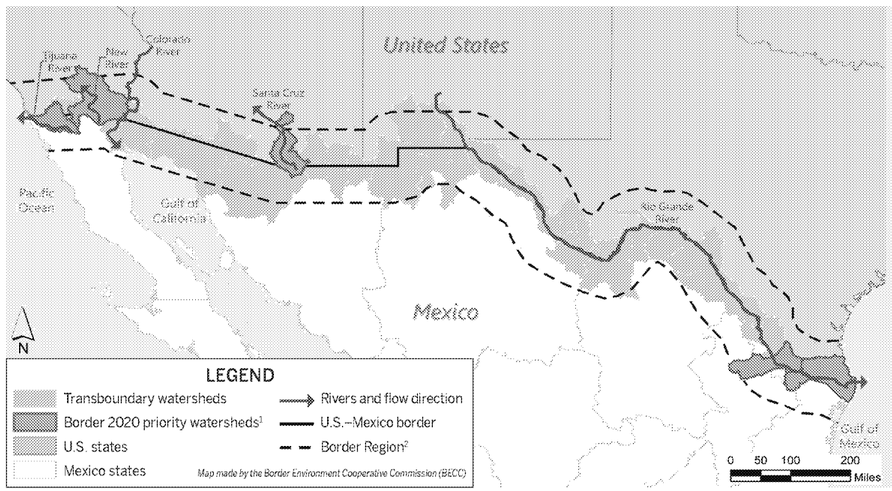
Overcoming Binational Environmental Challenges

The U.S.-Mexico border region is home to over 15 million people who share natural resources, watersheds, and air basins that transcend political boundaries. Binational pollution impacts both sides of the border and necessitates a coordinated response. To improve and protect the environment and public health, the La Paz Agreement was signed by the Governments of Mexico and the United States in 1983, thus providing the foundation for cooperative efforts to address the complex and intertwined environmental issues along the U.S.-Mexico border.

Opening ceremony of the Border 2020 Program in Tijuana, Baja California, on August 8th, 2012

A Diverse U.S.-Mexico Border Region



1. Map shows subwatersheds delineated at the Hydrologic Unit Code 8 level.
2. Boundary set forth by La Paz Agreement (62 miles from border).

- **15 million+** people borderwide
- **26** federally recognized U.S. tribes
- **6** national parks
- **4** high priority river basins
- **40+** U.S. counties and **80** MX municipalities
- **4** transboundary rivers into the U.S.
- **2,000** mile shared border

TIMELINE

Building from the La Paz Agreement, the United States Environmental Protection Agency (U.S. EPA) and Mexico's Secretariat of the Environment and Natural Resources (SEMARNAT) have implemented four successive binational programs to meet emerging environmental challenges in this dynamic region. Along the entire border, key stakeholders such as the 10 states, 26 federally recognized tribes and local partners have provided leadership and additional funding to implement projects that advance environmental protection and public health improvements while the population and economic activity have increased.

1983

The Basis for Binational Cooperation — La Paz Agreement

President Reagan of the U.S. and President de la Madrid of Mexico sign the La Paz Agreement

Recognizing the need to cooperate binationally on environmental and public health challenges in the border region, the Governments of the United States and Mexico signed the Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area (the La Paz Agreement), in the city of La Paz, Baja California Sur, Mexico, in 1983.

1992

Integrated Border Environmental Plan (IBEP)

The first binational border program, IBEP, focused on enhanced environmental regulation and resulted in significant investments in infrastructure along the border. Although the binational environment improved, many projects were implemented at a federal scale, and the Program recognized the need to address environmental and health concerns on the border with additional local stakeholder involvement.

1996

Border XXI

Local emergency response sister-cities were developed

Border XXI established a five-year bilateral effort which included additional federal partners to achieve its goals, engaged the 10 border states and U.S. tribes, and included over 40 public meetings to solicit input and identify local priorities. Border XXI established nine borderwide workgroups to address transboundary environmental issues. While the workgoups implemented many pilot projects benefitting communities, the Program objectives remained broad in nature.

2003

Border 2012

Partnership with U.S. tribes and the Necua Indigenous Community in Mexico on waste management

The Border 2012 Program set an ambitious ten-year plan that included specific and measurable environmental goals and objectives developed through public input. The Program took a bottom-up approach that continued engagement of state, tribal and local communities and operated through four new regional workgroups and numerous local taskforces to implement stakeholder-led projects.

2012

Border 2020

Improving water infrastructure in the Tijuana-San Diego region

Border 2020 continues a bottom-up approach and tackles emerging environmental issues. Program goals were established binationally and seek to improve air and water quality, reduce waste, strengthen emergency preparation and response, promote environmental stewardship and address environmental health. These goals directly align with U.S. EPA's core programs, local priorities, and the original mandate from the La Paz Agreement to address the complex and on-going regional environmental challenges.

Overcoming Binational Environmental Challenges

The U.S.-Mexico border region is home to over 15 million people who share natural resources, watersheds, and air basins that transcend political boundaries. Binational pollution impacts both sides of the border and necessitates a coordinated response. To improve and protect the environment and public health, the La Paz Agreement was signed by the Governments of Mexico and the United States in 1983, thus providing the foundation for cooperative efforts to address the complex and intertwined environmental issues along the U.S.-Mexico border.

Opening ceremony of the Border 2020 Program in Tijuana, Baja California, on August 8th, 2012

TIMELINE

Building from the La Paz Agreement, the United States Environmental Protection Agency (U.S. EPA) and Mexico's Secretariat of the Environment and Natural Resources (SEMARNAT) have implemented four successive binational programs to meet emerging environmental challenges in this dynamic region. Along the entire border, key stakeholders such as the 10 states, 26 federally recognized tribes and local partners have provided leadership and additional funding to implement projects that advance environmental protection and public health improvements while the population and economic activity have increased.

1983

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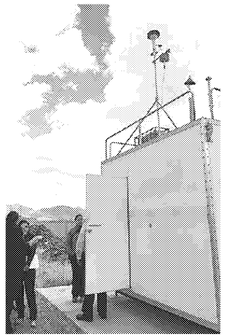
Protecting Communities Borderwide

Improving the Air We Share

Many U.S.-Mexico border cities share binational air basins, where pollutants such as particulate matter (PM_{10}, $PM_{2.5}$) and ozone and its precursors (NO_x and VOC) travel across borders. Exposure to these pollutants can affect our hearts and lungs, triggering a variety of health problems, particularly to vulnerable populations with asthma. For example, in California, ozone is problematic in San Diego County, while both ozone and PM are concerns in the Imperial Valley. In El Paso, Texas, key challenges include PM, carbon monoxide and ozone.



Air quality monitoring inspection in San Diego-Tijuana border region

In response, local binational task forces formed to coordinate and implement solutions such as improving and/or expanding monitoring networks, increasing data availability, and expanding public outreach. Meanwhile states on both sides of the border have identified mitigation strategies in air quality improvement plans (State Implementation Plans in the U.S. and ProAire in Mexico).

The border region has reduced emissions at ports of entry by reducing wait times for idling vehicles. In addition, paving dusty roads and improving urban transport borderwide have resulted in the elimination of 170,000 tons per year of PM_{10}. Air monitoring from 2006-2014 identified a decline in ozone exceedances in the San Diego and Imperial Valley air basins and PM exceedances in the El Paso air basin.

Groundbreaking ceremony of water system improvements in Anthony, New Mexico

Enhancing Water Quality

The U.S.-Mexico border region shares numerous transboundary watersheds, with many rivers flowing from Mexico into the U.S., or even forming the border itself in some cases. Four have been identified as high-priority. Outdated infrastructure and extreme weather events can result in contaminated stormwater and sewage overflows entering the transboundary waterways and exposing communities living and/or working in or nearby the watersheds to contaminated water. The Border Programs have worked to address these environmental health challenges for over 20 years.

Since 1997, the Border Water Infrastructure Program (BWIP) and binational program partners have supported the construction and/or expansion of infrastructure projects that are eliminating over 350 million gallons a day (mgd) of untreated or inadequately treated sewage discharges.

The Border Program also carries out trash cleanup and waste reduction efforts to address illegal dumping that contaminates transboundary waterways, the Gulf of Mexico and the Pacific Ocean. To protect existing infrastructure, the Program partners with local businesses in Texas, Arizona and Tamaulipas to properly dispose of Fats, Oils and Grease (FOGs). Green infrastructure projects and trainings in Ambos Nogales have reduced impacts from stormwater runoff into the Nogales Wash and the Santa Cruz River in Arizona. In addition, more than 1,000 community members and municipal staff in southern New Mexico and west Texas received training on the health threats posed by improperly maintained septic tanks.

Household hazardous waste collection event in Nuevo Laredo, Tamaulipas, Mexico

Ojinaga, Chihuahua responders received HAZMAT training and equipment

Promoting Clean Land

When waste materials are improperly disposed of they can negatively impact our lands, transboundary watersheds and oceans and create habitat for disease-bearing vectors such as mosquitoes. As the population has grown in border communities, increased amounts of plastics, electronics, tires and other materials have overburdened the waste management infrastructure and services.

The Border Programs have improved collaboration among binational stakeholders to reduce waste through: 1) mitigating the impacts of plastic, tires, and other waste through cleanups and educational outreach and community actions; 2) reducing waste and increasing recovery and reuse of plastic, e-waste, tires, and other materials; and 3) building technical capacity among diverse stakeholders to adopt sustainable materials management practices.

Since 2005, communities in the U.S.-Mexico border region have carried out projects to properly dispose: over 8 million scrap tires, nearly 60,000 tons of household hazardous waste, and 264 tons of electronic waste.

Strengthening Emergency Response Capability

Binational emergency preparedness and response coordination is critical in the border region, because toxic smoke, contaminated water and other impacts from disasters and incidents pay no heed to local, state or international boundaries. Emergency preparedness efforts — training, exercises, equipment — have been tested in real-life emergencies and led to a more efficient coordinated response along the U.S.-Mexico border. Joint Response Teams (JRT) support these efforts and ensure timely binational reporting of incidents.

Since 2013, through the Border Program, more than 10,500 responders have received capacity trainings from over 140 training courses and over 25 binational exercises and 200 drill notifications between the U.S. and Mexico. These actions and resources have made the border region safer for residents, first responders and the environment.

Fostering Environmental Stewardship

Improperly managing hazardous materials can pose transboundary environmental health issues. Challenges such as illegal or improper crossing of hazardous wastes and material at the U.S.-Mexico ports of entry and the lack of community information on pollutant sources has called for improved enforcement efforts, compliance assistance and environmental stewardship.

Through Border Program efforts, environmental inspectors are now present at ports of entry and information is exchanged between Program partners on transboundary compliance at binational workshops. Border communities are also benefitting from improved transparency of U.S. and Mexican pollutant discharge data (i.e. the U.S. Toxic Release Inventory [TRI] and the Mexican Registry of Emissions and Transfer of Contaminants [RETC]) reports. In addition, a binational public-private partnership led to enhanced environmental stewardship, through Environmental Management System (EMS) trainings for over 30 small and medium-sized companies in border communities.

Conducting truck stop inspection in Calexico, CA. Photo/Jessica Rodriguez

Partnering Binationally to Achieve Environmental Results

Tangible improvements along the entire 2000-mile border obtained through stakeholder-driven projects

CALIFORNIA

ARIZONA

Pacific Ocean

BAJA CALIFORNIA

Gulf of California

SONORA

NEW MEXICO

TEXAS

CHIHUAHUA

COAHUILA

NUEVO LEÓN

TAMAULIPAS

Gulf of Mexico

N

IMPACT: Binational Collection of Oil and Grease for Biodiesel

Through the Ambos Nogales Biodiesel Capacity Building Program, oil and grease collected from local restaurants is transformed into biodiesel fuel used for emergency response vehicles. This Program has the dual benefit of 1) preventing the oil and grease from negatively impacting the sewer system and 2) creating an alternative fuel.

Key Accomplishments:

- 1,200-1,500 gallons of biodiesel produced annually since original 2009 pilot project.
- Reduced grease blockages in sewer systems.
- Increased local usage of biodiesel for fire department vehicles.

BEFORE: Fat and bread crumbs left behind from filtering oil

AFTER: Refueling cars with biodiesel converted from grease and oils

IMPACT: Improving Air Quality in the Paso del Norte Region

The Joint Advisory Committee was formed in 1996 and works to improve air quality through binational collaboration.

Key Accomplishments:

- Introducing cleaner fuel (oxygenated gasoline) in Mexico.
- Dedicating commuter lanes at border crossings to reduce emissions and wait times.

View of El Paso-Ciudad Juarez airshed

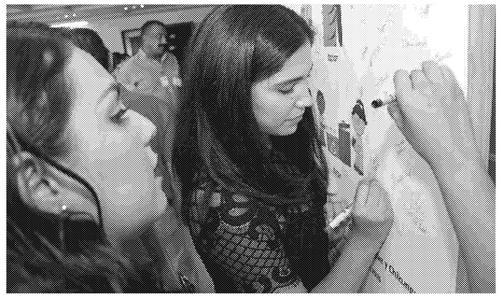
- Strengthening vehicle inspection in Ciudad Juarez with an average of 200,000 inspections completed annually.

IMPACT: 900+ Participate in Binational Symposia to Improve Environmental Health

From 2015-17 Border 2020 and EPA's Children's Health Offices convened four children's environmental health and two vector-borne disease symposia. Topics included: indoor air quality, asthma, lead, mosquito-borne illness, children's health and prenatal exposures among others.

Key Accomplishments:

- 566+ attended the children's health symposia in El Paso and Brownsville, Texas, and San Diego, California.
- 360+ attended two vector-borne disease prevention symposia in Mexicali, Baja California, and Nogales, Sonora.
- Participants at symposia included healthcare experts from the U.S. and Mexico, public health practitioners, community health workers or promotores, educators, medical students, faculty, government agencies and the public.



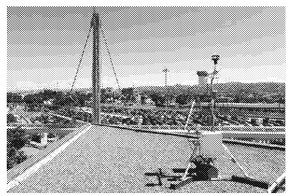
Students sign pledge poster to manage vector-borne diseases from mosquitoes using integrated pest management

IMPACT: Improving the Air We Share

Federal, state, and local agencies collaborate to measure air quality at border crossings and inform neighboring communities. Outreach campaigns target sources of pollution to mitigate health impacts.

Key Accomplishments:

- Monitor installed at San Ysidro, busiest land port of entry in Western Hemisphere, in January 2015.
- Bilingual television and radio campaign targeting fireworks and open burning in Imperial-Mexicali region launched in 2010.
- Mexicali announced ban on sale of fireworks in December 2016.



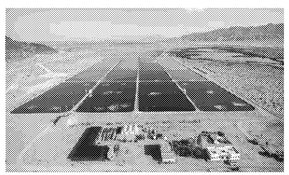
Roof-top equipment monitors $PM_{2.5}$ levels as traffic backs up at San Ysidro Port of Entry

IMPACT: Enhancing our Water

Through a Border 2012-funded monitoring program, high levels of nutrients discharged through the Las Arenitas Wastewater Treatment Plant in southern Mexicali were determined to be causing algal blooms in the Rio Hardy. Funds from the Program were used to design a 97 hectare artificial wetland system, which was later constructed with funds from Mexico.

Key Accomplishments:

- 15 million gallons per day of untreated wastewater that once polluted the New River is now treated.
- Constructed wetlands provided additional treatment and expanded riparian habitat.



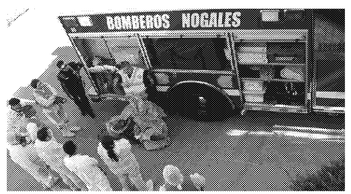
Treatment plant (center) and wetlands (upper right). Photo/Bill Hatcher

IMPACT: Strengthening Emergency Preparedness

The border region is highly industrial and hazardous materials pose a threat to communities and transboundary air and watersheds. Arizona State University led the development of a binational Hazardous Materials Emergency Response Training (HAZMAT) Pilot Program with industry, academia, and federal, state, and local agencies.

Key Accomplishments:

- Developed five multi-day training courses.
- Trained and certified 12 new instructors.
- Created a binational model for on-going trainings to industry and first responders.



Capacity-building for Ambos Nogales firemen. Photo/Bill Hatcher

IMPACT: Promoting Sustainability in Alamo, Texas

Through a new partnership, the City enhanced environmental stewardship.

Key Accomplishments:

- Decreased illegal dumping by over 238 tons/year.
- Presented to over 1,270 students at five community presentations on recycling.
- Distributed 5,000 bilingual recycling brochures and installed a revolving recycling trailer and bins at schools.
- Led community clean-ups and collection events.

School student contest mascot design winner presented with award at city council

IMPACT: Strengthening Emergency Preparedness in Colonias

In August 2016, the Border 2020 Program, along with NGOs in the Lower Rio Grande Valley region, hosted the first Emergency Preparedness Conference for Colonias.

Key Accomplishments:

- 110+ residents were trained on how to prepare, survive and recover from a disaster.
- Other topics included: fire prevention, food safety and storage, county evacuation plans, disaster housing, and family emergency planning.

Colonias Conference in Alamo, Texas

"The Border 2020 work group has allowed a working relationship to become an excellent friendship. It has been a very useful tool for the development of border environmental initiatives. Sonora and Arizona have benefited from multiple projects on water, air, and solid waste."

— Luis Carlos Romo Salazar, Commissioner, Commission on Ecology and Sustainable Development, State of Sonora, Mexico

"The Border 2020 Program is essential to continue providing guidelines of our goals within the United States and the State of Texas. We need to continue to improve the environment and decrease pollution."

— Dr. Elaine Mowinski Barron, MD, U.S. Joint Advisory Committee Charter Member, El Paso, Texas

LEGEND

- U.S.-Mexico border
- Border Region: Boundary set forth by La Paz Agreement (62 miles from border)
- U.S. states
- Mexico states
- Project locations

Two countries, ten states, twenty-six tribes

one environment

Anza-Borrego Desert State Park in California. Photo/Jeremy Bauer

"The Border 2020 Program has allowed us to improve our relationship with EPA and more importantly they are accepting local input. That is important to develop long term relationships and really address U.S. – Mexico Border environmental issues."

– **Dr. Hector F. Gonzalez**, Director of the City of Laredo Health Department, Laredo, Texas

"The Border 2020 Program brings people together to better understand and coordinate emergency preparedness and response tactics. The result is first responders and communities on both sides of the Border who are better trained and equipped to protect human health and the environment."

– **Mario Novoa**, Fire Chief, Douglas, Arizona

BORDER 2020 FRONTERA 2020

U.S.-Mexico Environmental Program

www.epa.gov/border2020

Border 2020 Highlights Report 2018

(write-up draft only - no format/no pictures)

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GOAL 1. REDUCE AIR POLLUTION

Energy Efficiency Workshop in Municipal Public Lighting Systems of Tamaulipas

Energy efficiency in Mexico has become a strategy at all levels of government aimed to improve and build long term sustainability within their public buildings and enhance security of their energy supply while minimizing the impact to the environment. The operation and installations of public lighting systems and the consumption of energy in public buildings represents one of the greatest expenses faced by municipalities, sometimes reaching up to 40% of their costs. This factor limits the ability for local governments to focus on other priorities and efforts. Through a Border grant, the State of Tamaulipas' Ministry of Urban Development and Environment held two training workshops on energy efficiency to 10 border municipalities within the state. Workshops' materials provided information on the basic tools needed to achieve greater energy efficiency in lighting public spaces, thus increasing their economic savings.

The workshops were part of a series of actions to improve energy efficiency in the state, including two energy forums: "First State Energy Forum: Tamaulipas, Energy that moves to Mexico" and the third International Congress on Renewable Energies: "Perspectives of Energy in Mexico". Coinciding with the Border project, the State launched a demonstration wind project which included the start of operations of four wind turbines, again with the aim to promote the use of renewable energies within the State. The State also distributed over 10,000 booklets, "Practical Guidelines for Energy Savings," to help raise awareness in communities on the benefits of installing environmentally friendly technologies in their homes. As a result of the workshops, 10 municipalities committed to carry out an energy audit in their buildings, benefitting a population of 1.7 million residents.

Healthy and Resilient Housing in the western area of Ciudad Juárez, Chihuahua

Low-income families often face limited access to resources that encourage energy and water savings for their homes. This is often due to either a lack of knowledge, technical assistance, or financial resources available to them. The lack of access to financing that will help meet their economic needs, limits access to clean energy technologies and services that have less impact on the environment. The Mexican not-for-profit Federation of Private Associations of Health and Community Development (Salud y Desarrollo Comunitario de Cd. Juárez, A.C. [FEMAP]), has been operating a Micro-Credit Program in the region for more than 30 years, during which time it has granted more than 40,000 small loans to low-income residents for home improvements.

With the support of the Border 2020 Program, FEMAP developed a project to identify and implement green infrastructure and energy saving elements to low-income families looking to improve their homes within a rapidly growing area of Ciudad Juarez. The project offered technical and financial assistance to 50 homes (202 persons) implementing these energy efficient materials and strategies. In coordination with academic, non-profit and private business, the residents had access to technical experts who guided and educated them on green infrastructure elements that could be incorporated and adopted by them, as well as, access to eco-friendly materials.

The project resulted in an energy cost savings of $630 or 11.249 Kw/hr and water savings of 140,000 gallons of water or $500 following improvements of the 45 of 50 homes by installing:

- over 250 led bulbs

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- 200 windows sealed
- 50 low-flow shower heads
- 50 drinking water filters
- X (Maria add number) roof and wall insulations

In addition to the improvements made directly to their homes, a catalog of eco-materials was developed with the support of academics of the Architecture Program from the Autonomous University of Ciudad Juárez. This catalog includes information on best practices and an evaluation of each of the selected ecotechnologies, identifying those that are viable for implementation in marginalized communities since the existing catalogs are mainly focused on new housing.

Quantifying Emission Reduction from Reduced Wait Times at Mariposa Port of Entry

The Mariposa Port of Entry (POE) in Nogales, Arizona is an important land port in the U.S., with over 7 million vehicle crossings per year, including 350,000 truck crossings. The POE is piloting an innovative program to conduct joint inspections with Mexico and United States inspectors in order to reduce commercial truck wait times at the Nogales, Arizona Border. This pilot program is expected to significantly reduce wait times, from 8 hours to 1 hour, for northbound cargo trucks. This reduction in wait times will reduce emissions from idling vehicles and accelerate commerce. Nogales is currently in non-attainment for PM_{10} and $PM_{2.5}$, which can cause respiratory and cardiac effects, especially in older adults and young children. The emissions reductions from these mobile sources may improve air quality and public health in the region.

Border 2020 has funded the North American Research Partnership to study the amount of emission reduction benefits from this pilot project. Over 400 vehicles were surveyed for information about wait times and vehicle make and model, which allowed researchers to calculate emissions.

EPA's Motor Vehicle Emissions Simulator (MOVES), a modeling system that estimates emissions for mobile sources at the national, county and project level for criteria air pollutants, is being used by researchers to quantify emission reductions from border wait times. Preliminary data shows that decreased wait times have reduced emissions from idling. In addition, reductions are occurring because vehicles processed through the Unified Cargo Processing Facility tend to be newer and are built with more emission reduction technologies. The North American Research Partnership is currently working on data analysis of the surveys and emission reduction quantification and the final report will be available in late 2018.

Reducing Asthma Triggers for Children through In-home Interventions

The children of Imperial County, California are living with high concentrations of asthma triggers in the indoor and outdoor environment, including cross border air pollution. These factors have contributed to Imperial County experiencing some of the highest rates of asthma emergency room (ER) visits in California.

To address this issue, the Border 2020 Program has partnered with and funded the Imperial Valley Child Asthma Program (IVCAP) from 2015-2017 to conduct in-home asthma interventions and work with housing maintenance workers on implementing healthy homes strategies. During this period, 94% of participants

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enrolled in the program reported no ER visits or hospitalizations. In addition, IVCAP reached over 2,000 people through outreach and education, program enrollment, and other community engagement activities.

EPA continues to support and positively impact low-income families by funding in-home asthma interventions to IVCAP by a Clean Air Act asthma grant. The 2017 funding has a goal to provide in-home environmental asthma assessments and tools to manage asthma triggers for families and children 17 and under. These home environmental observations will be carried out by *promotoras*, community health workers.

To date, IVCAP has enrolled almost 90 additional asthmatics into their program with 80% of them reducing, avoiding, and/or eliminating two or more triggers identified after IVCAP's home environmental assessment. Families received tailored interventions for their unique set of triggers in their homes.

By the end of this 2017-18 effort, IVCAP hopes to reach up to 70 families and to conduct in-home asthma interventions. These interventions will decrease ER visits and hospitalizations. In addition to in-home visits, IVCAP will raise awareness by conducting outreach and educating residents living with asthma on the benefits of improving the indoor home environment to maintain long term control of asthma. For more information on asthma and environmental triggers, please visit: www.epa.gov/asthma.

GOAL 2: IMPROVE ACCESS TO CLEAN AND SAFE WATER

U.S.-Mexico Border Water Infrastructure Program

The Environmental Protection Agency's U.S.-Mexico Border Water Infrastructure Program (BWIP) funds the planning, design, and construction of high priority water and wastewater infrastructure along the U.S.-Mexico border. BWIP assists disadvantaged communities in identifying and securing available funding sources and addressing funding gaps to ensure access to safe drinking water and adequate sanitation, often for the first time.

BWIP provides hands-on management and technical oversight for communities lacking technical and managerial capacity that can then complete project planning and design requirements, increasing funding opportunities for construction assistance from other programs, such as Texas' Economically Distressed Areas Program, the State Revolving Fund, United States Department of Agriculture's (USDA) Rural Development Water and Environmental Programs, and the North American Development Bank (NADB).

Rivers along the U.S.-Mexico border sometimes naturally define the international boundary like the Rio Grande or flow from Mexico into the U.S. such as the Tijuana River. Projects funded under the BWIP address transboundary sewage discharges between the two countries. Treating raw sewage at the source before it enters shared border water bodies is the most technically feasible and financially viable option to prevent transboundary contamination. As part of this partnership, Mexico matches EPA's project's investments dollar for dollar, which helps protect public health and the environment.

Program Accomplishments

Since 2003, through 108 projects funded, the program has provided access to safe drinking water to 70,000 homes and first-time wastewater collection and treatment to 673,000 homes. In 2017, through the North American Development Bank (NADB), EPA announced a new project application cycle for BWIP funding. This

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identified 61 eligible drinking water and wastewater projects with a total estimated construction cost of $296 million that address public health and environmental conditions along the U.S.-Mexico border.

Building technical and managerial capacity at Sunland Park, New Mexico through partnerships

The construction of a new treatment plant in Sunland Park, a small and disadvantaged community in New Mexico, started in August 2017. Camino Real Regional Utility Authority (CRRUA), the local wastewater utility, struggled with inadequate and aging infrastructure, environmental compliance, and lack of managerial capacity and resources. For close to two years, EPA, New Mexico Environment Department (NMED) and NADB, worked closely with CRRUA to implement a capacity building plan to ensure CRRUA could effectively manage a new wastewater treatment plant. EPA provided more than $816,000 to implement this plan and technical assistance for project planning and design. The plan was successfully implemented; EPA and NMED then funded the construction of a $12.7 million treatment plant. EPA contributed with $9 million and NMED provided the additional $3.7 million in state funding. The treatment plant will improve access to sustainable wastewater treatment services to approximately 6,438 residents of Sunland Park and Santa Teresa and will greatly reduce the risks of untreated or inadequately treated wastewater discharges.

CRRUA's board chair, Josh Orozco, stressed the importance of finally being able to provide adequate wastewater treatment capacity in the community. During the July 2017 groundbreaking ceremony, he said this new plant "...will not only allow more homes and more businesses to be helped, but will also improve the health of our community."

Protecting the Tijuana River Watershed from transboundary contamination

The Tijuana River, originating in Baja California, Mexico, crosses the U.S.-Mexico border in San Ysidro, California, and empties into the Pacific Ocean just south of Imperial Beach, California. Discharges of raw and poorly treated sewage in Tijuana can impact the economy, health, and environment of U.S. communities like Imperial Beach and Chula Vista in San Diego County. As part of a multi-stakeholder and long-term effort to address these transboundary spills, a BWIP project is underway to repair some of the deteriorating wastewater collectors. These collectors carry sewage from households to the Tijuana wastewater treatment plant. If these collectors are not repaired, catastrophic collapses could occur, resulting in hundreds of millions of gallons of untreated sewage flowing into the U.S. and onto San Diego County beaches. The existing partnership between EPA and Mexico's water agencies, provided $7 million for the repair of more than 6 miles of sewage collectors and rehabilitated 30 manholes. A second phase for the construction of 2.5 miles of additional sewage lines is underway. The estimated cost of this project is $3 million with a projected EPA contribution of $1.4 million.

Fat, Oil and Grease Public Outreach Campaign in Brownsville

The Brownsville Public Utilities Board (BPUB) was awarded a Border 2020 grant for $25,000 in February 2016 to provide outreach and education on the impact of Fat, Oil and Grease (FOG) pollution on water quality to the communities in Brownsville, Texas and Matamoros, Tamaulipas. Historically, at the BPUB, FOG residential and commercial service calls occurred on average five times a week, with increased occurrences during the month of December.

BPUB entered a voluntary reduction program with the Texas Commission on Environmental Quality (TCEQ), Sanitary Sewer Overflow Initiative. This voluntary program requires BPUB to work on reducing unauthorized discharge of untreated or partially treated wastewater from the collection system or its components (e.g.

manhole, lift station, or cleanout) before reaching a wastewater treatment facility as a result of FOG issues. Through educational campaign efforts to both the general public and to commercial establishments, the BPUB aimed to reduce the number of FOG related service calls and bring awareness about the proper disposal techniques in dealing with Fat, Oil and Grease.

Marketing & Education efforts:

On March 16, 2016, the BPUB officially kicked-off its "Fat, Oil and Grease" public outreach campaign at its monthly public meeting in Brownsville. During the public meeting, they announced their collaboration with the City of Matamoros on the new FOG outreach program. BPUB reached communities from both sides of the border through a number of activities that included advertisements, educational fliers, ad videos, workshops, and press coverage. Social media platforms such as Facebook, Twitter and YouTube (www.youtube.com/watch?time_continue=55&v=AL8PFo35Atc), were also utilized to target younger audiences and share the educational video and audio campaigns that were developed. Throughout the project period, over 80 public outreach events and trainings with over 1,700 participants were conducted to the public in apartment and housing complexes, churches and educational institutions, as well as, commercial business.

More importantly, the BPUB through its outreach efforts has consistently been reducing the number of FOG service calls from 731 in 2013 to 417 in 2016, a 43% reduction in just four years. During the project period, in 2015 and 2016, the BPUB received 477 and 417 services calls related to FOG pollutants, respectively. Overall, the project met its objectives, including, reducing the number of FOG related calls 13% or 60 calls. To continue to learn more about BPUB's FOG efforts visit: www.brownsville-pub.com/departments/water-wastewater/pretreatment

Building Green Infrastructure in the Valle del Sol Avenue Public Space

The border region of El Paso and Juarez lacks urban green spaces. The World Health (WHO) established a sustainability indicator where a green area exists 9 m^2 per inhabitant, where Juarez is estimated to only have 4.5 m^2. Since 2013, Juarez has actively been partnering with various organizations to increase green infrastructure and expand green spaces throughout the city. These projects not only can be cost-effective but can address flooding issues associated with a lack of stormwater infrastructure and beautify areas that see high pedestrian traffic.

In 2016, a Border 2020 grant helped fund a park located on Valle del Sol Avenue and Solares Street, located over a half a mile from the U.S.-Mexico boundary. The park is the only green space in the area available to the community. Over many years, the park had heavily degraded due to a lack of maintenance and no longer served as an area where the community members could gather. The Instituto Tecnológico de Ciudad Juárez (ITCJ) who received the border funding transformed the park back to a usable space for community members, but also addressed flooding issues that this area experienced during rain events.

With funds granted by the Border 2020 Program, the ITCJ developed this project with the following objectives:

- Establish passive rainwater harvesting systems;
- Conserve water used for watering;
- Protect the soil from wind erosion;
- Incorporate and take advantage of the existing urban infrastructure.

The project began in June 2016 with the cleaning of the site and the reconditioning of the sidewalk, the construction of passive systems for rainwater collection, as well as the recovery and reconfiguration of existing vegetation. The amount of rainfall monitored from July 2016 to November 2017 (17 months) captured a total volume of 472, 502 U.S. gallons of rainwater.

Presently, the passive water collection systems continue to function effectively and the vegetation is thriving. The park is supported almost entirely with rainwater except in cases of extreme water stress or for the initial support of some new plant seedlings.

Thanks to a donation from the municipal authority, the park soil is protected from wind erosion by a walnut shell cover which allows any moisture in the soil to be conserved.

Finally, surveys conducted in the area showed that the social value of the park increased substantially. Before the project, the space was viewed as a negative area within the community and now it is seen as a usable social gathering park.

Determining the Ideal Bioswale Porous Material for South Texas Stormwater Management

A number of communities in the Lower Rio Grande Valley in southern Texas have been evaluating various Low Impact Development (LID) methods to incorporate into their communities. LID provides several advantages over traditional stormwater management practices such as: reducing or eliminating the need for large retention ponds; decreasing pollution to receiving waters; lessening erosion; more visually appealing within the community; flexibility in the layout of projects; and lowering cost. A research team under the direction of Dr. Jungseok Ho, of the University of Texas Rio Grande Valley (UTRGV), evaluated the use of bioswales in parking lots to determine the best performing locally available bioswale porous media material as well as design a bioswale standard that could be used by communities in the region. Bioswales are generally designed to manage runoff from large impervious surfaces such as parking lots. Bioswales incorporate engineered porous soils and/or other landscape elements to remove debris and pollution from surface runoff.

Building on previous studies Dr. Ho conducted, his team evaluated five testing sites (Table 1) that utilized various bioswale porous media (no bioswale, pumice, manufactured sand, recycled crushed glass and natural sand) in parking lots on the UTRGV Edinburg campus.

Figure 2 indicates the hydrological performance of the four different materials used at the five testing sites. Field testing indicating, Site 2 with the Pumice material, showed the best hydrologic performance taking into account the four decision criteria of runoff volume reduction, peak flowrate reduction, peaktime attenuation, and runoff solids filtration. Pumice showed the highest filtration of the materials with 58% (Figure 2d) and a peaktime attenuation of 64% (Figure 2c). Manufactured sand material showed very similar performances with natural sand material among the volume reduction, peak flowrate reduction, and peaktime attenuation. Recycled crushed glass was also a competitive material for all the criteria except peaktime attenuation which was only 32%.

The soil column test (Figure 3) results show that any mixtures containing pumice more than 40% of the volume produced promising results. Three 40% pumice mixtures (with manufactured sand, natural sand, and recycled crushed glass) achieved 30% of specific retention and 52% of filtration on average.

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Overall, based on the field testing, pumice performed the best of the bioswale porous medias, with testing showing that at least 40% pumice material mix is the ideal material for this region. However, it should be noted that further studies need to be conducted to consider the local availability, cost of the material and project construction to determine the overall practicality to be used by the communities.

Green Infrastructure for Sediment Control and Flood Protection in Ambos Nogales

The International Outfall Interceptor (IOI) is an aging pipeline that conveys untreated sewage from Nogales, Sonora and Nogales, Arizona (Ambos Nogales) to the Nogales International Wastewater Treatment Plant nine miles north of the border in Rio Rico, Arizona. Since the wastewater collection system in Sonora acts as a combined sanitary-stormwater conveyance, over the years sediment inflows and infiltration of stormwater in Sonora have caused failure of the IOI in Arizona. Erosion (scouring) from the sediment has weakened the conveyance system resulting in breaks in the IOI, most recently in July 2017, leading to sewage spills into the Nogales Wash. Repeated failure of the IOI could result in contamination of Arizona groundwater resources.

The Watershed Management Group (WMG), a Tucson-based non-profit, led a Border 2020 funded project to demonstrate the potential of green infrastructure (GI) to diminish the amount of sediment during flood events that is scouring the IOI. Green infrastructure, according to EPA, uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. The project used a three-pronged approach including:

- capacity building (community trainings in planning, design and implementation activities)
- demonstration sites (two projects for sediment control)
- policy development (resolution to expand and strengthen GI practices in Nogales, Sonora)

Working with local government and Nogales, Sonora residents, WMG completed two demonstration sites covering close to 10,000 m^2, similar to the area of a large soccer field. In addition, 88 residents attended a training and over 500 community members were informed about green infrastructure concepts via community events and project participation. One demonstration site is a rain park that now harvests a volume of 50,000-70,000 liters of rainfall per rain event. These GI modifications will nearly eliminate the park's contribution to flood events downstream in the Ambos Nogales area.

The project attracted support from a Nogales member of the Sonora Congress, who is also on the State of Sonora Commission for Energy, Environment and Climate Change. This project moved beyond the local level, spurring the Sonora Congress to adopt a green infrastructure law in April of 2017, the first of its kind approved in Mexico.

This project increased community capacity to use green infrastructure to reduce flooding in the Ambos Nogales area and prompted the local government to support future green infrastructure development.

Protecting the City of Holtville's Water Resources in Imperial County, California

Located in Imperial County, the City of Holtville's wastewater treatment plant (WWTP) was not meeting discharge requirements for ammonia and other pollutants that were flowing into the Pear Drain, which feeds

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the Alamo River and ultimately the Salton Sea in southern California. Thanks to funding from EPA's Border Water Infrastructure Program and the State of California Clean Water State Revolving Fund, the existing WWTP was upgraded and now provides wastewater service to 100% of the service area or 6,594 residents of Holtville.

Already considered an impaired water body, the polluted discharges from Holtville exacerbated the treacherous conditions faced by wildlife and plant communities living in the Salton Sea. Over the years, water levels in the Salton Sea have dropped rapidly due to evaporation and have increased salinity and pollutant concentrations. The exposed lakebed has succumbed to desert winds that now carry polluted dust onto the surrounding communities. These dust particles may contribute to asthma attacks throughout Imperial Valley. The Holtville WWTP that now meets discharge requirements will not only increase the chances of survival for the various organisms dependent on the sea, but the influx of properly treated water will keep dust from being exposed to the wind and away from vulnerable urban residents.

Some of the new components installed in the Holtville WWTP include an automatic bar screen that maximizes the removal of large objects and an activated sludge system enhancing treatment effectiveness and improving the quality of the effluent. A rehabilitated operations building within the treatment plant was also equipped with modern lab equipment, ensuring that tested effluent meets discharge requirements.

"EPA is committed to helping communities across Imperial Valley protect the state's vital water resources" said U.S. EPA Region 9's Water Division Director, Tomás Torres. "Our investments renew aging infrastructure, which can be costly for smaller communities like Holtville."

GOAL 3: PROMOTE MATERIALS, WASTE MANAGEMENT, AND CLEAN SITES

End-of-Life Vehicle Guide

Every year vehicles are stockpiled along the U.S.-Mexico border when they reach the end of their useful lives. Often, these stockpiled vehicles have not been processed properly to recover the reusable or recyclable materials nor dispose of hazardous materials these vehicles have. As the discarded vehicles are piled up, they become an eyesore to the local communities and pose a risk to human health and the environment. The vehicles often contain hazardous materials like antifreeze, used oil, or lead and when abandoned, they become a liability to local governments.

In response to address the needs of auto recyclers in the border region, USEPA and SEMARNAT have produced an End-of-life Vehicle Guide (Guide). The Guide was created to share effective practices for preparing an end-of-life vehicle so that the vehicle can be recycled properly and contribute to the U.S.-Mexico Border 2020 Program's goal to reduce waste through the safe and responsible recovery of materials.

The Guide and other materials form a packet comprising the guide, a set of quick reference waste cards, and a poster. These resources can be used to inform handling facilities and technicians on prepping the vehicles for processing in an environmentally sound manner. Additionally, the Guide discusses responsible disposal, cost recovery, health, safety and security, industry standards, and a listing of vehicles containing mercury switches.

Specific waste streams that pose a high risk to workers and the environment are highlighted in the Guide and on a set of waste cards complete with diagrams. Waste streams include: lead, mercury switches, refrigerants,

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waste batteries, waste fluids and waste fuel. Overall, the Guide provides materials that technicians can use to dispose of old vehicles using environmentally sound management practices.

EPA and SEMARNAT will work together to disseminate the folders to the relevant stakeholders along the border region in the fall of 2018. All materials are available in both English and Spanish. Please see link below for more information the Guide: **link to be added.**

Scrap Tires and Solid Waste Management along the U.S.-Mexico Border

The Border 2020 Program has aimed at building a more sustainable, integrated approach to waste materials management to minimize and/or reduce the impact to the environment and improve public health. However, in a geographic region where population, socio-economic conditions and environmental regulations can vary significantly from one region to another, different border communities have had to take varying and creative approaches to build sustainable communities.

City of Pharr, Texas.

Over the years, the City of Pharr has implemented greater sustainability tools within the Public Works Department to make the city one of the cleanest cities in the Lower Rio Grande Valley. In 2016, Pharr received a Border 2020 grant for $36,390 with the goal to continue improving their recycling and education efforts within the community to reduce the city's dependency on landfills and build a healthier community. Through the grant cycle over a 14-month period, the city collected:

- over 5,700 scrap tires;
- 60 tons of mixed waste (Figure 1);
- 1,023,353 lbs. of recycled material diverted from the landfill.

Staff launched a bilingual public education campaign by promoting, the city's recycling and sustainability efforts, stormwater pollution and illegal dumping of scrap tires, through social media, brochures, public service announcements and over 100 outreach activities (20 meetings, 40 events, 50 presentations). The project also increased recycling efforts in some Pharr schools by promoting an environmental education contest and providing 75 recycling bins for school classrooms and 26 larger 95-gallon recycling bins within the school district. To learn more about Pharr's Public Work Department and their efforts, please visit: pharr-tx.gov/departments/public-works/pharr-recycling-center/

Valle Hermoso and Rio Bravo, Tamaulipas.

In 2014, Tamaulipas passed a state legislation that outlined the State's Program for Integrated Waste Management and Prevention approach. Within this program, based on factors such as population growth and solid waste generated per capita, the State prioritized municipalities where it was vital to establish a municipal integrated waste management and prevention program. The State Program outlined specific strategies and actions that these municipal plans should address, including short, medium and long-term implementation and associated costs. The implementation of the municipal plans is done in three phases, where the first two phases look at conducting a diagnostic of current conditions regarding solid waste management in the municipality and adoption by the municipality to formally present and register the plan through the state. The third phase, is the implementation, monitoring and evaluation of the municipal program.

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The State Secretariat for Urban Development and Environment in Tamaulipas (Secretaría de Desarrollo Urbano y Medio Ambiente del Gobierno [SEDUMA]) received a $20,000 Border grant to assist the municipalities of Valle Hermoso and Rio Bravo complete their diagnostic study on local waste management. The diagnostic study, which took place over a two-month period, looked at:

- Current operations, staff, equipment, solid waste collected and classification of waste;
- Specific strategies recommended to be implemented over a short, medium, long term period;
- Costs associated with implementation of strategies (Table 1);
- Monitoring program parameters; and
- Potential funding mechanisms.

On August 22, 2016, SEDUMA presented both municipalities with the diagnostic assessment of their current waste management system. In March 2017, Valle Hermoso officially published and registered the diagnostic assessment with the State, moving into the third phase. Next steps, include the municipality of Rio Bravo's city council approval of the assessment and registration of the program.

Addressing the Binational Challenges of Electronic Waste in Texas and Coahuila

Rapid advancements in technology and the use of electronics by consumers mean that more and more electronic products are quickly seen as obsolete and disposed. Unlike other recyclable materials, electronic waste (e-waste) is not as easily recyclable due to the toxic metals (lead, mercury, cadmium and arsenic) found in them. The challenge with recycling e-waste is often improper disposal in local landfills and the lack of infrastructure in communities to properly support handling and recycling.

In 2016, through two Border 2020 grants, one to the Secretary of Environment of the State of Coahuila (Secretaría de Medio Ambiente [SEMA]) and the other to Green Tec-osos, an environmental group within the Instituto Tecnológico de Piedras Negras, recycling e-waste projects were launched in the communities of Ciudad Acuña, Piedras Negras and Guerrero, in the state of Coahuila and Eagle Pass, Texas. These projects aimed to prevent the electrical and electronic waste generated in the municipalities from being illegally dumped in the Rio Grande riverbed, around the Amistad Dam, as well as in streams, vacant lots and sanitary landfills of the region. They also informed and educated the community about the benefits of reusing electronic products.

To improve sustainable practices, 10 permanent e-waste collection centers were established among the four communities. Through community events, the projects yielded the collection of over 113 tons of e-waste. In addition, with the assistance of over 60 partners through workshops, trainings and media outlets, residents were educated on the positive impacts of recycling electronic waste has on the environment.

Campo Band Advances Zero Waste Practices

In the border region, unmanaged trash causes potential transboundary impacts such as impairing water quality, clogging streamflow, and creating habitat for disease vectors. In 2015, the Campo Band Tribe, located in California, raised concerns about transboundary solid waste issues to representatives implementing the Border 2020: U.S.-Mexico Environmental Program. The Border 2020 Program provided funds {add date} to

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conduct a solid waste assessment and prepare a zero-waste plan. The zero-waste plan lays the foundation for developing a zero-waste program, setting a goal to significantly reduce waste and establish diversion practices to eventually eliminate waste sent to the landfill.

The zero-waste plan was completed in January 2018. Along with the recommendations in this plan, the Campo Band is actively exploring other materials management activities including short and long-term goals to develop a self-sustaining waste and recycling program and transfer station. This plan was an important first-step/tool for the Tribe to accomplish their solid waste goals and improve the Tribe's and border region's health. The Campo Band continues to leverage other resources such as EPA's General Assistance Program (GAP) to address their solid waste goals, creating practices that makes sense for their community, and using the zero-waste plan as a valuable tool to accomplish their needs. Campo is currently funded by GAP for [$] to continue to move forward with the zero-waste plan.

Composting Diverts Valuable Organic Materials from Landfills

Compost is a valuable resource made from food waste, landscape cuttings or other organic material. However, based on the 2018 study "Characterization and Management of Organic Waste" released by the Commission on Environmental Cooperation (CEC), organics in the U.S. and Mexico are predominantly sent to landfills. Border 2020 has worked to increase diversion rates, estimated to be 32% for the U.S. and 7% for Mexico, by working with government, academic, non-profits, and industry stakeholders. Several past, and one new Border 2020 project, work to improve the management of organic waste through compost practices and EPA's food recovery hierarchy practices (food-recovery-hierarchy).

In 2012, Border 2020 awarded the organization, "Tijuana Calidad de Vida," a grant resulting in the first border municipal landscape compost pilot program that produces compost and educates future composters. In 2016, EPA Region 9's Environmental Finance Center funded a grant to identify compost niche markets in Tijuana for businesses needing to achieve waste reduction goals for their corporate social responsibility ratings. In 2017, Colegio de la Frontera Norte (COLEF) conducted a pilot program working with nearly 120 households in Tijuana and training them in a total of 27 workshops. This resulted in the diversion of 10,067 kg of household food scraps. The compost created was used at Eco-parque, a campus program to model and teach sustainable practices and 107 sacks of compost were donated to household participants. The project also affirmed the local community's willingness to change behavior to separate food scraps from other household trash signaling desire for these services. The findings of these grants were included in the CEC's 2018 report.

On June 13, 2018, the University of Arizona (UA) Compost Cats celebrated the award of a $91k Border 2020 grant to establish the Santa Cruz County (SCC) Compost Center, a much-needed alternative to landfilling waste produce. Nearly 3,000,000 tons of produce crosses the nearby Mariposa-Nogales Port of Entry, one of the busiest land crossings along the U.S.- Mexico border, bound for markets across the United States each year. About 8,000 tons of waste produce are generated yearly, equivalent to two dump trucks per day for an entire year, and is then disposed of in the Rio Rico Landfill. The new SCC compost center will offer both environmental and economic benefits to the region (Press release for compost-center). In its first year, SCC Compost Center will compost 3,000 tons of waste produce, creating 9,000 cubic yards of compost. This is equivalent to 4.3 football fields covered with one foot of compost. The goal is to compost the 8,000 tons produced annually.

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The SCC Compost Center will be modeled after the successful UA Compost Cats program in Tucson, which not only composts but works with local food banks to divert good food from campus to hungry people (Compostcats link). In 2015 their work was acknowledged with EPA's "Food Recovery Challenge" award for reducing food waste on the UA main campus and in the City of Tucson. Similarly, the SCC Compost Center will serve as an agricultural learning center for high school and college students and recover this valuable resource from taking up space in the landfill.

GOAL 4: ENHANCE JOINT PREPAREDNESS FOR ENVIRONMENTAL RESPONSE

Enhance Joint Preparedness for Environmental Response under the U.S.-Mexico Border 2020 Program

Chemical and other hazardous substances emergencies do not respect international boundaries. Preparing for a possible emergency in the border region improves the ability to respond to incidents and protect the environment and public from hazards that could result in serious environmental or health impacts.

Annex II of the 1983 La Paz Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area established the Mexico-U.S. Joint Contingency Plan (JCP). The JCP provides a binational coordination mechanism for protecting human health and the environment and responding to significant chemical and oil contingencies or emergencies that affect the inland border area between the U.S. and Mexico. Two previous versions of the Mexico-U.S. JCP have been revised and updated. Most recently, on November 17, 2017, in Mexico City, the most up-to-date version of Mexico-U.S. JCP was signed by the Secretariat of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales [SEMARNAT]), through the Office of the Federal Deputy Attorney of Industrial Inspection (Procuraduría Federal de Protección al Ambiente [PROFEPA]) and the National Coordination for Civil Protection within the Secretariat of Interior (Secretaría de Gobernación [SEGOB]). Previously, for the U.S., the Director of Office of Emergency Management (OEM) and U.S. Co-Chair for the Inland Border Plan, signed the updated JCP.

The updated JCP has a robust binational notification system that has been restructured to reflect lessons learned from actual emergencies and notification drills. The changes to the notification system were coordinated with the National Response Center (NRC), Mexico's National Communications Center (Centro Nacional de Comunicaciones / Sistema Nacional de Protección Civil [CENACOM]) and PROFEPA in Mexico City as well as with our EPA Regional colleagues in Regions 6 and 9. Extensive reviews were conducted by Office of General Counsel regulation experts, the EPA International Law office in addition to the EPA Office of International and Tribal Affairs (OITA) and the Department of State.

The ability to plan and prepare binationally improves the probability of adequately responding to incidents and protecting the environment and public from exposure to harmful contaminants and possible serious environmental or health impacts. This binational partnership is also increasing emergency response capacity through training events designed to enhance cooperation, strengthen binational contingency plans at the local, state, regional and national levels to reduce the risks of emergencies and disasters throughout the border region.

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Binational Training Reduces Danger and Impacts to Border Communities

EPA has partnered with federal, state and local agencies on both sides of the border to provide exercises and training as well as to ensure that first responders have proper personal protective gear to respond safely and effectively. Since the inception of the Border 2020 program, over 10,500 firefighters, emergency management officials, police, military, industry representatives, medical staff and other relevant community leaders have received training through: 153 training courses, 32 binational exercises and 245 drill notifications between the U.S. and Mexico throughout the Arizona-Sonora and California-Baja California border region. Getting equipment and personnel in a timely manner across an international border crossing to help respond to fires has always been a challenge. It requires a coordinated effort among a wide range of agencies and organizations. Binational training and exercises with first responders, customs officials, other government agencies, military, industry and the public have laid the groundwork for efficient responses in real-life emergencies.

Binational Fire Response in Winter 2017

When a major tire fire sent dangerous billows of smoke from Agua Prieta, Sonora into Douglas, Arizona, in December 2017, Douglas firefighters crossed the border and helped put it out in four hours. Binational training and tabletop exercises conducted four months prior to the fire greatly assisted in increasing the efficiency of the response and reducing the scale and impact of the incident. Additionally, border patrol at the port of entry on both sides provided timely crossings to the binational firefighters.

The binational collaboration with the addition of the Douglas firefighters prevented the fire from growing larger and potentially crossing into the U.S. and reduced the amount of smoke that can cause respiratory problems for sensitive populations such as children, elders and those with asthma along the U.S.-Mexico border.

200-hour Training Tested by May 26, 2018 Tire Fire.

A 200-hour HAZMAT Tech training for Douglas and Agua Prieta firefighters has been ongoing on weekends and will finish up by Fall 2018. The result will be additional HAZMAT techs in Douglas and a full HAZMAT Tech team in Agua Prieta who are better trained and equipped to respond to incidents and assist each other in cross border emergencies.

On May 26 a portion of the 200-hour training was interrupted and postponed due to a binational response to a tire fire in Agua Prieta. A recently updated Sister City Binational Emergency Plan {check name} was activated and utilized for the response where the Douglas Fire Department assisted in getting the fire under control in under three hours.

"Thanks to the binational efforts and the HAZMAT class being presented to Agua Prieta Firefighters, they have been able to respond to incidents in a more prompt and efficient way. In the past, Agua Prieta Fire Department had willingly attended to fire emergencies and showed their best efforts, however, now that they are receiving the HAZMAT training by Douglas Fire Department, they understand the need of proper personal protective equipment to respond and face the risk of each event such as the tire fires. I personally saw the firefighters using the proper respiratory protection equipment during the tire fire that occurred on May 26th."– Gerardo Romo, Douglas Fire Department

"Thanks to EPA, as well as the firefighters of the city of Douglas, Arizona, who have participated as instructors to enrich our HAZMAT knowledge. With this we are prepared for any emergency. Our aim is to protect the

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communities in our sister cities. Thanks to EPA for providing us with the equipment since, due to its high cost, it is out of our reach. Thanks for trusting and believing in the firefighters of Agua Prieta." –Lieutenant Jose Romero, H. Fire Department of Agua Prieta

GOAL 5: ENHANCE COMPLIANCE ASSURANCE AND ENVIRONMENTAL STEWARDSHIP

Legislative Reform and Environmental Education in Nuevo Laredo, Tamaulipas

The Universidad Autónoma de Tamaulipas received a Border 2020 grant to continue educating border communities on the environmental challenges (i.e. water pollution, urban solid waste, fats-oils-grease) that persist in this geographic region. The project focused on the following objectives:

1. Educate school students and environmental municipal inspectors about the most common environmental challenges in the region.
2. Update the municipal environmental legislation for environmental protection in Nuevo Laredo and some of the surrounding municipalities and present to the city for adoption.
3. Create an online database with the existing environmental regulations or ordinances of all the border sister cities within EPA Region 6.

The project resulted in environmental conservation training to 2360 students, 50 public school directors, and 20 environmental inspectors of the city of Nuevo Laredo. Additionally, the project aided in the development and delivery to municipal authorities a proposed new ordinance of "Territorial Ecological Planning of the Municipality of Nuevo Laredo, Tamaulipas. Lastly, the municipalities of Ciudad Mier, Camargo, Jiménez and Jaumave in Tamaulipas adopted environmental ordinances that will benefit approximately 300,000 citizens.

Port of Entry Inspectors Safeguarding Communities

Enforcing the Resource Conservation and Recovery Act's (RCRA) import/export regulations protects public health and the environment by providing safeguards against hazardous waste and materials being mishandled and spilled. It also reduces the amount of binational "scam" businesses who implement illegal practices, creating unfair business competition. EPA funds California's Department of Toxic Substances (DTSC), a Border 2020 partner, to safeguard the California U.S.-Mexico border.

DTSC and San Diego County inspectors work closely with Customs and Border Patrol (CBP) to conduct surveillance and enforce compliance to ensure hazardous materials and waste products are safely transported across the ports of entry (POE) and onward to their final destination between the U.S. and Mexico. These HAZMAT trained inspectors work with U.S. Customs HAZMAT inspectors and serve as part of the emergency response team, a first line of defense in the event of a hazardous spill or accident at the POE. DTSC and the San Diego County, upon request from CBP, also participate in special operations such as inspections of cargo outside of days and hours allowed for hazardous materials. To increase compliance, the two countries provide

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compliance assistance outreach and training to facilitate the U.S. and Mexico's industries to understand regulatory requirements.

On June 20, 2018, with funding from the Border 2020 Program and RCRA program, DTSC hosted an import/export workshop in Tijuana with Mexico's environmental agency, Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), Mexico's enforcement agency, Procuraduría Federal de Protección Ambiental (PROFEPA), and Baja CA's environmental agency, Secretaria de Protección Ambiental (SPA), for Mexican hazardous waste and special waste industrial generators operating in Baja CA. The workshop focused on import/export requirements including: transport, new electronic manifest system and verification, defining hazardous waste and materials, and differences between federal and state requirements. Nearly 200 people representing industry, government, and academia attended, demonstrating the demand for this type of information and industry willingness to comply.

Based on the last report of the U.S.-Mexico Consultative Mechanism, 33 Mexican businesses are permitted by SEMARNAT to treat, store, or dispose hazardous waste generated by the hundreds of businesses in the area. Offering these hazardous waste compliance workshops in Tijuana assists industry and informs key stakeholders on compliance requirements for U.S. regulations, ultimately protecting public health and the environment.

ENVIRONMENTAL HEALTH EFFORTS

EPA Engages Communities to Target Children's Environmental Health

According to the World Health Organization, in 2012 it was estimated that 1.7 million children under the age of five died due to the environment. Children living along the U.S.-Mexico border are particularly more vulnerable due to the region having higher than the national average rates for children living in poverty, being uninsured, and having chronic diseases (Pan American Health Organization, 2014).

Over the past several years, partnerships between EPA's Office of Children's Environmental Health, the U.S.-Mexico Border 2020 Program, U.S.-Mexico Border Health Commission under the U.S. Department of Health and Human Services, and local organizations have worked on several collaborative projects to identify environmental health needs and provide opportunities for local action to improve the lives of children living along the U.S.-Mexico border. These opportunities have included three children's health symposiums along the border from south Texas to California, as well as federal grants to educate families, community health workers, educators and medical professionals (Figure 1) on how to address children's health needs.

In 2018, EPA awarded more than $214,000 to fund five projects aimed at addressing children's environmental health in border communities in Texas, New Mexico and Arizona. These five projects addressed environmental health issues related to lead-based paint, indoor air quality, and integrated pest management.

> **R6:** "Chronic diseases such as asthma, cardiovascular diseases, and diabetes are linked to air pollution. We will provide education on a variety of environmental hazards to *promotoras*, parents at elementary and middle schools, and pregnant women," said Genny Carillo, MD, of Texas A&M University School of Public Health. "The education will provide participants the knowledge needed

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to identify indoor and outdoor pollutants, harmful chemicals in pesticides used at home, and how they can change or control them without exposing their children to the damaging effects."

R6: "The Southwest Center for Pediatric Environmental Health is very pleased to hear that we have been awarded this grant. It will serve to augment outreach to disadvantaged children on the border from El Paso to Brownsville," said Director Stephen Borron, MD. "Based at Texas Tech University Health Sciences Center in El Paso, we have partnered with colleagues from the University of Texas Rio Grande Valley School of Medicine to extend our reach. The funds will go to production of training guides for *promotoras*, as well as two *promotora* workshops. It will likewise support the development of e-learning modules to be used in their new senior medical student elective on pediatric environmental health."

R9: "Mariposa Community Health Center is excited to have been awarded this funding. Protecting our children by ensuring a healthy living environment is essential to their long-term health and well-being," said Ed Sicurello, CEO, Mariposa Community Health Center. "These funds will provide education to Community Health Workers along the U.S./Mexico border to assist them in identifying environmental pollutants and train parents and caregivers in appropriate methods to reduce or eliminate exposure within their homes."

Testimonial R9: "Families in Nogales, Arizona are very happy with the healthy homes evaluation and especially with the smoke alarms installed by Sonora Environmental Research Institute, Inc. (SERI) staff. Many families mentioned that Nogales does not have many children's environmental health programs available to low-income families, and they are grateful for this opportunity to participate in the program."- Jacobo Sandoval, SERI Program Manager

Many of these projects are establishing new ways of improving current environmental health programs and initiatives for agencies who work within communities located in the U.S.-Mexico border region. These projects will train nearly 350 specialists, including community health workers, childcare givers and medical providers, and reach over 2,000 community members on environmental health topics such as improving indoor air quality, reducing lead-based paint exposure and implementing integrated pest management strategies. Through these projects, and continued leadership from local communities along the 2000-mile border, children's environmental health will continue to improve.

Responding to Zika Threat Along the Border

Besides the shared environment between the U.S. and Mexico along the border, the Border 2020 Program also recognizes that, "[t]he movement of people and products between the two countries creates a unique binational environment for preventing and controlling diseases spread through food and water, from insects or animals, and between people" (Center for Disease Control, 2018). In response to these risks, Border 2020 has supported efforts to increase awareness and provide training on the use of integrated pest management to prevent the spread of vector-borne diseases, like zika transmitted by mosquitos.

In Fall 2016, two binational environmental health conferences on vector-borne diseases were held in Mexicali, Baja California and Nogales, Sonora. Partners included: Border 2020 and its partners, Autonomous University of Baja California (UABC), Technical Institute of Nogales (ITN), El Colegio de la Frontera Norte (COLEF), Center for Disease Control (CDC) and their Mexican counterpart (El Centro Nacional de Programas Preventivos y Control

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de Enfermedades [CENAPRECE]), among others. Over 360+ people attended, such as medical students, faculty, health practitioners, government officials, and 30 vector borne disease experts. Key topics included preventive measures to combat Zika and other vector-borne diseases, integrated pest management strategies, and the appropriate usage of insect repellants.

In 2017, to confirm long-term impact of the events, the venue hosts (UABC and ITN) contacted the attendees and learned three key findings:

After the symposia, three out of four respondents shared the environmental and public health information they learned with people they knew (Figure 1).

In addition, more than half of all respondents reported they now read the label prior to using insect repellents. When asked on which strategies they have implemented to protect themselves from mosquitos and ticks, many of the attendees listed wearing long sleeved shirts, applying mosquito repellent directly to the skin and using mosquito nets.

Of critical importance, nearly half of attendees have started pouring standing water out of flower pots to eliminate mosquitos' eggs, thereby reducing breeding habitats.

As seen by the evaluation, the conferences have increased knowledge and influenced behavior. To learn more about these events, please visit the U.S.-Mexico Border 2020 webpage.

Teaming up to Address Mosquito-Border disease in Brownsville, Texas.

In 2016, the Zika outbreak in the continental United States emerged as a significant threat to the public. In November of that year, the City of Brownsville, Texas, became the first case of the Zika virus transmitted by a mosquito within the state. The City worked with the Center for Disease Control (CDC), Texas Department of State Health Services (TDSHS), Cameron County and Brownsville's Health Departments to learn more about the transmission and precautions for the public to take.

In 2017, EPA partnered with the City of Brownsville Health Department to identify hotspots and the factors that led to the spread of the Aedes aegypti mosquito. The project took a holistic approach to identify the underlying conditions that allow mosquito breeding and how to prevent it. The project mapped the risk areas within the city by looking at existing environmental data coupled with socioeconomic and mosquito data (Figure 1). To date, the city is using a crowdsource application platform in which residents can report potential mosquito breeding sites and upload georeferenced photos. The website also provides recommended actions that residents can take to combat mosquito risk.

> "We combined environmental data (land cover, precipitation, and temperature) with socioeconomic and mosquito activity data in order to paint a more accurate picture of risk. To our knowledge, this is the first vector mitigation study to take into account both 1x1 meter land cover data and socioeconomic determinants," said Pai-Yei Whung, Ph.D., the project's lead and an EPA senior scientist.

The City of Brownsville Health Department is also working with *promotoras*, who serve as public community liaisons, to educate residents through a train-the-trainer model. The project is ongoing and researchers at EPA have presented their initial findings at a conference and recently published a literature review.

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Protecting the Environment and Public Health

IN THE U.S.–MEXICO BORDER REGION

BORDER 2020
FRONTERA 2020

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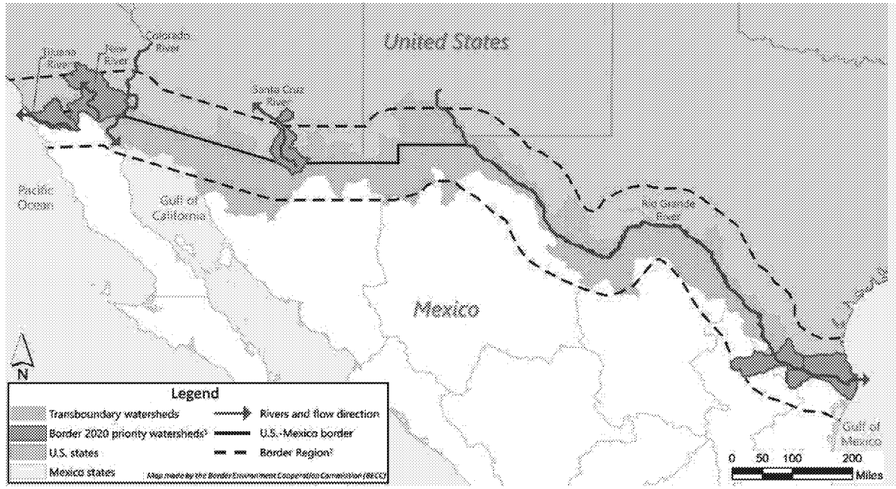
Overcoming Binational Environmental Challenges

The U.S.-Mexico border region is home to over 15 million people who share natural resources, watersheds, and air basins that transcend political boundaries. Binational pollution impacts both sides of the border and necessitates a coordinated response. To improve and protect the environment and public health, the La Paz Agreement was signed by the Governments of Mexico and the United States in 1983, thus providing the foundation for cooperative efforts to address the complex and intertwined environmental issues along the U.S.-Mexico border.

Opening ceremony of the Border 2020 Program in Tijuana, Baja California, on August 8th, 2012

A Diverse U.S.-Mexico Border Region



1. Map shows subwatersheds delineated at the Hydrologic Unit Code 8 level.
2. Boundary set forth by La Paz Agreement (62 miles from border).

- **15 million+** people borderwide
- **26** federally recognized U.S. tribes
- **6** national parks
- **4** high priority river basins
- **40+** U.S. counties and **80** MX municipalities
- **4** transboundary rivers into the U.S.
- **2,000** mile shared border

TIMELINE

Building from the La Paz Agreement, U.S. Environmental Protection Agency (U.S. EPA) and Mexico's Secretariat of the Environment and Natural Resources (SEMARNAT) have implemented four successive binational programs to meet emerging environmental challenges in this dynamic region. Along the entire border, key stakeholders such as the 10 states, 26 federally recognized tribes and local partners have provided leadership and additional funding to implement projects that advance environmental protection and public health improvements while the population and economic activity have increased.

1983 — The Basis for Binational Cooperation — La Paz Agreement

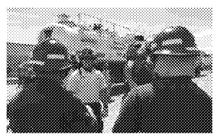
President Reagan of the U.S. and President de la Madrid of Mexico sign the La Paz Agreement

Recognizing the need to cooperate binationally on environmental and public health challenges in the border region, the Governments of the United States and Mexico signed the Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area (the La Paz Agreement), in the city of La Paz, Baja California Sur, Mexico, in 1983.

1992 — Integrated Border Environmental Plan (IBEP)

The first binational border program, IBEP, focused on enhanced environmental regulation and resulted in significant investments in infrastructure along the border. Although the binational environment improved, many projects were implemented at a federal scale, and the Program recognized the need to address environmental and health concerns on the border with more local involvement.

1996 — Border XXI



Local emergency response sister-cities were developed

Border XXI established a five-year bilateral effort which included additional federal partners to achieve its goals, engaged the 10 border states and U.S. tribes, and included over 40 public meetings to solicit input and identify local priorities. Border XXI established nine borderwide workgroups to address transboundary environmental issues. While the workgoups implemented many pilot projects benefitting communities, the Program objectives remained broad in nature.

2003 — Border 2012

Partnership with U.S. tribes and Necua Indigenous Community in Mexico on waste management

The Border 2012 Program set an ambitious ten-year plan that included specific and measurable environmental goals and objectives developed through public input. The Program took a bottom-up approach that continued engagement of state, tribal and local communities and operated through four new regional workgroups and numerous local taskforces to implement stakeholder-led projects.

2012 — Border 2020

Improving water infrastructure in the Tijuana-San Diego region

Border 2020 continues a bottom-up approach and tackles emerging environmental issues. Program goals were established binationally and seek to improve air and water quality, reduce waste, strengthen emergency preparation and response, promote environmental stewardship and address environmental health. These goals directly align with U.S. EPA's core programs, local priorities, and the original mandate from the La Paz Agreement to address the complex and on-going regional environmental challenges.

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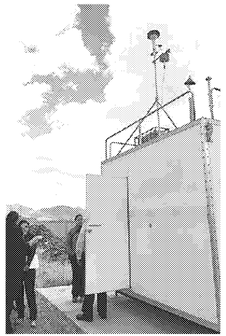
Protecting Communities Borderwide

Improving the Air We Share

Many U.S.-Mexico border cities share binational air basins, where pollutants such as particulate matter (PM_{10}, $PM_{2.5}$) and ozone and its precursors (NO_x and VOC) travel across borders. Exposure to these pollutants can affect our hearts and lungs, triggering a variety of health problems, particularly to vulnerable populations with asthma. For example, in California, ozone is problematic in San Diego County, while both ozone and PM are concerns in the Imperial Valley. In El Paso, Texas, key challenges include PM, Carbon Monoxide and ozone.



Air quality monitoring inspection in San Diego-Tijuana Border Region

In response, local binational task forces formed to coordinate and implement solutions such as improving and/or expanding monitoring networks, increasing data availability, and expanding public outreach. Meanwhile states on both sides of the border have identified mitigation strategies in air quality improvement plans (State Implementation Plans in the U.S. and ProAire in Mexico).

The border region has reduced emissions at ports-of-entry by reducing wait times for idling vehicles, while paving dusty roads and improving urban transport borderwide have resulted in the elimination of 170,000 tons per year of PM_{10}. Air monitoring from 2006 -2014 identified a decline in ozone exceedances in the San Diego and Imperial Valley air basins and PM exceedances in the El Paso air basin.

Groundbreaking ceremony of water system improvements in Anthony, New Mexico

Enhancing Water Quality

The U.S.-Mexico border region shares numerous transboundary watersheds, with many rivers flowing from Mexico into the U.S., or even forming the border itself in some cases. Four have been identified as high-priority. Outdated infrastructure and extreme weather events can result in contaminated stormwater and sewage overflows entering the transboundary waterways and exposing communities living and/or working in or nearby the watersheds to contaminated water. The Border Programs have worked to address these environmental health challenges for over 20 years.

Since 1997, the Border Water Infrastructure Program (BWIP) and binational program partners have supported the construction and/or expansion of infrastructure projects that are eliminating over 350 million gallons a day (mgd) of untreated or inadequately treated sewage discharges.

The Border Program also carries out trash cleanup and waste reduction efforts to address illegal dumping that contaminates transboundary waterways, the Gulf of Mexico and the Pacific Ocean. To protect existing infrastructure, the Program partners with local businesses in Texas, Arizona and Tamaulipas to properly dispose of Fats, Oils and Grease (FOGs). Green infrastructure projects and trainings in Ambos Nogales have reduced impacts from stormwater runoff into the Nogales Wash and the Santa Cruz River in Arizona. In addition, more than 1,000 community members and municipal staff in southern New Mexico and west Texas received training on the health threats posed by improperly maintained septic tanks.

Household hazardous waste collection event in Nuevo Laredo, Tamaulipas, Mexico

Ojinaga, Chihuahua responders received HAZMAT training and equipment

Promoting Clean Land

When waste materials are improperly disposed of they can negatively impact our lands, transboundary watersheds and oceans and create habitat for disease-bearing vectors such as mosquitoes. As the population has grown in border communities, increased amounts of plastics, electronics, tires and other materials have overburdened the waste management infrastructure and services.

The Border Programs have improved collaboration among binational stakeholders to reduce waste through: 1) mitigating the impacts of plastic, tires, and other waste through cleanups and educational outreach and community actions; 2) reducing waste and increasing recovery and reuse of plastic, e-waste, tires, and other materials; and 3) building technical capacity among diverse stakeholders to adopt sustainable materials management practices.

Since 2005, communities in the U.S.-Mexico border region have carried out projects to properly dispose: over 8 million scrap tires, nearly 60,000 tons of household hazardous waste, and 264 tons of electronic waste.

Strengthening Emergency Response Capability

Binational emergency preparedness and response coordination is critical in the border region, because toxic smoke, contaminated water and other impacts from disasters and incidents pay no heed to local, state or international boundaries. Emergency preparedness efforts — training, exercises, equipment — have been tested in real-life emergencies and led to a more efficient coordinated response along the U.S.-Mexico border. Joint Response Teams (JRT) support these efforts and ensure timely binational reporting of incidents.

Since 2013, through the Border Program, more than 10,500 responders have received capacity trainings from over 140 training courses and over 25 binational exercises and 200 drill notifications between the U.S. and Mexico. These actions and resources have made the border region safer for residents, first responders and the environment.

Fostering Environmental Stewardship

Improperly managing hazardous materials can pose transboundary environmental health issues. Challenges such as illegal or improper crossing of hazardous wastes and material at the U.S.-Mexico ports of entry and the lack of community information on pollutant sources has called for improved enforcement efforts, compliance assistance and environmental stewardship.

Through Border Program efforts, environmental inspectors are now present at ports of entry, and information is exchanged between Program partners on transboundary compliance at binational workshops. Border communities are also benefitting from improved transparency of U.S. and Mexican pollutant discharge data (i.e. the U.S. Toxic Release Inventory [TRI] and the Mexican Registry of Emissions and Transfer of Contaminants [RETC]) reports. In addition, a binational public-private partnership led to enhanced environmental stewardship, through Environmental Management System (EMS) trainings for over 30 small and medium-sized companies in border communities.

Inspector conducts truck stop inspection in Calexico, CA. Photo/Jessica Rodriguez

Partnering Binationally to Achieve Environmental Results

Tangible improvements along the entire 2000-mile border through stakeholder-driven projects

CALIFORNIA

ARIZONA

Pacific Ocean

BAJA CALIFORNIA

Gulf of California

SONORA

NEW MEXICO

TEXAS

CHIHUAHUA

COAHUILA

NUEVO LEÓN

TAMAULIPAS

Gulf of Mexico

N

IMPACT: Binational Collection of Oil and Grease for Biodiesel

Through the Ambos Nogales Biodiesel Capacity Building Program, oil and grease collected from local restaurants is transformed into biodiesel fuel used for emergency response vehicles. This Program has the dual benefit of 1) preventing the oil and grease from negatively impacting the sewer system and 2) creating an alternative fuel.

Key Accomplishments:

- 1,200-1,500 gallons of biodiesel produced annually since original 2009 pilot project.
- Reduced grease blockages in sewer systems.
- Increased local usage of biodiesel for fire department vehicles.

BEFORE: Fat and bread crumbs left behind from filtering oil

AFTER: Refueling cars with biodiesel converted from grease and oils

IMPACT: Improving Air Quality in the Paso del Norte Region

The Joint Advisory Committee was formed in 1996 and works to improve air quality through binational collaboration.

Key Accomplishments:

- Introducing cleaner fuel (oxygenated gasoline) in Mexico.
- Dedicating commuter lanes at border crossings to reduce emissions and wait times.

View of El Paso-Ciudad Juarez Airshed

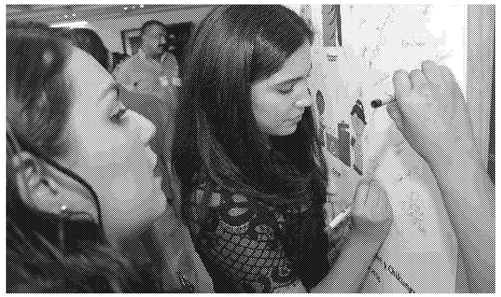
- Strengthening vehicle inspection in Ciudad Juarez with an average of 200,000 inspections completed annually.

IMPACT: 900+ Participate in Binational Symposia to Improve Environmental Health

From 2015-17 Border 2020 and EPA's Children's Health Offices convened four children's environmental health and two vector borne disease symposia. Topics included: indoor air quality, asthma, lead, mosquito borne illness, children's health and prenatal exposures among others.

Key Accomplishments:

- 566+ attended the children's health symposia in El Paso and Brownsville, Texas, and San Diego, California.
- 360+ attended two vector borne disease prevention symposia in Mexicali, Baja California, and Nogales, Sonora.
- Participants at symposia included healthcare experts from the U.S. and Mexico, public health practitioners, community health promoters or promotores, educators, medical students, faculty, government agencies, and the public.



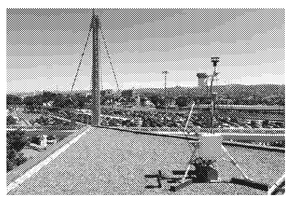
Students sign pledge poster to manage vector borne diseases from mosquitoes using integrated pest management

IMPACT: Improving the Air We Share

Federal, state, and local agencies collaborate to measure air quality at border crossings and inform neighboring communities. Outreach campaigns target sources of pollution to mitigate health impacts.

Key Accomplishments:

- Monitor installed at San Ysidro, busiest land port of entry in Western Hemisphere, in January 2015.
- Bilingual television and radio campaign targeting fireworks and open burning in Imperial-Mexicali region launched in 2010.
- Mexicali announced ban on sale of fireworks in December 2016.



Roof-top equipment monitors $PM_{2.5}$ levels as traffic backs up at San Ysidro Port of Entry

IMPACT: Enhancing our Water

Through a Border 2012-funded monitoring program, high levels of nutrients discharged through the Las Arenitas Wastewater Treatment Plant in southern Mexicali were determined to be causing algal blooms in the Rio Hardy. Funds from the Program were used to design a 97 hectare artificial wetland system, which was later constructed with funds from Mexico.

Key Accomplishments:

- 15 million gallons per day of untreated wastewater that once polluted the New River is now treated.
- Constructed wetlands provided additional treatment and expanded riparian habitat.

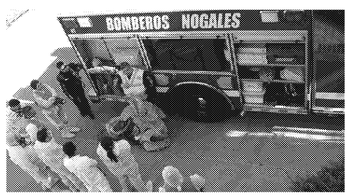
Treatment plant (center) and wetlands (upper right). Photo/Bill Hatcher

IMPACT: Strengthening Emergency Preparedness

The border region is highly industrial and hazardous materials pose a threat to communities and transboundary air and watersheds. Arizona State University led the development of a binational Hazardous Materials Emergency Response Training (HAZMAT) Pilot Program with industry, academia, and federal, state, and local agencies.

Key Accomplishments:

- Developed five multi-day training courses.
- Trained and certified 12 new instructors.
- Created a binational model for on-going trainings to industry and first responders.



Capacity-building for Ambos Nogales firemen. Photo/Bill Hatcher

"The Border 2020 work group has allowed a working relationship to become an excellent friendship. It has been a very useful tool for the development of border environmental initiatives. Sonora and Arizona have benefited from multiple projects on water, air, and solid waste."

– Luis Carlos Romo Salazar, Commissioner, Commission on Ecology and Sustainable Development, State of Sonora, Mexico

"The Border 2020 Program is essential to continue providing guidelines of our goals within the United States and the State of Texas. We need to continue to improve the environment and decrease pollution."

– Dr. Elaine Mowinski Barron, MD, U.S. Joint Advisory Committee Charter Member, El Paso, Texas

IMPACT: Enhanced Sustainability in Alamo, Texas

Through a new partnership, the City enhanced environmental stewardship.

Key Accomplishments:

- Decreased illegal dumping by over 238 tons/year.
- Presented to over 1,270 students at five community presentations on recycling.
- Distributed 5,000 bilingual recycling brochures and installed a revolving recycling trailer and bins at schools.
- Led community clean-ups and collection events.

School student contest mascot design winner presented with award at city council

IMPACT: Enhancing Emergency Preparedness in Colonias

In August 2016, the Border 2020 Program, along with NGOs in the Lower Rio Grande Valley region, hosted the first Emergency Preparedness Conference for Colonias.

Key Accomplishments:

- 110+ residents were trained on how to prepare, survive and recover from a disaster.
- Other topics included: fire prevention, food safety and storage, county evacuation plans, disaster housing, and family emergency planning.

Colonias Conference in Alamo, Texas

LEGEND

- U.S.-Mexico Border
- Border Region: Boundary set forth by La Paz Agreement (62 miles from border)
- U.S. States
- Mexico States
- Project Locations

Two countries, ten states, twenty-six tribes

one environment

Anza-Borrego Desert State Park in California. Photo/Jeremy Bauer

"The Border 2020 Program has allowed us to improve our relationship with EPA and more importantly they are accepting local input. That is important to develop long term relationships and really address U.S. – Mexico Border environmental issues."

– **Dr. Hector F. Gonzalez**, Director of the City of Laredo Health Department, Laredo, Texas

"The Border 2020 Program brings people together to better understand and coordinate emergency preparedness and response tactics. The result is first responders and communities on both sides of the Border who are better trained and equipped to protect human health and the environment."

– **Mario Novoa**, Fire Chief, Douglas, Arizona

BORDER 2020 FRONTERA 2020

U.S.-Mexico Border 2020 Program

www.epa.gov/border2020

Goal 1: Air

Story 1:

WORKSHOP OF ENERGY EFFICIENCY IN MUNICIPAL PUBLIC LIGHTING SYSTEMS OF TAMAULIPAS

Energy efficiency in Mexico has become a strategy for the government, not only at the federal level but the state and local level as well, to improve and build long term sustainability within their public buildings but also enhance security of their energy supply while minimizing the impact to the environment. The operation of public lighting systems and the consumption of energy in public buildings and installations represents one of the greatest expenses faced by municipalities, sometimes reaching up to 40 percent of their costs federal participations. This factor limits the ability for local government to focus on other priorities and efforts. Through a border grant, the State of Tamaulipas' Ministry of Urban Development and Environment held two training workshops on energy efficiency, to 10 border municipalities within the state, on the basic tools needed to achieve greater energy efficiency in their lighting public spaces, thus increasing their economic savings and reducing their emission impact to the environment.

The workshops held were part of a series of actions to improve energy efficiency in the state, including two energy forums: "**First State Energy Forum: Tamaulipas, Energy that moves to Mexico"** and the **III International Congress on Renewable Energies: "Perspectives of Energy in Mexico"**., At the same time this project was implemented, the State launched a demonstration wind project which included the start of operations of four wind turbines, again with the aim to promote the use of renewable energies the State. The State also distributed over 10,000 guides "Practical Guidelines for Energy Savings", to help raise awareness to the communities regarding the benefits of installing environmentally friendly technologies in their homes.

As a result of the workshops, the commitment to carry out an energy audit in a building of the participating municipalities was obtained, it is estimated that the beneficiary population within the 10 municipalities amounts to 1 million 733 thousand 240 inhabitants.

Story 2:

Healthy and Resilient Housing in the western area of Ciudad Juárez, Chihuahua.

The low-income families often face limited access to resources that encourage energy and water savings for their homes. This is often due to either a lack of knowledge, technical

assistance or financial resources available to them. as well as the lack of access to financing that meets their needs, limiting the penetration of clean energy technologies and services that have less impact on the environment.The Mexican Federation of Private Associations of Health and Community Development A.C. (FEMAP) has been operating a Micro-Credit Program in the region for more than 30 years, during which time it has granted more than 40,000 small loans to low-income residents for the improvement of their homes.
With the support of the Border 2020 Program, FEMAP developed a project to identify and implement green infrastructure elements and energy saving elements to low-income families looking to improve their homes within an area of Ciudad Juarez which has seen rapid growth. The project focused on offering technical and financial assistance to 50 homes (202 persons) implementing these eco-elements. In coordination with academic, non-profit and private business, the residents had access persons who guided and educated them on green infrastructure elements that could be incorporated and adopted, as well as, access to eco-friendly materials..

The project resulted in an energy cost savings of $ (USD) or XXKwh and water savings of of 140,000 gallons of water or $8,542 pesos (~500 USD) following improvements of the 45 of 50 homes by:

- the installation of over 250 led bulbs;
- over 200 window sealed;
- 50 low-flow shower heads;
- 50 drinking water filters;
- roof and wall insulation and installation.
-

During the home improvements, families visits from trained supervisors and technical experts to offer assistance and guidance, as well as, educational material on eco-technologies and elements for homes.

In addition to the improvements made directly to the homes, a Catalog of Ecotechnologies was developed with the support of academics of the Architecture Program from the Autonomous University of Ciudad Juárez. This catalog includes information on best practices and an evaluation of each of the selected ecotechnologies, identifying those that are viable for implementation in marginalized communities since the existing catalogs are mainly focused on new housing.

Goal 2: Water

STORY 1:

BPUB: Fat, Oil and Grease Public Outreach Campaign

The Brownsville Public Utilities Board (BPUB) was awarded a Border 2020 grant for $25,000 in February 2016 to provide outreach and education on the impact of Fat, Oil and Grease (FOG) pollution on water quality to the communities in Brownsville, Texas and Matamoros, Tamaulipas. Historically, at the BPUB, FOG residential and commercial service calls occur on average five (5) times a week, with increased occurrences during the month of December. Additionally, BPUB entered into a voluntary reduction program with the Texas Commission on Environmental Quality (TCEQ), Sanitary Sewer Overflow Initiative.

This voluntary program requires BPUB to work on reducing unauthorized discharge of untreated or partially treated wastewater from the collection system or its components (e.g. manhole, lift station, or cleanout) before reaching a wastewater treatment facility as a result of FOG issues.

Through educational campaign efforts to both the general public and to commercial establishments, the BPUB aimed to bring awareness about the proper disposal techniques in dealing with Fat, Oil and Grease; therefore, reducing the number of sanitary sewer overflows and the potential health hazards associated with the FOG pollutants. The project staff also aimed to reduce the number of FOG related service calls the BPUB received in 2016 by approximately 10-20% or 40-80 service calls from their 2015 related service calls.

Marketing & Education efforts:

On March 16, 2016, the BPUB officially kicked-off it's "Fat, Oil and Grease" public outreach campaign at its monthly public meeting in Brownsville. During the public meeting, they announced their collaboration with the City of Matamoros on the new FOG outreach program. BPUB staff set out to reach both communities through a number of activities that included educational fliers, videos, workshops, press coverage and program promotion. By advertising on television, newspapers, internet, radio and billboards, the BPUB was able to reach citizens from both sides of the border. Social media platforms such as Facebook, Twitter and YouTube (https://www.youtube.com/watch?time_continue=55&v=AL8PFo3SAtc), were also utilized to target younger audiences and share the educational video and audio campaigns that were developed. Throughout the project period, over 84 public outreach events and trainings (1,713 participants) were conducted to the public in apartment and housing complexes, churches and educational institutions, as well as, commercial business.

More importantly, the BPUB through its outreach efforts has consistently been reducing the number of FOG service calls from 731 (2013 yr) to 417 (2016 yr), a 43% reduction in just four years. During the project period, in 2015 and 2016, the BPUB received 477 and 417 services calls related to FOG pollutants, respectively. Overall, the project met its objectives, including, reducing the number of FOG related calls approximately 13% or 60 calls. To continue to learn more about BPUB's FOG efforts visit: http://www.brownsville-pub.com/departments/water-wastewater/pretreatment

STORY 2:

GREEN INFRASTRUCTURE IN THE VALLE DEL SOL AVENUE PUBLIC SPACE

The border region of El Paso and Juarez experiences a marked deficit of urban green spaces (UGS). The World Health (WHO) established a sustainability indicator of 9 m^2 per inhabitant, where Juarez is estimated to only have 4.5 m2 of green area per inhabitant. Since 2013, Juarez has actively been partnering with various organizations to increase green infrastructure and expand green spaces throughout the city. These projects not only can be cost-effective but can address flooding issues associated with a lack of stormwater infrastructure and beautify areas that see high pedestrian traffic.

In 2016, a Border 2020 grant helped fund a park located on Valle del Sol Avenue and Solares Street, located less than 1 km away from the borderline and was is the only green space in the area available to the community for use. Over many years, the park had heavily degraded due a lack of maintenance and no longer served as an area where the community members could gather. The Instituto Tecnológico de Ciudad Juárez who received the border funding transformed the park back to a usable space for community members, but also addressed flooding issues that this area experienced during rain events.

With funds granted by the Border 2020 Program, the Technological Institute of Ciudad Juárez developed this project with the following objectives:

- Establish passive rainwater harvesting systems;
- Conserve water used for watering;
- Protect the soil from wind erosion;
- Incorporate and take advantage of the existing urban infrastructure.

The project began in June 2016 with the cleaning of the site and the reconditioning of the sidewalk, the construction of passive systems for rainwater collection, as well as the recovery and reconfiguration of existing vegetation. The amount of rainfall was monitored over 17 months, starting in July 2016 and ending in November 2017. In total a volume of 472, 502 U.S. Gallons of rainwater was captured.

Due to the passive water collection systems, the system continues to function effectively and the vegetation planted has done well. Currently, the park is supported almost entirely with rainwater except in cases of extreme water stress or for the initial support of some new plant element.

Thanks to a donation from the municipal authority, the park soil is protected from wind erosion, by a walnut shell cover, which allows any moisture in the soil to be conserved.

Finally, surveys conducted in the area showed that the social value of the park increased substantially, where before the project the space was a negative area within the community, now it is seen as a usable social gathering park.

STORY 3:

Determining the Ideal Bioswale Porous Material for South Texas Stormwater Management
Source: Final Project Report by Dr. Ho, Ph.D.

A number of communities in the Lower Rio Grande Valley in south Texas have been evaluating various Low Impact Development (LID) methods to incorporate into their communities. There are several advantages that LID provides versus traditional stormwater management practices such as: reducing or eliminating the need for large retention ponds; reducing pollution to receiving waters; reducing erosion; visually more appealing within the community; flexibility in the layout of LID projects and can cost less. A research team under the direction of Dr. Jungseok Ho, of the University of Texas Rio Grande Valley (UTRGV), evaluated the use of bioswales in parking lots in order to help determine the best performing locally available bioswale porous media material and design a bioswale standard that could be used by communities in the region. Bioswales are generally designed to manage runoff from large impervious surfaces such as parking lots. Bioswales incorporate engineered porous soils and/or other landscape elements to remove debris and pollution from surface runoff.

Building on previous studies Dr. Ho had conducted, his team evaluated five testing sites (Table 1) that utilized various bioswale porous media (no bioswale, pumice, manufactured sand, recycled crushed glass and natural sand) in parking lots on the UTRGV Edinburg campus.

Table 1. Bioswale porous media materials and parking lot drainage size

Sampling Sites	Bioswale	Porous Materials	Drainage Size (acres)
Site 1	No bioswale	No bioswale	.237
Site 2	Bioswale 1	Pumice	.216
Site 3	Bioswale 2	Manufactured sand	.218
Site 4	Bioswale 3	Recycled crushed glass	.209
Site 5	Bioswale 4	Natural Sand	.206

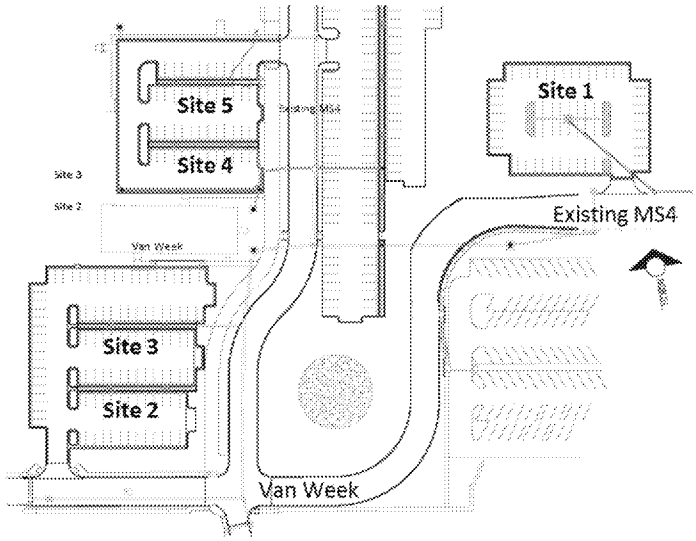
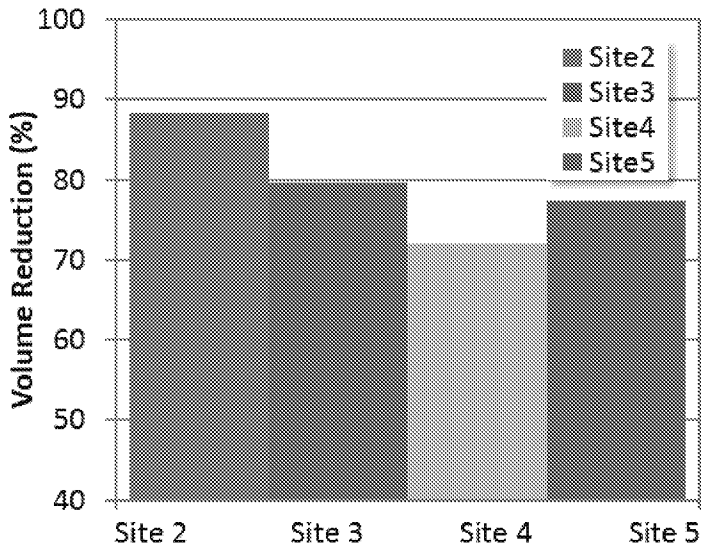
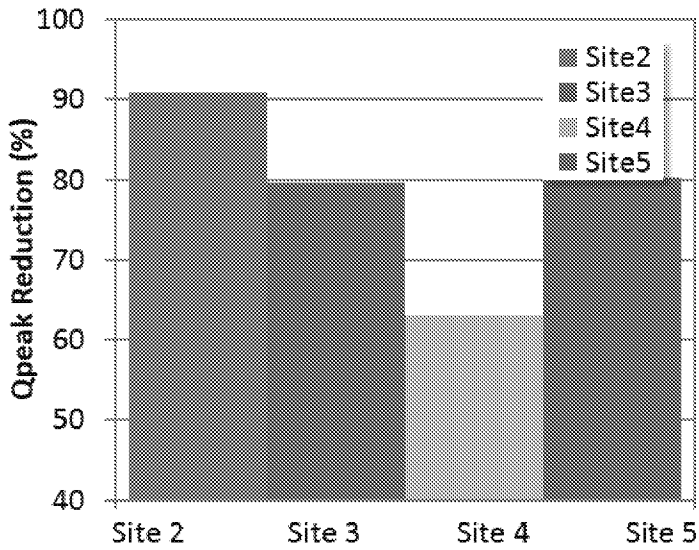


Figure 1. Bioswale parking lots located North of Van Week Street in UTRGV campus

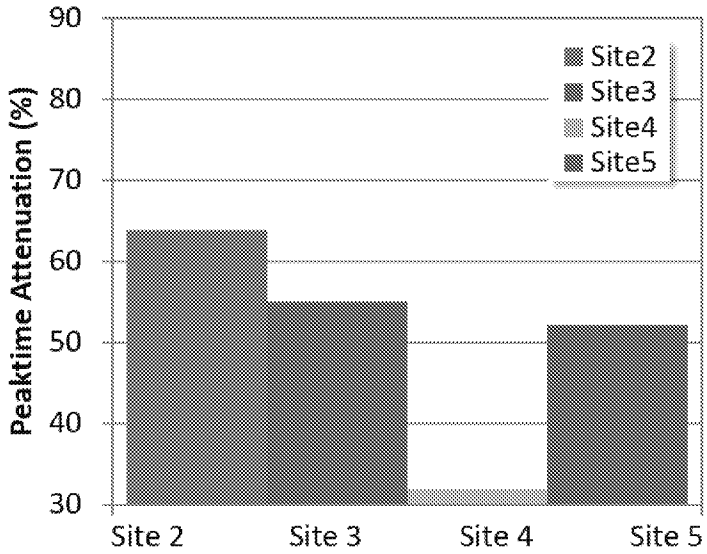
Figure 2 indicates the hydrological performance of the four different materials used at the five testing sites. Field testing indicating, Site 2 with the Pumice material, showed the best hydrologic performance taking into account the four decision criteria of runoff volume reduction, peak flowrate reduction, peaktime attenuation, and runoff solids filtration. Pumice showed the highest filtration of the materials with 58% (Figure 2d) and a peaktime attenuation of 64% (Figure 2c). Manufactured sand material showed very similar performances with natural sand material among the volume reduction, peak flowrate reduction, and peaktime attenuation. Recycled crushed glass was also a competitive material for all the criteria except peaktime attenuation which was only 32%.



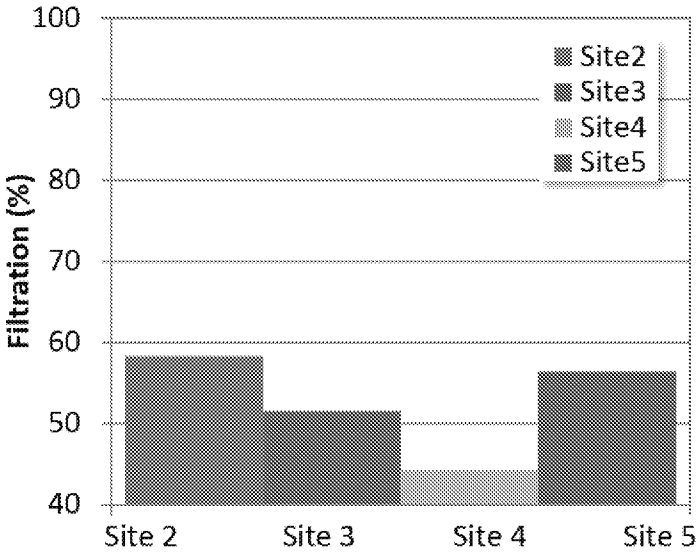
a) Volume reduction (%)
(%)



(b) Peak flowrate reduction



(c) Peaktime attenuation (%)



(d) Filtration (%)

Figure 2. Bioswale parking lot hydrologic performances of volume reduction, peak flowrate reduction, peaktime attenuation, and filtration

The soil column test (Figure 3) results show that any mixtures containing pumice more than 40% of the volume produced very good promising results. Three 40% pumice mixtures (with manufactured sand, natural sand, and recycled crushed glass) achieve 29.7% of specific retention and 52.4% of filtration in average.

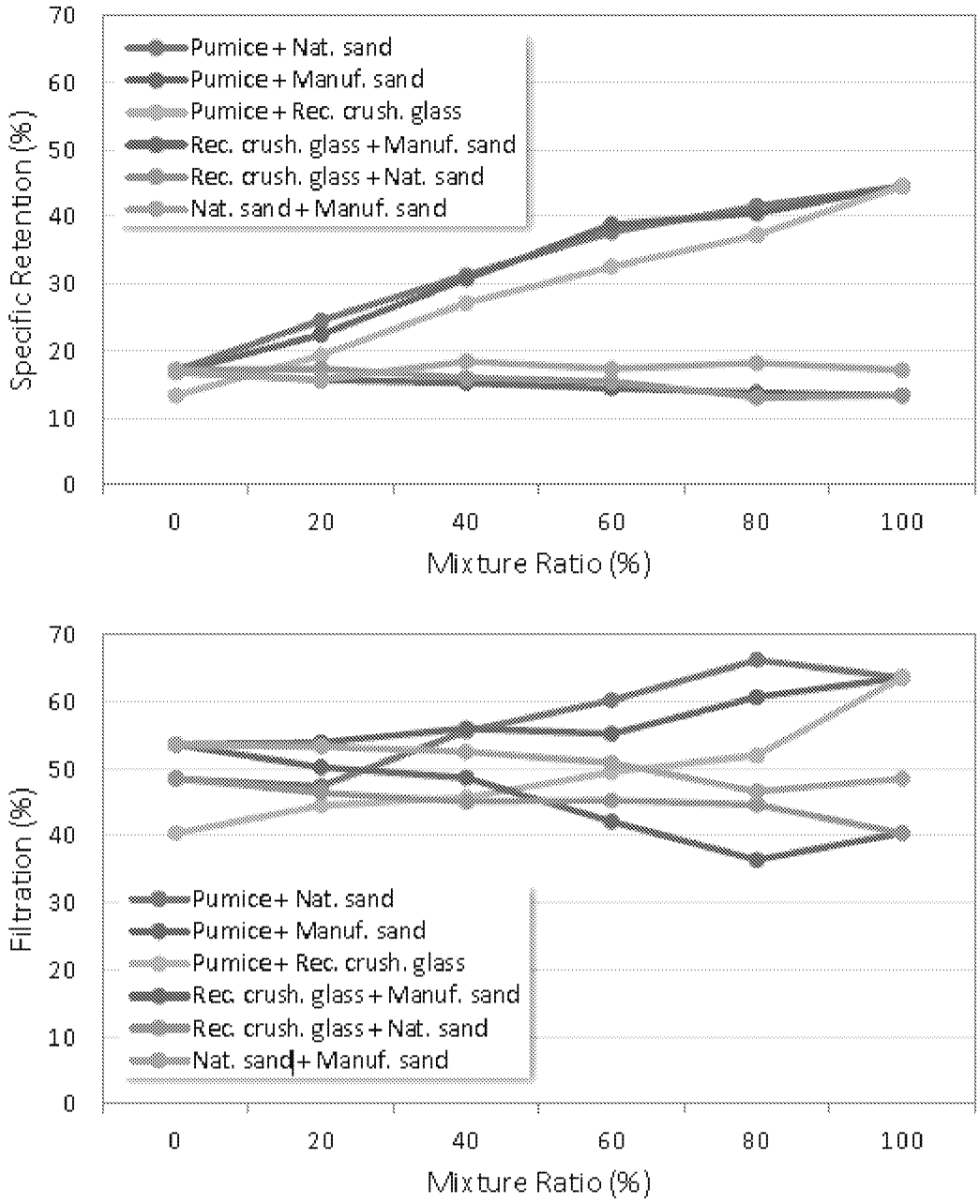


Figure 3. Laboratory experiment results of specific retention (%) and filtration (%) of the bioswale mixtures

Overall, based on the field testing, pumice performed the best of the bioswale porous medias, with testing showing that at least 40% pumice material mix is the ideal material for this region. However, it should be noted that further studies need to be conducted to consider the local availability, cost of the material and project construction to determine the overall practicality to be used by the communities.

Goal 3: Waste

Story 1:

Scrap Tires and Solid Waste Management along the U.S.-Mexico Border

The Border 2020 Program has aimed at building a more sustainable, integrated approach to waste materials management in order minimize and/or reduce the impact to the environment and improve public health. However, in a geographic region where population, socio-economic conditions and environmental regulations can vary significantly from one region to another, different border communities have had to take varying approaches to building sustainability within their own communities.

City of Pharr, Texas

Over the years, the City of Pharr has been able to implement greater sustainability tools within the Public Works Department to help make the city one of the cleanest cities in the Lower Rio Grande Valley. In 2016, Pharr received a B2020 Program grant for $36,390 with the goal to continue to improve their recycling and education efforts within the community in order reduce the city's dependency on landfills and build a healthier community. Through the grant, over a 14-month period, the city collected:

- over 5,700 scrap tires;
- 60 tons of mixed waste (Figure 1);
- 1,023,353 lbs of recycled material was diverted from the landfill.

Staff from the department launched a bilingual outreach public education campaign by promoting, the city's recycling and sustainability efforts, stormwater pollution and illegal dumping of scrap tires, through social media, brochures, public service announcements and participating in over 100 occasions (20 meetings, 40 events, 50 presentations). The project also helped to increase recycling efforts in some Pharr schools by promoting an environmental education contest and providing 75 recycling bins for school classrooms and 26 larger 95 gallons recycling bins. To continue to learn more about Pharr's Public Work Department and their efforts, please visit: http://pharr-tx.gov/departments/public-works/pharr-recycling-center/

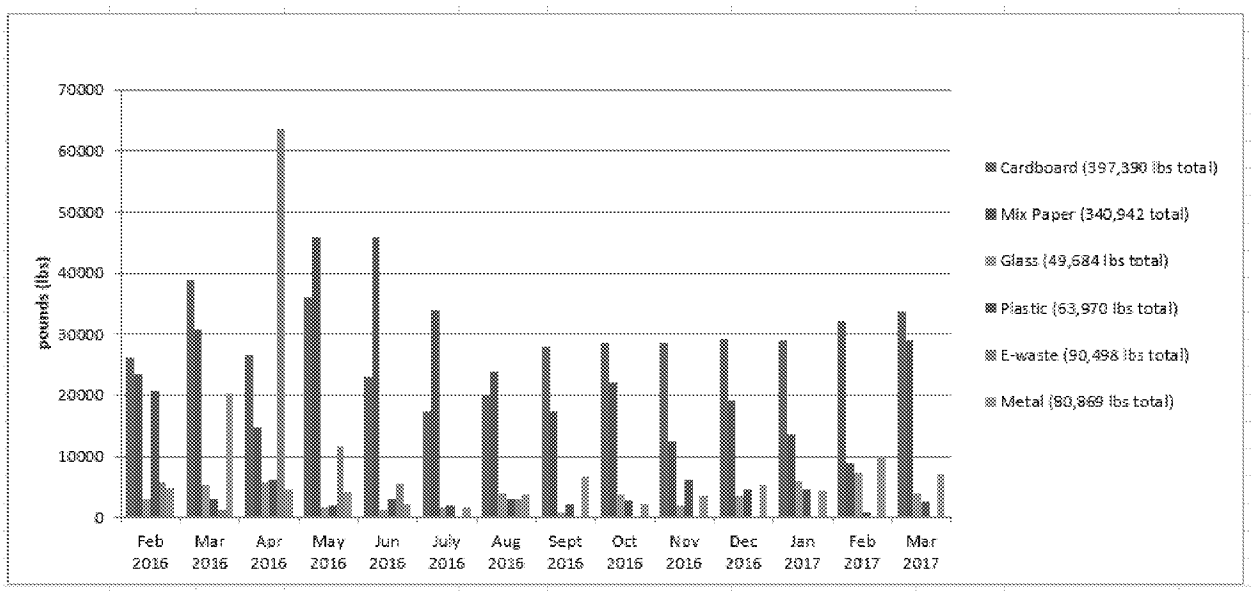


Figure 1. Recyclable Material Collected (lbs/month)

Valle Hermoso and Rio Bravo, Tamaulipas

In 2014, Tamaulipas passed state legislation that outlined the State's Program for Integrated Waste Management and Prevention Program. Within this program, based on many factors such as population growth and solid waste generated per capita, the State prioritized municipalities where it was vital to establish a municipal integrated waste management and prevention program. The State Program outlined specific strategies and actions that these municipal plans should address, including short, medium and long-term implementation and associated costs. The implementation of the municipal plans is done in three phases where the first two phases look at conducting a diagnostic of current conditions regarding solid waste management in municipality and adoption by the municipality to formally present and register the plan through the state. The third phase, is the implementation, monitoring and evaluation of municipal program.

The State Secretariat for Urban Development and Environment in Tamaulipas received a $20,000 border grant to assist the municipalities of Valle Hermoso and Rio Bravo complete their Diagnostic study which addressed the current situation each has regarding waste management. The diagnostic study, which took place over a two-month period, looked at:

- current operations, staff, equipment, solid waste collected and classification of waste;
- specific strategies recommended to be implemented over a short, medium, long term period;
- costs associated with implementation of strategies (Table 1);
- monitoring program parameters; and
- potential funding mechanisms.

Strategy Considered for Municiaplity	Total Cost for Municipality to Implement over short, medium and long term (U.S. Dollars*)	
	Rio Bravo	Valle Hermoso
Management/Operations	$4,776,923	$1,296,428
Recycling	$1,648	Not Considered / Not Applicable for Community
General Services	Not Considered / Not Applicable for Community	$10,989
Public Outreach & Education	$16,373.63	$17,032
Private Industry Participation/Partnerships	No cost to municipality	Not Considered / Not Applicable for Community
Institutional Building Capacity	$155,495	$122,527
Finance/Legislative	No cost to municipality	Not Considered / Not Applicable for Community

Table1. Total Costs to Implement Short, Medium and Long Term Strategies in Valle Hermoso and Rio Bravo, Tamaulipas
** Based on 2016 Annual Average Exchange Rate of 18.2 Mexican Pesos to $1 USD*

On August 22, 2016, the State of Tamaulipas presented both municipalities with the diagnostic assessment of their current waste management system. In March 2017, Valle Hermoso officially published and registered the Diagnostic assessment with the State, moving into the third phase. Next steps, include the municipality of Rio Bravo's city council approval of the Diagnostic assessment and registration of the program.

Story 2:

Addressing Binationally the Challenges of Electronic Waste in Texas and Coahuila

Rapid advancements in technology and use the use of electronics by consumers mean that more and more rapidly electronic products are becoming obsolete and being disposed of very quickly. Unlike other recyclable materials, electronic waste (e-waste) is not as easily recyclable due to the toxic metals (lead, mercury, cadmium and arsenic) found in them, which can pose a health risk not only to the environmental but public health. The challenge with recycling e-waste, is it is often improperly locally disposed in landfills or there is a lack of infrastructure in communities to properly support handling and properly recycling and is instead exported to areas where it is taken to a landfill.

In 2016, through two Border 2020 grants, one to the Secretary of Environment of the State of Coahuila and the other to the Grupo Ecológico Green Tec-osos of the Instituto Tecnológico de

Piedras Negras, recycling e-waste projects were launched in the communities of Ciudad Acuña, Piedras Negras and Guerrero, in the state of Coahuila and Eagle Pass, Texas address e-waste issues. The combined objectives of these projects were:

- Prevent the electrical and electronic waste generated in the municipalities from being illegally dumped in the Rio Grande riverbed, around the Amistad Dam, as well as in streams, vacant lots and sanitary landfills of the region.
- Inform and educate the population about the benefits of the reuse of electronic products.
- Strengthen the practice of urban mining, consisting of the recovery of metals, materials and other components from electronic waste, avoiding primary extraction, for which it has the support of authorized companies for the collection, separation, selection, recovery and confinement of waste that require it.
- In Ciudad Acuna and Eagle Pass, identify the waste streams of priority electrical and electronic equipment (WEEE) with the aim of developing, in the year 2020, sustainable practices in the handling of materials that reinforce their value in their respective markets.

Overall, both projects yielded the collection of over 113 tons of e-waste and over 448,388 community members were educated and reached through campaigns conducted through workshops and trainings and media (television ads and social media, newspapers, educational bulletins) and with the assistance of over 60 partners (municipalities, education institutes, private industry, non-governmental entities). Last, over 10 permanent e-waste collection centers were established among the four communities.

Goal 5: Enf. Compliance

Legislative Reform and Environmental Education in Nuevo Laredo, Tamaulipas.

The Universidad Autónoma de Tamaulipas received a Border 2020 grant to continue to help educate border communities on the environmental challenges (i.e. water pollution, urban solid waste, fats-oils-grease) that persist in this geographic region. The project focused on the following objectives: following objectives:

1. Educate p school students and environmental municipal inspectors about the most common environmental challenges in the region.
2. Update the municipal environmental legislation for environmental protectionNuevo Laredo and some of the surrounding municipalities and present to the city for adoption.

3. Create an online database with the existingenvironmental regulations or ordinances of all the border sister cities within EPA Region 6.

The project which was implemented over a 15 month period resulted in the:

- Training of more than 2360 students and 49 directors of several public schools on issues related to environmental conservation.
- Training of 20 environmental inspectors belonging to the Department of Environment and Climate Change of the city of Nuevo Laredo.
- Development and delivery to municipal authorities of the update to a proposed ordinance of "Territorial Ecological Planning of the Municipality of Nuevo Laredo, Tamaulipas.
- The municipalities of Ciudad Mier, Camargo, Jiménez and Jaumave in Tamaulipas adopted environmental ordinances that will benefit approximately 300,000 citizens.

Message

From: US-MX Border 2020 Program [border2020@epa.gov]
Sent: 11/6/2014 7:31:50 PM
To: Rincon, Carlos [rincon.carlos@epa.gov]
Subject: November News from US - MX Border 2020 Program

Request for Applications: EPA-NIH Centers of Excellence on Environmental Health Disparities Research

The U.S. Environmental Protection Agency (EPA) and the National Institutes of Health (NIH) announce the Request for Applications (RFA) for *EPA-NIH Centers of Excellence on Environmental Health Disparities Research*, which seeks proposals for innovative and multi-disciplinary research to advance understanding, to promote mitigation strategies and/or prevention of environmentally driven health disparities and to improve access to healthy and sustainable environments for vulnerable populations. Environmental health disparities are more likely to occur in vulnerable communities with greater proximity to multiple sources of pollution, ongoing and multiple exposures throughout life, lower socioeconomic status, and limited or no access to quality healthcare. Therefore, the research should aim to understand the relationships between biological, chemical, environmental, genetic and epigenetic factors and social determinants of health.

Application Open Date: 10/31/2014
Application Close Date: 01/09/2015
URL: http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-14-010.html
Applications should address one or more of the following Research Priority areas:

- How the cumulative effects of exposures to multiple environmental chemicals may combine with the effects of physical and social stressors to affect human health
- How are different socioeconomic groups exposed differentially to environmental hazards and contaminants and what are the drivers for such exposures scenarios?
- How different land use considerations and decision-making processes contribute to health disparities

- How proximity to public transportation, housing and the built environment impact levels and types of exposures and affect social stress, physical activity and pollution exposures
- How do sustainable approaches reduce disproportionate health burdens and build community resilience?

This RFA is issued as a joint funding initiative between EPA and three institutes at the National Institutes of Health: the National Institute of Environmental Health Sciences (NIEHS), the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), and the National Institute on Minority Health and Health Disparities (NIMHD).

Understanding the causes of environmentally driven health disparities and how to prevent them is a goal of EPA's Sustainable and Healthy Communities (SHC) Research Program. The SHC Research Program provides useful science and tools for decision makers at all levels to help communities advance sustainability as well as achieve regulatory compliance. SHC is collaborating with partners to conduct research that will result in science-based knowledge to guide decisions that will better sustain a healthy society and environment in America's communities. The research is intended to expand knowledge in this field and add to available resources for communities, the public and decision-makers at all levels

Technical Assistance

Building Blocks for Sustainable Communities: Communities are invited to apply for free technical assistance to help them implement smart growth approaches by Thursday, Nov. 20, 2014, 5 p.m. EDT. This assistance is led by EPA. Read the press release. If you were unable to attend the webinar on October 30, you may email smartgrowth@epa.gov to request the slides and recording.

http://www.epa.gov/smartgrowth/

Summer Internship with Environmental Health Services!

Applications are now being accepted for a 10-week summer environmental internship for students majoring in Environmental Health. The Centers for Disease Control and Prevention (CDC) Summer Program in Environmental Health (SUPEH) is a paid 10-week internship program for undergraduate students majoring in environmental health in a program accredited by the National Environmental Health Science and Protection Accreditation Council (EHAC). Interns participate in activities with the Environmental Health Services Branch (EHSB) of CDC's National Center for Environmental Health (NCEH), where they gain environmental health experience and an understanding of environmental health work at the local, state, tribal, and federal levels.

Application deadline is February 11, 2015. We strongly encourage members of underrepresented populations to apply! Learn more about how to apply: http://www.cdc.gov/nceh/ehs/supeh/application.htm. CDC's NCEH serves the public through responsive public health actions to promote healthy and safe environments and prevent harmful exposures. The EHSB's is to strengthen the role of state, local, and national environmental health programs and professionals to better anticipate, identify, and respond to adverse environmental exposures and the human health consequences of these exposures.

Learn more at: http://www.cdc.gov/nceh/ehs/SUPEH/default.htm

Tribal Solid Waste Education and Assistance Program

The Institute for Tribal Environmental Professionals will be offering a new course, Greening Tribal Operations and Facilities in San Diego, California, December 9 -11, 2014, for employees of federally-recognized tribes. This course will focus on providing you with the tools necessary to reduce your waste stream and initiate environmentally sustainable practices in your tribal day-to-day operations, as well as tribally owned facilities, such as hotels, casinos, and resorts.

Topics that will be covered in this course include:

- Setting your goals, identifying your current challenges, integrating your strategies into existing operations, and creating effective long-term strategies.
- Responsible purchasing procedures and using "green" products, including purchasing procedures, contract requirements, and integrating your tribe's values with procurement.
- Energy efficiency and energy reduction strategies and technologies.
- Materials management, including food operations, recycling, landscaping, infrastructure retrofits, understanding markets, and reducing waste production in a variety of facilities.
- Community Based Social Marketing strategies.

This course will feature presentations by Myla Kelly, of the Tribal Pollution Prevention Network, and Shannon Judd, of the Fond du Lac Band of Lake Superior Chippewa. There will be a variety of small group exercises where attendees will be able to put what they learn to work.

This course will be held at a San Diego hotel noted for its robust sustainability initiatives. Course attendees will meet with hotel staff to discuss the challenges and opportunities associated with a hotel operation. We will also be touring the hotel's facilities so that all attendees can see exactly how sustainable practices are put to work.

This course is being conducted under a grant from the US Department of Agriculture. There are no fees associated with this training, and all applicants selected for the course will have their lodging costs paid for. The course will begin on Tuesday, December 9, so you should plan on arriving in San Diego on Monday, December 8. The course will conclude at noon on Thursday, December 11.

If you are interested in applying for this course please submit the following application to ITEP via email or fax.

Todd Barnell, Program Manager
phone: 928-523-3840 fax: 928-523-1266
email: Todd.Barnell@nau.edu Website: www.nau.edu/itep

Blog: Healthy Homes: Protecting Children From Environmental Risks (English)

Blog: Hogares saludables: protegiendo a los niÃ±os de los riesgos ambientales (Spanish)

RESCHEDULED: EJ Small Grants Pre-Application Assistance Call moved to November 8

EPA's Environmental Justice Small Grants Program pre-application assistance call set for tomorrow, Saturday, November 1 has been rescheduled. This call now will take place Saturday, November 8, 2014 from 1:00 p.m. - 2:30 pm Eastern Standard Time.

Interested persons may join the pre-application assistance calls by dialing 1-866-299-3188 and entering the code 202-564-1771 when prompted. The remaining pre-application assistance calls will take place on the following dates:

- Saturday, November 8, 2014, 1:00 p.m. - 2:30 p.m.
- Tuesday, November 18, 2014, 7:00 p.m. - 8:30 p.m.

Publications / Publicaciones

Region 9 Border Progress Reports (Spring 2014)

Border 2020 Meetings / Reuniones de Frontera 2020

November 18: Amistad Task Force (Eagle Pass, Texas)

November 19: Falcon Task Force (Laredo, Texas)

December 4: Public Meeting of the Arizona/Sonora Regional Workgroup (Rio Rico, Arizona)

Border Partner Meetings / Reuniones de Socios Fronterizos

November 11-12: North American Pollutant Release and Transfer Register Public Meeting (Mexico City, MX)

December 5: Texas Commission on Environmental Quality: 3rd Annual Rio Grande Valley Water Awareness Summit

Public Comments / Consulta Pública

Funding Opportunities / Oportunidades de Financiamento

Other EPA Funding

USDA Rural Development Grants

Grants.gov

Quick Links

SEMARNAT: Frontera 2020

Region 6 Calendar

Region 9 Calendar

Border Environmental Cooperation Commission

US-MX Border Health Commission

Border 2020 Framework: English Spanish

Border 2020 Video: English Spanish

Webinars / Seminario Web

Border 2020: Electronic Waste R2 Solutions Certification Program (Archived)

EPA: Healthy School Environments (Future Webinars)

EPA: Green Power Partnership (Future Webinars & Events)

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Protecting the Environment and Public Health

IN THE U.S.–MEXICO BORDER REGION

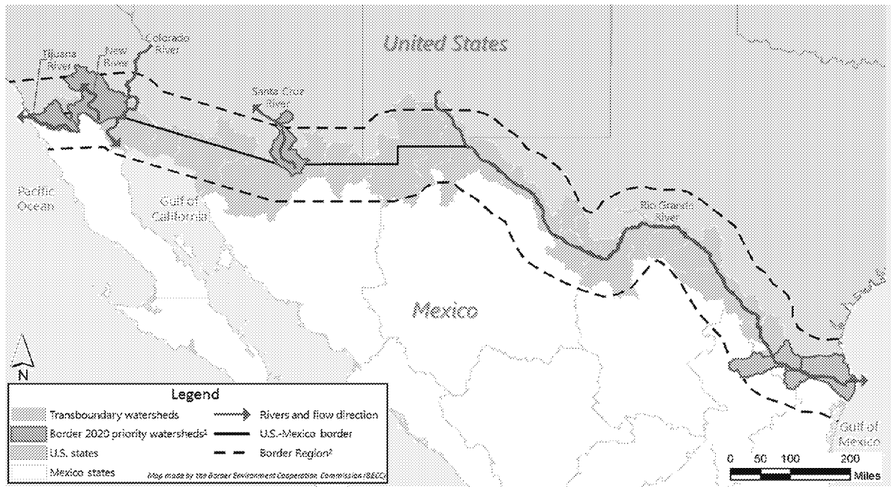
BORDER 2020
FRONTERA 2020

Overcoming Binational Environmental Challenges

The U.S.-Mexico border region is home to over 15 million people who share natural resources, watersheds, and air basins that transcend political boundaries. Binational pollution impacts both sides of the border and necessitates a coordinated response. To improve and protect the environment and public health, the La Paz Agreement was signed by the Governments of Mexico and the United States in 1983, thus providing the foundation for cooperative efforts to address the complex and intertwined environmental issues along the U.S.-Mexico border.

Opening ceremony of the Border 2020 Program in Tijuana, Baja California, on August 8th, 2012

A Diverse U.S.-Mexico Border Region



- **15 million+** people borderwide
- **26** federally recognized U.S. tribes
- **6** national parks
- **4** high priority river basins
- **40+** U.S. counties and **80** MX municipalities
- **4** transboundary rivers into the U.S.
- **2,000** mile shared border

1. Map shows subwatersheds delineated at the Hydrologic Unit Code 8 level.
2. Boundary set forth by La Paz Agreement (62 miles from border).

TIMELINE

Building from the La Paz Agreement, U.S. Environmental Protection Agency (U.S. EPA) and Mexico's Secretariat of the Environment and Natural Resources (SEMARNAT) have implemented four successive binational programs to meet emerging environmental challenges in this dynamic region. Along the entire border, key stakeholders such as the 10 states, 26 federally recognized tribes and local partners have provided leadership and additional funding to implement projects that advance environmental protection and public health improvements while the population and economic activity have increased.

1983

The Basis for Binational Cooperation — La Paz Agreement

President Reagan of the U.S. and President de la Madrid of Mexico sign the La Paz Agreement

Recognizing the need to cooperate binationally on environmental and public health challenges in the border region, the Governments of the United States and Mexico signed the Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area (the La Paz Agreement), in the city of La Paz, Baja California Sur, Mexico, in 1983.

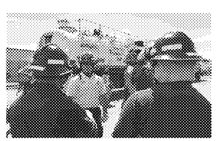
1992

Integrated Border Environmental Plan (IBEP)

The first binational border program, IBEP, focused on enhanced environmental regulation and resulted in significant investments in infrastructure along the border. Although the binational environment improved, many projects were implemented at a federal scale, and the Program recognized the need to address environmental and health concerns on the border with more local involvement.

1996

Border XXI



Local emergency response sister-cities were developed

Border XXI established a five-year bilateral effort which included additional federal partners to achieve its goals, engaged the 10 border states and U.S. tribes, and included over 40 public meetings to solicit input and identify local priorities. Border XXI established nine borderwide workgroups to address transboundary environmental issues. While the workgoups implemented many pilot projects benefitting communities, the Program objectives remained broad in nature.

2003

Border 2012

Partnership with U.S. tribes and Necua Indigenous Community in Mexico on waste management

The Border 2012 Program set an ambitious ten-year plan that included specific and measurable environmental goals and objectives developed through public input. The Program took a bottom-up approach that continued engagement of state, tribal and local communities and operated through four new regional workgroups and numerous local taskforces to implement stakeholder-led projects.

2012

Border 2020

Improving water infrastructure in the Tijuana-San Diego region

Border 2020 continues a bottom-up approach and tackles emerging environmental issues. Program goals were established binationally and seek to improve air and water quality, reduce waste, strengthen emergency preparation and response, promote environmental stewardship and address environmental health. These goals directly align with U.S. EPA's core programs, local priorities, and the original mandate from the La Paz Agreement to address the complex and on-going regional environmental challenges.

Overcoming Binational Environmental Challenges

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1992

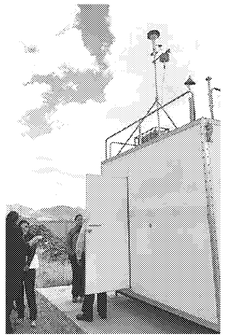
Integrated Border Environmental Plan (IBEP)

The first binational border program, IBEP, focused on enhanced environmental regulation and resulted in significant investments in infrastructure along the border. Although the binational environment improved, many projects were implemented at a federal scale, and the Program recognized the need to address environmental and health concerns on the border with more local involvement.

Protecting Communities Borderwide

Improving the Air We Share

Many U.S.-Mexico border cities share binational air basins, where pollutants such as particulate matter (PM_{10}, $PM_{2.5}$) and ozone and its precursors (NO_x and VOC) travel across borders. Exposure to these pollutants can affect our hearts and lungs, triggering a variety of health problems, particularly to vulnerable populations with asthma. In the border region, ozone is problematic in the San Diego and Imperial Valley, California air basins while PM is a key concern in the El Paso, Texas air basin and Imperial Valley.



Air quality monitoring inspection in San-Diego-Tijuana Border Region

In response, local binational task forces formed to coordinate and implement solutions such as improving and/or expanding monitoring networks, increasing data availability, and expanding public outreach, while states on both sides of the border identify mitigation strategies in air quality improvement plans (State Implementation Plans in the U.S. and ProAire plans in Mexico).

The border region has reduced emissions at ports-of-entry by reducing wait times for idling vehicles, while paving dusty roads and improving urban transport borderwide have resulted in the elimination of 170,000 tons per year of PM_{10}. Air monitoring from 2006 -2014 identified a decline in ozone exceedances in the San Diego and Imperial Valley air basins and PM exceedances in the El Paso air basin.

Groundbreaking ceremony of water system improvements in Anthony, New Mexico

Enhancing Water Quality

The U.S.-Mexico border region shares numerous transboundary watersheds, with many rivers flowing from Mexico into the U.S., or even forming the border itself in some cases. Four have been identified as high-priority. Outdated infrastructure and extreme weather events can result in contaminated stormwater and sewage overflows entering the transboundary waterways and exposing communities living and/or working in or nearby the watersheds to contaminated water. The Border Programs have worked to address these environmental health challenges for over 20 years.

Since 1997, the Border Water Infrastructure Program (BWIP) and binational program partners have supported the construction and/or expansion of infrastructure projects that are eliminating over 350 million gallons a day (mgd) of untreated or inadequately treated sewage discharges.

The Border Program also carries out trash cleanup and waste reduction efforts to address illegal dumping that contaminates transboundary waterways, the Gulf of Mexico and the Pacific Ocean. To protect existing infrastructure, the Program partners with local businesses in Texas, Arizona and Tamaulipas to properly dispose of Fats, Oils and Grease (FOGs). Green infrastructure projects and trainings in Ambos Nogales have reduced impacts from stormwater runoff into the Nogales Wash and the Santa Cruz River in Arizona. Lastly, more than 1,000 community members and municipal staff in southern New Mexico and west Texas received training on the health threats posed by improperly maintained septic tanks.

Household hazardous collection event in Nuevo Laredo, Tamaulipas, Mexico

Ojinaga, Chihuahua Responders received HAZMAT training and equipment

Promoting Clean Land

When waste materials are improperly disposed of, they can negatively impact our lands, transboundary watersheds and oceans and create habitat for diseases-bearing vectors such as mosquitoes. As the population has grown in border communities, increased amounts of plastics, electronics, tires and other materials have overburdened the waste management infrastructure and services.

The Border Programs have improved collaboration among binational stakeholders to reduce waste through: 1) mitigating the impacts of plastic, tires, and other waste through cleanups and educational outreach and community actions; 2) reducing waste and increasing recovery and reuse of plastic, e-waste, tires, and other materials; and 3) building technical capacity among diverse stakeholders to adopt sustainable materials management practices.

Since 2005, communities in the U.S.-Mexico border region have carried out projects to properly dispose: over 8 million scrap tires, nearly 60,000 tons of household hazardous waste, and 264 tons of electronic waste.

Strengthening Emergency Response Capability

Binational emergency preparedness and response coordination is critical in the border region, because toxic smoke, contaminated water and other impacts from disasters and incidents pay no heed to local, state or international boundaries. Emergency preparedness efforts — training, exercises, equipment — have been tested in real-life emergencies and led to a more efficient coordinated response along the U.S.-Mexico border. Joint Response Teams (JRT) support these efforts and ensure timely binational reporting of incidents.

Through the Border Program since 2013, more than 10,500 responders have received capacity trainings from over 140 training courses and over 25 binational exercises and 200 drill notifications between the U.S. and Mexico. These actions and resources have made the border region safer for residents, first responders and the environment.

Fostering Environmental Stewardship

Improperly managing hazardous materials can pose transboundary environmental health issues. Challenges such as illegal or improper crossing of hazardous wastes and material at the U.S.-Mexico port-of-entries and the lack of community information on pollutant sources has called for improved enforcement efforts, compliance assistance and environmental stewardship.

Through Border Program efforts, environmental inspectors are now present at ports-of-entry, and information is exchanged between Program partners on transboundary compliance at binational workshops. Border communities are also benefitting from improved transparency of U.S. and Mexican pollutant discharge data (i.e. the U.S. Toxic Release Inventory [TRI] and the Mexican Registry of Emissions and Transfer of Contaminants [RETC]) reports. In addition, a binational public-private partnership led to enhanced environmental stewardship, through ISO-14000 certification, for over 20 medium-sized companies in border communities.

Inspector conducts truck stop inspection in Calexico, CA. Photo/Jessica Rodriguez

Partnering Binationally to Achieve Environmental Results

Tangible improvements along the entire 2000-mile border through stakeholder-driven projects

CALIFORNIA

ARIZONA

Pacific Ocean

BAJA CALIFORNIA

Gulf of California

SONORA

NEW MEXICO

TEXAS

CHIHUAHUA

COAHUILA

NUEVO LEÓN

TAMAULIPAS

Gulf of Mexico

N

IMPACT: Binational Collection of Oil and Grease for Biodiesel

Through the Ambos Nogales Biodiesel Capacity Building Program, oil and grease collected from local restaurants is transformed into biodiesel fuel used for emergency response vehicles. This Program has the dual benefit of 1) preventing the oil and grease from negatively impacting the sewer system and 2) creating an alternative fuel.

Key Accomplishments:

- 1,200-1,500 gallons of biodiesel produced annually since original 2009 pilot project.
- Reduced grease blockages in sewer systems.
- Increased local usage of biodiesel for fire department vehicles.

BEFORE: Fat and bread crumbs left behind from filtering oil

AFTER: Refueling cars with biodiesel converted from grease and oils

IMPACT: Improving Air Quality in the Paso del Norte Region

The Joint Advisory Committee was formed in 1996 and works to improve air quality through binational collaboration.

Key Accomplishments:

- Introducing cleaner fuel (oxygenated gasoline) in Mexico.
- Dedicating commuter lanes at border crossings to reduce emissions and wait times.

View of El Paso-Ciudad Juarez Airshed

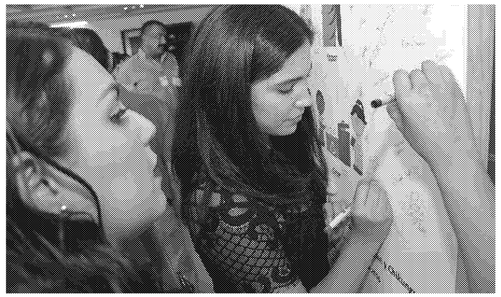
- Strengthening vehicle inspection in Ciudad Juarez with an average of 200,000 inspections completed annually.

IMPACT: 900+ Participate in Binational Symposia to Improve Environmental Health

From 2015-17 Border 2020 and EPA's Children's Health Offices convened four children's environmental health and two vector borne disease symposia. Topics included: indoor air quality, asthma, lead, mosquito borne illness, children's health and prenatal exposures among others.

Key Accomplishments:

- 566+ attended the children's health symposia in El Paso and Brownsville, Texas, and San Diego, California.
- 360+ attended two vector borne disease prevention symposia in Mexicali, Baja California, and Nogales, Sonora.
- Participants at symposia included healthcare experts from the U.S. and Mexico, public health practitioners, community health promoters or promotores, educators, medical students, faculty, government agencies, and the public.



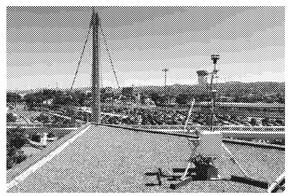
Students sign pledge poster to manage vector borne diseases from mosquitoes using integrated pest management

IMPACT: Improving the Air We Share

Federal, state, and local agencies collaborate to measure air quality at border crossings and inform neighboring communities. Outreach campaigns target sources of pollution to mitigate health impacts.

Key Accomplishments:

- Monitor installed at San Ysidro, busiest land port of entry in Western Hemisphere, in January 2015.
- Bilingual television and radio campaign targeting fireworks and open burning in Imperial-Mexicali region launched in 2010.
- Mexicali announced ban on sale of fireworks in December 2016.



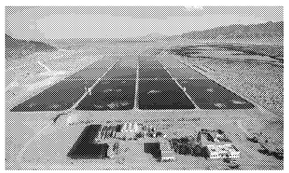
Roof-top equipment monitors $PM_{2.5}$ levels as traffic backs up at San Ysidro Port of Entry

IMPACT: Enhancing our Water

Through a Border 2012-funded monitoring program, high levels of nutrients discharged through the Las Arenitas Wastewater Treatment Plant in southern Mexicali were determined to be causing algal blooms in the Rio Hardy. Funds from the Program were used to design a 97 hectare artificial wetland system, which was later constructed with funds from Mexico.

Key Accomplishments:

- 15 million gallons per day of untreated wastewater that once polluted the New River is now treated.
- Constructed wetlands provided additional treatment and expanded riparian habitat.



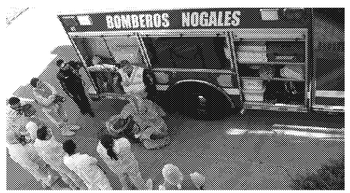
Treatment plant (center) and wetlands (upper right). Photo/Bill Hatcher

IMPACT: Strengthening Emergency Preparedness

The border region is highly industrial and hazardous materials pose a threat to communities and transboundary air and watersheds. Arizona State University led the development of a binational Hazardous Materials Emergency Response Training (HAZMAT) Pilot Program with industry, academia, and federal, state, and local agencies.

Key Accomplishments:

- Developed five multi-day training courses.
- Trained and certified 12 new instructors.
- Created a binational model for on-going trainings to industry and first responders.



Capacity-building for Ambos Nogales firemen. Photo/Bill Hatcher

IMPACT: Enhanced Sustainability in Alamo, Texas

Through a new partnership, the City enhanced environmental stewardship.

Key Accomplishments:

- Decreased illegal dumping by over 238 tons/year.
- Presented to over 1,270 students at five community presentations on recycling.
- Distributed 5,000 bilingual recycling brochures and installed a revolving recycling trailer and bins at schools.
- Led community clean-ups and collection events.

School student contest mascot design winner presented with award at city council

IMPACT: Enhancing Emergency Preparedness in Colonias

In August 2016, the Border 2020 Program, along with NGOs in the Lower Rio Grande Valley region, hosted the first Emergency Preparedness Conference for Colonias.

Key Accomplishments:

- 110+ residents were trained on how to prepare, survive and recover from a disaster.
- Other topics included: fire prevention, food safety and storage, county evacuation plans, disaster housing, and family emergency planning.

Colonias Conference in Alamo, Texas

"The Border 2020 work group has allowed a working relationship to become an excellent friendship. It has been a very useful tool for the development of border environmental initiatives. Sonora and Arizona have benefited from multiple projects on water, air, and solid waste."

– **Luis Carlos Romo Salazar**, Commissioner, Commission on Ecology and Sustainable Development, State of Sonora, Mexico

"The Border 2020 Program is essential to continue providing guidelines of our goals within the United States and the State of Texas. We need to continue to improve the environment and decrease pollution."

– **Dr. Elaine Mowinski Barron, MD**, El Paso, Texas, U.S. Joint Advisory Committee Charter Member

LEGEND

- U.S.-Mexico Border
- Boundary set forth by La Paz Agreement (62 miles from border)
- U.S. States
- Mexican States
- Project Locations

Two countries, ten states, twenty-six tribes

one environment

Anza-Borrego Desert State Park in California. Photo/Jeremy Bauer

"The Border 2020 Program has allowed us to improve our relationship with EPA and more importantly they are accepting local input. That is important to develop long term relationships and really address U.S. – Mexico Border environmental issues."

– **Dr. Hector F. Gonzalez**, Laredo, Texas, Director of the City of Laredo Health Department

"The Border 2020 Program brings people together to better understand and coordinate emergency preparedness and response tactics. The result is first responders and communities on both sides of the Border who are better trained and equipped to protect human health and the environment."

– **Mario Novoa**, Fire Chief, Douglas, Arizona

BORDER 2020 FRONTERA 2020

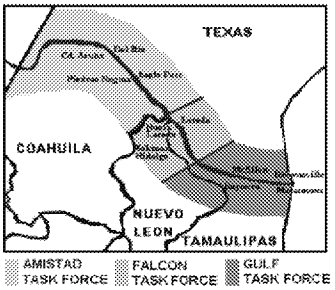
U.S.-Mexico Border 2020 Program

www.epa.gov/border2020

Mexico-United States Environmental

Regional Group

Tamaulipas - Nuevo León – Coahuila - Texas



Public Meeting of the Regional Working Group
Tamaulipas - Nuevo León - Coahuila - Texas
February 16, 2017
Laredo City Public Library (Texas)

Purpose of the meeting

To protect the environment and public health in the US-Mexico border region, in accordance with the principles of sustainable development, bringing together all Border 2020 leaders and stakeholders to agree binational environmental priorities and set the Regional Work Group's (RWG) agenda the 2017-2018 years.

The purpose of the RWG Annual Meeting was to present the progress of binational projects in the two-year Action Plan (2015-2016) and to agree on and identify priorities that can be included in the two-year Action Plan (2017-2018) Additionally, dialogue on the resources required to carry out these priorities. This will help as an opportunity for each State Secretariat to highlight the actions and achievements made, as well as to establish the priorities to be included in the next two-year Action Plan (2017-2018). The agenda also included the participation of the Local Leaders, in which the Co-Leaders expressed the actions implemented and achievements, as well as the priorities according to their geographical jurisdiction.

The agenda was taken under the following agenda:

Welcome and Presentations, Hosts

- Hon. Pete Saenz, Jr., Mayor, City of Laredo
- Councilperson Lic. Carmen Canturosas Villarreal, representing the Hon. C.P. Enrique Rivas, Mayor, City of Nuevo Laredo

Co State Presidents of the Regional Working Group

- Steve Niemeyer, representing Bryan W. Shaw, Ph.D., P.E., Chairman, Texas Commission on Environmental Quality
- Oscar Flores, representing Biol. Eglantina Canales, Secretary, Ministry of the Environment, Coahuila
- Ana Fernanda Hierro representing Roberto Russildi, Secretary, Secretariat for Sustainable Development, Nuevo León
- Ing. Gilberto Estrella, Secretary, Secretariat of Urban Development and Environment, Tamaulipas
- Arturo Arredondo representing Estavio Elizondo, Chairman of the Board, Kickapoo Traditional Tribe of Texas

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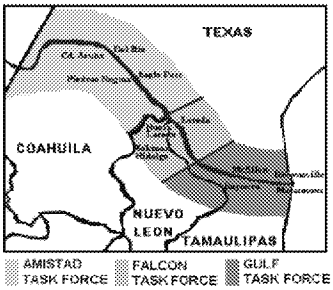


Co Federal Presidents of the Regional Working Group, Overview and Expectations of the Meeting

Sam Coleman, Acting Regional Administrator, U.S. Environmental Protection Agency
Lic. Jesús González Macías, Federal Delegate, Ministry of Environment and Natural Resources, Tamaulipas, through the "Go To Meeting" system.

Progress report of the Working Group and Regional Interest Matters

Summary of the Action Plan 2015-2016, and a brief description of special issues of regional interest.

Amistad Task Force, Progress Report

- On behalf of Hon. Ramsey English Cantú, Mayor, Eagle Pass, city official exposed the issue

Regional Points of Interest, Emerging Issues

- Biol. Carlos Flores, representing the Hon. Ana Gabriela Fernández Osuna, Mayor, Nava Coahuila

Falcón Task Force, Progress Report

- Hon. Judge Joe Rathmell, County Judge, Zapata Texas

Regional Points of Interest, Emerging Issues

- Hon. Juan Manuel Morton González, Mayor, Anáhuac Nuevo León

Gulf Task Force, Progress Report

- Hon. John Wood, Port of Brownsville Commissioner

Regional Points of Interest, Emerging Issues

- Hon. Jesús de la Garza Díaz del Guante, Mayor, Matamoros Tamaulipas

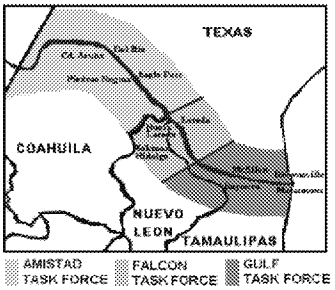
Presentation and Dialogue of the Priorities for the years 2017-2018

- Border 2020 Target Presentation.

Goal 1: Reduce Air Pollution
- Oscar Flores, representing Biol. Eglantina Canales, Secretary, Ministry of the Environment, Coahuila

Goal 2: Improve Access to Clean and Safe Water
- Steve Niemeyer on behalf of Bryan W. Shaw, Ph.D., P.E., Chairman, Texas Commission on Environmental Quality

Goal 3: Promote Materials Management, Waste Management, and Clean Sites
- Ana Fernanda Hierro, representing Mr. Roberto Russildi, Secretary, Secretariat for Sustainable Development, Nuevo León



Goal 4: Enhance Joint Preparedness for Environmental Response

- Ing. Gilberto Estrella, Secretary, Ministry of Urban Development and Environment, Tamaulipas

Goal 5: Enhance Compliance Assurance and Environmental Stewardship

- Carlos Rincón took the floor to present the presentation of Lic. Víctor Cabrera Medrano, Delegate of PROFEPA, Nuevo León

Fundamental Strategies: Health and Environmental Education
Arturo Arredondo representing Estavio Elizondo, Chairman of the Board, Kickapoo Traditional Tribe of Texas

Public Comments, Border 2020 Leadership Panel

Plenary Session, Comments, assignments and next steps

Co-Federal President, Sam Coleman, Acting Regional Administrator, U.S. Environmental Protection Agency

Final and Closing Comments

Federal President, Mr. Jesús González Macías, Federal Delegate, Ministry of the Environment and Natural Resources, Tamaulipas

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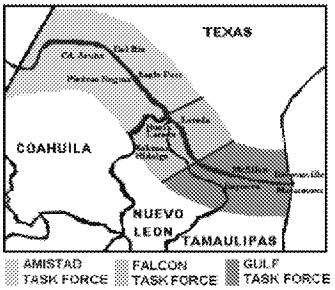
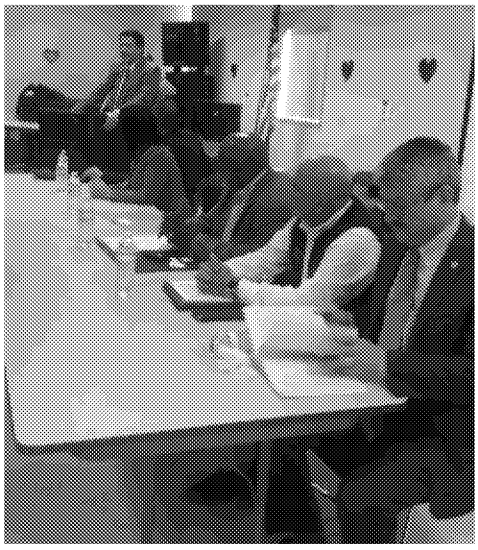


Prior Meeting of Federal and State Co-Chairs

The previous day a meeting was held where the leaders discussed the strategies to be implemented in the next two years according to the Action Plan.
Also this day under the patronage of the City through the Department of Tourism was given a welcome dinner to colleagues from the Regional Working Group of the 4 States.

At the beginning of the GRT Public Meeting the Co Local Leaders made a welcome message to the attendees focused on the synergy of the Border 2020 Program and the actions that are implemented in the region.



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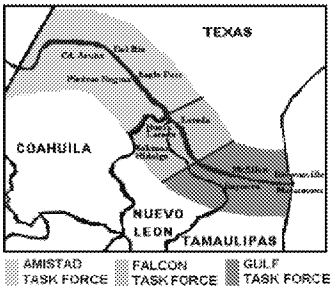

At the outset, the Co-Presidencies in their participations provided a message regarding their participation in the Border 2020 program, their objectives and strategies in their Focused Entities and they generally discussed the commitment of their States in the sum of efforts for follow-up of this Binational effort.

The Co Leaders then presented the Progress Report of each of the Work Teams, the objectives achieved and the projects still in progress, as well as the Priorities in which strategies will be generated in Amistad, Falcon and Gulf.

During the luncheon space, the cities of Laredo and Nuevo Laredo made a presentation regarding the actions they are doing in areas aligned with Border 2020, on the one hand, the city of Laredo presented its actions highlighting the issues in public health and the city of Nuevo Laredo, presented topics related to the management of hazardous and electronic waste, environmental education and reforestation. The speakers, Dr. Hector Gonzales (Director of the Department of Health) for Laredo and Mr. Luis Mata for Nuevo Laredo (Director of Environment).

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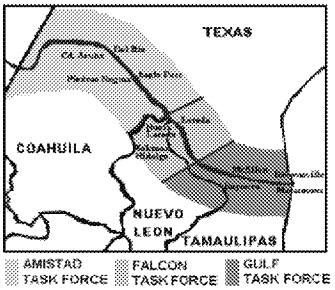
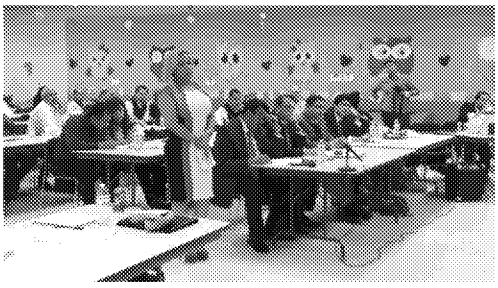


Subsequently the space for public comment was made, which included a panel with the leadership of the Regional Working Group of the 4 States. In this part of the agenda the attendees presented their concerns and proposals in which a direct dialogue with the leaders was generated. This stage was moderated by Arturo Blanco of the USEPA Region 6.



Images of the Meeting

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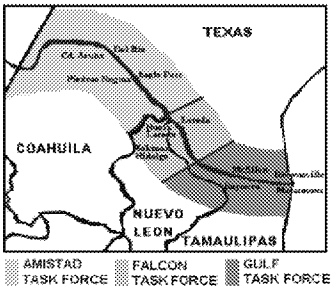


The Moderator of the Meeting of the Regional Working Group was Ing. Joaquín Marrufo, Border 2020 Manager of the Border Ecological Cooperation Commission (BECC).

Finally the meeting was closed by the final comments and steps to be taken by our Co-Presidents, Jesus González Macías and Samuel Coleman.
Postcard that was sent to colleagues as support in the logistics of the event.
The meeting had an important representation of the frontier communities of the Work Teams, through officials and representatives of institutions and / or organizations.

Federal Government (U.S. EPA Region 6 and SEMARNAT Tamaulipas).

- State Governments of Nuevo León, Tamaulipas, Coahuila and Texas (TCEQ, SEDUMA, SEDESU, SEMA and Civil Protection).
- Mexican Consulates in border communities of Texas.
- Representatives of the Border Communities of Laredo, Brownsville, Del Rio, Eagle Pass, Kickapoo Traditional Tribe of Texas, Matamoros, Reynosa, Valle Hermoso, Miguel Aleman, Mier, Nuevo Laredo, Anáhuac, Piedras Negras, Acuña. INDEX Matamoros, COMAPA Nuevo Laredo, SAS Monterrey, CANACINTRA Nuevo Laredo, Animal Defense Nuevo Laredo, Civil Protection of several Municipalities, Fire Department of several Municipalities, UAT, Scouts of Mexico, CODEFRONT, SA Express News, SOS Texas, IMPLAN Matamoros
- Mayor of Laredo, County Judge of Zapata, Commissioner of Brownsville; Mayors of Matamoros, Valle Hermoso, Ciudad Mier and Anáhuac and members of the H. Cabildos.

Support was provided by the sponsors of the meeting, U.S. EPA Region 6, the Department of Tourism, the Department of Public Services and the Department of Environmental Services of the City of Laredo, Texas.

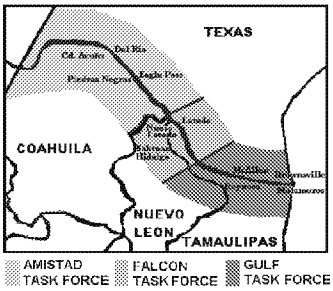
Without further ado, I remain at your service

Ing. Gustavo Pantoja Villarreal
BECC/COCEF Consultant
Border 2020

Programa Ambiental México-Estados Unidos

Grupo Regional

Tamaulipas - Nuevo León – Coahuila - Texas



Reunión Pública del Grupo Regional de Trabajo Tamaulipas - Nuevo León – Coahuila – Texas

16 de Febrero de 2017
Sede, Biblioteca Pública de la Ciudad de Laredo (Texas)

Objetivo de la Reunión
Proteger el medio ambiente y la salud pública en la región fronteriza México-Estados Unidos, de acuerdo con los principios del desarrollo sustentable, reuniendo a todos los liderazgos de Frontera 2020 y los actores interesados, para acordar prioridades ambientales binacionales y establecer la agenda del Grupo Regional de Trabajo para los años 2017-2018.

El propósito de la Reunión Anual del GRT fue presentar el progreso de los proyectos binacionales del Plan de Acción de dos años (2015-2016) y acordar e identificar las prioridades que pueden incluirse en el Plan de Acción de dos años (2017-2018) y dialogar sobre los recursos requeridos para llevar a cabo estas prioridades. Esto ayudará como una oportunidad para que cada Secretaría Estatal destaque las acciones y logros efectuados, así como establecer las prioridades que se incluirán en el próximo Plan de Acción de dos años (2017-2018). En la agenda también se tuvo la participación de los Liderazgos Locales, en el cual los Co Líderes expresaron por cada Equipo de Trabajo (Amistad-Falcón-Golfo) las acciones implementadas y logros alcanzados, así como las prioridades de acuerdo a su jurisdicción geográfica.

La Agenda se llevó bajo el siguiente orden del día:

Bienvenida y Presentaciones, Anfitriones

- Hon. Pete Saenz, Jr., Mayor, City of Laredo
- Regidora Lic. Carmen Canturosas Villarreal, en representación del Hon. C.P. Enrique Rivas, Alcalde, Ciudad de Nuevo Laredo

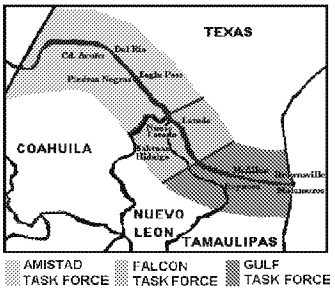
Co Presidentes Estatales del Grupo Regional de Trabajo

- Steve Niemeyer, en representación de Bryan W. Shaw, Ph.D., P.E., Chairman, Texas Commission on Environmental Quality
- Oscar Flores, en representación de la Biól. Eglantina Canales, Secretaria, Secretaría de Medio Ambiente, Coahuila
- Ana Fernanda Hierro en representación del Ing. Roberto Russildi, Secretario, Secretaría de Desarrollo Sustentable, Nuevo León
- Ing. Gilberto Estrella, Secretario, Secretaría de Desarrollo Urbano y Medio Ambiente, Tamaulipas
- Arturo Arredondo en representación de Estavio Elizondo, Chairman of the Board, Kickapoo Traditional Tribe of Texas

Programa Ambiental México-Estados Unidos

Grupo Regional

Tamaulipas - Nuevo León – Coahuila - Texas



Co Presidentes Federales del Grupo Regional de Trabajo, Visión General y Expectativas de la Reunión

Sam Coleman, Acting Regional Administrator, U.S. Environmental Protection Agency
Lic. Jesús González Macías, Delegado Federal, Secretaría de Medio Ambiente y Recursos Naturales, Tamaulipas, a través del sistema Go To Meeting.

Informe de progreso del Grupo de Trabajo y Asunto de Interés Regional.

Resumen del Plan de Acción 2015-2016, y de una breve descripción de temas especiales de interés regional.

Equipo de Trabajo Amistad, Reporte de Progreso

- En representación del Hon. Ramsey English Cantú, Mayor, Eagle Pass, funcionario de la ciudad expuso el tema

Puntos de Interés Regional, Temas emergentes

- Biol. Carlos Flores, en representación de la Hon. Ana Gabriela Fernández Osuna, Alcaldesa, Nava Coahuila

Equipo de Trabajo Falcón, Reporte de Progreso

- Hon. Judge Joe Rathmell, County Judge, Zapata Texas

Puntos de Interés Regional, Temas emergentes

- Hon. Juan Manuel Morton González, Alcalde, Anáhuac Nuevo León

Equipo de Trabajo Golfo, Reporte de Progreso

- Hon. John Wood, Port of Brownsville Commissioner

Puntos de Interés Regional, Temas emergentes

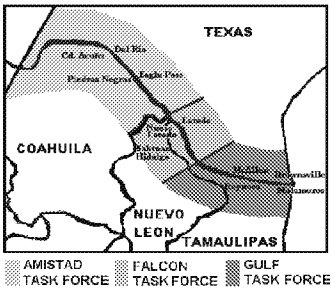
- Hon. Jesús de la Garza Díaz del Guante, Alcalde, Matamoros Tamaulipas

Presentación y Diálogo de las Prioridades para los años 2017-2018
Presentación por Meta de Frontera 2020.

Meta 1: Reducir la Contaminación del Aire
- Oscar Flores, en representación de la Biól. Eglantina Canales, Secretaria, Secretaría de Medio Ambiente, Coahuila

Meta 2: Mejorar el Acceso a Agua Limpia y Segura
- Steve Niemeyer en representación de Bryan W. Shaw, Ph.D., P.E., Chairman, Texas Commission on Environmental Quality

Meta 3: Promover el Manejo Integral de Materiales y Residuos, y Sitios Limpios
- Ana Fernanda Hierro, en representación del Ing. Roberto Russildi, Secretario, Secretaría de Desarrollo Sustentable, Nuevo León



Meta 4: Mejorar la Preparación Conjunta de Respuesta Ambiental

- Ing. Gilberto Estrella, Secretario, Secretaría de Desarrollo Urbano y Medio Ambiente, Tamaulipas

Meta 5: Fortalecer el Cumplimiento de la Ley y la Promoción de una Gestión Ambiental Responsable

- Carlos Rincón tomo la palabra para realizar la presentación del Lic. Víctor Cabrera Medrano, Delegado de la PROFEPA, Nuevo León

Estrategias Fundamentales: Salud y Educación Ambiental

- Arturo Arredondo en representación de Estavio Elizondo, Chairman of the Board, Kickapoo Traditional Tribe of Texas

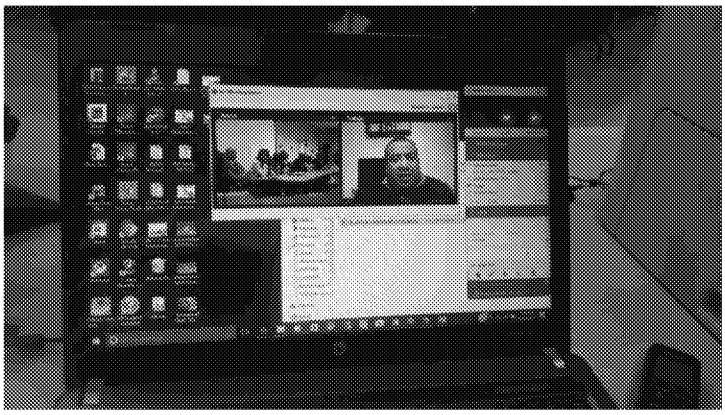
Comentarios del Público, Panel con los Liderazgos de Frontera 2020

Sesión Plenaria, Comentarios, asignaciones y próximos pasos

Co Presidente Federal, Sam Coleman, Acting Regional Administrator, U.S. Environmental Protection Agency

Comentarios Finales y Clausura

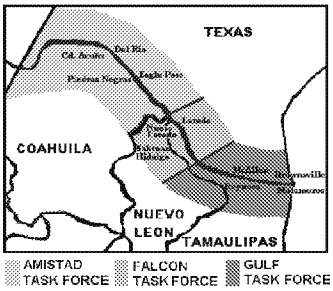
Co Presidente Federal, Lic. Jesús González Macías, Delegado Federal, Secretaría de Medio Ambiente y Recursos Naturales, Tamaulipas



Programa Ambiental México-Estados Unidos

Grupo Regional

Tamaulipas - Nuevo León – Coahuila - Texas

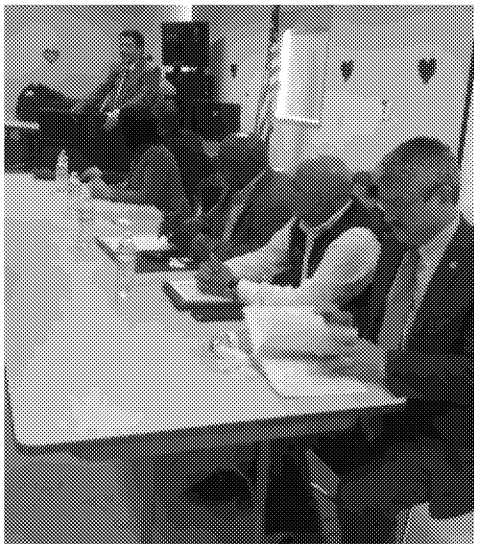


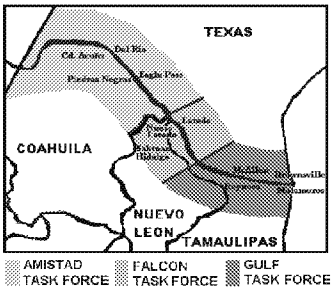
Reunión Previa de los Co Presidentes Federales y Estatales

El día previo se realizó esta reunión donde los liderazgos dialogaron las estrategias a implementar en los próximos dos años de acuerdo al Plan de Acción.

También este día bajo el patrocinio de la ciudad a través del Departamento de Turismo se brindó una cena de bienvenida a los colegas del Grupo Regional de Trabajo de los 4 Estados.

En el inicio de la Reunión Pública del GRT los Co Líderes Locales realizaron un mensaje de bienvenida a los asistentes enfocado a la sinergia que tiene el Programa Frontera 2020 y las acciones que se implementan en la región.





Los Co Presidencias Estatales en sus participaciones, al inicio brindaron un mensaje referente a su participación dentro del programa Frontera 2020, sus objetivos y estrategias en sus Entidades enfocadas y en lo general dialogaron sobre el compromiso de sus Estados en la suma de esfuerzos para el seguimiento de este esfuerzo Binacional.

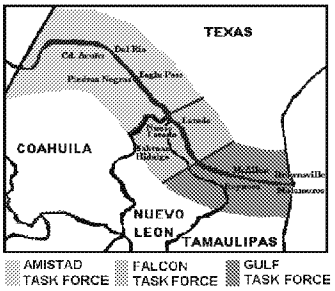
Acto seguido, los Co Líderes presentaron el Reporte de Progreso de cada uno de los Equipos de Trabajo, los objetivos alcanzados y los proyectos que aún se encuentran en progreso, así como las Prioridades en las que se estarán generando estrategias en Amistad, Falcón y Golfo.

Durante el espacio para el lunch, las ciudades de Laredo y Nuevo Laredo realizaron una ponencia referente a las acciones que se encuentran realizando en temas alineados con Frontera 2020, por un lado la ciudad de Laredo presentó sus acciones destacando los temas en materia de salud pública y la ciudad de Nuevo Laredo, expusieron los temas relacionados con el manejo de residuos peligrosos y electrónicos, educación ambiental y reforestación. Los ponentes, el Dr. Héctor Gonzáles (Director del Departamento de Salud) por Laredo y el Lic. Luis Mata por Nuevo Laredo (Director de Medio Ambiente).

Programa Ambiental México-Estados Unidos

Grupo Regional

Tamaulipas - Nuevo León – Coahuila - Texas



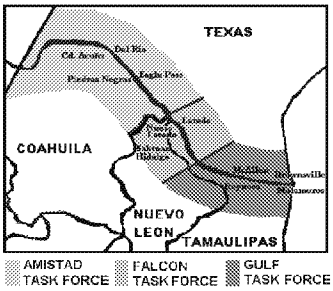
Posteriormente se realizó el espacio para los comentarios públicos, en la que se integró un panel con los liderazgos del Grupo Regional de Trabajo de los 4 Estados. En esta parte del orden del día los asistentes presentaron sus inquietudes y propuestas en la que se generó un diálogo directo con los liderazgos. Esta etapa estuvo moderada por Arturo Blanco de la USEPA Región 6.

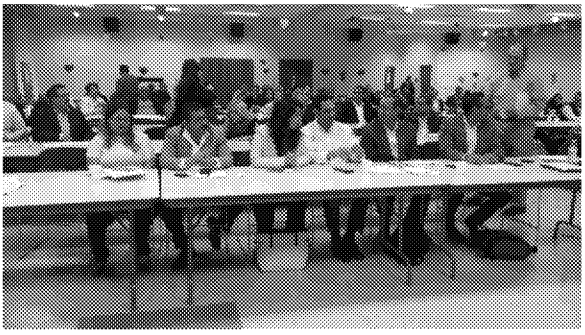
Imágenes de la Reunión

Programa Ambiental México-Estados Unidos

Grupo Regional

Tamaulipas - Nuevo León – Coahuila - Texas





El moderador de la Reunión del Grupo Regional de Trabajo fue el Ing. Joaquín Marrufo, Gerente del Programa Frontera 2020 por parte de la Comisión de Cooperación Ecológica Fronteriza (COCEF).

Finalmente la reunión fue clausurada por los comentarios finales y pasos a seguir por parte de nuestros Co Presidentes Federales, Jesús González Macías y Samuel Coleman.
Postcard que se envió a los colegas como apoyo en la logística del evento.

En la reunión se tuvo una representación importate de las comunidades fronterizas de los Equipos de Trabajo, a través de funcionarios y representantes de instituciones y/o organizaciones.

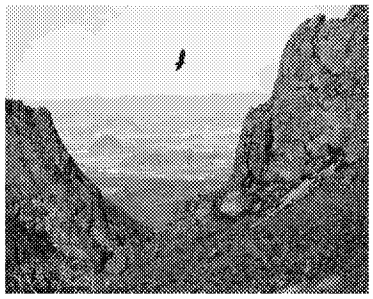
- Gobierno Federal (USEPA Región 6 y SEMARNAT Tamaulipas).
- Gobiernos Estatales de Nuevo León, Tamaulipas, Coahuila y Texas (TCEQ, SEDUMA, SEDESU, SEMA y Protección Civil).
- Consulados Mexicanos en las comunidades fronterizas de Texas.
- Representantes de las Comunidades Fronterizas de Laredo, Brownsville, Del Río, Eagle Pass, Kickapoo Traditional Tribe of Texas, Matamoros, Reynosa, Valle Hermoso, Miguel Alemán, Mier, Nuevo Laredo, Anáhuac, Piedras Negras, Acuña. INDEX Matamoros, COMAPA Nuevo Laredo, SAS Monterrey, CANACINTRA Nuevo Laredo, Defensa Animal Nuevo Laredo, Protección Civil de varios Municipios, Departamento de Bomberos de varios Municipios, UAT, Scouts de México, CODEFRONT, SA Express News, SOS Texas, IMPLAN Matamoros
- Alcalde de Laredo, Juez de Zapata, Comisionado de Brownsville; Alcaldes de Matamoros, Valle Hermoso, Ciudad Mier y Anáhuac y miembros de los H. Cabildos.

Apoyo Importante fueron los Patrocinadores de la Reunión, la USEPA Región 6, El Departamento de Turismo, Departamento de Servicios Públicos y el Departamento de Servicios Ambientales de la Ciudad de Laredo, Texas.

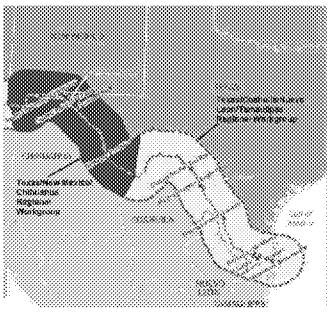
Sin más por el momento, quedo a sus órdenes para cualquier comentario.

Saludos

Ing. Gustavo Pantoja Villarreal
Enlace Frontera 2020
COCEF



Border 2020 Program
Four State Region Overview



Summary of EPA and BECC Border 2020

The Environmental Protection Agency (EPA) Border Program is a bi-national collaborative effort whose mission is to protect human health and the environment in underserved communities that may be disproportionately impacted by environmental risks. The Border Environmental Cooperation Commission (BECC) is an international organization established for the purpose of preserving, protecting, and enhancing the environment in the U.S. – Mexico border region. To further the program goals and objectives the BECC and the EPA have established a partnership wherein the BECC that has administers, receives, and reviews proposals, the BECC also coordinates project selections, monitor project performance, and manage the Program funds provided by EPA for projects along the US Mexico Border Regions.

The BECC provides support in the implementation of projects that are significantly improving the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development and in accordance with the priorities and objectives of the program. To that end, the BECC is using its experience in assisting local communities and other project sponsors to develop and implement environmental projects. To ensure that the Border program reflects the environmental needs of the border community as articulated by border residents, the BECC implements specific activities outlined in the work plans that will increase public knowledge, public participation, training, and education to the region's residence to assure the goals of the EPA are met and the continuous improvement of the water, land, and air are the priority of this partnership with EPA.

EPA Border 2020 - Region 6 Logistical Support

PURPOSE
The Border Environment Cooperation Commission (BECC) will administer the Environmental Protection Agency (EPA) grant funds under this Cooperative Agreement. The funds provided under this agreement will be used to support logistics for the bi-national Border 2020 U.S. - Mexico Environmental Program (B2020). BECC's institutional strengths will be used to support the logistical activities of the program.

The mission of the B2020 Program is to protect public health and the environment in the U.S.-Mexico border region consistent with the principles of sustainable development. As part of its mission, the BECC has the capacity to promote, administer, and implement projects and provide logistical support conducive to improving the environment and the living conditions along the US-Mexico border region. In addition, the BECC has a history of successful coordination with the EPA and other stakeholders to promote the mission of the EPA long the border.

OBJECTIVES
BECC will provide the support for collaboration between federal, state, local, and private interests on both sides of the border, and a forum for broad public dialogue on environmental infrastructure issues and projects. The BECC will provide logistical support in program activities conducive to improve the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development and in accordance with the priorities and objectives of the Border 2020 Program. To ensure that the Border 2020 program reflects the environmental needs of the border community as articulated by border residents, the BECC will implement specific activities outlined in this work plan that will increase public knowledge and public participation.

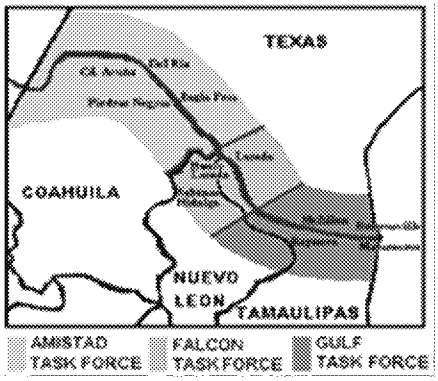
BECC PRESENCE and SUPPORT DURING TASK FORCE EVENTS
The BECC will use its expertise on border issues, institutional strengths and working knowledge for coordination with bi-national stakeholders in the implementation of Border 2020 Program. The BECC will coordinate with EPA Region 6 for logistical activities and the need for presence of BECC staff at task force events, and public outreach. The proposed activities to be undertaken in these three areas are described below.

Regional Workgroups Overview

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. Projects are organized by Border 2020 goals and objectives.



Regional Workgroup Overview

RWG is separated into three regions (806 miles or 1,296 km) or task forces:

Amistad

- Waste, Env. Education & Health, Emergency Response Preparedness Committees

Falcon

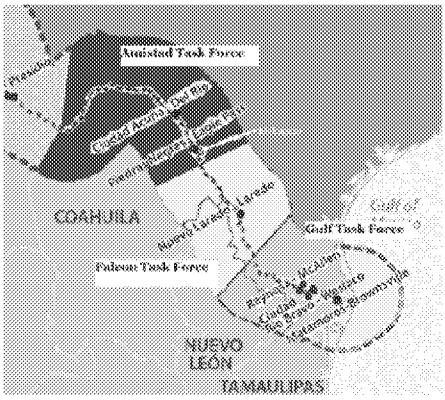
- Waste, Water, Env. Education & Health, Emergency Response Preparedness Committees

Gulf

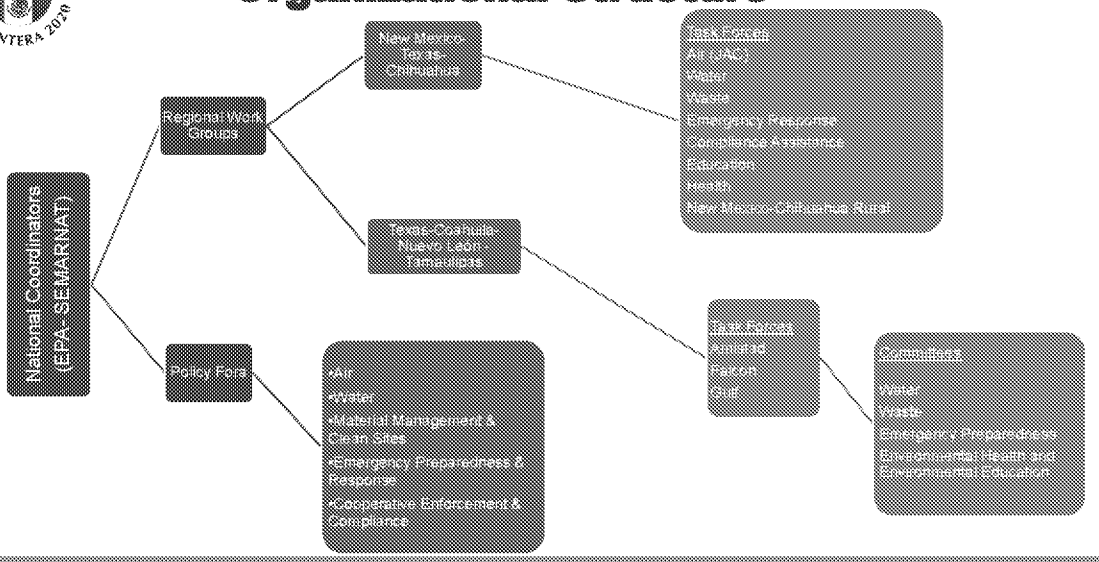
- Waste, Water, Env. Education & Health, Emergency Response Preparedness Committees

Key community populations

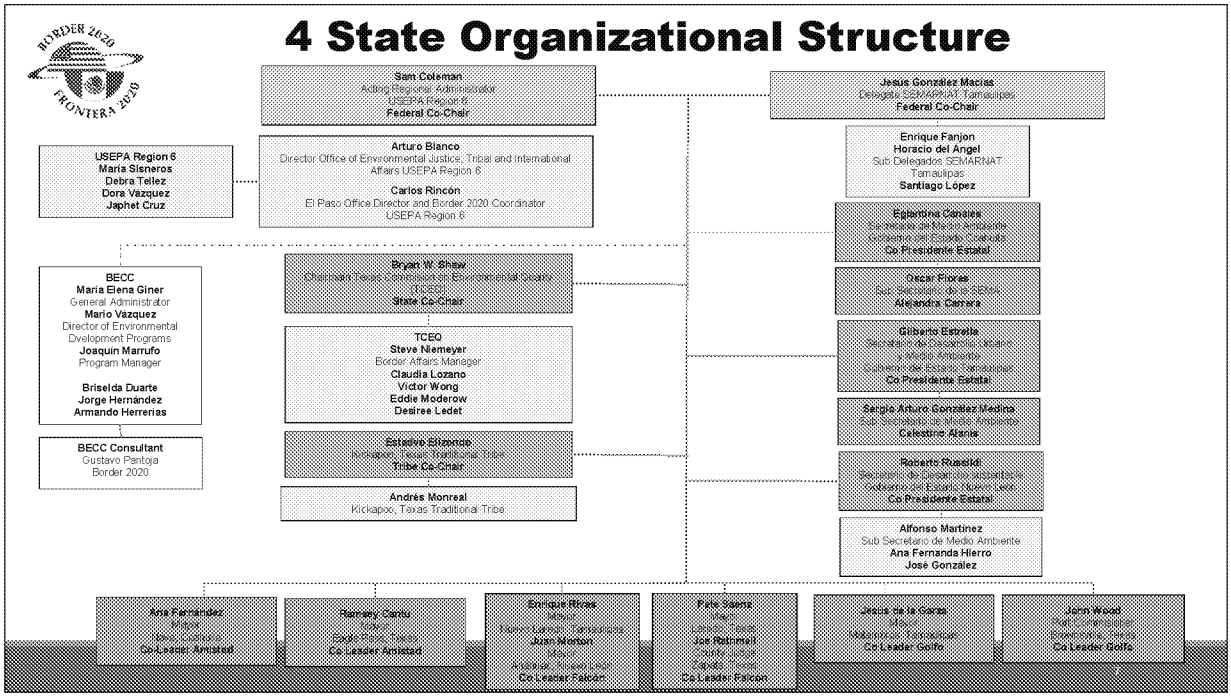
- 168 Cities and Towns on the U.S.
- 29 Municipalities on the Mexican Side



Border 2020 Region 6 Organizational Structure



4 State Organizational Structure



Border 2020 Leadership Roles
4-State Regional Workgroup

Texas Southern Nueva León Tamaulipas

Co-Chair: Regional Workgroup

- Prioritize regional environmental issues and recommend issues beyond regional scope to be addressed by Border 2020 policy fora
- Help facilitate projects when necessary, by convening local, state, and tribal governments, academia, NGOs, and the public
- Represent the regional workgroup at the Border 2020 national coordinators meeting and in formal communication with partner organizations

Arizona

Falcon

Gulf

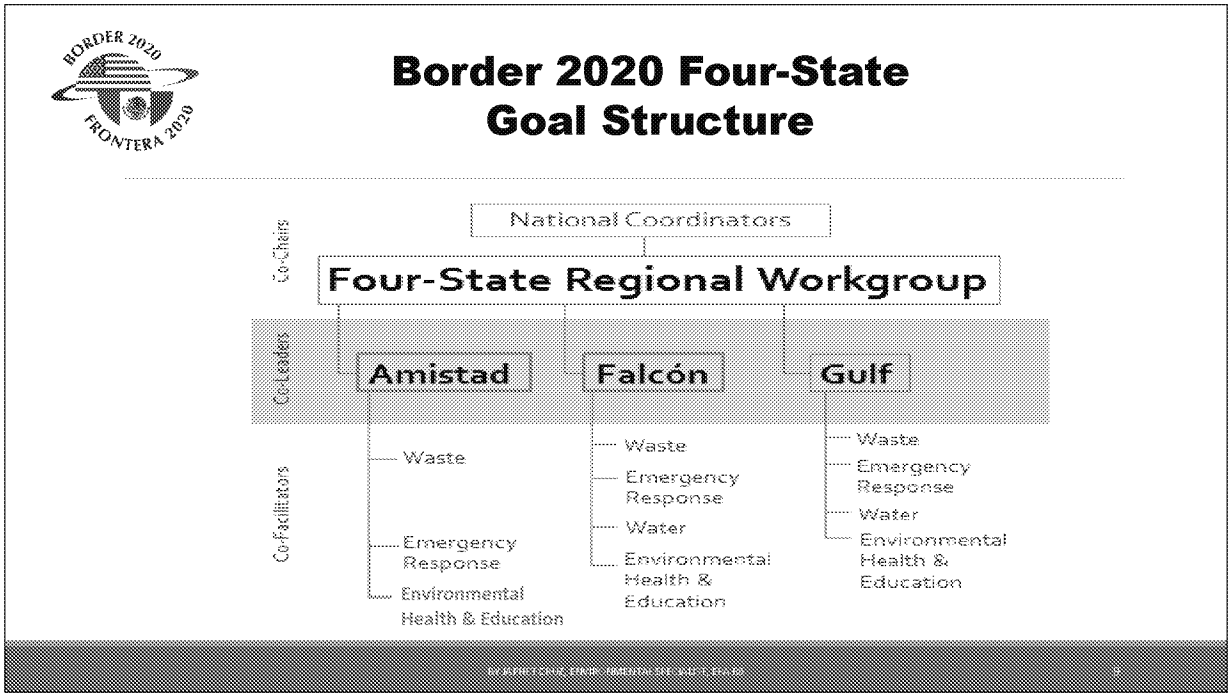
Co-Leader: Task Force

- Act as a spokesperson for the task force and answer questions from the public or media
- Convene public task force meetings a minimum of once per calendar year and additional meetings as necessary
- Coordinate and communicate with local leaders in the task force area to encourage their input
- Identify environmental issues within the task force area following the Border 2020 goals and objectives and use the Border 2020 tools to address task force priorities
- Assist the staff of the federal and state agencies in identifying co-facilitators for each of the established committees
- Attend an annual meeting of the four-state regional workgroup and share information about the task force's progress with the co-chairs and fellow co-leaders
- Lead the committees in working with federal and state agencies to draft the 2-year action plan

Air
Water
Environmental Health and Environmental Education
Emergency Preparedness

Co-Facilitator: Committee

- Ensure adequate representation of regional specialists and stakeholders in committee activities
- Provide leadership inspiring consensual identification of priority activities or projects that will help the committee fulfill the goals and objectives of Border 2020, as outlined in the framework booklet
- In cooperation with their counterpart co-facilitator, agree on dates and places for committee meetings, engage in public outreach to achieve strong attendance at those meetings, and preside over those meetings (at least once each year)
- Serve as a technical advisor to the local, state, and federal authorities on issues in which your committee is involved
- Serve as a liaison between local, state, and federal participants to effectively communicate the priorities and strategies to the task force co-Leaders and the staff of federal and state agencies
- Work with federal and state agencies to draft the 2-year action plan



Above you we will visualize the structure of the Four State Regional Workgroup
(Tamaulipas, Nuevo Leon, Coahuila and Texas)

We have the Co chairs that we will discuss in the next slide

Each Task Force has one US and one Mexican Co leader

The Amistad Task Force has two Committees: Waste and Emergency Response
The Falcon Task Force has four committees: Waste, Emergency Response, Water and Environmental Health and Education
The Gulf Task Force has four committees: Waste, Emergency Response, Water and Environmental Health and Education

Each of these committees has a US and Mexican Co facilitator.

Amistad Task Force

MEXICO COMMITTEE

Lic. Ana Gabriela Fernández Osuna
Presidente Municipal
Nava, Coahuila
CO-LEADER

Ing. Jesús Flores de la Garza
Director de Ecología
Nava, Coahuila
LIAISON

WASTE COMMITTEE
Ing. Alfredo Lucero Montemayor
Director of Ecology
Piedras Negras, Coahuila
Co Facilitator

EMERGENCY PREPAREDNESS COMMITTEE
Lic. Brigido Iván Moreno Carrera
Director of Civil Protection
Acuña, Coahuila
Co Facilitator

ENVIRONMENTAL EDUCATION AND HEALTH COMMITTEE
Ing. Víctor Ibarra
Technological Institute of Piedras Negras
Club TEC OSOS
Coahuila
Co Facilitator

UNITED STATES COMMITTEE

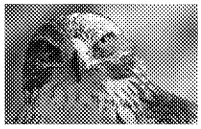
Ramsey Cantú
Mayor
Eagle Pass, Texas
CO-LEADER

WASTE COMMITTEE
Isaak Ruiz
Co Facilitator

EMERGENCY PREPAREDNESS COMMITTEE
Manuel Mello
Fire Chief
Eagle Pass, Texas
Co Facilitator

ENVIRONMENTAL EDUCATION AND HEALTH COMMITTEE
VACANT
Co Facilitator

FALCON TASK FORCE



MEXICO COMMITTEE

CP. Oscar Enrique Rivas Cuellar
Municipal
Nuevo Laredo, Tamaulipas
CO-LEADER

Lic. Juan Manuel Morton González
Presidente Municipal
Anáhuac, Nuevo León
CO-LEADER

Lic. Luis Maía Bernal
Director of Environment and Climate Change
Nuevo Laredo, Tamaulipas
Liaison

Lic. Francisco Martínez Rentería
Secretary of the R. Ayuntamiento
Anáhuac, Nuevo León
Liaison

WASTE COMMITTEE
Ing. Alfano Ramírez Solano
Environmental Consultant
Co Facilitator

WATER COMMITTEE
Ing. Agustín Boone González
CILA Section Mexico, Nuevo Laredo
Co Facilitator

EMERGENCY PREPAREDNESS COMMITTEE
Ing. Juan Pablo Reyes Villarreal
UT & UAT Professor, Instructor and Specialist
Co Facilitator

ENVIRONMENTAL EDUCATION AND HEALTH COMMITTEE
Ing. Mario Garza Delgado
UT Linking
Co Facilitator

UNITED STATES COMMITTEE

Pete Saenz
Mayor
Laredo, Texas
CO-LEADER

Joe Rathmell
County Judge
Zapata, Texas
CO-LEADER

WASTE COMMITTEE
John Porter
Environmental Services Director
Laredo, Texas
Co Facilitator

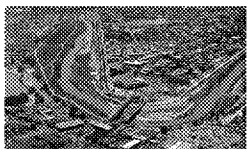
WATER COMMITTEE
José Garza
Frank Tejeda Center, TAMU
Laredo, Texas
Co Facilitator

EMERGENCY PREPAREDNESS COMMITTEE
Steve Landin
Fire Chief
Laredo, Texas
Co Facilitator

ENVIRONMENTAL EDUCATION AND HEALTH COMMITTEE
Dr. Hector González
Health Director
Laredo, Texas

Ing. Iván Sanfoye
Department of Environmental Services
Laredo, Texas
Co Facilitator

GULF TASK FORCE



MEXICO COMMITTEE

Lic. Jesús de la Garza Díaz del Guante
Municipal President
Government of Matamoros
CO-LEADER

Lic. Humberto Gutiérrez
River Precisten Committee
on the Endangered
Matamoros, Tamaulipas
Liaison

WASTE COMMITTEE
Lic. Martha García Fontanez
Director of Ecology
Valle Hermoso, Tamaulipas
Co Facilitator

WATER COMMITTEE
Ing. David Negrete
CILA Reynosa, Tamaulipas
Co Facilitator

EMERGENCY PREPAREDNESS COMMITTEE
Ing. Manuel Montiel
Local Mutual Aid Committee (CLAM)
Matamoros, Tamaulipas
Co Facilitator

ENVIRONMENTAL EDUCATION AND HEALTH COMMITTEE
Ing. Alfredo Hassanile
Maquiladora Asociacion(INDEX)
Matamoros, Tamaulipas
Co Facilitator

UNITED STATES COMMITTEE

John Wood
Port Commissioner
Brownsville, Texas
CO-LEADER

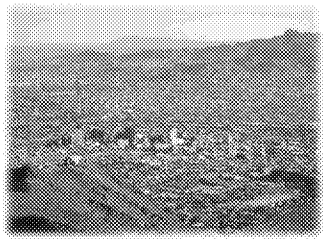
WASTE COMMITTEE
Art Rodriguez
Health Director
Brownsville, Texas
Co Facilitator

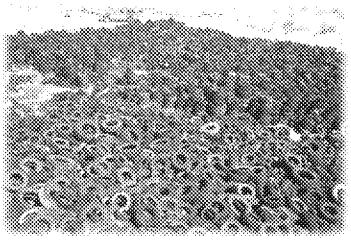
WATER COMMITTEE
Joe Hinojosa
Santa Cruz, Distrito de Riego #15
Edinburg, Texas
Co Facilitator

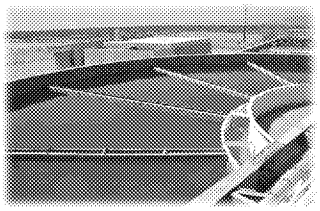
EMERGENCY PREPAREDNESS COMMITTEE
Ricardo Sabalza
Hidalgo Co. EMC
Hidalgo, Texas
Co Facilitator

ENVIRONMENTAL EDUCATION AND HEALTH COMMITTEE
Beatriz Tapia
University of Texas, Science Health Center
Rio Grande Valley, Texas
Gerry Cantko
Texas A&M
Mc Allen, Texas
Co Facilitator

Regional and Local Priorities







Regional Priorities for 2017-2018

Goal 1: Air

i. Implement atmospheric monitoring programs under the same criteria of analysis and promote the dissemination of results in the four states

ii. Set actions in accordance with the public policies of micro and macro-economic analysis of climate change state programs

iii. Promote the implementation of the PROAIRE air quality program and its strategies in the border communities

Note: Air is included in the Regional and Task force priorities for the Mexican States, **not for the US – Texas** (Amistad, Falcon and Gulf Task Forces), smoke pollution of old cars without catalyst, dust, unpaved roads and trash/tire fires in the Mexican border cities is a concern for air quality.

Goal 2: Water

i. Keep improving energy efficiency for water operators in border municipalities

ii. Continue the water conservation programs and encourage the reuse of treated water for irrigation

iii. Strengthen wastewater sanitation programs and actions

iv. Disseminate green infrastructure actions for sustainable development of border communities

Regional Priorities for 2017-2018

Goal 3: Materials & Waste Management

i. Increase institutional capacity at the local and state levels for sustainable practices in solid waste management

ii. Develop collection and comprehensive waste management programs for used electronics for municipalities in the border area

iii. Improve collection and comprehensive waste management programs for proper disposal of household hazardous waste for municipalities in the border area

iv. Continue efforts to implement comprehensive scrap tire management programs

v. Strengthen operations of the sanitary landfills in border municipalities, with plans to capture and take advantage of the biogas and convert to energy

vi. Develop comprehensive actions to eliminate unauthorized open-air dump sites

vii. Encourage municipal programs for holistic waste management

Regional Priorities for 2017-2018

Goal 4: Emergency Preparedness & Response

i. Continue the binational relationship in emergency response for training, equipment and drills

ii. Promote the creation of risk atlases for waste management and hazardous materials in border communities

iii. Carry out the required border studies for the protection of local communities

iv. Generate a diagnosis of equipment, training, and ability to respond to an emergency in border municipalities

Goal 5: Compliance & Environmental Stewardship

i. Implement binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals, to promote the exchange of information and improve understanding of each country's respective compliance and enforcement programs

ii. Promote the updating, sharing and application of municipal environmental regulations in border communities

iii. Carry out the land management plans in the states and municipalities along the border region

iv. Establish regulatory and operational mechanisms for the control of wild hogs

Note: TCEQ and PROFEPA (in Mexico) are in charge of the inspection, compliance and enforcement of environmental laws. This is being accomplished by performing outreach and workshops.

Fundamental Strategies

Border 2020 has Six fundamental strategies which complement and inform the work undertaken to achieve the mission and goals of the Border 2020 Program.

They are incorporated in each task force priorities in the:

"Promote cross-cutting efforts related to environmental health and environmental education"

- Working to Improve Children's Health
- Building Capacity towards Climate Change Resiliency
- Protecting Disadvantaged & Underserved Communities
- Promoting Environmental Awareness
- Promoting Environmental Health *(The committee on education and environmental health addresses issues related to air quality (asthma, respiratory diseases, health in children)*
- Strengthening Tribal, State, Federal and International Partnerships

Amistad Task Force Priorities

Goal 1: Reduce Air Pollution

i. Establish and strengthen vehicle emissions programs in Acuña, Piedras Negras and Nava

ii. Promote initiatives to develop energy efficiency and reforestation programs in the industrial sector in Acuña and Piedras Negras

iii. Promote the implementation of strategies by the SEMARNAT PRO AIRE air quality program in Acuña, Piedras Negras and Nava

Goal 2: Improve Access to Clean and Safe Water

i. Conduct water quality monitoring of tributaries along the Rio Grande in Acuña and Piedras Negras

ii. Develop Fats, Oils and Grease (FOG) workshops in Acuña and Piedras Negras, replicating the model in Laredo

iii. Promote and develop green infrastructure projects and water conservation programs in Acuña and Piedras Negras

Amistad Task Force Priorities

Goal 3: Promote Materials Management, Waste Management and Clean Sites

i. Promote the implementation of integrated solid, household hazardous waste and used electronic programs in Acuña and Piedras Negras

ii. Strengthen scrap tire management programs and promote scrap tire reuse for projects in Acuña and Piedras Negras

iii. Promote initiatives to develop plastic bag reduction programs in Acuña and Piedras Negras

Goal 4: Enhance Joint Preparedness for Environmental Response

i. Conduct water quality monitoring of tributaries along the Rio Grande in Acuña and Piedras Negras

ii. Develop Fats, Oils and Grease (FOG) workshops in Acuña and Piedras Negras, replicating the model in Laredo

iii. Promote and develop green infrastructure projects and water conservation programs in Acuña and Piedras Negras

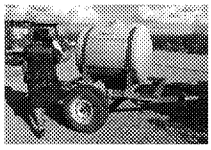
Amistad Task Force Priorities

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

i. Develop awareness programs on vector borne illnesses such as Zika and Dengue virus in Acuña and Piedras Negras

ii. Launch a binational environmental education program on recycling, energy efficiency and water conservation in Eagle Pass and Piedras Negras using social and broadcast media

Falcon Task Force Priorities



Goal 1: Reduce Air Pollution

i. Develop emissions inventory in Tamaulipas border communities and strengthen air quality monitor programs

ii. Establish an automatic air quality monitoring station in Nuevo Laredo

iii. Incentivize members of industry associations and the Nuevo Laredo chamber of commerce to implement energy efficiency projects

iv. Develop climate change programs in Nuevo Laredo and Anahuac

v. Develop air quality mitigation measures by reducing wait times and idling of vehicles, at the Laredo and Nuevo Laredo international bridges

vi. Establish a vehicle emissions program for imported vehicles crossing into Nuevo Laredo

Goal 2: Improve Access to Clean and Safe Water

i. Promote and train households on best practices related to the management of Fats, Oil and Grease (FOG) waste in Laredo

ii. Conduct an assessment on water and wastewater needs in rural areas in Webb County and provide training to water and wastewater operators in these areas

iii. Establish green infrastructure, water conservation and wastewater reuse programs to irrigate green areas in Nuevo Laredo and Laredo

Falcon Task Force Priorities

Goal 3: Promote Materials Management, Waste Management and Clean Sites

i. Strengthen compliance and enforcement programs to eliminate illegal dumpsites in Nuevo Laredo

ii. Develop an environmental education program to promote solid waste management and recycling tools in Laredo, Anáhuac and Nuevo Laredo

iii. Promote and strengthen alternative markets for scrap tire disposal and reuse in Nuevo Laredo, Anáhuac and Laredo

iv. Coordinate simultaneous household hazardous waste programs every two years in Laredo and Nuevo Laredo, to increase the level of participation by residents

v. Conduct a study to develop a facility to dispose construction waste in Nuevo Laredo

vi. Promote the integrated solid waste management program and establish a plastic bag reduction program in Nuevo Laredo

Goal 4: Enhance Joint Preparedness for Environmental Response

i. Provide training to Nuevo Laredo emergency responders on hazardous materials and coordinate a binational tabletop and joint contingency exercise between Laredo and Nuevo Laredo

Falcon Task Force Priorities

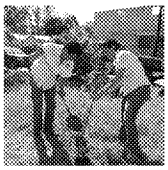
Goal 5: Enhance Compliance Assurance and Environmental Stewardship

- Provide training to Nuevo Laredo officials on environmental compliance and enforcement tools and work with Tamaulipas officials to update local environmental ordinances

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

- Develop a binational environmental awareness program on energy efficiency, water conservation, recycling and prevention of vector borne illnesses in Laredo and Nuevo Laredo

Gulf Task Force Priorities



Goal 1: Reduce Air Pollution

i. Develop the Climate Change Programs in the Mexican municipalities of Valle Hermoso, Rio Bravo, Reynosa and Matamoros

ii. Strengthen the programs of atmospheric monitoring and development of an emission inventory and make operable three PM 10 monitors to collect emission data and compare air quality in nearby areas in Reynosa

Goal 2: Improve Access to Clean and Safe Water

i. Conduct a study regarding the presence of chromium in the management and management of drinking water in the border area

ii. Carry out a study and monitoring in the lower Rio Bravo / Rio Grande regarding the salinity of the water and disseminate the results

iii. Educate residents and commercial users on industrial, oil and grease wastewater management and local pre-treatment and storm water ordinances

iv. Establish actions of green infrastructure and water conservation through educational programs

v. Establish permanent training programs for operators of wastewater treatment plants

vi. Promote strategies for adequate wastewater management in Tamaulipas border municipalities

Gulf Task Force Priorities

Goal 3: Promote Materials Management, Waste Management and Clean Sites

i. Generate comprehensive actions to identify and eliminate illegal trash dump sites

ii. Test new equipment to collect waste from government buildings, hospital, schools and characterize and measure waste to properly develop a municipal waste management plan in Reynosa

iii. Promote the integral waste management in the Mexican municipalities

iv. Promote mechanisms for the management of waste tires, looking for alternatives for their recovery

Goal 4: Enhance Joint Preparedness for Environmental Response

i. Conduct 8 hr HAZMAT (29 CFR 1910.120) refresher training for Matamoros and Reynosa firefighters and 40 hour HAZMAT training for Rio Bravo and Valle Hermoso firefighters, tabletop and full mock exercise using skype and drone technology

ii. Develop a risk analysis in the Harlingen and Los Indios point of entry

iii. Organize a knowledge exchange workshop to assess equipment inventory and training needs, improve communication and emergency response capacity of Hidalgo and Cameron counties and Mexican border municipalities in the Gulf area

iv. Establish a real-time warning system on the water quality conditions of the lower Rio Grande / Río Grande with the objective of generating preventive actions in case of a contingency

Gulf Task Force Priorities

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

i. Implement a bilingual environmental education program in the area of waste recovery

ii. Promote community programs to strengthen public health actions in border municipalities and rural communities, particularly in infants and their risks in their homes

iii. Develop a study that identifies the five top main risks on environmental health in border communities

Border 2020 Active Grants

AVAILABLE FUNDS REGION 6 B2020 Coop Agmts (as of December 2016)							
COOP AGMTS	Amount (thousands)	$934k	$974k	$805k	$108k	$335k	Balance
	Awarded	Sept 2012	Sept 2011	Aug 2015	Jan 2014	Sept 2014	
	Expires	Dec 2017	Feb 2017	Aug 2017	Dec 2017	Aug 2017	
TASKS	RFP	$3,585	$0	$33,117	$0	$0	$36,702
	Projects	$119,658	$0	$382,846	$0	$16,565	$519,069
	Logistics	$16,036	$4,829	$65,000	$22,281	$0	$108,146
	BECC Presence	$5,556	$0	$0	$1,818	$0	$7,374
	Indirect Cost	$14,484	$482	$48,096	$2,410	$1,656	$67,129
Total		$159,320	$5,311	$529,059	$26,509	$18,221	$738,420

The box shaded in red-reflects the current funding that BECC has available for sub-award projects

4 State Region Border Goal 1 Projects

Name	Description	Goal	Status	Workgroup	Community	State	Country	Total_Cost	Approved_Amount	Leverage_Amount
Characterization of drayage activities and emissions in Laredo-Nuevo Laredo airshed	A detailed characterization of the activity of the trucks in the region of Laredo-Nuevo Laredo. provide an understanding of the regional activity of the trucks and their implications for air quality, responsible for state and local transportation agencies border and air quality. With this information, decision makers and planners can develop strategies and policies that address the needs of transportation and air quality in the region as a binational regional level. The data, methodologies and information generated by the project could potentially be used to characterize the activities of trucks in other locations along the border.	Goal 1	Concluded	R6 TX- NL - COAH - TAMPS	Laredo	TX	USA	$89,750	$89,750	-
Workshop on Energy Efficiency in Public Lighting Systems in Tamaulipas	Train at least 30 public officials from 10 municipalities with basic tools to achieve greater energy efficiency and that this is reflected in a decrease in the emission of greenhouse gases into the atmosphere and in turn into economic savings for municipal utilities		Concluded	R6 TX- NL - COAH - TAMPS	Reynosa	TAMPS	MEX	$17,497	$9,535	$7,962.00

4 State Region Border Goal 2 Projects

Name	Description	Goal	Status	Workgroup	Community	State	Country	Total_Cost	Approved_ Amount	Leverage_Amount
Conservation: Arroyo Las Vacas in Acuña, Coahuila, Mexico	This project involves the conservation and recovery of Arroyo Las Vacas, this being a tributary of the Rio Grande river which crosses the border city of Acuna.	Goal 2	Concluded	R6 TX- NL - COAH - TAMPS	**Cd. Acuna**	**COAH**	MEX	$39,875.00	$39,875.00	-
Planning Model for an Environmental and Health Texas/Mexico Border Information Exchange Program	The overall goal of this project is to develop the framework for a system, including processes in phases and specific steps, required for the development of a bi-national environmental and health tracking system		Concluded	R6 TX- NL - COAH - TAMPS	**Piedras Negras**	**COAH**	MEX	$47,663.00	$39,875.00	$7,788.00
Determining the Ideal Bioswale Porous Material for South Texas Stormwater Management	To evaluate performance of parking lot bioswale by comparing its stormwater discharges and solids against those of conventional parking lot with no bioswale,to develop the best performing bioswale mixture from the materials tested in the prototype bioswales.		In Progress	R6 TX- NL - COAH - TAMPS	**Edinburg**	**TX**	USA	$32,350.00	$26,022.00	$6,328.00
The Rio Grande/Rio Bravo Water Quality Initiative	The University of Texas at Austin (UT), proposes to advance on Goal 2, Objective 3 by providing information to local binational stakeholders, about sources of water pollution to the Rio Grande and by gathering information from key stakeholders about potential local solutions to the river's water quality problems in the portion of the river between Falcon Dam and the Gulf of Mexico. The project proposes to organize 5 workshops and develop MOU among stakeholders.		In Progress	R6 TX- NL - COAH - TAMPS	**Laredo**	**TX**	USA	$78,422.00	$58,575.00	$19,847.00
Fat, Oil and Grease (FOG) Public Outreach Campaign in Brownsville, Texas	The Brownsville Public Utilities Board, a government entity, proposes to advance on Goal 2, Objective 2 by implementing a public FOG campaign, targeting businesses with violations and reaching out to them. It will also provide education through community outreach and public awareness through 4 quarterly workshops. The grant will help leverage funds of $49,561 from the City.		In Progress	R6 TX- NL - COAH - TAMPS	**Brownsville**	**TX**	USA	$49,561.00	$25,000.00	$24,561.00
Public Awareness Program for the FOG Program in Matamoros	The Junta de Aguas y Drenaje from the City of Matamoros, proposes to advance on Goal 2 Objective 2 by providing training to businessess and industries about the control of wastewater discharges in Matamoros. There will be 10 workshops and wastewater testing. The goal is to train 50% of the users involved in the implementation of this Regulation Program to control discharges and perform wastewater FOG testing to 10% of users.		Concluded	R6 TX- NL - COAH - TAMPS	**Matamoros**	**TAMPS**	MEX	$50,000.00	$25,000.00	$25,000.00
Decision Making Tool (DMTG) for Stormwater in The lower Rio Grande Valley in Texas	The project will promote specific research and educational topics emphasizing how green infrastructure strategies can be utilized to mitigate stormwater runoff.		In Progress	R6 TX- NL - COAH - TAMPS	**Hidalgo County**	**TX**	USA	$45,885.00	$38,885.00	$7,000.00

4 State Region Border Goal 3 Projects

Name	Description	Goal	Status	Workgroup	Community	State	Country	Total_Cost	Approved_ Amount	Leverage_Amount
Keeping Pharr Beautiful…Starts at Home	Increase outreach and awareness surrounding illegal dumping, also help the cities beautification efforts by increasing volunteer opportunities and encouraging the labors of community cleanup programs such as Operation Clean Sweep	Goal 3	Concluded	R6 TX- NL - COAH - TAMPS	**Pharr**	**TX**	USA	$102,060.00	$20,000.00	$82,060.00
Waste generation Diagnostic in the Noresat border region	Implement a comprehensive management plan for the management of hazardous solid waste, special handling waste in medium-sized communities in the northeastern state of Nuevo León		Concluded	R6 TX- NL - COAH - TAMPS	**Sabinas**	**COAH**	MEX	$21,798.00	$21,798.00	-
Management of Fat, Oil and Grease in Nuevo Laredo	Disseminate to all generators of fats and oils as well as proper disposal retainer cleaning grease traps and the consequences that brings pour fats and oils down the drain		Concluded	R6 TX- NL - COAH - TAMPS	**Nuevo Laredo**	**TAMPS**	MEX	$47,161.00	$32,533.00	$14,628.00
Alamo's recycling solid waste systems improvements through a holistic approach	Increase the volume of collected recyclables, create environmental stewardships through education, create an identifiable solid waste mascot, and bring together all identifiable stakeholders to bring about holistic change within the community		Concluded	R6 TX- NL - COAH - TAMPS	**Alamo**	**TX**	USA	$61,836.00	$54,836.00	$7,000.00
Scrap Tire Collection Program, City of Pharr	The City of Pharr will implement a scrap tire collection event during their monthly Operation "Clean Sweep", community clean up event		Concluded	R6 TX- NL - COAH - TAMPS	**Pharr**	**TX**	USA	$35,500.00	$15,000.00	$20,500.00
Comprehensive management project of solid waste in Rio Bravo and Valle Hermoso, Tamaulipas	The project consists in conduct a Basic Diagnosis on the Comprehensive Management of Municipal Solid Waste in the municipalities of Rio Bravo and Valle Hermoso		Concluded	R6 TX- NL - COAH - TAMPS	**Rio Bravo**	**TAMPS**	MEX	$20,866.00	$20,866.00	-
Comprehensive management of electronic waste project in Piedras Negras and Eagle Pass, Texas	The project consists of a program of environmental education and health to join efforts in collecting electrical and electronic solid waste in the city of Piedras Negras, Coahuila e Eagle Pass in Texas		In Progress	R6 TX- NL - COAH - TAMPS	**Piedras Negras**	**COAH**	MEX	$36,054.00	$36,054.00	-
Clean in up program at City of Pharr, Texas	The project consists in educate City of Pharr residents on environmental sustainability and related proper solid waste disposal methods.		In Progress	R6 TX- NL - COAH - TAMPS	**Pharr**	**TX**	USA	$120,762.00	$36,390.00	$84,372.00
Electronic Waste Management project in Ciudad Acuña, Piedras Negras and Guerrero in Coahuila	Inform and educate residents about the benefits of reusing electronics, the need to practice responsible consumption, as well as the importance of giving an appropriate final destination for these wastes		In Progress	R6 TX- NL - COAH - TAMPS	**Cd. Acuna**	**COAH**	MEX	$79,345.00	$16,777.00	$62,568.00

4 State Region Border Goal 4 Projects

Name	Description	Goal	Status	Workgroup	Community	State	Country	Total_Cost	Approved_ Amount	Leverage_Amount
Promotora-Led Environmental Health Education for Children, Eagle Pass, Texas	The promotora (community health worker) model will be used for reaching out to parents and care givers, school teachers and child care providers with the aim of improving environments in and around the home, school and childcare facility.	Goal 4	Concluded	R6 TX- NL - COAH - TAMPS	**Eagle Pass**	**TX**	USA	$79,463.00	$69,000.00	$10,463.00
McAllen-Mission-Pharr/Reynosa Hazards in Transportation Binational Training and Exercise	The project objective is to strength the response capacity providing proper training and equipment to hazmat first responders in the areas of McAllen-Mission-Pharr-Reynosa. More than 100 hazardous-material carrying trucks travel through the ports of entry in South Texas. The McAllen Fire Department staff in conjunction with the Mission and Pharr Fire Departments will join forces to work together to update the emergency notification related to hazmat emergencies.		Concluded	R6 TX- NL - COAH - TAMPS	**McAllen**	**TX**	USA	$213,810.00	$70,510.00	$143,300.00
Binational Tabletop and Functional Exercises between the cities of Harlingen and Matamoros	The City of Harlingen Fire Department, proposes to advance on Goal 4, Objective 2 by the implementation of a hazmat training, a tabletop, and a functional exercise. Proposed Scenario consists of a tanker trailer roll-over accident carrying a petro product spilling into Mexico waterways. The City of Harlingen presents a sister city agreement since 2014 to support mutual emergency response aid. Project will involve partnering with first responders from Matamoros and Cameron County. The project will help to promote sustainability by practicing the last update of the sister contingency plan to evaluate its reliability		Concluded	R6 TX- NL - COAH - TAMPS	**Harlingen**	**TX**	USA	$44,683.00	$44,683.00	-

4 State Region Border Goal 5 Projects

Name	Description	Goal	Status	Workgroup	Community	State	Country	Total_Cost	Approved_ Amount	Leverage_Amount
Law Reform and Environmental Education in Nuevo Laredo	The Universidad Autónoma de Tamaulipas, proposes to advance on Goals 2, 3 and 5 by improving the implementation of environmental legislation, strengthen the environmental cooperation and exchange of information between Nuevo Laredo, Tamaulipas and Laredo, Texas, and train environmental inspectors and staff of the municipal environmental unit. The grant will help leverage funds with $5,500 from Universidad Autónoma of Tamaulipas	Goal 5	In Progress	R6 TX- NL - COAH - TAMPS	**Nuevo Laredo**	**TAMPS**	MEX	$16,500.00	$11,000.00	$5,500.00
Energy Efficiency Workshop for Municipal Public Lighting Systems in Tamaulipas	The Secretaria de Desarrollo Urbano y Medio Ambiente, from the government of Tamaulipas, proposes to advance on Goal 1, Objective 2 by the implementation of a integral training program.The objective is to train 30 municipal officers from 10 municipalities in energy efficiency (municipal street lighting and energy efficiency on building and facilities), as well as the implementation of a train the trainer program.		Proposed	R6 TX- NL - COAH - TAMPS	**Matamoros**	**TAMPS**	MEX	$14,310.00	$9,385.00	$4,925.00

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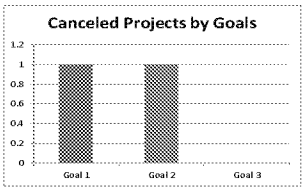
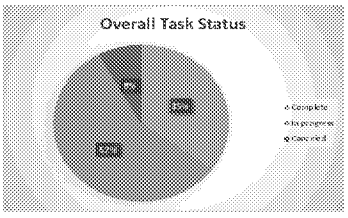
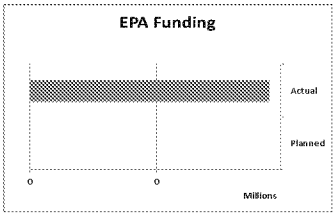
4 State Region Border Project Status

Region	Completed projects completely approved by EPA	Completed projects partially approved by EPA	Funding to be completed	Canceled Projects	Status
R6 TX- NL - COAH - TAMPS	5	8			Completed
R6 TX- NL - COAH - TAMPS			13		In Progress
R6 TX- NL - COAH - TAMPS				2	
Totals	**5**	**8**	**8**	**2**	**23**







The United States plays a leadership role in working with other nations to protect the global environment

UNITED STATES OF AMERICA and MEXICO Signed La Paz Agreement on August 14, 1983

- ARTICLE 1 The United States of America and the United Mexican States, hereinafter referred to as the Parties, agree to cooperate in the field of environmental protection in the border area on the basis of equality, reciprocity and mutual benefit. The objectives of the present Agreement are to establish the basis for cooperation between the Parties for the protection, improvement and conservation of the environment and the problems which affect it, as well as to agree on necessary measures to prevent and control pollution in the border area, and to provide the framework for development of a system of notification for emergency situations. Such objectives shall be pursued without prejudice to the cooperation which the Parties may agree to undertake outside the border area.

The Border XXI Program

- Was a binational, interagency program aimed at protecting and improving the environment and environmental health, while fostering sustainable development in the U.S.-Mexico border area. The objectives of the Border XXI Program included public involvement, decentralization of border decision making, and increased cooperation between the different governmental agencies operating in the border region. The program was implemented through nine binational Workgroups that integrated the efforts of other participating entities and defined specific projects that achieved the Program's objectives.

Border 2012 Program

- Was based on a bottom-up, regional approach, which relies heavily on local input, decision-making, priority-setting, and project implementation to best address environmental issues in the border region. The bi-national program focused on cleaning the air, providing safe drinking water, reducing the risk of exposure to hazardous waste, and ensuring emergency preparedness along the U.S.-Mexico border. From to 2005 to 2012, the U.S.-Mexico Border 2012 Program achieved its goals and objectives by completing approximately 200 environmental projects.

Border 2020:Program

- Is a collaborative effort of the United States and Mexico to improve the environment and protect the health of the nearly 12 million people living along the border. The binational program focuses on cleaning the air, providing safe drinking water, reducing the risk of exposure to hazardous waste, and ensuring emergency preparedness along the U.S.-Mexico border.

Border Environment Infrastructure Fund

Funded by EPA, this program offers grant financing exclusively for the implementation of high-priority municipal drinking water and wastewater infrastructure projects located within 100 kilometers of the U.S.-Mexico border.

NADB established the BEIF to administer grant resources provided by EPA for the implementation of high-priority municipal drinking water and wastewater infrastructure projects in the border region.

The objective of the BEIF program is to make infrastructure projects affordable by combining grant funds with loans and other forms of financing for communities along the border. It is designed to reduce project debt to a manageable level in cases where utility customers would face undue financial hardship and projects could not be implemented.

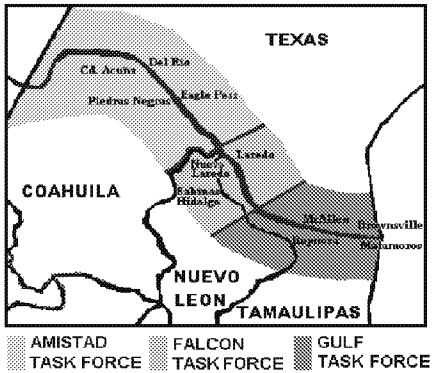
Project Development Assistance Program

The Project Development Assistance Program (PDAP), for project development and design, and the Border Environment Infrastructure Fund (BEIF), for construction, are programs funded by the U.S. Congress through EPA and are administered by BECC and NADB, respectively.

The PDAP grant funds, supported by EPA's US-Mexico Border Program are available for public water and wastewater infrastructure projects identified through a program-specific prioritization process.

Thank You

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



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

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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

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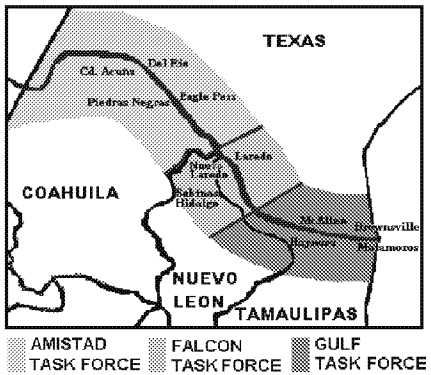
Border 2020

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
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.							
1.1.01	**Characterization of Drayage Activities & Emissions Laredo-Nuevo Laredo Airshed** Develop a detailed characterization of the drayage activity in the Laredo-Nuevo Laredo region and its air quality implications.	Texas A&M Transportation Institute	$89,750	Border 2020	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu (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

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							October 2015 workshop to share the findings. The study is complete.
1.1.02	**Emissions from Long Haul Mexican Diesel Trucks in Laredo-San Antonio Corridor** Survey diesel truck activity and evaluate typical Mexican diesel truck emissions along Laredo-San Antonio Corridor.	Texas A&M Transportation Institute	$100,000	EPA, TCEQ	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu (512) 467-0946	Collecting and analyzing data. TTI presented findings and reported in August 2015.	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&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.
Objective 3: By 2018, maintain effective air monitoring networks and provide real-time access to quality data.							
1.3.01	**Update of the Ecological Program Code for the Cuenca de Burgos Region, Tamaulipas**	SEDUMA	2 Million Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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.	The external consultant completed all program updates that included modifications to the current code model. The updated study was revised and certified by the Ecological Program Code Committee of Tamaulipas. The project is complete.

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	**Municipal Climate Action Plan of San Fernando, Tamaulipas**	SEDUMA, Gobierno Municipal de San Fernando, Tamaulipas	2.199 Million Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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	**Tamaulipas State Climate Change Program**	SEDUMA Tamaulipas	$200,000	Banco Interamericano de Desarrollo (BID)	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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	**Energy Efficiency in Municipal Public Lighting Systems of Tamaulipas** 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 Lliteras SEDUMA Tamaulipas heberto.cavazos@tamaulipas.gob.mx 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	**Coahuila Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC, in Spanish) for Coahuila: Quantification of the mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	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	**Air Quality Network in Coahuila** Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	SEMA (Coahuila), Municipalities of Piedras Negras, Acuña, Nava, Sabinas, Saltillo	12 Million Pesos	SEMARNAT	Santiago Barrios, SEMA/Coahuila, santiago.barrios@sema.gob.mx	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	**Tamaulipas Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC) for Tamaulipas: Quantification of the mitigation public policies selected in Phase 1.	Tamaulipas State Government and BECC	$300,000	BECC, BID	Tomás Balarezo, BECC, tbalarezo@cocef.org	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	**Ambient Air Monitoring System** Strengthen Tamaulipas' ambient air monitoring system.	SEDUMA Tamaulipas	Annually: 250,000 Pesos (150,000 Municipal & 100,000 State)	SEDUMA, City Council of Matamoros	Biól. Jorge García, jgarciah@tamaulipas.gob.mx 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	**Green Infrastructure Workshop**	SEMA, COCEF		SEMA, COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	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.

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
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.							
2.2.01	**Upgrade Nuevo Laredo Sewer Line Infrastructure** 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, dgcdelfino@comapanuevolaredo.gob.mx	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	**Nuevo Laredo Management of Fats, Oils, and Grease (FOG)**	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				jcarlos_faz@hotmail.com 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	**Ideal Biological Filtration Material South Texas Storm Water Management** 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 jungseok.ho@UTRGV.edu	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	**Decision Making Tool for Determining Storm Water Detention** 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 Javier.Guerrero@tamuk.edu	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	**Removal of Invasive Plants** Implement a program to remove invasive plants in the Rio Grande.	SEMA Coahuila, CONANP, PROFAUNA, WWF, Slim Foundation	1.5 Million Pesos Annually	SEMA Coahuila, CONANP, Profauna WWF, Slim Foundation	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx 01152844 410-0014	Plant Control: removal by year, in hectares (ha) 2015: *Tamarix* 34 ha and Carrizo 40 ha 2016: *Tamarix* 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 *Tamarix* 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	**Conservation of Arroyo Las Vacas** Design and implement actions to improve water quality and promote an adequate habitat for flora and fauna species in the Arroyo Las Vacas.	Ciudad Acuña Environment Department, SEMA Coahuila	$44,200	Border 2020	Lic. Alejandra Carrera, Secretaria de Medio Ambiente de Coahuila, alejandra.carrera@sema.gob.mx 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	**Lower Rio Grande Binational Water Quality Initiative (LRGWQI)** 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	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, Kelly.holligan@tceq.texas.gov		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	**Fat, Oil and Grease (FOG) Public Outreach Campaign** 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	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	**Dissemination and Awareness of the Regulations for the Control of Discharges** Promotion and dissemination of local discharge regulations among stakeholders to enable their implementation and enforcement through training workshops	Junta de Aguas y Drenaje – Matamoros, Tamaulipas	$25,000	Border 2020	Arkelao López JAD Matamoros 868 150-21-30 arkelao57@gmail.com	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	**Supporting Local Stakeholder Participation in the Lower Rio Grande/Rio Bravo Water Quality Initiative**	University of Texas at Austin	$58,575	Border 2020	Dr. David Eaton eaton@mail.utexas.edu	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.	

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
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices							
3.1.01	**Nuevo Laredo Environmental Education Program** Establish an environmental organization to develop environmental awareness and clean-up programs in Nuevo Laredo in affiliation with Keep America Beautiful	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, lnava1@ci.laredo.tx.us 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	**Characterization of Municipal Solid Waste, Waste Streams & an Evaluation Regarding Generation/Management of Waste** 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, normaarangel@gmail.com 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	**Operation of an Electronic and Household Hazardous Waste Collection Center**	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, cdeandah@hotmail.com	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	**Environmental Ordinance for the Disposal of Construction Waste**	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, cdeandah@hotmail.com	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	**Keep Pharr Beautiful Clean-up Campaign**	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.				grace.gonzales@pharr-tx.gov	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	**Alamo's Recycling TEAM Includes Everyone** 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	**Clean-up of Urban Solid Waste Disposal Site in Guerrero, Tamaulipas**	SEDUMA, Municipio de Guerrero, Tamaulipas	3.169 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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	**Construction and Equipment of the First Phase of the Type A Landfill in Río Bravo, Tamaulipas**	SEDUMA, Municipio de Río Bravo, Tamaulipas	19.359 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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	**Construction of and Equipment for Type A Landfill in the Coal Deposit Region**	SEMA, SEMARNAT, Municipalities of Múzquiz and Sabinas	25 Millones Pesos	SEMARNAT PEF 2015	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construction and operation.	Conduct soil studies. Under analysis prior to request for bids. The project is still in progress.
3.1.10	**Construction of and Equipment for a Regional Landfill in the Municipalities of Juárez and Progreso, Coahuila**	SEMA, Municipality of Juárez and Progreso	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construction and operation.	Under analysis prior to request for bids. The project is still in progress.
3.1.11	**Construction of and Equipment for two Urban Solid Waste Transfer Stations in the Municipality of Múzquiz, Coahuila**	SEMA, Municipio de Múzquiz	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construction and operation.	Under analysis prior to request for bids. The project is still in progress.
3.1.12	**RECOLECTRÓN Program** Collection program for used electronics in the municipalities.	SEMA, Municipalities of Acuña, Allende, Nava and Sabinas	2 Million Pesos	SEMA	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx	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	**Responsible Disposal of Tires** 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, floresdiegocarlos@yahoo.com.mx	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	**Disposal of Used Electronic and Hazardous Waste** Create a storage center for the special management of waste, in which	Municipality of Acuña, Coahuila	$12,500	Municipality of Acuña Coahuila	Biól. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx	Develop the municipal infrastructure for storing, managing, and disposing of used electronic and hazardous waste.	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.
3.1.15	**Scrap Tire Management Program** Design and implement a state scrap tire management program that includes valuation.	SEDUMA Tamaulipas	400 Million Pesos	SEDUMA, SEMARNAT, EPA	Biól. Jorge García, jgarciah@tamaulipas.gob.mx 834 1078291	Work with each of the state's northern border cities to systematically regulate the temporary storage and collection of used tires.	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.

3.1.16	**Strengthen Solid Waste Programs** 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.	SEDUMA Tamaulipas	$20,866	Border 2020	Oc. Heberto Cavazos Lliteras , SEDUMA, ssma@tamaulipas.gob.mx	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	**Let's Clean it Up and Green it Up** 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.	City of Pharr	$36,390	Border 2020	Grace Gonzalez, Pharr Public Works Department, grace.gonzales@pharr-tx.gov	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	**Electronic Waste Recycling** Develop an educational campaign aimed at reducing used electronics by creating an integrated electronic waste recycling program and promoting sustainable practices	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	$36,054	Border 2020	Ing. Víctor Ibarra, Instituto Tecnológico de Piedras Negras, ing_victor_m@prodigy.net.mx	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. 18,0000 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	**Used Electronic Recycling** 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 oscar.flores@sema.gob.mx	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
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.							
4.2.01	**Update Cross-Border Contingency Plan** 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, slandin@ci.laredo.tx.us 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, Juan.u8a@hotmail.com 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	**Hazardous Materials First Responder Binational Training in McAllen-Mission-Pharr, TX and Reynosa, Tamaulipas**	City of McAllen Fire Department	$75,000	Border 2020	Juan A Gloria Jr, Deputy Chief McAllen, jgloria@mcallen.net 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 Fermando 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	**Binational Tabletop and Functional Exercises between the cities of Harlingen and Matamoros**	City of Harlingen Fire department	$60,000	Border 2020	Rogelio Rubio Harlingen Fire Chief rrubio@myharlingen.us	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 combination of air quality, water quality, water conservation, or waste management							
6.0.01	**Piedras Negras Urban Forest**	SEMA, Municipio of Piedras Negras, SEMARNAT	15 Million Pesos	SEMARNAT	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx	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	**Strengthening School Networks and Global Climate Change Surveillance "Casa de Tierra"**	SEDUMA, Municipal Government of Reynosa	$ 66 Million	Gobierno del Estado de Tamaulipas, SEMARNAT	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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	**Expansion of Environmental Management Systems Program** 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 Participants	Dra. Silvia Casas, SEDUMA, silvia.casas757@gmail.com	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.

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6.0.04	**Information Model for Health & Environmental Planning Along the Texas-Mexico Border** Development of a conceptual framework for a binational environmental and health information repository.	El Colegio de la Frontera del Norte	$39,875	Border 2020	Dr. Felipe Uribe, COLEF, ursafeja@gmail.com 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	**Promotora-Led Environmental Health Education for Children** 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 heath promotoras, who subsequently will provide educational information in elementary schools, child care settings and to colonia residents.	La Amistad AHEC and Southwest Border AHEC	$69,083	Border 2020	Rosa Elvira Martinez, Southwest Area Border Health Education Center, rose.martinez@swbahec.org (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	**Environmental Education and Legislative Action Reforms**	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

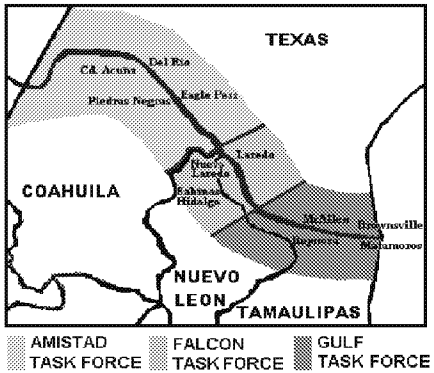
	Improve the implementation of environmental legislative reforms by exchanging information on environmental education and enforcement regulations that will improve air quality, environmental compliance and solid waste management in Laredo and Nuevo Laredo	Comercio, Administración y Ciencias Sociales de Nuevo Laredo			jaherrera@uat.edu.mx	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.	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.

FRONTERA 2020

Plan de Acción 2015-2016

Grupo de Trabajo Regional TX-COAH-TAMP-NL

Diciembre del 2016



El Grupo de Trabajo Regional de los Cuatro Estados es el más complejo de los cuatro grupos regionales, debido a su extensión geográfica y el número de municipios que lo integran. La región incluye partes de los tres estados y por lo menos 29 municipios del lado mexicano y 168 ciudades y centros poblados del lado estadounidense. Reconociendo lo anterior, este grupo de trabajo se dividió en tres equipos de trabajo con un enfoque geográfico: Amistad, Falcón, y el Golfo, cada uno de los cuales ha creado comités para temas específicos relacionados con sus prioridades.

Frontera 2020 tiene cinco metas y los grupos regionales de trabajo proponen proyectos para poner en práctica estos objetivos. A estos proyectos se les da un seguimiento a través de los planes de acción revisables cada dos años. La versión 2015-2016 es el segundo de su tipo. Varios proyectos han sido prorrogados del Plan de Acción 2013-2014, debido a un consenso por parte del grupo de trabajo de los cuatro estados, se incluyó una sexta meta para proyectos de salud y educación. Los proyectos son organizados por Frontera 2020 en metas y objetivos.

Durante el primer semestre de 2015, los tres equipos de trabajo llevaron a cabo reuniones para discutir las prioridades iniciales para el Plan de Acción 2015-2016, así como varias conferencias telefónicas de líderes se celebraron en junio de 2015 para desarrollar un consenso de las prioridades en cada equipo de trabajo y a nivel del grupo regional de trabajo.

Prioridades Regionales

1. Mejorar la calidad del aire a través de los siguientes enfoques:
   a. Incrementar la eficiencia energética a nivel de consumo y el uso de energías renovables en todos los niveles pertinentes
   b. Analizar las emisiones y sus fuentes en cuencas atmosféricas específicas

2. Mejorar la calidad del agua mediante la adopción de las siguientes medidas:
   a. Evaluar la parte de la cuenca del Río Bravo que se encuentra en esta región
   b. Establecer programas de aplicación de la ley para prevenir la contaminación de los cuerpos de agua en el lado mexicano
   c. Mejorar la infraestructura del agua con respecto a respecta a los sistemas de tratamiento y distribución en las zonas rurales

3. Abordar los problemas de la disposición inadecuada de los residuos

4. Ayudar a las comunidades a desarrollar capacidades para los flujos de residuos, mediante la implementación de reciclaje, recolección de residuos peligrosos y electrónicos domésticos y programas de disposición, y el desarrollo de planes integrales para la disposición de llantas de desecho y los mercados alternativos

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5. Ampliar la educación ambiental relacionada con el tema de los residuos

6. Mejorar la Preparación Conjunta para la Respuesta Ambiental
   a. Proveer capacitación HAZMAT a personal de respuesta a contingencia locales para reducir la exposición a sustancias químicas como resultado de la emisión de sustancias químicas accidentales y/o derrames
   b. Coordinar ejercicios de mesa de preparación de respuesta a emergencias o en campo

7. Desarrollar un curriculum de salud ambiental certificado para capacitar trabajadores de salud comunitario y promotoras sobre pesticidas, plomo, mercurio, y otros metales pesados

Prioridades Individuales de Cada Equipo de Trabajo

Equipo de Trabajo Amistad

1. Generar planes para mitigar los impactos del cambio climático en Coahuila
2. Establecer estaciones de monitoreo de calidad del aire e intercambiar datos con Texas
3. Desarrollar una base de datos para medir las emisiones de las operaciones de fractura hidráulica en Coahuila
4. El aumento del uso de fuentes de energías alternativas y renovables (como el bio gas de relleno sanitario y energía solar)
5. Desarrollar programas de conservación y reutilización de agua para riego en Coahuila
6. Establecer programas de gestión de residuos en diez municipios de Coahuila (incluyendo residuos electrónicos, gestión de residuos peligrosos y su reciclaje)
7. Desarrollar y promover programas de gestión de llantas de desecho, reciclaje y residuos sólidos en la reservación Kickapoo

Equipo de Trabajo Falcón

1. Realizar un estudio sobre el uso del gas metano para la generación de energía en los rellenos sanitarios
2. Monitorear e seguimiento de las operaciones de perforación en el Eagle Ford Shale y en el lado mexicano
3. Finalizar el plan de contingencia transfronteriza
4. Generar estudios y proyectos para la reutilización y la conservación del agua
5. Desarrollar una gestión adecuada, mercados alternativos (como trituradores de neumáticos) y reglamentos para llantas de desecho
6. Establecer programas referentes a residuos electrónicos y residuos peligrosos domésticos en los municipios del Equipo de Trabajo Falcón
7. Desarrollar un estudio de diagnóstico en materia de generación y los mercados alternativos para residuos de la construcción en el Equipo de Trabajo Falcón
8. Desarrollar un taller de trabajo sobre las mejores prácticas relacionadas con la salud pública y los indicadores de educación ambiental

Equipo de Trabajo del Golfo

1. Programas para mejorar la eficiencia energética.
2. Educar a la comunidad sobre cómo mejorar la calidad del agua
3. Mejorar o desarrollar programas de gestión para el Pretratamiento Industrial, Grasas y Aceites, y aguas pluviales.
4. Aumentar la conciencia ambiental y la responsabilidad con respecto a efectos de la salud en residentes municipales, comunitarios rurales y colonias populares provenientes de los residuos sólidos y las aguas residuales
5. Capacitación para Promotoras en Viviendas Saludables a lo largo de la frontera de Estados Unidos - México en el Equipo de Trabajo Golfo

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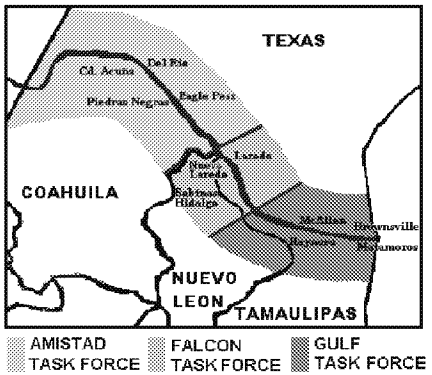
Frontera 2020

Esquema del Plan de Acción 2015-2016
del Grupo de Trabajo Regional de los Cuatro Estados

Leyenda:

- Actividad que abarca áreas de por lo menos dos Equipos de Trabajo
- Equipo de Trabajo del Golfo
- Equipo de Trabajo Falcón
- Equipo de Trabajo Amistad



META # 1: Reducir la Contaminación del Aire

Proyecto Nº	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objetivo 1: Para el año 2020, reducir el número de vehículos que operan en la región fronteriza sin cumplir con las normas sobre emisiones vehiculares, y reducir las emisiones vehiculares en los puertos de entrada, aplicando medidas contra la marcha en vacío y otras medidas de reducción factibles.							
1.1.01	**Caracterización de las Actividades y Emisiones de Tracto Camiones de Carga en la Cuenca Atmosférica Laredo-Nuevo Laredo** Desarrollar una caracterización detallada de la actividad de acarreo en la región de Laredo-Nuevo Laredo y sus implicaciones de calidad del aire.	Texas A&M Transportation Institute (TTI)	$89,750	Frontera 2020	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu (512) 467-0946	Recopilar información de la actividad en los vehículos de acarreo para estimar sus emisiones e impactos en la cuenca atmosférica de Laredo y Nuevo Laredo.	El estudio indicó que el puente de comercio mundial tiene una alta concentración de partículas suspendidas debido al tiempo de espera para el cruce de camiones y que la disminución de velocidad por los camiones de carga y sus movimientos coincidían con el alto nivel de partículas suspendidas en el puente y en áreas urbanas, en base a su destino. TTI organizó

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							un taller en diciembre del 2015 para compartir los resultados. El proyecto ya concluyó.
1.1.02	**Emisiones de Tracto Camiones Mexicanos de Diésel en el Corredor Laredo – San Antonio** Encuesta de la actividad de tracto camiones de diésel y la evaluación der las emisiones típicas de los tracto camiones diésel mexicanos a lo largo del corredor Laredo-San Antonio.	Texas A&M Transportation Institute	$100,000	EPA, TCEQ	Dr. Reza Farzaneh,TTI, Reza.Farzaneh@tamu.edu, (512) 467-0946	Recolección y análisis de datos. TTI presentó los resultados y entregó el informe final en Agosto del 2015.	Se espera que incremente la contribución de las emisiones de fuentes móviles de diésel al inventario de emisiones atmosféricas de las áreas del Eagle Ford Shale y San Antonio. En el 2014-2015 la TCEQ manejó un proyecto con el TTI para medir el volumen actual y anticipar incrementos en el tráfico de camiones y remolques de carga pesada en el corredor de la carretera interestatal 35 entre Laredo y San Antonio. Los resultados del proyecto ayudaron en la planeación para mantener la calidad del aire en San Antonio a raíz del aumento del tráfico de camiones de diésel. TTI entregó un reporte final con sus resultados a la TCEQ. El proyecto ya concluyó.
Objetivo 3: Para 2018, mantener sistemas eficaz de monitoreo del aire y proveer acceso a los datos cualitativos en tiempo real.							
1.3.01	**Actualización del Programa de Ordenamiento Ecológico de la Región Cuenca de Burgos, Tamaulipas**	SEDUMA	2 Millones Pesos	SEDUMA, SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Formular un Sistema de Monitoreo y Evaluación de los Indicadores Ambientales más relevantes del Ordenamiento Ecológico, considerando el desempeño de estos; definiendo métricas que permitan medir la	El consultor concluyó los trabajos de la actualización del programa con las propuestas de modificaciones al modelo de ordenamiento vigente. El estudio actualizado fue revisado y validado por el Comité de Ordenamiento Ecológico de Tamaulipas. El proyecto ya concluyó.

						eficacia de las estrategias y políticas definidas en el ordenamiento.	
Objetivo 4: Para el año 2020, apoyar la finalización de planes de acciones de cambio climático en cada uno de los seis estados mexicanos norteños fronterizos y construir la capacidad necesaria para garantizar su implementación sustentable.							
1.4.01	**Plan de Acción Climática Municipal de San Fernando, Tamaulipas**	SEDUMA, Gobierno Municipal de San Fernando, Tamaulipas	2.199 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Elaboración de un instrumento de planeación de políticas públicas para el desarrollo de acciones y estrategias para mitigar las emisiones de Gases de Efecto Invernadero, reducir la vulnerabilidad del municipio de manera tal que se aumente la capacidad de adaptación al Cambio Climático.	El proyecto no se llevó a cabo debido a que el recurso por parte de la Federación no fue asignado.
1.4.02	**Programa Estatal de Cambio Climático de Tamaulipas**	SEDUMA Tamaulipas	$200,000	Banco Interamericano de Desarrollo (BID)	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Actualizar el inventario de emisiones de gases efecto invernadero y desarrollar la agenda de adaptación al cambio climático.	El programa fue presentado por el Gobernador de Estado en el seno de la Segunda Sesión Ordinaria de la Comisión Intersecretarial de Cambio Climático del Estado de Tamaulipas (CICCTAM). Actualmente, se encuentra en proceso de publicación en el Periódico Oficial del Estado. El proyecto ya concluyó.

1.4.03	**Eficiencia Energética en Sistemas de Alumbramiento Público Municipal de Tamaulipas** Concientizar y sensibilizar al personal técnico sobre la responsabilidad en la operación y uso en las administraciones actuales para el ahorro de energía en sistemas de alumbrado y edificios e instalaciones en los 10 municipios fronterizos del estado.	SEDUMA Tamaulipas	$9,385	Border 2020	Ocean. Heberto Cavazos Lliteras SEDUMA Tamaulipas heberto.cavazos@tamaulipas.gob.mx 01 (834) 107-82-60	Capacitar 30 servidores públicos de 10 municipios con herramientas básicas para lograr una mayor eficiencia energética y que ello se refleje a su vez un ahorro económico.	Se impartieron dos talleres de Eficiencia Energética en Sistemas de Alumbrado Público y en Edificios e Instalaciones Municipales. Se contó con la participación de 30 participantes en total, 17 en el primer taller y 13 en el segundo. La población beneficiada de los 10 municipios se estima 733 mil habitantes. El proyecto ya concluyó.
Objetivo 5: Para el año 2020, reducir las emisiones y los impactos asociados por medio de la eficiencia energética y/o proyectos de energía alternativa o renovable.							
1.5.01	**Plan de Acción Climática de Coahuila** Está en proceso la Etapa 2 del Plan Estatal de Acción Climática (PEAC) de Coahuila: Cuantificación de las políticas públicas de mitigación seleccionadas en la Etapa 1.	Gobierno del Estado de Coahuila y COCEF	$275,000	COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Evaluación econométrica de las políticas públicas de mitigación seleccionadas en la Etapa 1.	Se lleva a cabo la Etapa de Análisis Microeconómico de Políticas Públicas para el Estado de Coahuila. Se llevan a cabo reuniones con los Grupos de Trabajo Técnicos, el Grupo Consultivo y el Comité Intersecretarial ante el Cambio Climático. El proyecto sigue pendiente.
1.5.02	**Red de Calidad del Aire en Coahuila** Establecer una red de monitoreo atmosférico en la región de Piedras Negras, Monclova y Saltillo, Coahuila.	SEMA (Coahuila) Municipios de Piedras Negras, Monclova y Saltillo	12 Millones Pesos	SEMARNAT	Santiago Barrios, SEMA/Coahuila, santiago.barrios@sema.gob.mx	Contar con una red de monitoreo atmosférico en funcionamiento en las regiones de Piedras Negras, Monclova y Saltillo.	El proyecto ha sido autorizado; se encuentra en etapa de revisión previa a la licitación.
1.5.03	**Plan de Acción Climática de Tamaulipas**	Gobierno del Estado de	$300,000	COCEF, BID	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Selección de una serie de políticas públicas de mitigación	El Informe de la Identificación de Políticas de Mitigación Prioritarias en el mes de febrero.

	Está en proceso la Etapa 2 del Plan Estatal de Acción Climática (PEAC) de Tamaulipas: Identificación y Cuantificación de las políticas públicas de mitigación seleccionadas en la Etapa 1.	Tamaulipas y COCEF				priorizadas para el cambio climático.	Actualmente, se encuentra en trámite el ISBN. El proyecto ya concluyó.
1.5.04	**Sistema de Monitoreo Atmosférico** Fortalecer el sistema de monitoreo atmosférico en Tamaulipas	SEDUMA Tamaulipas	Anual: 250,000 Pesos (150,000 Municipal Y 100,000 Estatal)	SEDUMA Ayuntamiento de Matamoros	Biol. Jorge Garcia, jgarciah@tamaulipa.gob.mx 834 1078291	En el 2014, el Sistema operará al 100% con normas consistentes programáticas.	Se encuentran operando actualmente 8 equipos PM10. Se tiene en gestión la puesta en operación de los 4 equipos ubicados en Matamoros en enero del 2017. De los muestreos sistemáticos hechos en estas ciudades se ha determinado que la calidad del aire es satisfactoria, toda vez que sus valores se encuentran por debajo de los límites máximos permisibles.
1.5.05	**Taller de Infraestructura Verde**	SEMA, COCEF		SEMA, COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Capacitar a municipios en el Estado sobre infraestructura verde.	Se llevaron a cabo 2 talleres. Uno el 21 de abril del 2015 en donde se atendieron a 5 municipios de la Región Sureste. El otro taller fue realizado el 27 de mayo del 2015 donde se atendieron a 10 municipios de la Región Centro y Desierto. Se llevó a cabo el Foro de Infraestructura Verde los días 21 y 22 de septiembre con la participación de los estados fronterizos.

Meta # 2: Mejorar el Acceso a Agua Limpia y Potable

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objetivo 2: Apoyar a los proveedores de servicios de agua y saneamiento de la región fronteriza en la implementación de prácticas de infraestructura sustentable, con el fin de reducir sus costos operativos, mejorar su eficiencia energética, y promover el uso eficiente del agua y la adaptación al cambio climático.							
2.2.01	**Actualizar la Infraestructura de la Red de Alcantarillado en Nuevo Laredo** Instalar / modernizar las redes de alcantarillado conectadas a la planta de tratamiento de aguas residuales de Nuevo Laredo, para evitar descargas contaminadas al Río Bravo.	COMAPA, Municipio de Nuevo Laredo	$5 Millones	NADB	CP Delfino González, COMAPA, dgcdelfino@comapannuevolaredo.gob.mx	Terminar el proyecto para Enero de 2015.	COCEF certificó el proyecto en septiembre del 2012. De las cinco líneas de alcantarillado, uno se completó a mediados del 2014. Los cuatro colectores restantes estaban en reparación y descargan e 1,6 MGD al sistema de aguas pluviales. Otro punto de descarga fue identificado por la COMAPA en el Arroyo La Joya y será reparada.
2.2.02	**Gestión de las Grasas y Aceites en Nuevo Laredo** Reducir la concentración de grasas y aceites en los efluentes de las descargas en restaurantes, hoteles y la Industria en la red de Nuevo Laredo.	Comisión Municipal de Agua Potable y Alcantarillado, Nuevo Laredo.	$32,533	Frontera 2020	Ing. Juan Carlos Pérez, COMAPA Nuevo Laredo, jcarlos_faz@hotmail.com 01152867 717-24-44	Realizar talleres de trabajo y seguimiento con los establecimientos comerciales en la implementación del Programa de Manejo de Grasas y Aceites.	COMAPA organizó con apoyo de alumnos de la Universidad Tecnológica una serie de talleres de trabajo para capacitar a residentes y los establecimientos comerciales en las mejores prácticas para el manejo y control de las grasas y aceites generadas. El último taller se realizó en agosto del 2015, incluyendo un recorrido en la Planta Internacional de Tratamiento de Aguas Residuales. Todos los establecimientos que participaron en los talleres de trabajo ya cuentan con un sistema de trampa de grasas y están aplicando las técnicas para

							el control y manejo de las mismas. El proyecto ya concluyó.
2.2.03	**Material Ideal para la Filtración Biológica en el Manejo de Aguas Pluviales** Identificar el mejor material disponible localmente para su uso en el bio canal de filtración en el Bajo Valle del Río Grande y el Sur de Texas.	University of Texas Rio Grande Valley	$26,022	Frontera 2020	Jungseok Ho, Ph.D., P.E. Assistant Professor (956) 665-3104 jungseok.ho@UTRGV.edu	El prototipo del Canal de Filtración Biológico se pondrá a prueba en un estacionamiento de nueva construcción en el campus de UT.	El vidrio molido de medio poroso reciclado mostró un buen rendimiento hidrológico en la Filtración Biológica.
2.2.04	**Herramienta para Toma de Decisiones para Determinar el Desarrollo del Impacto bajo de la Detención de Aguas Pluviales** Promover la investigación y los temas educativos destacando cómo las estrategias de infraestructura verde pueden ser utilizadas para mitigar el escurrimiento de las aguas pluviales, para maximizar la detención de escurrimiento de aguas pluviales locales en los proyectos de desarrollo, minimizar inundaciones localizadas y la configuración de las colonias rurales urbanas, y para el manejo del aceites y grasas y otros descargas ilícitas.	Texas A&M University-Kingsville	$38,885	Border 2020	Javier Guerrero, E.I.T., M.S. Texas A&M University-Kingsville (956) 929-7189 Javier.Guerrero@tamuk.edu	Llevar a cabo talleres educativos para identificar infraestructuras verdes existentes, redactar un plan de proyecto de garantía de calidad. Desarrollo de modelos DMTG, calibración y puesta en práctica. Ofrecer talleres para mostrar el DMTG y promover la herramienta innovadora.	

Objetivo 3: Trabajar en el ámbito binacional para identificar y reducir la contaminación de las aguas superficiales en cuencas o cuerpos acuíferos transfronterizos.							
2.3.01	**Control de Plantas Invasivas** Implementar un programa para eliminar plantas invasoras en el Río Bravo.	SEMA Coahuila, CONANP, PROFAUNA, WWF, Fundación Slim	1.5 Millones Pesos Anuales	SEMA (Coahuila), CONANP, PROFAUNA WWF, Fundación Slim	Alejandra Carrera, SEMA Coahuila alejandra.carrera@sema.gob.mx 01152844 410-0014	Control de plantas: por año en hectares (ha) 2014: *Tamarix* 34 ha y Carrizo 40 ha 2015: *Tamarix* 34 ha y Carrizo 40 ha 2016: *Tamarix* 34 ha y Carrizo 40 ha	Desde el 2014 PROFAUNA y CONANP con el apoyo de WWF y la Fundación Slim han controlado anualmente 34 hectáreas de *Tamarix* y 40 hectáreas de Carrizo. Siguen protegiendo la misma cantidad de tierra y se pronostica que seguirán controlándolo la misma cantidad en el 2016.
2.3.02	**Conservación del Arroyo Las Vacas** Diseñar e implementar acciones para mejorar la calidad del agua y promover un hábitat adecuado para especies de flora y fauna en el Arroyo Las Vacas.	Ciudad Acuña Dirección de Ecología, SEMA Coahuila	$44,200	Frontera 2020	Lic. Alejandra Carrera, Secretaría de Medio Ambiente de Coahuila, alejandra.carrera@sema.gob.mx 01152844 410-0014	Implementar acciones para mejorar la calidad del agua y promover un hábitat adecuado para especies de flora y fauna en el Arroyo Las Vacas.	La SEMA y TCEQ organizaron un taller binacional de monitoreo de calidad del agua en octubre del 2015 en la Presa Amistad. Se capacitó a los participantes sobre los programas de monitoreo, técnicas de muestreo y comparación de datos sobre parámetros de calidad del agua. La SEMA tiene interés en crear un programa de ríos vivos similar al programa de Texas. SEMA y sus contrapartes se llevaron a cabo un muestreo de calidad del agua en 15 sitios de monitoreo por el Arroyo Las Vacas. Se realizó una ceremonia de clausura del proyecto del Arroyo Las Vacas en Ciudad Acuña en febrero. El proyecto ya concluyó.

2.3.03	**Iniciativa Binacional de Calidad del Agua en el Bajo Río Bravo** Implementar una iniciativa binacional del Río Bravo en materia de Calidad del Agua (de Falcón hasta el Golfo) que caracteriza el estado del rio, desarrollando un plan estratégico para mejorar las condiciones ambientales, y proponer un plan de monitoreo para documentar el progreso.	TCEQ, EPA, IBWC, CILA, CONAGUA, y Agencias de los Gobiernos Federal, Estatal, y Local		TCEQ, EPA, IBWC, CILA, CONAGUA, y Agencias de los Gobiernos Federal, Estatal y Local	Kelly Holligan , TCEQ, Kelly.holligan@tceq.texas.gov 512-239-2369		En abril del 2016 el grupo de trabajo técnico binacional (BTWG) finalizó la última de cuatro encuestas binacionales de calidad del agua. El BTWG también finalizó la calibración preliminar hidrológica e hidráulica de los modelos de ciudades hermanas de calidad del agua del Río Bravo/Río Grande. Finalmente el BTWG terminó un borrador preliminar de la caracterización de la cuenca relacionado al proyecto.
2.3.04	**Campaña Publica de Concientización de Grasas y Aceites** (FOG) Proporcionar concientización y educación para mejorar la calidad de agua mediante la educación de usuarios comerciales y residenciales incrementando la conciencia ambiental en como las grasas y aceites contribuyen a un riesgo de salud si no se maneja adecuadamente, con esto se reducirán del número de desbordamientos de drenaje sanitario de clientes residenciales y comerciales	Junta de Servicios Públicos Brownsville	$25,000	Border 2020	Alicia Gracia, Brownsville Public Utilities Board agracia@brownsville-pub.com (956) 983-6483	Crear e implementar una campaña de manejo de grasas y aceites para los ciudadanos. La meta es concientizar a por lo menos a 250,000 clientes, llevar a cabo cuatro talleres y ofrecer la asistencia al menos el 50% de los negocios con necesidad de educación personalizada.	Desde febrero a abril del 2016 llevaron a cabo un total de 26 capacitaciones de "Elimina la Grasa." Un total de 256 personas participaron en dichos eventos. El historial de llamadas de grasas y aceites (FOG) mostró una reducción en 22 solicitudes de servicios por llamadas generadas comparada con el mismo periodo en el 2015. Los anuncios publicitarios, volantes, las redes sociales y carteleras digitales fueron usados para promover la campaña de FOG.

2.3.05	**Difusión y Concientización de las Regulaciones para el Control de las Descargas** Promoción y difusión local de reglamentos de descarga entre las partes interesadas para permitir su aplicación y cumplimiento a través de talleres de capacitación.	Junta de Aguas y Drenaje – Matamoros, Tamaulipas	$25,000	Border 2020	Arquelao López JAD Matamoros 868 150-21-30 arkelao57@gmail.com	Trabajar en una ordenanza de descarga de aguas residuales municipales. Realizar talleres educativos sobre el programa de grasas y aceites. Realizar pruebas laboratorio de las aguas residuales en los usuarios comerciales.	El proyecto fue cancelado.
2.3.06	**Apoyar la Participación de los Interesados Locales en el Bajo del Río Grande / Iniciativa de Calidad de Agua del Río Bravo.** Fomentar un sentido de pertenencia entre los actores locales de un plan binacional para restaurar y proteger la calidad del agua en el Bajo del Río Grande y establecer un foro sostenible para el intercambio de información local y la cooperación entre la comunidad binacional de los usuarios del agua en el Bajo del Río Grande.	University of Texas at Austin	$58,575	Border 2020	Dr. David Eaton eaton@mail.utexas.edu	Organizar cinco talleres sobre temas locales de calidad del agua y el intercambio de información y la formulación de soluciones. Creación del Memorando de Entendimiento (MOU) entre las partes interesadas y asociaciones binacionales.	

Meta # 3: Promover la Gestión Integral de Materiales, la Gestión de Residuos y Sitios Limpios

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.01	**Programa de Educación Ambiental en Nuevo Laredo** Establecer una organización ambiental para desarrollar programas de sensibilización ambiental y de limpieza en Nuevo Laredo en la afiliación con Keep America Beautiful.	Keep Laredo Beautiful, Keep America Beautiful, y el Municipio de Nuevo Laredo		La Ciudad de Laredo, Depto. de Servicios Ambientales y Keep America Beautiful	Lynne Nava, Keep Laredo Beautiful, lnava1@ci.laredo.tx.us 956-794-1650	Establecer una organización ambiental afiliada con Keep America Beautiful en el 2016.	Keep Laredo Beautiful se reunió con funcionarios de la Universidad Tecnológica de Nuevo Laredo en octubre del 2015 y enero del 2016 para dialogar sobre los requisitos generales para que una organización sea afiliada a Keep America Beautiful. Funcionarios de la Universidad iniciarán el proceso de reclutamiento de miembros para formar una mesa directiva de la organización en Nuevo Laredo. Keep Laredo Beautiful tiene pendiente una resolución por parte del gerente de la ciudad respecto a la creación de una cuenta mancomunada y requiere un memorándum de cooperación con Nuevo Laredo para darle seguimiento a este proceso.
3.1.02	**Caracterización de Residuos Sólidos Urbanos, Corrientes y Diagnóstico en cuanto a la Generación / Gestión de Residuos**	Secretaría del Desarrollo Sustentable Nuevo León y el Municipio de Sabinas Hidalgo, Nuevo León	$47,000 US Dólar	Frontera 2020, COCEF	Norma Rangel Sevilla, SDS, Nuevo León, normaarangel@gmail.com 0115281 20 33-19-38	Analizar la generación de residuos sólidos y de "manejo especial" en los seis municipios fronterizos y	El estudio se finalizó en junio de 2015. Más detalles del estudio serán proporcionados en una fecha posterior. El proyecto ya concluyó.

	Estudiar y caracterizar el flujo de residuos sólidos urbanos en Sabinas Hidalgo, Nuevo León. Analizar la gestión de la generación de residuos sólidos y "manejo especial" en seis municipios fronterizos de Nuevo León.					caracterizar el flujo de residuos sólidos en Sabinas. Completar el estudio en 2015.	
3.1.03	**Operación de un Centro de Acopio de Residuos Electrónicos y Peligrosos Generados en las Casas de Habitación**	Municipio de Nuevo Laredo, Tamaulipas	$3.626 Millones Pesos MX	Municipio de Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretario de Obras Públicas, Desarrollo Urbano y Medio Ambiente, cdeandah@hotmail.com	Generar una infraestructura municipal para el acopio, manejo y disposición de los residuos peligrosos y electrónicos domésticos.	El Centro de Acopio recibió la autorización correspondiente por parte de la Delegación Federal de la SEMARNAT en el Estado de Tamaulipas. Inició operaciones el día 8 de Junio de 2016. Cabe destacar que este es el único Centro de Acopio de Residuos Peligrosos Domésticos Municipal en México. El proyecto sigue pendiente.
3.1.04	**Ordenamiento Ambiental para la Disposición de Residuos de la Construcción**	Municipio de Nuevo Laredo, Tamaulipas	El proyecto se opera con los recursos que paga el ciudadano por el manejo y gestión de los residuos.	Municipio de Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretario de Obras Públicas, Desarrollo Urbano y Medio Ambiente, cdeandah@hotmail.com	Generar una alternativa en la comunidad para la disposición de los residuos de construcción y mitigar los tiraderos clandestinos de este tipo de residuos.	Este proyecto ha operado en forma continua, generando un impacto importante por parte de la comunidad. Se paga 123 pesos por m3 cuando el residuo no es mayor a 2 m3. Si es de 3-10 m3 el servicio les cuesta 88 pesos. Si rebasa los 10 m3, se les cobra 100 pesos el m3. El proyecto sigue pendiente.
3.1.05	**Keep Pharr Beautiful Campaña de Limpieza** Apoyo a los programas de limpieza mensuales de Keep	Departamento de Servicios Públicos, Ciudad de Pharr	$20,000	Frontera 2020	Grace González, Pharr Departamento de Servicios Públicos grace.gonzales@pharr-tx.gov	Reducir los tiraderos clandestinos en los sectores residencial e industrial y alentar a los	El proyecto ha sido finalizado y la mayor parte de los objetivos fueron realizados. Se realizaron varios eventos de concientización, se llevaron a cabo varios eventos mensuales

	Pharr Beautiful con una fuerte difusión pública.					residentes a tomar responsabilidad por la conservación de sus comunidades.	de limpieza. Se creó una herramienta de Comunicación Bilingüe. Un taller fue organizado para la reducción de tiraderos clandestinos para la comunidad. La Ciudad planea continuar con su programa de limpieza y las actividades de educación.
3.1.06	**El Equipo de Reciclaje Alamo Nos Incluye a Todos** Implementar "Alamo's Recycling TEAM Includes Everyone" (ARTIE), que se esfuerza por mejorar la gestión de los residuos sólidos en la ciudad	City of Alamo	$54,838	Border 2020	Melissa Gonzales Ciudad del Alamo	Aumentar los esfuerzos del reciclaje por lo menos el 25%. Aumentar la conciencia de la contaminación difusa y soluciones, estableciendo alianzas que promuevan el cuidado del medio ambiente.	Se organizaron varios eventos en diferentes lugares de lo cual 12 presentaciones se realizaron en diferentes escuelas donde participaron 700 estudiantes. Se instalaron letreros bilingües de no tirar basura. El proyecto ya concluyó.
3.1.07	**Saneamiento del Sitio de Disposición Final de Residuos Sólidos Urbanos en Guerrero, Tamaulipas**	SEDUMA, Municipio de Guerrero, Tamaulipas	3.169 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Regularizar y generar el cumplimiento de la NOM-083-SEMARNAT-2003, referente a la clausura de sitios de disposición final.	Debido al recorte presupuestal llevado a cabo por la Secretaría de Hacienda a la SEMARNAT, el proyecto no se apoyó en el ejercicio 2015. En este año no se gestionó recursos para este proyecto.
3.1.08	**Construcción y Equipamiento de la Primera Etapa del Relleno Sanitario Tipo A en Río Bravo, Tamaulipas**	SEDUMA, Municipio de Río Bravo, Tamaulipas	19.359 Millones Pesos	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Contar con la infraestructura moderna y adecuada para la disposición final de los residuos sólidos urbanos.	Proyecto validado por la SEMARNAT, en trámite documentación para la adjudicación de recursos.

3.1.09	**Construcción y equipamiento de relleno sanitario Tipo A en la Región Carbonífera**	SEMA, SEMARNAT, Municipios de Múzquiz y San Juan de Sabinas	25 Millones Pesos	SEMARNAT PEF 2015	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construcción y operación.	Conducir estudios de terrenos. En análisis previo a licitación. El proyecto queda pendiente.
3.1.10	**Construcción y Equipamiento de Relleno Sanitario Intermunicipal en los Municipios de Juárez y Progreso, Coahuila**	SEMA, Municipios de Juárez y Progreso	8 Millones Pesos	PEMEX Fondo de Hidrocarburos	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construcción y operación.	En análisis previo a licitación. El proyecto queda pendiente.
3.1.11	**Construcción y equipamiento de dos Estaciones de Transferencia de Residuos Sólidos Urbanos en el Municipio de Múzquiz, Coahuila**	SEMA, Municipio de Múzquiz	8 Millones Pesos	PEMEX Fondo de Hidrocarburos	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construcción y operación.	En análisis previo a licitación. El proyecto queda pendiente.
3.1.12	**Programa RECOLECTRÓN** Recolección de residuos electrónicos en los Municipios.	SEMA, Municipios Acuña, Allende, Nava y Sabinas	2 Millones Pesos	SEMA	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx	2015: Reunir 44.91 toneladas 2016: Reunir 56.14 toneladas	Hasta la fecha se han recolectado 44.89 toneladas. El proyecto queda pendiente.
3.1.13	**Disposición Responsable de Llantas** Operación de un centro para la disposición de neumáticos en desuso. Mediante 3 cortes se disminuye el volumen y el riesgo de acumulación de agua que son criaderos de mosquitos (portadores del dengue).	Municipio de Acuña, Coahuila	$12,000	Municipio de Acuña, Coahuila	Biol. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx	Generar una infraestructura municipal para el acopio, manejo y disposición de los neumáticos en desuso.	Se cuenta con un marco normativo que regula el manejo y un programa en marcha para el acopio, pero se requiere la infraestructura para la disposición final. A la fecha se han recolectado y dispuesto más de 50 mil llantas, teniendo como resultado la mitigación del 95% de las enfermedades por los vectores

							transmisores. El proyecto sigue pendiente.
3.1.14	**Disposición de Residuos Peligrosos y Electrónicos** Crear un centro de acopio para residuos de manejo especial, de manera que los pequeños generadores puedan disponer sus residuos de forma final adecuada y conforme a la normativa aplicable.	Municipio de Acuña, Coahuila	$12,500	Municipio de Acuña Coahuila	Biol. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx	Generar una infraestructura municipal para el acopio, manejo y disposición de los residuos peligrosos y electrónicos	Marco normativo aprobado por cabildo y modificación al reglamento municipal en materia de medio ambiente para condicionar el funcionamiento mediante licencia de 6 meses y certificación de capacitación. Convenio con CECATI #197 para la certificación. A la fecha han acopiado 29 toneladas; este programa lo llevan a cabo en coordinación con la SEMA. El proyecto sigue en marcha.
3.1.15	**Programa de Manejo de Llantas de Desecho** Diseñar e implementar un programa de manejo para las llantas de desecho y su valorización.	SEDUMA Tamaulipas	$400 Millones Pesos MX	SEDUMA, SEMARNA, EPA	Biol. Jorge García, jgarciah@tamaulipas.gob.mx 834 1078291	Trabajar con cada uno de los Ayuntamientos de la frontera norte del Estado para regular sistemáticamente el acopio y almacenamiento temporal de las llantas usadas.	Se ha autorizado en materia de impacto ambiental, dos proyectos en los municipios de Reynosa y Valle Hermoso, mediante los cuales se atenderá un pasivo de 350,000 llantas anuales. El Gobierno del Estado de Tamaulipas, con participación de fondos federales, adquirió una trituradora de llantas con la cual durante los años 2013 a 2016, se han procesado 63,000 llantas en la zona conurbada del Sur del Estado.

3.1.16	**Reforzar Programas de Residuos Sólidos** Diseño de una herramienta de planificación estratégica que cumpla con los Programas Nacionales y Estatales para la Prevención y Gestión de	SEDUMA Tamaulipas	$20,866	Frontera 2020	Oc. Heberto Cavazos Lliteras , SEDUMA, ssma@tamaulipas.gob.mx	Actualizar su sistema de gestión ambiental de residuos sólidos urbanos. Evaluar la gestión de los residuos sólidos urbanos. Preparar un	Se elaboraron dos programas para la Prevención y Gestión Integral de Residuos de Rio Bravo y Valle Hermoso, así como los "Estudios de Generación y Composición de Residuos" de los mismos municipios, dichos documentos de planeación se

	Residuos Sólidos Urbanos en los municipios de Río Bravo y Valle Hermoso, Tamaulipas.					estudio municipal de generación de residuos sólidos.	entregaron a los representantes de los municipios participantes. El proyecto ya concluyó.
3.1.17	**Vamos a Limpiarlo y a Ponerlo Verde** Reducir la disposición ilegal de la basura en todas las zonas de la ciudad, y mejorar la estética general de la ciudad y ofrecer opciones viables de disposición de residuos sólidos para los residentes.	City of Pharr	$36,390	Border 2020	Grace Gonzalez, Pharr Public Works Department, grace.gonzales@pharr-tx.gov	Ofrecer más eventos de disposición de desechos sólidos, reciclables y llantas. Instalar lugares de acopio de materiales reciclables y en áreas convenientes fuera de la zona. Mejorar el sistema llantas residenciales existentes.	El proyecto organizó varios talleres relacionados al manejo de agua de lluvia y el reciclaje. Se contaron con la participación de estudiantes y residentes. Se usaron las redes sociales y anuncios publicitarios para promover dichas actividades.
3.1.18	**Reciclaje de Residuos Electrónicos** Desarrollar una campaña educacional con el objetivo de reducir electrónicos usados creando un programa integral de reciclaje de residuos electrónicos y difundiendo practicas sustentables	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	$36,054	Frontera 2020	Ing. Victor Ibarra, Instituto Tecnológico de Piedras Negras, ing_victor_m@prodigy.net.mx	Realizar talleres y campañas en escuelas y eventos públicos sobre electrónicos usados.	En Piedras Negras, se instalaron dos centros de acopio en las Instalaciones municipales y se acopió 14145 kilogramos de residuos electronicos. Se visitaron a 18,000 habitantes en 10 colonias de la ciudad y se realizó un taller en materia de RAEE en el ITPN para 55 Asociados de Green Tec-Osos. Se realizó la primera caminata en Marzo 2016 con más de 1200 participantes. Se realizó el Primer Simposio de Impacto Ambiental, Educación Y Salud Ambiental 2016 con la asistencia de 410 docentes y estudiantes de 17 instituciones educativas; el tema de los RAEE fué parte de

							los temas. El proyecto sigue pendiente.
3.1.19	**Reciclaje de Residuos Electrónicos** Informar y educar a la población sobre los beneficios de reutilizar productos de electrónicos usados que incluya un manejo sustentable de equipos electrónicos y prácticas de disposición adecuada	SEMA	$16, 777	Frontera 2020	Oscar Flores, SEMA, 01152844 698-10-91 ext.7268 oscar.flores@sema.gob.mx	Realizar un diagnóstico y capacitación de personal de ecología sobre residuos electrónicos e implementar acciones para su disposición adecuada.	Es el mismo proyecto al que se indica en el 3.1.12. El proyecto sigue pendiente.

Meta #4: Optimizar la preparación conjunta de respuesta ambiental

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objetivo 2: Para el año 2020, por lo menos ocho (8) de los planes conjuntos de contingencia de las ciudades hermanas serán complementados con actividades relacionadas con preparación y prevención, como certificación de la capacitación, análisis de riesgo, y/o desarrollo de capacidades.							
4.2.01	**Actualización del Plan de Contingencias Transfronterizo** Desarrollar un plan de contingencia transfronterizo para el Puente Solidaridad, con la participación de respuesta a emergencias de Colombia (Nuevo León), Nuevo Laredo (Tamaulipas) y Laredo (Texas), reconociendo que Colombia,	Departamento de Bomberos de Laredo, Protección Civil de Nuevo Laredo, CILA, CODEFRONT, y la Ciudad de Laredo		EPA, COCEF, PROFEPA, y Protección Civil	Steve Landin, Departamento de Bomberos de Laredo, slandin@ci.laredo.tx.us 956-795-2150 Juan Ochoa, Protección Civil Nuevo Laredo, Juan.u8a@hotmail.com	Establecer nuevas reuniones con el personal de las dos ciudades con el fin de revisar el lenguaje del proyecto de revisión y posiblemente desarrollar un lenguaje alternativo e	En una reunión binacional en julio en Nuevo Laredo, los alcaldes de Laredo y Nuevo Laredo aprobaron las versiones finales en inglés y español y firmaron El Plan de Contingencias Transfronterizo. El plan será evaluado por ambas ciudades cada dos años. El plan también especifica que el Departamento de Bomberos de Laredo proveerá asesoría en

	aguas arriba de las otras dos ciudades, es mucho más pequeño y, sin embargo los envíos de materiales peligrosos en la zona se dirigen actualmente a este puente.				01152867 712-46-35	incluir a Colombia en el plan.	caso de una contingencia en el lado mexicano.
4.2.02	**Entrenamiento Binacional en Atención a respuesta a emergencias en materia de Materiales Peligrosos en McAllen-Mission-Pharr, TX y Reynosa, Tamaulipas**	Ciudad de McAllen, Departamento de Bomberos	$75,000	Frontera 2020	Juan A Gloria Jr, Deputy Chief McAllen, jgloria@mcallen.net 956 681-2540	Proporcionar la Capacitación de Sistema y Comando de Incidentes a los bomberos de McAllen, Mission, Pharr y Reynosa. Realizar simulacro para poner a prueba la capacitación.	En agosto del 2015, técnicos certificados en el manejo de materiales peligrosos del departamento de bomberos de McAllen y Pharr organizaron un taller con 30 personas de primer nivel de respuestas de Reynosa, San Fernando y Miguel Alemán, Tamaulipas. Un ejercicio de de mesa funcional fue organizado en el puente internacional de Pharr-Reynosa. La lista de contacto del plan de ciudades hermanas fue actualizada.
4.2.03	**Ejercicios Funcionales y de Mesa entre las Ciudades de Harlingen y Matamoros**	City of Harlingen Fire department	$60,000	Border 2020	Rogelio Rubio Harlingen Fire Chief rrubio@myharlingen.us	Llevar a cabo una capacitación en el manejo de materiales peligrosos, ejercicio de mesa y funcional con la colaboración de socorristas de Matamoros y el Comité de Planificación de Emergencias local del Condado de Cameron.	El proyecto se finalizó en el mayo del 2016 con una semana entera de talleres relacionados al manejo de materiales peligrosos concluyendo con el ejercicio funcional de una respuesta de un incidente del cloro. Las ciudades de Harlingen y Matamoros establecieron una respuesta estandarizada en tiempo real de comunicación en el evento de un incidente de materiales peligrosos.

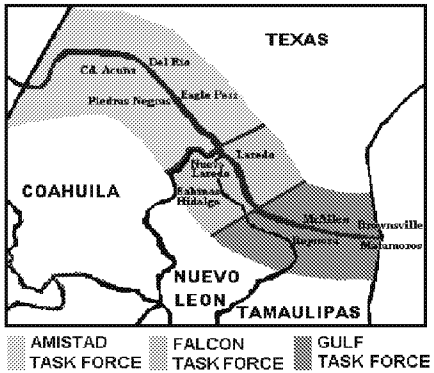
Promover Esfuerzos Transversales Relacionados con la Salud y Educación Ambiental

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Projects potentially related to some combination of air quality, water quality, water conservation, or waste management							
6.0.01	**Bosque Urbano Piedras Negras**	SEMA, Municipio de Piedras Negras, SEMARNAT	15 Millones Pesos	SEMARNAT	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx	Construir un Bosque Urbano en la ciudad de Piedras Negras con superficie de 15 ha.	Se cuenta con un avance del 98% de la obra. El proyecto queda pendiente.
6.0.02	**Fortalecimiento de la Red de los Centros de Educación y Vigilancia Climática Global ¨Casa de la Tierra¨**	SEDUMA, Gobierno Municipal de Reynosa.	66 Millones Pesos	Gobierno del Estado de Tamaulipas, SEMARNAT	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Construir, equipar y operar 3 Casas de la Tierra para atender la población de Norte, Centro y Sur del Estado. 160 mil visitantes anualmente.	CDT Victoria operando desde diciembre de 2013. CDT Reynosa operando desde enero de 2015. CDT Cd. Madero operando desde el 29 de agosto de 2016.
6.0.03	**Ampliación del Programa de Sistemas de Gestión Ambiental** Ampliar el programa Estatal de Tamaulipas en la promoción de sistemas de gestión ambiental (SIMA) a más escuelas y oficinas de gobierno.	SEDUMA Tamaulipas	682,505 Pesos	SEDUMA, Empresas Participantes	Dra. Silvia Casas, SEDUMA, silvia.casas757@gmail.com	Implementar y operar sistemas de manejo ambiental (SIMAS) en escuelas y oficinas públicas en los principales municipios.	Con el SIMA (2011-2016) se ha logrado el reciclaje de más de 458 toneladas de residuos (principalmente archivo muerto), evitando la tala de más de 786 mil árboles, un ahorro de 12.4 millones de litros de agua y más de 1 mil 150 m^3 de relleno sanitario no utilizados.
6.0.04	**Modelo de Información para la Planificación de la Salud y Medio Ambiente a lo largo de la Frontera Texas-México** El desarrollo de un marco conceptual para un banco de información ambiental y de salud binacional.	El Colegio de la Frontera del Norte	$39,875	Frontera 2020	Dr. Felipe Uribe, COLEF, ursafeja@gmail.com 878 782 7207	Identificar las herramientas y capacidades necesarias, comparar los sistemas existentes,	Se ha trabajado en un marco teórico para la identificación de información en salud y medio ambiente. Se han entrevistado a los diferentes actores claves. Se ha obtenido información sobre indicadores de salud y medio ambiente a través de la elaboración de Memorándums

						identificar y recomendar las necesidades de formación y de aprendizaje, y desarrollar un sistema de indicadores para medir la salud ambiental.	de Entendimiento entre las instituciones académicas involucradas en el proyecto y las respectivas Secretarías de Salud y Medio Ambiente del Estado de Coahuila. El proyecto ya concluyó.
6.0.05	**Educación para la Salud Ambiental para Niños a través de Promotoras** Apoyar el desarrollo de un enfoque integrado para educar a las familias sobre los peligros de la exposición al mercurio, plomo y pesticidas, particularmente los efectos sobre la salud respiratoria, especialmente asma. Estos módulos se utilizarán para proporcionar capacitación a promotoras de salud, que posteriormente proporcionarán información educativa en las escuelas primarias, centros de atención infantil y áreas rurales.	La Amistad AHEC and Southwest Border AHEC	$69,083	Frontera 2020	Rosa Elvira Martinez Southwest Area Border Health Education Center rose.martinez@swbahec.org (830) 758-1111	Llevar a cabo la capacitación y proporcionar información educativa sobre la conciencia de pesticidas en las escuelas primarias y zonas rurales.	El 34% de las casas completaron sus evaluaciones previas en un periodo de siete a ocho semanas y el 14% de las casas completaron su entrenamiento en menos de cuatro semanas. Cada una de las 29 casas completó sus evaluaciones posteriores. Los resultados indican que 27 de las 44 preguntas en las evaluaciones previas y posteriores demuestran una mejora en las puntuaciones y nueve casas se mantuvieron constantes con sus puntuaciones en las evaluaciones previas y posteriores. El proyecto concluyó en diciembre del 2015.
6.0.07	**Reforma Legislativa y Educación Ambiental** Mejorar la implementación de reformas ambientales legislativas intercambiando información sobre reglamentos de cumplimiento de la ley y educación ambiental que mejoren la calidad del aire, cumplimiento ambiental y manejo de residuos sólidos en Laredo y Nuevo Laredo	Universidad Autónoma de Tamaulipas, Facultad de Comercio, Administración y Ciencias Sociales de Nuevo Laredo	$11,000	Frontera 2020	Dr. Juan Herrera Izaguirre, Universidad Autónoma de Tamaulipas, 0115286719-42-50 jaherrera@uat.edu.mx	Actualizar reglamentos ambientales de Nuevo Laredo de acuerdo con reglamentos estatales y federales, desarrollar una base de datos sobre	Se realizó la capacitación para personal de la dirección de Medio Ambiente y Cambio Climático de la localidad respecto al conocimiento de la legislación ambiental, cuidado del agua y reciclaje. En los foros realizados se expusieron los temas de identificación de leyes federales, estatales y

						reglamentos ambientales en municipios fronterizos en Tamaulipas, capacitar a 15 inspectores municipales y personal de ecología sobre reglamentos municipales ambientales, y difundir el manejo sustentable de residuos.	municipales a través del uso de las tecnologías, de igual manera se les explico cómo identificar la jurisdicción de temas de interés como son las Áreas Naturales Protegidas, la contaminación en estos tres niveles competenciales. De igual manera se les d una conferencia sobre la importancia de los cargos que los inspectores realizan y se les hablo sobre el acto administrativo y su relación con la materia ambiental. El proyecto queda pendiente.

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



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 a total of 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 has established subject-specific committees related to its priority concerns.

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

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.

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

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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 in the.
    b. Coordinate emergency preparedness response table top exercise or field exercises.

7. Develop a certified environmental health curriculum to train border community health workers and promotoras on lead, mercury, pesticides, 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. Monitoring of drilling operations in the Eagle Ford Shale and on the Mexican side
3. Finalizing 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 a diagnostic study 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 GTF' US-MX border

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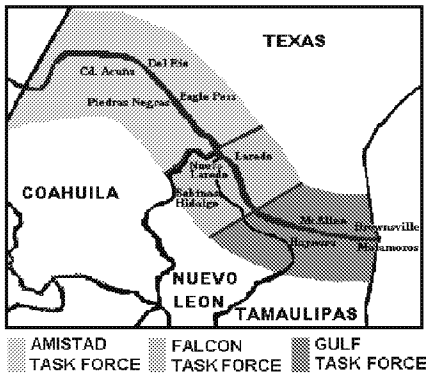
Border 2020

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
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.							
1.1.01	**Characterization of Drayage Activities & Emissions Laredo-Nuevo Laredo Airshed** Develop a detailed characterization of the drayage activity in the Laredo-Nuevo Laredo region and its air quality implications.	Texas A&M Transportation Institute	$89,750 US Dollar	Border 2020	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu (512) 467-0946	Gather activity information on drayage vehicles to estimate their emissions impacts in the Laredo and Nuevo Laredo airshed.	TTI obtained permissions by the EPA, BECC and the Texas A&M IRB to collect GPS data from drayage vehicles operating in the Laredo-Nuevo Laredo region. TTI recruited 20 drayage truck operators and collected GPS data. TTI staff are analyzing the data and determining the emission impact of the trucks.

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1.1.02	**Emissions from Long Haul MX Diesel Trucks in Laredo-San Antonio Corridor** Survey diesel truck activity and evaluate typical Mexican diesel truck emissions along Laredo-San Antonio Corridor.	Texas A&M Transportation Institute	$100,000 US Dollar	EPA, TCEQ	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu (512) 467-0946	Collecting and analyzing data. TTI will present findings and report in August.	The project is complete. In August a final report was submitted to TCEQ with findings and is currently under review.
Objective 3: By 2018, maintain effective air monitoring networks and provide real-time access to quality data.							
1.3.01	**Update the Ecological Program Code for the Region Cuenca de Burgos, Tamaulipas**	SEDUMA	$2 Million Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	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.	The project is in the process of being updated by a hired external consultant that will perform modifications to the current code.
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	**Municipal Climate Action Plan of San Fernando, Tamaulipas**	SEDUMA, Gobierno Municipal de San Fernando, Tamaulipas	$ 2.199 Million Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Develop a public policy planning instrument for the development of strategies and actions to mitigate greenhouse gas	This project is undergoing administrative procedures to execute the awarded budget. The municipality of San Fernando will oversee the project and has State support for

						emissions. Reduce municipal vulnerability to climate change by enhancing adaptability.	the validation of reference terms and the respective technical annex.
1.4.02	**Tamaulipas State Climate Change Program**	SEDUMA Tamaulipas	$200,000 US Dollar	Banco Interamericano de Desarrollo (BID)	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Update the greenhouse gas emissions inventory and develop the program's climate change adaptation agenda.	An external consultant will develop the project. The update to the inventory has been completed. Currently both the Adaptation Agenda is being developed and the integration of both components. The deadline is November 2015.
Objective 5: By 2020, reduce emissions and associated impacts, through energy efficiency and/or alternative/renewable energy projects.							
1.5.01	**Coahuila Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC) for Coahuila: Quantification of the mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000 US Dollar	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	Econometric evaluation of the mitigation policies selected in Phase 1.	The project is currently in the Microeconomic and Public Policy Phase for Coahuila State. Meetings have been held with the Technical Working Groups, the Advisory Group, and the Climate Change Committee.
1.5.02	**Air Quality Network in Coahuila** Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	SEMA (Coahuila), Municipalities of Piedras Negras, Acuña, Nava, Sabinas, Saltillo	$12 Million Pesos MX	SEMARNAT	Santiago Barrios, SEMA/Coahuila, santiago.barrios@sema.gob.mx	Have air quality monitoring network in operation for Piedras Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila.	The project has been authorized and is in the revision phase prior to bidding.

1.5.03	**Tamaulipas Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC) for Tamaulipas: Quantification of the mitigation public policies selected in Phase 1.	Tamaulipas State Government and BECC	$300,000 US Dollar	BECC, BID	Tomás Balarezo, BECC, tbalarezo@cocef.org	Selection of a number of prioritized mitigation public policies for climate change.	A Comité Intersecretarial ante el Cambio Climático (CICC) has been established, as well as Integrated Technical Working Groups (TWG) and the Advisory Group (AG). A consultant has been hired. They are working on the agenda, updating the emissions inventory, and the integration of both components.
1.5.04	**Atmospheric Monitoring System** Strengthen Tamaulipas' atmospheric monitoring system.	SEDUMA Tamaulipas	Annually: $ 250,000 Pesos MX ($150,000 Municipal & $100,000 State)	SEDUMA, City Council of Matamoros	Biol. Jorge Garcia, jgarciah@tamaulipas.gob.mx 834 1078291	By 2014, the system will operate at 100% with programmatic consistency standards.	Currently four of the eight municipalities have their air monitoring network in operation (01 Nuevo Laredo, 02 in Victoria, 01 in Madero and 01 Tampico). The operation site for the four monitors located in Matamoros for the last trimester of 2015 is being managed.
1.5.05	**Green Infrastructure Workshop**	SEMA, COCEF		SEMA, COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Train municipalities on Green infrastructure.	Two workshops were held. One on April 21, 2015 in which 5 municipalities from the Southeast region attended and a second workshop on May 27, 2015 that was attended by 10 municipalities from the Central and Desert regions. The state workshop will occur in the final trimester of 2015.

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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
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.							
2.2.01	**Upgrade Sewer Line Infrastructure Nuevo Laredo** 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 US Dollar	NADB	Delfino González C.P., COMAPA, dgcdelfino@comapanuevolaredo.gob.mx	Complete the project by January 2015.	The BECC certified the project in September of 2012. Of the five sewer lines one was completed during the first half of 2014. The remaining four lines are under repair and discharge approximately 1.6 MGD to the fluvial water system. Another discharge point was identified by COMAPA in the Arroyo La Joya and will be repaired.
2.2.02	**Management of Fats, Oils, and Grease Nuevo Laredo** Reduce the concentration of fats, oils, and grease in the effluent water coming from restaurants and hotels and industrial dining facilities in Nuevo Laredo.	Comisión Municipal de Agua Potable y Alcantarillado, Nuevo León.	$32,533 US Dollar	Border 2020	Ing. Juan Carlos Pérez, COMAPA Nuevo Laredo, jcarlos_faz@hotmail.com 01152867 717-24-44	Hold workshops and follow-up with commercial establishments on implementation of FOG programs	COMAPA organized workshops with the support of students from the Technical University to educate commercial establishments and residents on best practices. The last workshop was held in August of 2015 that 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. COMAPA is drafting the final project report.

2.2.03	**Ideal Biological Filtration Material South Texas Storm Management** Identify the best locally available material for use in bio-swale in the Lower Rio Grande Valley & South TX.	University of Texas Pan American	$26,022 US Dollar	Border 2020		The proto-type bioswale will be tested in a newly constructed parking lot on the campus of UT Pan American.	The recycled ground recycled glass of medium porosity demonstrated good hydrologic performance in the biological filtration process.
Objective 3: Work binationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.							
2.3.01	**Removal of Invasive Plants** Implement a program to remove invasive plants in the Rio Grande.	SEMA Coahuila, CONANP, PROFAUNA, WWF, Slim Foundation	$1.5 Million Pesos MX Annually	SEMA (Coahuila), CONANP, Profauna WWF, Slim Foundation	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx 01152844 410-0014	Plant Control: 2014: Tamarix 34 ha & Carrizo 40 ha; 2015 Tamarix 34 ha and Carrizo 40 ha; 2016: Tamarix 34 ha and Carrizo 40 ha.	Since 2014 PROFAUNA and CONANP with the support of WWF and the Slim Foundation have annually protected 34 hectares from the Tamix plant and 40 hectares from Carrizo. To date they have continue to protect the same quantity of land and it is anticipated that they will maintain this amount in 2016.
2.3.02	**Conservation of Las Vacas Stream** Design and implement actions to improve water quality and promote an adequate habitat for flora and fauna species in the Arroyo Las Vacas.	Ciudad Acuna Department of Environment, SEMA Coahuila	$44,200 US Dollar	Border 2020	Lic. Alejandra Carrera, Secretaria de Medio Ambiente de Coahuila, alejandra.carrera@sema.gob.mx 01152844 410-0014	Implement actions to improve water quality and promote an adequate habitat for flora and fauna species in Las Vacas stream.	Progress has been made regarding the Arroyo Las Vacas diagnostic, water quality monitoring, and identification and detection of disputes through a ITSA-UT Austin Knowledge Exchange. A presentation of the project was presented at the Environmental Trade Fair in May 2015. In October, a training is scheduled regarding bi-national water quality, data comparison, and water sampling.

2.3.03	**Lower Rio Grande Binational Water Quality Initiative (LRGWQI)** Implement a binational Lower Rio Grande Water Quality Initiative (from Falcon to the Gulf) that characterizes the state of the river, develops a strategic plan to improve environmental conditions, and proposes a monitoring plan to document progress.	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, Kelly.holligan@tceq.texas.gov	Implement actions to improve water quality and promote an adequate habitat for flora and fauna in the Arroyo Las Vacas.	In March the LRGWQI's Binational Technical Work Group conducted the first of four binational synoptic water quality surveys scheduled for the project. They also developed a preliminary input file for a steady-state water quality model of the Rio Grande/Río Bravo (Falcon Dam to Gulf of Mexico).

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
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.01	**Environmental Education Program Nuevo Laredo** Establish an environmental organization to develop environmental awareness and clean-up programs in Nuevo Laredo in affiliation with Keep America Beautiful.	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, lnava1@ci.laredo.tx.us 956-794-1650	Establish an environmental organization affiliated with Keep America Beautiful by 2016.	Keep Laredo Beautiful will be meeting with officials of the Technological University of Nuevo Laredo in August to discuss the project and inquire about their interest in establishing an environmental organization through Keep America Beautiful. Keep Laredo Beautiful has committed to pay membership fees for one year for the organization to be affiliated with Keep America Beautiful.
3.1.02	**Characterization Municipal Solid Waste Stream & Diagnosis Regarding**	SDS Nuevo León and Municipio of Sabinas Hidalgo, Nuevo León	$47,000 US Dollar	Border 2020, BECC	Norma Rangel Sevilla, SDS, Nuevo León, normaarangel@gmail.co	Analyze the generation of solid and "special	Project completed. The study was finalized in June 2015. More details of the study will be

	Generation/Management of Waste 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.				m 0115281 20 33-19-38	management" of six border municipalities and characterize the solid waste stream in Sabinas. Complete the study in 2015.	provided at a later date.
3.1.03	**Operation of an Electronic and Household Hazardous Waste Stockpile Center**	Municipality of Nuevo Laredo, Tamaulipas	$3.626 Million Pesos MX	Municipality of Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretario de Obras Públicas, Desarrollo Urbano y Medio Ambiente, cdeandah@hotmail.com	Develop a municipal infrastructure for stockpiling, managing, and disposing of electronic and hazardous waste.	The installations are finished. Only authorization from SEMARNAT is needed for operation, which is underway. It is possible for operations to commence in the last trimester of the year.
3.1.04	**Environmental Code for the Disposal of Construction Waste**	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 Secretariat of Public Works, Urban Development & the Environment, cdeandah@hotmail.com	Generate an alternative for the community for the disposal of construction waste and mitigate clandestine dumping.	This project has operated continually and generated an important impact to the community. 123 pesos per cubic meter are paid when the waste is no greater than 2 cubic meters. If it is three to ten cubic meters the service cost 88 pesos. If it exceeds 10 cubic meters, in order to leave the program, 100 pesos are charged per cubic meter.
3.1.05	**Clean-up Campaign Keep Pharr Beautiful** Support monthly cleanup program Keep Pharr Beautiful with strong public outreach.	Public Works Department, City of Pharr	$20,000 US Dollar	Border 2020	Grace Gonzalez, Pharr Public Works Department, grace.gonzales@pharr-tx.gov	Reduce illegal dumping in residential and industrial sectors and encourage residents to take	The project has ended and the majority of their objectives were attained. Various public awareness events monthly clean-ups were organized. A workshop was organized for the

						responsibility for the beatification of their communities.	community about the reduction of clandestine dumping. The City plans to continue clean-up campaigns and environmental education activities.
3.1.06	**Alamo's Recycling TEAM Includes Everyone** 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 US Dollar	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 in different schools that reached 700 students. Bilingual signs about not littering were posted.
3.1.07	**Clean-up of Urban Solid Waste Disposal Site in Guerrero Tamaulipas**	SEDUMA, Municipio de Guerrero, Tamaulipas	$3.169 Millones Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Legalize and encourage compliance to NOM-083-SEMARNAT-2003, referring to the closing of disposal sites.	Project was certified by SEMARNAT and the documentation regarding adjudication of resources is in progress.
3.1.08	**Construction and Equipping of the First Phase of Type A Landfill in Río Bravo, Tamaulipas**	SEDUMA, Municipio de Río Bravo, Tamaulipas	$19.359 Millones Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Have adequate modern infrastructure for the final disposal of urban solid waste.	Project was certified by SEMARNAT and the documentation regarding adjudication of resources is in progress.

3.1.09	**Construction and Equipping of Type A Landfill in the Coal Deposit Region**	SEMA, SEMARNAT, Municipalities of Múzquiz y Sabinas	$25 Millones Pesos MX	SEMARNAT PEF 2015	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construction and operation.	Conduct land studies. Under analysis before request for bids.
3.1.10	**Construction and Equipping of Inter-municipal Landfill in the Municipalities of Juarez and Progreso, Coahuila**	SEMA, Municipality of Juárez y Progreso	$8 Millones Pesos MX	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construction and operation.	Under analysis before request for bids.
3.1.11	**Construction and Equipping of Urban Solid Waste Residual Stations in the Municipality of Múzquiz, Coahuila**	SEMA, Municipio de Múzquiz	$8 Millones Pesos MX	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construction and operation.	Under analysis before request for bids.
3.1.12	**RECOLECTRÓN Program** Recollection program for electronic waste within the municipalities.	SEMA, Municipalities Acuña, Allende, Nava y Sabinas	$2 Million Pesos MX	SEMA	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx	In 2015 collect 44.91 tons of waste. In 2016 collect 56.14 tons of waste.	To date 44.89 tons of waste has been collected.
3.1.13	**Responsible Disposal of Tires** Operation of a scrap tire disposal center. Utilizing three cuts volume and the accumulation of water which are breeding grounds for mosquitos (vectors for dengue fever) are reduced.	Municipality of Acuña, Coahuila	$12,000 US Dollar	Municipio de Acuña Coahuila	Biol. Carlos Alejandro Flores Diego, Director of Ecology, floresdiegocarlos@yahoo.com.mx	Develop a municipal infrastructure for stockpiling, managing, and disposing of scrap tires.	There is a regulatory framework that regulates management and a program underway for stockpiling, but an infrastructure is required for final disposal.
3.1.14	**Disposal of Electronic and Hazardous**	Municipality of Acuña, Coahuila	$12,500 US Dollar	Municipality of Acuña	Biol. Carlos Alejandro Flores Diego, Director de Ecología,	Develop a municipal	The regulatory framework was approved as well as an alteration

	Waste Create a stockpile center for the special management of waste, in which			Coahuila.	floresdiegocarlos@yahoo.com.mx	infrastructure for stockpiling, managing, and disposing of electronic and hazardous waste.	to municipal regulations regarding the environment to approve an operating license for 6 months and certification of training workshops. Partnership with CECART#197 for certification.
3.1.15	**Scrap-Tire Management Program** Design and implement a state scrap-tire management program that includes valuation.	SEDUMA Tamaulipas	$ 400 Million Pesos MX	SEDUMA, SEMARNA, EPA	Biol. Jorge García, jgarciah@tamaulipas.gob.mx 834 1078291	Work with cities located on the northern border of the State to regulate a temporary stockpile system for used tires.	The State authorized the business, ECONEU of Reynosa, to operate the Recycle Plant and Scrap Tire Processor, of which they anticipate to break down 100,000 scrap tires annually.

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
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.							
4.2.01	**Update Cross-Border Contingency Plan** Develop a cross-border contingency plan for the Solidarity Bridge, involving first responders from Colombia (Nuevo León), Nuevo Laredo (Tamaulipas), and Laredo (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.	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, slandin@ci.laredo.tx.us 956-795-2150 Juan Ochoa, Protección Civil Nuevo Laredo, Juan.u8a@hotmail.com 01152867 712-46-35	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 and include Colombia in the plan.	The project is on hold because city council has not approved changes to language of the draft revision, intending to clarify that Laredo could not send personnel to respond to incidents across the border, but could assist in other ways.

4.2.02	**Hazardous Materials First Responders Binational Training in McAllen-Mission-Pharr, TX and Reynosa, Tamaulipas**	City of McAllen Fire department	$75,000 US Dollar	Border 2020	Juan A Gloria Jr, Deputy Chief McAllen, jgloria@mcallen.net 956 681-2540	Hold a System and Incident Command Training with firemen from McAllen, Mission, Pharr, and Reynosa.	The Fire Department in McAllen will coordinate and hold the workshop at the end of August.

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 combination of air quality, water quality, water conservation, or waste management							
6.0.01	**Urban Forest Piedras Negras**	SEMA, Municipio de Piedras Negras, SEMARNAT	$ 15 Million Pesos MX	SEMARNAT	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx	Construct an urban forest in the city of Piedras Negras the size of 15 hectares.	Ninety-four percent of the project is complete.
6.0.02	**Strengthening School Networks and Global Climate Change Surveillance "Casa de Tierra"**	SEDUMA, Gobierno Municipal de Reynosa.	$ 66 Million Pesos MX	Gobierno del Estado de Tamaulipas, SEMARNAT	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Build, equip, and operate 3 "Casa de Tierra" to attend to the population in the northern, central, and southern areas of the State. 160 visitors annually.	CDT Victoria operating since December of 2013. CDT Reynosa operating since January 2015. CDT Madero in the final phase of construction.
6.0.03	**Extension of Environmental Management Systems Program** Extend Tamaulipas' state program in promoting environmental management	SEDUMA Tamaulipas	$ 300,000 Pesos MX	SEDUMA, Empresas IP, Participants	Dra. Silvia Casas, SEDUMA, silvia.casas757@gmail.com	Reach out to 100% of the border cities.	SIMA enrolled more than 90 schools in Matamoros, Tampico, and Victoria. Each school held workshops on water, waste, and energy efficiency, reaching a

	systems (SIMA) to more schools and government offices.						total of 26,000 students. Schools received equipment. SIMA trained 1,800 state employees in water conservation, energy efficiency, and recycling. State offices received water filters and energy-efficient light bulbs.
6.0.04	**Planning of Health & Environmental Information Model Along TX-MX Border** The development of a conceptual framework for a bi-national environmental and health information repository.	El Colegio de la Frontera del Norte	$39,875 US Dollar	Border 2020	Dr. Felipe Uribe, COLEF, ursafeja@gmail.com 878 782 7207	Identify required tools and capacities, compare existing systems, identify and recommend training or educational needs, and develop an indicator system to measure environmental health.	A theoretical framework in order to identify information on health and the environment was developed. Different key contacts were interviewed. Information was obtained about health and environmental indicators through the elaboration of Memorandums of Understanding between academic institutions involved in the project and the respective Secretariats of Health and the Environment from Coahuila State.
6.0.05	**Promotora-Led Environmental Health Education for Children** 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 heath promotoras, who subsequently will provide educational information in elementary schools, child care settings and to colonia residents.	La Amistad AHEC and Southwest Border AHEC	$69,083 US Dollar	Border 2020	Rosa Elvira Martinez, Southwest Area Border Health Education Center, rose.martinez@swbahec.org (830) 758-1111	Conduct training and provide educational information on pesticide awareness to elementary schools and homes in colonias.	As of July, promotoras had conducted visits to two elementary schools and one head start to educate children on hazards related to pesticide exposure and household chemicals. Promotoras also conducted training on pesticide awareness in more than 30 homes and post-assessments in seven homes, with 23 of them expected to be evaluated in the fall of 2015.

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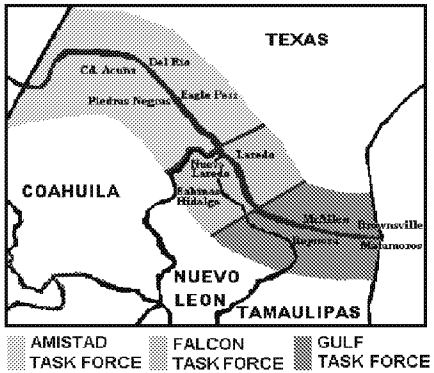
FRONTERA 2020

Plan de Acción 2015-2016

Grupo de Trabajo Regional TX-COAH-TAMP-NL

Septiembre del 2015



El Grupo de Trabajo Regional de los Cuatro Estados es el más complejo de los cuatro grupos regionales, debido a su extensión geográfica y el número de municipios que lo integran. La región incluye partes de los tres estados y un total de por lo menos 29 municipios del lado mexicano y 168 ciudades y poblados del lado estadounidense. Reconociendo lo anterior, este grupo de trabajo se dividió en 3 Equipos de Trabajo con un enfoque geográfico: Amistad, Falcón, y del Golfo, cada uno de los cuales ha creado comités para temas específicos relacionados con sus prioridades.

Durante el primer semestre de 2015, los tres equipos de trabajo han mantenido reuniones para discutir las prioridades iniciales para el Plan de Acción 2015-2016, así como varias conferencias telefónicas de líderes se celebraron en junio de 2015 para desarrollar un consenso de las prioridades en cada equipo de trabajo y a nivel del grupo regional de trabajo.

Frontera 2020 tiene cinco metas y los grupos regionales de trabajo proponen proyectos para poner en práctica estos objetivos. A estos proyectos se les da un seguimiento a través de los planes de acción revisables cada dos años. La versión 2015-2016 es el segundo de su tipo. Varios proyectos han sido prorrogados del Plan de Acción 2013-2014, debido a un consenso por parte del grupo de trabajo de los cuatro estados, se incluyó una sexta meta para proyectos de salud y educación. Los proyectos son organizados por Frontera 2020 en metas y objetivos.

Prioridades Regionales

1. Mejorar la calidad del aire a través de los siguientes enfoques:
   a. Incrementar la eficiencia energética a nivel de consumo y el uso de energías renovables en todos los niveles pertinentes
   b. Analizar las emisiones y sus fuentes en cuencas atmosféricas específicas

2. Mejorar la calidad del agua mediante la adopción de las siguientes medidas:
   a. Evaluar la parte de la cuenca del Río Bravo que se encuentra en esta región
   b. Establecer programas de aplicación de la ley para prevenir la contaminación de los cuerpos de agua en el lado mexicano
   c. Mejorar la infraestructura del agua con respecto a respecta a los sistemas de tratamiento y distribución en las zonas rurales

3. Abordar los problemas de la disposición inadecuada de los residuos:

Ayudar a las comunidades a desarrollar capacidades para los flujos de residuos, mediante la implementación de reciclaje, recolección de residuos peligrosos y electrónicos domésticos y programas de disposición, y el desarrollo de planes integrales para la disposición de llantas de desecho y los mercados alternativos

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4. Ampliar la educación ambiental relacionada con el tema de los residuos

5. Mejorar la Preparación Conjunta para la Respuesta Ambiental
   a. Proveer capacitación HAZMAT a personal de respuesta a contingencia locales para reducir la exposición a sustancias químicas como resultado de la emisión de sustancias químicas accidentales y/o derrames.
   b. Coordinar ejercicios de mesa de preparación de respuesta a emergencias o ejercicios en campo

6. Desarrollar un curriculum de salud ambiental certificado para capacitar trabajadores de salud comunitario y promotoras sobre plomo, mercurio, otros metales pesados y pesticidas

Prioridades Individuales de Cada Equipo de Trabajo

Equipo de Trabajo Amistad

1. Generar planes para mitigar los impactos del cambio climático en Coahuila
2. Establecer estaciones de monitoreo de calidad del aire e intercambiar datos con Texas
3. Desarrollar una base de datos para medir las emisiones de las operaciones de fractura hidráulica en Coahuila
4. El aumento del uso de fuentes de energías alternativas y renovables (como el bio gas de relleno sanitario y energía solar)
5. Desarrollar programas de conservación y reutilización de agua para riego en Coahuila
6. Establecer programas de gestión de residuos en diez municipios de Coahuila (incluyendo residuos electrónicos, gestión de residuos peligrosos y su reciclaje)
7. Desarrollar y promover programas de gestión de llantas de desecho, reciclaje y residuos sólidos en la reservación Kikapue

Equipo de Trabajo Falcón

1. Realizar un estudio sobre el uso del gas metano para la generación de energía en los rellenos sanitarios
2. El seguimiento de las operaciones de perforación en el Eagle Ford Shale y en el lado mexicano
3. Finalización del plan de contingencia transfronteriza
4. Generar estudios y proyectos para la reutilización y la conservación del agua
5. Desarrollar una gestión adecuada, mercados alternativos (como trituradores de neumáticos) y reglamentos para llantas de desecho
6. Establecer programas referentes a residuos electrónicos y residuos peligrosos domésticos en los municipios del Equipo de Trabajo Falcón
7. Desarrollar un estudio de diagnóstico en materia de generación y los mercados alternativos para residuos de la construcción en el Equipo de Trabajo Falcón
8. Desarrollar un taller de trabajo sobre las mejores prácticas relacionadas con la salud pública y los indicadores de educación ambiental

Equipo de Trabajo del Golfo

1. Programas para mejorar la eficiencia energética.
2. Educar a la comunidad sobre cómo mejorar la calidad del agua
3. Mejorar o desarrollar programas de gestión para el Pretratamiento Industrial, Grasas y Aceites, y aguas pluviales.
4. Aumentar la conciencia ambiental y la responsabilidad con respecto a efectos de la salud en residentes municipales, comunitarios rurales y colonias populares provenientes de los residuos sólidos y las aguas residuales.
5. Capacitación para Promotoras en Viviendas Saludables a lo largo de la frontera de Estados Unidos-MX en el Equipo de Trabajo Golfo

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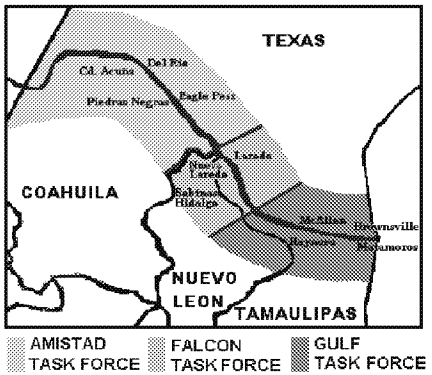
Frontera 2020

Esquema del Plan de Acción 2015-2016
del Grupo de Trabajo Regional de los Cuatro Estados

Leyenda:

- Actividad que abarca áreas de por lo menos dos Equipos de Trabajo
- Equipo de Trabajo del Golfo
- Equipo de Trabajo Falcón
- Equipo de Trabajo Amistad



META # 1: Reducir la contaminación del aire

Proyecto Nº	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objetivo 1: Para el año 2020, reducir el número de vehículos que operan en la región fronteriza sin cumplir con las normas sobre emisiones vehiculares, y reducir las emisiones vehiculares en los puertos de entrada, aplicando medidas contra la marcha en vacío y otras medidas de reducción factibles.							
1.1.01	**Caracterización de las actividades y emisiones de Tracto Camiones de carga en la cuenca atmosférica Laredo-Nuevo Laredo** Desarrollar una caracterización detallada de la actividad de acarreo en la región de Laredo-Nuevo Laredo y sus implicaciones de calidad del aire.	Texas A&M Transportation Institute (TTI)	$89,750 US Dólar	Frontera 2020	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu (512) 467-0946	Recopilar información de la actividad en los vehículos de acarreo para estimar sus emisiones e impactos en la cuenca atmosférica de Laredo y Nuevo Laredo.	TTI obtuvo los permisos por parte de la EPA, COCEF y la Texas A & M IRB para recolectar los datos de GPS de los vehículos de acarreo que operan en la región de Laredo-Nuevo Laredo. TTI reclutó a 20 operadores de camiones de acarreo y se recogió los datos de GPS. El personal de TTI está analizando los datos y determinando el impacto de las emisiones de los camiones.

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1.1.02	**Emisiones de Tracto Camiones de Diésel en el Corredor Laredo – San Antonio** Encuesta de la actividad de tracto camiones de diésel y la evaluación der las emisiones típicas de los tracto camiones diésel mexicanos a lo largo del corredor Laredo-San Antonio.	Texas A&M Transportation Institute	$100,000 US Dólar	EPA, TCEQ	Dr. Reza Farzaneh,TTI, Reza.Farzaneh@tamu.edu, (512) 467-0946	Recolección y análisis de datos. TTI presentará los resultados y el informe en Agosto.	El proyecto se completó. En agosto el informe final fue entregado a la TCEQ con sus resultados y actualmente está bajo revisión.
Objetivo 3: Para 2018, mantener sistemas eficaze de monitoreo del aire y proveer acceso a los datos cualitativos en tiempo real.							
1.3.01	**Actualización del Programa de Ordenamiento Ecológico de la Región Cuenca de Burgos, Tamaulipas**	SEDUMA	$2 Millones Pesos MX	SEDUMA, SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Formular un Sistema de Monitoreo y Evaluación de los Indicadores Ambientales más relevantes del Ordenamiento Ecológico, considerando el desempeño de estos; definiendo métricas que permitan medir la eficacia de las estrategias y políticas definidas en el ordenamiento.	Se encuentra en proceso la actualización del programa a través de la contratación de un consultor externo que desarrollará las modificaciones al modelo de ordenamiento vigente.
Objetivo 4: Para el año 2020, apoyar la finalización de planes de acciones de cambio climático en cada uno de los seis estados mexicanos norteños fronterizos y construir la capacidad necesaria para garantizar su implementación sustentable.							
1.4.01	**Plan de Acción Climática Municipal de San Fernando, Tamaulipas**	SEDUMA, Gobierno Municipal de San Fernando, Tamaulipas	$ 2.199 Millones Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Elaboración de un instrumento de planeación de políticas públicas para el desarrollo	Este proyecto se encuentra en trámites administrativos para ejercer el presupuesto otorgado. Este recurso lo ejercerá el municipio de San Fernando y

						de acciones y estrategias para mitigar las emisiones de Gases de Efecto Invernadero, reducir la vulnerabilidad del municipio de manera tal que se aumente la capacidad de adaptación al Cambio Climático.	cuenta con el aval del Estado para la validación de los términos de referencia y anexo técnico respectivo.
1.4.02	**Programa Estatal de Cambio Climático de Tamaulipas**	SEDUMA Tamaulipas	$200,000 US Dólar	Banco Interamericano de Desarrollo (BID)	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Actualizar el inventario de emisiones de gases efecto invernadero y desarrollar la agenda de adaptación al cambio climático.	Este proyecto lo desarrolla un consultor externo. Ha concluido la actualización del inventario y actualmente se trabaja en la Agenda de Adaptación y en la integración de ambos componentes. Su fecha de término es noviembre de 2015.
Objetivo 5: Para el año 2020, reducir las emisiones y los impactos asociados por medio de la eficiencia energética y/o proyectos de energía alternativa o renovable.							
1.5.01	**Plan de Acción Climática de Coahuila** Está en proceso la Etapa 2 del Plan Estatal de Acción Climática (PEAC) de Coahuila: Cuantificación de las políticas públicas de mitigación seleccionadas en la Etapa 1.	Gobierno del Estado de Coahuila y COCEF	$275,000 US Dólar	COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Evaluación econométrica de las políticas públicas de mitigación seleccionadas en la Etapa 1.	Se lleva a cabo la Etapa de Análisis Microeconómico de Políticas Públicas para el Estado de Coahuila. Se llevan a cabo reuniones con los Grupos de Trabajo Técnicos, el Grupo Consultivo y el Comité Intersecretarial ante el Cambio Climático.

1.5.02	**Red de Calidad del Aire en Coahuila** Establecer una red de monitoreo atmosférico en la región de Piedras Negras, Monclova y Saltillo, Coahuila.	SEMA (Coahuila) Municipios de Piedras Negras, Monclova y Saltillo	$12 Millones Pesos MX	SEMARNAT	Santiago Barrios, SEMA/Coahuila, santiago.barrios@sema.gob.mx	Contar con una red de monitoreo atmosférico en funcionamiento en las regiones de Piedras Negras, Monclova y Saltillo.	El proyecto ha sido autorizado; se encuentra en etapa de revisión previa a la licitación.
1.5.03	**Plan de Acción Climática de Tamaulipas** Está en proceso la Etapa 2 del Plan Estatal de Acción Climática (PEAC) de Tamaulipas: Identificación y Cuantificación de las políticas públicas de mitigación seleccionadas en la Etapa 1.	Gobierno del Estado de Tamaulipas y COCEF	$300,000 US Dollar	COCEF, BID	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Selección de una serie de políticas públicas de mitigación priorizadas para el cambio climático.	Se estableció un Comité Intersecretarial ante el Cambio Climático (CICC), así como los Grupos de Trabajo Técnico (GTT) y el Grupo Consultivo (AG). Un consultor ha sido contratado. Se encuentran trabajando en la Agenda de Adaptación, Actualización de inventario de emisiones y en la integración de ambos componentes.
1.5.04	**Sistema de Monitoreo Atmosférico** Fortalecer el Sistema de Monitoreo Atmosférico en Tamaulipas	SEDUMA Tamaulipas	Anual: $250,000 Pesos MX ($150,000 Municipal Y $100,000 Estatal)	SEDUMA' Ayuntamiento de Matamoros	Biol. Jorge Garcia, jgarciah@tamaulipa.gob.mx 834 1078291	En el 2014, el Sistema operará al 100% con normas consistentes programáticas.	Se encuentran operando actualmente 4 de los 8 equipos (1 Nuevo Laredo, 2 en Victoria, 1 en Madero y 1 en Tampico). Se tiene en gestión la puesta en operación de los 4 equipos ubicados en Matamoros para el último trimestre del año 2015.
1.5.05	**Taller de Infraestructura Verde**	SEMA, COCEF		SEMA, COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Capacitar a municipios en el Estado sobre infraestructura verde	Se llevaron a cabo 2 talleres' uno el 21 de Abril 2015 en donde se atendieron a 5 municipios de la Región Sureste y un taller más realizado el 27 de Mayo 2015 donde se atendieron a 10 municipios de la Región Centro y Desierto. Programación para taller estatal el último trimestre del 2015.

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Meta # 2: Mejorar el acceso a agua limpia y potable

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objetivo 2: Apoyar a los proveedores de servicios de agua y saneamiento de la región fronteriza en la implementación de prácticas de infraestructura sustentable, con el fin de reducir sus costos operativos, mejorar su eficiencia energética, y promover el uso eficiente del agua y la adaptación al cambio climático.							
2.2.01	**Actualizar la Infraestructura de la Red de Alcantarillado en Nuevo Laredo** Instalar / modernizar las redes de alcantarillado conectadas a la planta de tratamiento de aguas residuales de Nuevo Laredo, para evitar descargas contaminadas al Río Bravo.	COMAPA, Municipio de Nuevo Laredo	$5 Millones US Dólar	NADB	CP Delfino González, COMAPA, dgcdelfino@comapanuevolaredo.gob.mx	Terminar el proyecto para Enero de 2015.	COCEF certificó el proyecto en septiembre de 2012. De las cinco líneas de alcantarillado, uno se completó a mediados de 2014. Los cuatro colectores restantes estaban en reparación y descargan aproximadamente 1,6 MGD al sistema de aguas pluviales. Otro punto de descarga fue identificado por la COMAPA en el Arroyo La Joya y será reparada.
2.2.02	**Gestión de las Grasas y Aceites en Nuevo Laredo** Reducir la concentración de grasas y aceites en los efluentes de las descargas en restaurantes, hoteles y la Industria en la red de Nuevo Laredo.	Comisión Municipal de Agua Potable y Alcantarillado, Nuevo Laredo.	$32,533 US Dollar	Frontera 2020	Ing. Juan Carlos Pérez, COMAPA Nuevo Laredo, jcarlos_faz@hotmail.com 01152867 717-24-44	Realizar talleres de trabajo y seguimiento con los establecimientos comerciales en la implementación del Programa de Manejo de Grasas y Aceites.	COMAPA organizó con apoyo de alumnos de la Universidad Tecnológica una serie de talleres de trabajo para capacitar a residentes y los establecimientos comerciales en las mejores prácticas para el manejo y control de las grasas y aceites generadas. El último taller de trabajo se realizó en agosto de 2015, realizando un recorrido en la Planta Internacional de Tratamiento de Aguas Residuales. Todos los establecimientos que

							participaron en los Talleres de Trabajo ya cuentan con un sistema de trampa de grasas y están aplicando las técnicas para el control y manejo de las mismas. La COMAPA está desarrollando el informe final del proyecto para ser presentado ante la COCEF.
2.2.03	**Material Ideal para la Filtración Biológica en el Manejo de Aguas Pluviales** Identificar el mejor material disponible localmente para su uso en el bio canal de filtración en el Bajo Valle del Río Grande y el Sur de Texas.	University of Texas Rio Grande Valley	$26,022 US Dólar	Frontera 2020		El prototipo del Canal de Filtración Biológico se pondrá a prueba en un estacionamiento de nueva construcción en el campus de UT.	El vidrio molido de medio poroso reciclado mostró un buen rendimiento hidrológico en la Filtración Biológica.
Objetivo 3: Trabajar en el ámbito binacional para identificar y reducir la contaminación de las aguas superficiales en cuencas o cuerpos acuíferos transfronterizos.							
2.3.01	**Control de Plantas Invasivas** Implementar un programa para eliminar plantas invasoras en el Río Bravo.	SEMA Coahuila, CONANP, PROFAUNA, WWF, Fundación Slim	$1.5 Millones Pesos MX Anuales	SEMA (Coahuila), CONANP, PROFAUNA WWF, Fundación Slim	Alejandra Carrera, SEMA Coahuila alejandra.carrera@sema.gob.mx 01152844 410-0014	Control de plantas: 2014: Tamarix 34 ha y Carrizo 40 ha 2015: Tamarix 34 ha Carrizo 40 ha 2016: Tamarix 34 ha Carrizo 40 ha	PROFAUNA y CONANP con apoyo de WWF y Fundación Slim han controlado desde 2014 una superficie anual de 34 ha para la planta Tamarix y 40 para el Carrizo; hasta la fecha se mantiene la misma cantidad para el 2015 y se proyecta de igual manera mantener las cantidades controladas de estas plantas invasivas para el 2016.
2.3.02	**Conservación del Arroyo Las Vacas** Diseñar e implementar acciones para mejorar la calidad del agua y promover un hábitat adecuado	Ciudad Acuña Dirección de Ecología, SEMA Coahuila	$44,200 US Dólar	Frontera 2020	Lic. Alejandra Carrera, Secretaría de Medio Ambiente de Coahuila, alejandra.carrera@sema.gob.mx 01152844 410-0014	Implementar acciones para mejorar la calidad del agua y promover un hábitat adecuado para especies de flora y fauna en el	Se cuenta con avances en materia de diagnóstico del Arroyo Las Vacas, monitoreo de calidad de agua, flora y fauna; detección y atención de problemática, así como intercambio de estudiantes ITSA-Universidad de Texas. Se llevó a cabo una presentación del

	para especies de flora y fauna en el Arroyo Las Vacas.					Arroyo Las Vacas.	proyecto en la Feria Ambiental de la TCEQ en Austin en Mayo 2015. En Octubre, una capacitación está prevista para el monitoreo binacional de calidad del agua, la comparación de datos y técnicas de muestreo.
2.3.03	**Iniciativa Binacional de Calidad del Agua en el Bajo Río Bravo** Implementar una iniciativa binacional del Río Bravo en materia de Calidad del Agua (de Falcón hasta el Golfo) que caracteriza el estado del río, desarrollando un plan estratégico para mejorar las condiciones ambientales, y proponer un plan de monitoreo para documentar el progreso.	TCEQ, EPA, IBWC, CILA, CONAGUA, y Agencias de los Gobiernos Federal, Estatal, y Local		TCEQ, EPA, IBWC, CILA, CONAGUA, y Agencias de los Gobiernos Federal, Estatal y Local	Kelly Holligan , TCEQ, Kelly.holligan@tceq.texas.gov 512-239-2369		En marzo el Grupo Binacional de Trabajo Técnico de la LRGWQI (por siglas en inglés) llevó a cabo la primera de las cuatro encuestas de calidad del agua binacionales programadas para el proyecto. También desarrollaron un archivo preliminar de datos de un modelo de calidad del agua en estado estacionario del Río Grande / Río Bravo (Presa Falcón al Golfo de México).

Meta # 3: Promover la gestión integral de materiales, la gestión de residuos y sitios limpios

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.01	**Programa de Educación Ambiental en Nuevo Laredo** Establecer una organización ambiental para desarrollar programas de sensibilización ambiental y de limpieza en Nuevo Laredo en la afiliación con Keep America Beautiful.	Keep Laredo Beautiful, Keep America Beautiful, y el Municipio de Nuevo Laredo		La Ciudad de Laredo, Depto. de Servicios Ambientales y Keep America Beautiful	Lynne Nava, Keep Laredo Beautiful, lnava1@ci.laredo.tx.us 956-794-1650	Establecer una organización ambiental afiliada con Keep America Beautiful en el 2016.	Keep Laredo Beautiful se reunirá con funcionarios de la Universidad Tecnológica de Nuevo Laredo en agosto para discutir el proyecto y preguntar sobre su interés en el establecimiento de una organización ambiental a través de Keep America Beautiful. Keep Laredo Beautiful se ha

							comprometido a pagar las cuotas de afiliación por un año para la organización de estar afiliado a Keep America Beautiful.
3.1.02	**Caracterización de Residuos Sólidos Urbanos, Corrientes y Diagnóstico en cuanto a la Generación / Gestión de Residuos** Estudiar y caracterizar el flujo de residuos sólidos urbanos en Sabinas Hidalgo, Nuevo León. Analizar la gestión de la generación de residuos sólidos y "manejo especial" en seis municipios fronterizos de Nuevo León.	SDS Nuevo León y el Municipio de Sabinas Hidalgo, Nuevo León	$47,000 US Dólar	Frontera 2020, COCEF	Norma Rangel Sevilla, SDS, Nuevo León, normaarangel@gmail.com 0115281 20 33-19-38	Analizar la generación de residuos sólidos y de "manejo especial" en los seis municipios fronterizos y caracterizar el flujo de residuos sólidos en Sabinas. Completar el estudio en 2015.	El estudio se finalizó en junio de 2015. Más detalles del estudio serán proporcionados en una fecha posterior.
3.1.03	**Operación de un Centro de Acopio de Residuos Electrónicos y Peligrosos Generados en las Casas de Habitación**	Municipio de Nuevo Laredo, Tamaulipas	$3.626 Millones Pesos MX	Municipio de Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretario de Obras Públicas, Desarrollo Urbano y Medio Ambiente, cdeandah@hotmail.com	Generar una infraestructura municipal para el acopio, manejo y disposición de los residuos peligrosos y electrónicos domésticos.	Las instalaciones ya se encuentran terminadas, solo falta la autorización por parte de la SEMARNAT para su operación, el cual ya se encuentra en gestión. Posible arranque de operaciones en el último trimestre del año.
3.1.04	**Ordenamiento Ambiental para la Disposición de Residuos de la Construcción**	Municipio de Nuevo Laredo, Tamaulipas	El proyecto se opera y respalda con los recursos que paga el ciudadano por el	Municipio de Nuevo Laredo, Tamaulipas	Arq. Carlos de Anda Secretario de Obras Públicas, Desarrollo Urbano y Medio Ambiente, cdeandah@hotmail.com	Generar una alternativa en la comunidad para la disposición de los residuos de construcción y mitigar los tiraderos	Este proyecto ha operado en forma continua, generando un impacto importante por parte de la comunidad. Se paga 123 pesos por m3 cuando el residuo no es mayor a 2 m3. Si es de 3-10 m3 el servicio les cuesta 88 pesos. Si rebasa los

			manejo y gestión de los residuos.			clandestinos de este tipo de residuos.	10 m3, por salir del programa se les cobra 100 pesos el m3.
3.1.05	**Keep Pharr Beautiful Campaña de Limpieza** Apoyo a los programas de limpieza mensuales de Keep Pharr Beautiful con una fuerte difusión pública.	Departamento de Servicios Públicos, Ciudad de Pharr	$20,000 US Dólar	Frontera 2020	Grace González, Pharr Departamento de Servicios Públicos grace.gonzales@pharr-tx.gov	Reducir los tiraderos clandestinos en los sectores residencial e industrial y alentar a los residentes a tomar responsabilidad por la conservación de sus comunidades.	El proyecto ha sido finalizado y la mayor parte de los objetivos fueron realizados. Se realizaron varios eventos de concientización, se llevaron a cabo varios eventos mensuales de limpieza. Se creó una herramienta de Comunicación Bilingüe. Un taller fue organizado para la reducción de tiraderos clandestinos para la comunidad. La Ciudad planea continuar con su programa de limpieza y las actividades de educación.
3.1.06	**El Equipo de Reciclaje Alamo Nos Incluye a Todos** Implementar "Alamo's Recycling TEAM Includes Everyone" (ARTIE), que se esfuerza por mejorar la gestión de los residuos sólidos en la ciudad	City of Alamo	$54,838 US Dólar	Border 2020	Melissa Gonzales Ciudad del Alamo	Aumentar los esfuerzos del reciclaje por lo menos el 25%. Aumentar la conciencia de la contaminación difusa y soluciones, estableciendo alianzas que promuevan el cuidado del medio ambiente.	Se organizaron varios eventos en diferentes lugares, 12 presentaciones se realizaron en diferentes escuelas que alcanzan 700 estudiantes. Se instalaron letreros bilingües de no tirar basura.
3.1.07	**Saneamiento del Sitio de Disposición Final de Residuos Sólidos Urbanos en Guerrero, Tamaulipas**	SEDUMA, Municipio de Guerrero, Tamaulipas	$3.169 Millones Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Regularizar y generar el cumplimiento de la NOM-083-SEMARNAT-2003, referente a la	Proyecto validado por la SEMARNAT, en trámite la documentación para la adjudicación de recursos.

						clausura de sitios de disposición final.	
3.1.08	**Construcción y Equipamiento de la Primera Etapa del Relleno Sanitario Tipo A en Río Bravo, Tamaulipas**	SEDUMA, Municipio de Río Bravo, Tamaulipas	$19.359 Millones Pesos MX	SEMARNAT PEF 2015	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Contar con la infraestructura moderna y suficiente para la disposición final de los residuos sólidos urbanos.	Proyecto validado por la SEMARNAT, en trámite documentación para la adjudicación de recursos.
3.1.09	**Construcción y equipamiento de relleno sanitario Tipo A en la Región Carbonífera**	SEMA, SEMARNAT, Municipios de Múzquiz y San Juan de Sabinas	$25 Millones Pesos MX	SEMARNAT PEF 2015	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construcción y operación	Conducir estudios de terrenos. En análisis previo a licitación.
3.1.10	**Construcción y Equipamiento de Relleno Sanitario Intermunicipal en los Municipios de Juárez y Progreso, Coahuila**	SEMA, Municipios de Juárez y Progreso	$8 Millones Pesos MX	PEMEX Fondo de Hidrocarburos	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construcción y operación	En análisis previo a licitación.
3.1.11	**Construcción y equipamiento de dos Estaciones de Transferencia de Residuos Sólidos Urbanos en el Municipio de Múzquiz, Coahuila**	SEMA, Municipio de Múzquiz	$8 Millones Pesos MX	PEMEX Fondo de Hidrocarburos	Oscar Flores, SEMA, Oscar.flores@sema.gob.mx	Construcción y operación	En análisis previo a licitación.
3.1.12	**Programa RECOLECTRÓN** Recolección de residuos electrónicos en los Municipios.	SEMA, Municipios Acuña, Allende, Nava y Sabinas	$2 Millones Pesos MX	SEMA	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx	2015: Reunir 44.91 toneladas 2016: Reunir 56.14 toneladas	Hasta la fecha se han recolectado 44.89 toneladas.

3.1.13	**Disposición Responsable de Llantas** Operación de un centro para la disposición de neumáticos en desuso. Mediante 3 cortes se disminuye el volumen y el riesgo de acumulación de agua que son criaderos de mosquitos (portadores del dengue).	Municipio de Acuña, Coahuila	$12,000 US Dólar	Municipio de Acuña, Coahuila	Biol. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx	Generar una infraestructura municipal para el acopio, manejo y disposición de los neumáticos en desuso.	Se cuenta con un marco normativo que regula el manejo y un programa en marcha para el acopio, pero se requiere la infraestructura para la disposición final.
3.1.14	**Disposición Residuos Peligrosos y Electrónicos** Crear un centro de acopio para residuos de manejo especial, de manera que los pequeños generadores puedan disponer sus residuos de forma final adecuada y conforme a la normativa aplicable.	Municipio de Acuña, Coahuila	$12,500 US Dólar	Municipio de Acuña Coahuila.	Biol. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx	Generar una infraestructura municipal para el acopio, manejo y disposición de los residuos peligrosos y electrónicos	Marco normativo aprobado por cabildo y modificación al reglamento municipal en materia de medio ambiente para condicionar el funcionamiento mediante licencia de 6 meses y certificación de capacitación. Convenio con CECATI #197 para la certificación.
3.1.15	**Programa de Manejo de Llantas de Desecho** Diseñar e implementar un programa de manejo para las llantas de desecho y su valorización.	SEDUMA Tamaulipas	$400 Millones Pesos MX	SEDUMA, SEMARNA, EPA	Biol. Jorge García, jgarciah@tamaulipas.gob.mx 834 1078291	Trabajar con cada uno de los Ayuntamientos de la frontera norte del Estado para regular sistemáticamente el acopio y almacenamiento temporal de las llantas usadas.	El Estado otorgó autorización en materia de impacto ambiental a la empresa ECONEU de Reynosa para la operación de una **Planta Recicladora y Procesadora de Neumáticos en Desuso,** con lo que se proyecta disminuir en 100 mil unidades los pasivos de neumáticos en desuso, anualmente.

Meta #4: Optimizar la preparación conjunta de respuesta ambiental

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Objetivo 2: Para el año 2020, por lo menos ocho (8) de los planes conjuntos de contingencia de las ciudades hermanas serán complementados con actividades relacionadas con preparación y prevención, como certificación de la capacitación, análisis de riesgo, y/o desarrollo de capacidades.							
4.2.02	**Actualización del Plan de Contingencias Transfronterizo** Desarrollar un plan de contingencia transfronterizo para el Puente Solidaridad, con la participación de respuesta a emergencias de Colombia (Nuevo León), Nuevo Laredo (Tamaulipas) y Laredo (Texas), reconociendo que Colombia, aguas arriba de las otras dos ciudades, es mucho más pequeño y, sin embargo los envíos de materiales peligrosos en la zona se dirigen actualmente a este puente.	Departamento de Bomberos de Laredo, Protección Civil de Nuevo Laredo, CILA, CODEFRONT, y la Ciudad de Laredo		EPA, COCEF, PROFEPA, y Protección Civil	Steve Landin, Departamento de Bomberos de Laredo, slandin@ci.laredo.tx.us 956-795-2150 Juan Ochoa, Protección Civil Nuevo Laredo, Juan.u8a@hotmail.com 01152867 712-46-35	Establecer nuevas reuniones con el personal de las dos ciudades con el fin de revisar el lenguaje del proyecto de revisión y posiblemente desarrollar un lenguaje alternativo e incluir a Colombia en el plan.	El proyecto está en espera debido a que la Ciudad de Laredo, TX no ha aprobado los cambios en el lenguaje del documento borrador, destacando que la Ciudad de Laredo no puede enviar personal para atender una llamada de emergencia en la frontera de lado mexicano, pero podría colaborar de otras formas.
4.2.02	**Entrenamiento Binacional en Atención a respuesta a emergencias en materia de Materiales Peligrosos en McAllen-Mission-Pharr, TX y Reynosa, Tamaulipas**	Ciudad de McAllen, Departamento de Bomberos	$75,000 US Dólar	Frontera 2020	Juan A Gloria Jr, Deputy Chief McAllen, jgloria@mcallen.net 956 681-2540	Proporcionar la Capacitación de Sistema y Comando de Incidentes a los bomberos de McAllen, Mission, Pharr y Reynosa. Realizar simulacro para poner a prueba la capacitación.	El Departamento de Bomberos de la Ciudad de McAllen coordinará y llevará a cabo la capacitación a finales de agosto.

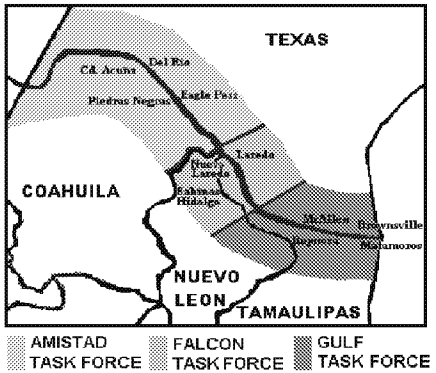
Promover esfuerzos transversales relacionados con la Salud y Educación Ambiental

Proyecto N°	Descripción del Proyecto	Organismos Colaboradores	Costo Estimado	Fuente(s) de Financiamiento	Contacto(s)	Objetivo para 2015-2016	Avance del Proyecto
Projects potentially related to some combination of air quality, water quality, water conservation, or waste management							
6.0.01	**Bosque Urbano Piedras Negras**	SEMA, Municipio de Piedras Negras, SEMARNAT	$ 15 Millones Pesos MX	SEMARNAT	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx	Construir un Bosque Urbano en la ciudad de Piedras Negras con superficie de 15 ha.	Se cuenta con un avance del 94% de la obra.
6.0.02	**Fortalecimiento de la Red de los Centros de Educación y Vigilancia Climática Global ¨Casa de la Tierra¨**	SEDUMA, Gobierno Municipal de Reynosa.	$ 66 Millones Pesos MX	Gobierno del Estado de Tamaulipas, SEMARNAT	Dra. Silvia Casas González, SEDUMA, silvia.casas757@gmail.com	Construir, equipar y operar 3 Casas de la Tierra para atender la población de Norte, Centro y Sur del Estado. 160 mil visitantes anualmente.	CDT Victoria operando desde diciembre de 2013. CDT Reynosa operando desde enero de 2015. CDT Cd. Madero en fase final de construcción.
6.0.03	**Ampliación del Programa de Sistemas de Gestión Ambiental** Ampliar el programa Estatal de Tamaulipas en la promoción de sistemas de gestión ambiental (SIMA) a más escuelas y oficinas de gobierno.	SEDUMA Tamaulipas	$ 682,505 Pesos MX	SEDUMA, Empresas IP, Participantes	Dra. Silvia Casas, SEDUMA, silvia.casas757@gmail.com	Implementar y operar sistemas de manejo ambiental (SIMAS) en escuelas y oficinas públicas en los principales municipios.	SIMA enroló a más de 90 escuelas en Matamoros, Tampico y Victoria. Cada escuela llevó a cabo talleres en materia del agua, residuos, y la eficiencia energética, alcanzando un total de 26.000 estudiantes. Las Escuelas recibieron equipamiento como inodoros de bajo flujo de agua, contenedores para reciclaje, y focos de bajo consumo. SIMA ha entrenado a 1800 empleados del Estado en la conservación del agua, la

							eficiencia energética, y el reciclaje. Oficinas Estatales recibieron filtros de agua y focos de bajo consumo.
6.0.04	**Modelo de Información para la Planificación de la Salud y Medio Ambiente a lo largo de la frontera Texas-MX** El desarrollo de un marco conceptual para un banco de información ambiental y de salud binacional.	El Colegio de la Frontera del Norte	$39,875 US Dólar	Frontera 2020	Dr. Felipe Uribe, COLEF, ursafeja@gmail.com 878 782 7207	Identificar las herramientas y capacidades necesarias, comparar los sistemas existentes, identificar y recomendar las necesidades de formación y de aprendizaje, y desarrollar un sistema de indicadores para medir la salud ambiental.	Se ha trabajado en un marco teórico para la identificación de información en salud y medio ambiente. Se han entrevistado a los diferentes actores claves. Se ha obtenido información sobre indicadores de salud y medio ambiente a través de la elaboración de Memorandums de Entendimiento entre las instituciones académicas involucradas en el proyecto y las respectivas Secretarías de Salud y Medio Ambiente del Estado de Coahuila.
6.0.05	**Educación para la Salud Ambiental para Niños a través de Promotoras** Apoyar el desarrollo de un enfoque integrado para educar a las familias sobre los peligros de la exposición al mercurio, plomo y pesticidas, particularmente los efectos sobre la salud respiratoria, especialmente asma. Estos módulos se utilizarán para proporcionar capacitación a promotoras de salud, que posteriormente proporcionarán información educativa en las escuelas primarias, centros de atención infantil y áreas rurales.	La Amistad AHEC and Southwest Border AHEC	$69,083 US Dólar	Frontera 2020	Rosa Elvira Martinez Southwest Area Border Health Education Center rose.martinez@swbahec.org (830) 758-1111	Llevar a cabo la capacitación y proporcionar información educativa sobre la conciencia de pesticidas en las escuelas primarias y zonas rurales.	A partir de julio, las promotoras habían realizado visitas a dos escuelas primarias y comenzaron la educación a los niños sobre los riesgos relacionados con la exposición a plaguicidas y productos químicos de uso doméstico. Las promotoras también llevaron a cabo capacitación sobre la conciencia de pesticidas en más de 30 casas y realizaron una evaluación posterior en siete casas, 23 de ellos se espera que sean evaluado en el otoño.

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

August 2015



The **Four-State Regional Workgroup** is the most complex of the four regional workgroups, because of its geographical expanse and the number of municipalities. The region includes parts of three states and a total of at least 29 municipios 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 has established subject-specific committees related to its priority concerns.

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

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.

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

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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 in the.
   b. Coordinate emergency preparedness response table top exercise or field exercises.
7. **Develop a certified environmental health curriculum to train border community health workers and promotoras on lead, mercury, pesticides, 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

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Falcon Task Force

1. Conduct a study on the use of methane gas for energy generation in landfills
2. Monitoring of drilling operations in the Eagle Ford Shale and on the Mexican side
3. Finalizing 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 a diagnostic study 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 GTF' US-MX border

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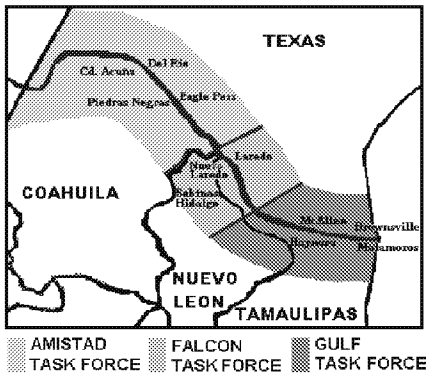
Border 2020

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°	Project Title Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of Funding	Points of Contact	2015-2016 Target	Progress Towards Target
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.							
1.1.01	**Coahuila Vehicle Inspection Program** To develop Coahuila's vehicle inspection program, partly in consultation with the State of Texas regarding their experience.	SEMA, Coahuila, COMIMSA, Municipio de Piedras Negras, Municipio de Acuña, TCEQ	$700,000	Municipios	Humberto Fuentes, SEMA/Coahuila, humberto.fuentes@coahuila.gob.mx	Inspect 40% of the vehicles in Acuña, Piedras Negras, and Monclova.	Implementation is in progress. The current administration reports that no state funding is available and all jurisdictions are at the municipal level. Acuña obtained equipment in late 2014. Officials in Nava are identifying funding sources for the purchase of equipment.

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1.1.02*	**Characterization of Dryage Activities & Emissions Laredo-Nuevo Laredo Airshed** Develop a detailed characterization of the drayage activity (short-haul, cross-border transport of state) in the Laredo-Nuevo Laredo region and its air quality implications.	Texas A&M Transportation Institute	$89,750	Border 2020	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu, (512) 467-0946	Gather activity information on drayage vehicles to estimate their emissions impacts in the Laredo and Nuevo Laredo airshed	TTI obtained permissions by the EPA, BECC and the Texas A&M IRB to collect GPS data from drayage vehicles operating in the Laredo-Nuevo Laredo region. TTI recruited 20 drayage truck operators and collected GPS data.TTI staff are analyzing the data and determining the emission impact of the trucks.
1.1.03	**Emissions from Long Haul MX Diesel Trucks in Laredo-San Antonio Corridor** Survey diesel truck activity and evaluate typical Mexican diesel truck emissions along Laredo-San Antonio Corridor.	Texas A&M Transportation Institute	$100,000	EPA, TCEQ	Dr. Reza Farzaneh, TTI, Reza.Farzaneh@tamu.edu, (512) 467-0946	Collecting and analyzing data. TTI will present findings and report in August.	In July 2015 the investigative team presented TCEQ with a progress report and will turn in all final deliverables in August.
Objective 5: By 2020, reduce emissions and associated impacts, through energy efficiency and/or alternative/renewable energy projects.							
1.5.01	**Coahulia Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC) for Coahuila: Quantification of the mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	Econometric evaluation of the mitigation policies selected in Phase 1.	A Comité Intersecretarial ante el Cambio Climático (CICC) was established, as well as Integrated Technical Working Groups (TWG) and the Advisory Group (AG). A consultant has been hired, and a local coordinator and local experts recruited.
1.5.02	**Tamaulipas Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC) for Tamaulipas: Quantification of the mitigation public policies selected in Phase 1.	Tamaulipas State Government and BECC	$100,000	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	Selection of a number of prioritized mitigation public policies for climate change.	Five technical groups began work in July 2012. In 2013-14, the state strategy was redesigned. A Comité Intersecretarial ante el Cambio Climático (CICC) has been established, as well as Integrated Technical Working Groups (TWG) and the Advisory Group (AG). A consultant has been hired.
1.5.03	**Wind Power in Nuevo León** Research the potential for harnessing	SDS (Secretaría de Desarrollo	$10,000	Mexican federal	Norma Rangel , SDS Nuevo León,	Establish wind monitors in	The Secretariat of Sustainable Development in Nuevo León has

	wind power for electricity generation in Nuevo León.	Sustentable de Nuevo León)		funds, CONACYT	normaarangel@gmail.com 0115281 20 33-19-38	selected areas of the state by 2016.	applied for different grants to obtain funding for the monitors, but has not secured funds. They will submit another grant proposal in 2015.
1.5.04	**Air Quality Network in Coahuila** Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	SEMA (Coahuila), Municipio de Piedras Negras, Acuña, Nava, Sabinas, Saltillo	$1,400,000	SEMA Coahuila	Humberto Fuentes, SEMA/Coahuila, humberto.fuentes@coahuila.gob.mx	Have air quality monitoring network in operation for Piedras Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila.	Implementation has begun but the schedule for completion has been extended by two or more years. In 2013 SEMA began working with local officials to include these projects in the plans of the applicable "Metropolitan Zones". A network will be deployed in Saltillo in 2015 and in Piedras Negras in 2016.
1.5.05	**Retrofits Public Buildings in Coahuila** Apply retrofit technologies to public buildings in Piedras Negras and Acuña, Coahuila that will reduce energy consumption.	SEMA Coahuila, Municipio de Piedras Negras y Municipio de Acuña	$500,000	SEMA Coahuila	Alejandra Carrera, SEMA/Coahuila, alejandra.carrera@sema.gob.mx	Involve municipal agencies through a series of workshops and select at least 10 buildings to pilot retrofit technologies.	With assistance from the BECC, workshops were held in December 2013 in Piedras Negras and Acuña, disseminating information on how public buildings could be made more energy-efficient. No information is available regarding whether 10 pilot projects are being pursued.
1.5.06	**Vehicle Emissions Inspection Program** Design and implement vehicle emission verification programs or campaigns in Tamaulipas.	SEDUMA Tamaulipas		SEDUMA, SEMARNAT	Ing. Humberto Rene Salinas, SEDUMA, seduma@tamaulipas.gob.mx	Have a vehicle verification program in the border area of the state by end of 2014.	A pilot program focused on the state-owned fleet was initiated in early 2013. Additional implementation was put on hold, with the hope that a program for private vehicles can be initiated in 2015.
1.5.07	**Atmospheric Monitoring System** Strengthen Tamaulipas' atmospheric monitoring system.	SEDUMA Tamaulipas		SEDUMA, EPA, and BECC	Ing. Humberto Rene Salinas , SEDUMA, seduma@tamaulipas.gob.mx	By 2014, the system will operate at 100% with programmatic consistency	Eight municipalities have the equipment for air monitoring of PM10 (Matamoros, Reynosa, Nuevo Laredo, Victoria, Mante, Tampico, Madero, and Altamira). Currently only three of these

						standards.	have their network in operation (Nuevo Laredo, Victoria, and Tampico).

Goal # 2: Improve Access to Clean and Safe Water

Project N°	Project Title Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2015-2016 Target	Progress Towards Target
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.							
2.2.01	**Upgrade Sewer Line Infrastructure Nuevo Laredo** 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	$5,000,000	North American Development Bank (NADB)	Delfino González C.P., COMAPA, dgcdelfino@comapanuevolaredo.gob.mx	Complete the project by January 2015.	BECC certified the project in September 2012. Of the five sewer lines, one was completed by mid-2014. The remaining four collectors were under repair and discharging about 1.6 MGD to the stormwater system. Another discharge point from La Joya Creek was identified by COMAPA and will be repaired .
2.2.02*	**Ideal Biological Filtration Material South Texas Storm Management** Identify the best locally available material for use in bio-swale in the Lower Rio Grande Valley & South TX.	University of Texas Pan American	$26,022	Border 2020		The proto-type bioswale will be tested in a newly constructed parking lot on the campus of UT Pan American.	Maria Sisneros will provide information.
2.2.03*	**Management of Fats, Oils, and Grease Nuevo Laredo** Reduce the concentration of fats, oils, and grease in the effluent water coming from restaurants and hotels and industrial dining facilities in Nuevo Laredo.	Comisión Municipal de Agua Potable y Alcantarillado, Nuevo León.	$32,533	Border 2020	Ing. Juan Carlos Pérez Faz, COMAPA Nuevo Laredo, jcarlos_faz@hotmail.com 01152867 717-24-44	Hold workshops and follow-up with comercial establishments on implementation of FOG programs	COMAPA organized workshops to educate commercial establishments and residents on best practices. First workshop was held in March, in which approx. 160 participants learned about FOG regulations and proper disposal. Two workshops were

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							held in April to discuss lessons learned and follow up on FOG programs implemented by establishments at their facilities, with approx. 200 establishments. T wo additional workshops held in June and August.
Objective 3: Work binationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.							
2.3.01	**Water-body Ecosystems in Coahuila** Design and implement local public conservation campaigns and land conservation agreements for Rio San Rodrigo and Arroyo Las Vacas, which are tributaries to the Rio Grande.	SEMA Coahuila, Municipio de Piedras Negras and Municipio de Acuña	$400,000	State of Coahuila and Border 2020	Alejandra Carrera, SEMA/Coahuila, alejandra.carrera@sema.gob.mx	Implement campaigns and conclude land conservation agreements by the end of 2014.	SEMA obtained EPA funding through the BECC in spring 2014 to restore and conserve the Arroyo Las Vacas. SEMA developed partnerships with TCEQ, Cd. Acuña, academic institutions, and UT Austin. SEMA and BECC finalized the workplan and are negotiating the quality assurance project plan. In October 2014 in Cd. Acuña SEMA held a ribbon cutting for the Arroyo Las Vacas project and a complementary signing ceremony regarding land conservation.
2.3.02	**Removal of Invasive Plants** Implement a program to remove invasive plants in the Rio Grande.	SEMA Coahuila, CONANP, Profauna	$85,000	SEMA (Coahuila), CONANP, Profauna –	Alejandra Carrera, SEMA Coahuila, alejandra.carrera@sema.gob.mx	By the end of 2014, increase activities of the invasive species plant removal program.	No progress yet had been made by mid-2013. No information has been available since then.
2.3.03	**Lower Rio Grande Binational Water Quality Initiative** Implement a binational Lower Rio Grande Water Quality Initiative (from Falcon to the Gulf) that characterizes the state of the river, develops a strategic plan to improve environmental conditions, and proposes a monitoring plan to document progress.	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, Kelly.holligan@tceq.texas.gov	Implement actions to improve water quality and promote an adequate habitat for flora and fauna species in Las Vacas stream.	In March the LRGWQI's Binational Technical Work Group conducted the first of four binational synoptic water quality surveys scheduled for the project. They also developed a preliminary input file for a steady-state water quality model of the Rio Grande/Río Bravo (Falcon Dam to Gulf of Mexico).

2.3.04*	**Conservation of Las Vacas Stream** Design and implement actions to improve water quality and promote an adequate habitat for flora and fauna species in the Arroyo Las Vacas.	Ciudad Acuna Department of Environment, SEMA Coahuila	$44,200	Border 2020	Lic. Alejandra Carrera, Secretaria de Medio Ambiente de Coahuila, alejandra.carrera@sema.gob.mx 01152844 410-0014	Implement actions to improve water quality and promote an adequate habitat for flora and fauna species in Las Vacas stream.	SEMAC conducted a diagnostic study of the environmental conditions and issues. SEMAC collaborated with the Acuña ecology department and the Instituto Tecnológico Superior de Acuña (ITSA), to gather water quality data and identify sources of pollution, and conduct cleanup activities. TCEQ and the LBJ School at UT Austin organized a technical exchange with ITSA students and SEMAC officials in May. In September, a training is scheduled on binational water quality monitoring, data calibration, sampling techniques, , etc.

Goal # 3: Promote Materials Management, Waste Management and Clean Sites

Project N°	Project Title Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2015-2016 Target	Progress Towards Target
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.01	**SEMARNAT's Green Schools Program** Link and promote the Mexican federal program "Green Schools" in all three Mexican states in the region and explore possible use in Texas.	SEMARNAT Tamaulipas and state agencies in Tamaulipas, Nuevo León, and Coahuila		SEMARNAT	Delfino Ramirez, SEMARNAT, Delfino.ramirez@semarnat.tamaulipas.gob.mx Lic. Alejandro Manriquez Ramirez, SEMARNAT, educacion@coahuila.semarnat.gob.mx	Reach 150 schools in the 3 Mexican States by July 2013. Hold an information exchange meeting w/Texas 2014.	SEMARNAT implemented the program very successfully in Tamaulipas and on a very limited basis in Coahuila. By mid-2013 in Tamaulipas, 135 schools had been registered in the program—33 in Nuevo Laredo, 50 in Reynosa, and nine in Matamoros.
3.1.02	**Environmental Education Program Nuevo Laredo** Establish an environmental	Keep Laredo Beautiful, Keep America		The City of Laredo Environment	Lynne Nava, Keep Laredo Beautiful,	Establish an environmental organization	Keep Laredo Beautiful will be meeting with officials of the Technological University of

	organization to develop environmental awareness and clean-up programs in Nuevo Laredo in affiliation with Keep America Beautiful.	Beautiful, and the Municipio of Nuevo Laredo		al Services local partners, and Keep America Beautiful	lnava1@ci.laredo.tx.us 956-794-1650	affiliated with Keep America Beautiful by 2016.	Nuevo Laredo in August to discuss the project and inquire about their interest in establishing an environmental organization through Keep America Beautiful. Keep Laredo Beautiful has committed to pay membership fees for one year for the organization to be affiliated with Keep America Beautiful.
3.1.03*	**Clean-up Campaign Keep Pharr Beautiful** Support monthly cleanup program Keep Pharr Beautiful with strong public outreach.	Public Works Department, City of Pharr	$20,000	Border 2020	Grace Gonzalez, Pharr Public Works Department, grace.gonzales@pharr-tx.gov	Reduce illegal dumping in residential and industrial sectors and encourage residents to take responsibility for the beatification of their communities.	Maria Sisneros will provide information
3.1.04*	**Alamo's Recycling TEAM Includes Everyone** 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.	Maria Sisneros will provide information
Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.							
3.2.01	**Local Use Compost in Nuevo Laredo** Develop a composting operation in Nuevo Laredo using sludge from the wastewater treatment plant and yard	COMAPA and Municipio de Nuevo Laredo		Municipio de Nuevo Laredo	Delfino González C.P., COMAPA, dgcdelfino@comapanuevolaredo.gob.mx	Sign contract with the municipio to purchase gear for compost	

	wastes, and apply the product in municipal parks as well as in homes (through sales to homeowners).				,	generation, and sell to commercial establishments.	
3.2.02	**Scrap-Tire Management Program** Design and implement a state scrap-tire management program that includes valuation.	SEDUMA Tamaulipas	$ 400,000	SEDUMA, SEMARNA, EPA	Ing. Humberto Rene Salinas , SEDUMA, seduma@tamaulipas.gob.mx	Develop public policy and a management plan for scrap tires.	The project is on hold.
3.2.03	**Energy Value of Waste Tamaulipas** SEDUMA will evaluate the ways in which energy could be recovered from waste and used.	SEDUMA	$300,000	EPA	Ing. Humberto Rene Salina, SEDUMA, seduma@tamaulipas.gov.mx	Action Plan to be complete by the end of 2014.	The project is on hold.
3.2.04	**Characterization Municipal Solid Waste Stream & Diagnosis Regarding Generation/Management of Waste** 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 Leon and recommend waste management approaches to the collection, temporary storage and final disposal of waste.	SDS Nuevo León and Municipio of Sabinas Hidalgo, Nuevo León	$47,000	Border 2020, BECC	Norma Rangel Sevilla, SDS, Nuevo León, normaarangel@gmail.com 0115281 20 33-19-38	Analyze the generation of solid and "special management" of six border municipalities and characterize the solid waste stream in Sabinas. Complete the study in 2015.	The study was finalized in June 2015. More details of the study will be provided at a later date.

Objective 3: By 2020, improve knowledge in every level of government (federal, state, local) to characterize and remediate contaminated sites.							
3.3.01	**Remediation Old Oxidation Lagoons** Complete the remediation of old oxidation lagoons in Piedras Negras.	Municipio de Piedras Negras and SEMACoahuila	$300,000	SEMA	Maria Teresa Molina, Municipio de Piedras Negras, teduada@hotmail.com	Complete the remediation of the remaining 10.3 acres by the end of 2013. The municipality will create extension	Prior to 2012, 19.7 acres of the 30-acre site had been remediated. Piedras Negras has not responded to inquiries about the project during 2013 and 2014.

						of green area.	
3.3.02	**Scrap Tire Management Plan** Establish a sustainable management plan for scrap tires in Piedras Negras, Coahuila.	SEMA, Coahuila, Municipio de Piedras Negras	$400,000	SEMA	Oscar Flores oscar.flores@sema.gob.mx	Develop plan and place in full operation by the end of 2014	By mid-2013, SEMA determined they needed to perform a feasibility study on using coal pits as disposal sites for scrap tires. No information has been available since then.

Goal #4: Enhance Joint Preparedness for Environmental Response

Project N°	Project Title Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2015-2016 Target	Progress Towards Target
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.							
4.2.01	**Hazardous Materials First Responders Binational Training in McAllen-Mission-Pharr, TX and Reynosa, Tamaulipas**	City of McAllen Fire department	$75,000	Border 2020	Juan A Gloria Jr, Deputy Chief McAllen, jgloria@mcallen.net 956 681-2540		Maria Sisneros will provide information.
4.2.02	**Update Cross-Border Contingency Plan** Develop a cross-border contingency plan for the Solidarity Bridge, involving first responders from Colombia (Nuevo León), Nuevo Laredo (Tamaulipas), and Laredo (Texas), recognizing that Colombia, upstream from the other two cities, is much smaller and yet shipments of hazardous materials in the area are	Laredo Fire Department, Protección Civil de Nuevo Laredo, and CILA, CODEFRONT, and the City of Laredo	$0	EPA, COCEF, PROFEPA, and Protección Civil	Steve Landin Laredo Fire Department slandin@ci.laredo.tx.us 956-795-2150 Juan Ochoa Protección Civil Nuevo Laredo Juan.u8a@hotmail.c	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 and include Colombia in the plan.	The project is on hold because city council has not approved changes to language of the draft revision, intending to clarify that Laredo could not send personnel to respond to incidents across the border, but could assist in other ways.

	currently directed to this bridge.				om 01152867 712-46-35		

Goal 6: 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	2015-2016 Target	Progress Towards Target
Projects potentially related to some combination of air quality, water quality, water conservation, or waste management							
6.0.01	**Extension of Environmental Management Systems Program** Extend Tamaulipas' state program in promoting environmental management systems (SIMA) to more schools and government offices.	SEDUMA Tamaulipas	$ 300,000	EPA, SEDUMA/ SEMARNAT	Dra. Silvia Casas, SEDUMA, silvia.casas757@gmail.com	Reach out to 100% of the border cities.	SIMA enrolled more than 90 schools in Matamoros, Tampico, and Victoria. Each school held workshops on water, waste, and energy efficiency, reaching a total of 26,000 students. Schools received equipment i.e. low-flow water toilets, recycling containers, and energy-efficient light bulbs. SIMA trained 1,800 state employees in water conservation, energy efficiency, and recycling. State offices received water filters and energy-efficient light bulbs .
6.0.02*	**Planning of Health & Environmental Information Model Along TX-MX Border** The development of a conceptual framework for a bi-national environmental and health information repository. T	El Colegio de la Frontera del Norte	$39,875	Border 2020	Dr. Felipe Uribe, COCEF,	Identify required tools and capacities, compare existing systems, identify and recommend training or educational needs, and develop an	Maria Sisneros will provide information.

						indicator system to measure environmental health in the region.	
6.0.03*	**Promotora-Led Environmental Health Education for Children** 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 heath promotoras, who subsequently will provide educational information in elementary schools, child care settings and to colonia residences.	La Amistad AHEC and Southwest Border AHEC	$69,083	Border 2020	Rosa Elvira Martinez Southwest Area Border Health Education Center rose.martinez@swbahec.org (830)758-1111	Conduct training and provide educational information on pesticide awareness to elementary schools and homes in colonias.	As of July, promotoras had conducted visits to two elementary schools and one head start to educate children on hazards related to pesticide exposure and household chemicals. Promotoras also conducted training on pesticide awareness in more than 30 homes and post-assessments in seven homes, with 23 of them expected to be evaluated in the fall of 2015.

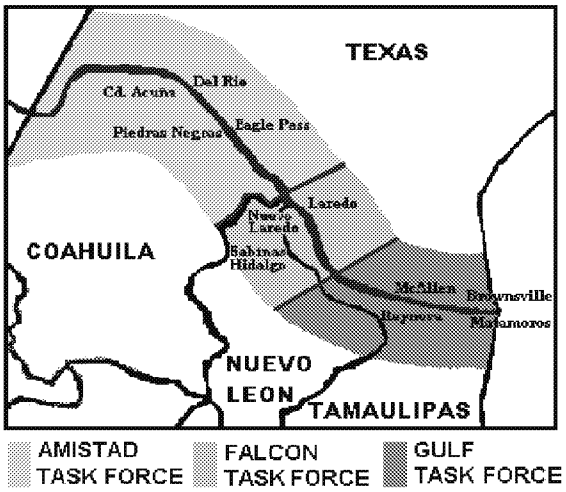
U.S.-Mexico Border 2020 Environmental Program

Regional Workgroup for Texas, Coahuila, Nuevo León, and Tamaulipas

Action Plan for 2013-2014

Final Report -- December 2014

This Regional Workgroup, one of four within the Border 2020 program, is often referred to as the "Four-State Workgroup." It is the most complex Workgroup because of its geographical expanse and the number of municipalities. In Mexico, the region includes parts of three states and a total of at least 29 municipios. On the U.S. side, it includes 168 cities and towns. Recognizing this, the workgroup divided itself into three geographically based task forces--Amistad, Falcon, and Gulf--each of which has established subject-specific committees related to its priority concerns.



As Border 2020 was taking shape in late 2012, local, state, and federal participants began creation of the program's first two-year action plan for 2013-2014. Projects were added over time. This report is the final update on the projects for that two-year plan. A new two-year plan will be created for 2015-2016, and some unfinished projects will be carried over.

Be aware that this action plan does not include infrastructure projects related directly to Border 2020 goals and objectives in air, water, and waste that have been financed in part or in full by the binational North American Development Bank. For information on those projects, see http://www.nadbank.org/.

The projects are organized according to the Border 2020 goal being addressed. Border-wide there are five goals, but this Regional Workgroup has added a sixth goal under which cross-cutting projects that are related to health or education, and which overlap two or more of the official goals, can be grouped. Also, be aware that no information on costs was available for some projects.

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Goal 5: Enhance Compliance Assurance and Environmental Stewardship *[No projects categorized under this goal]*

Goal 6: Promote Cross-Cutting Efforts related to Environmental Health and Environmental Education page 51

Goal 1: Reduce Air Pollution

Project Number: 1.1.01

Project Title: **Development of vehicle inspection program in Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Continue developing Coahuila's vehicle inspection program in Acuña, Piedras Negras, Monclova, Saltillo, and Ramos Arizpe. Consult with the TCEQ regarding how the Texas program works. Inspect 40 percent of all vehicles by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente

Contact Name: Humberto Fuentes Ramírez *E-mail Address:* humberto.fuentes@coahuila.gob.mx

Collaborating Organization(s): Texas Commission on Environmental Quality

Cost: $700,000 *Source of Funding:* Originally SEMA; now the municipalities

Summary of Status:
Implementation is in progress.

The original commitment was made by a former administration in Coahuila. The current administration reports that no state funding is available and all jurisdiction is at the municipal level.

Acuña obtained the necessary equipment in late 2014 and will put it to use as soon as possible. Officials in Nava report they are trying to identify funding that will allow the purchase of equipment and initiation of implementation in 2015.

ED_002319B_00012865-00002

Project Number: 1.5.01

Project Title: **Grants program for energy efficiency in local governments in the Texas border region**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Implement a one-time matching grants program for efficiency projects in the border region of Texas, for which cities, counties, school districts, community colleges, and irrigation districts are eligible, and complete the program by August 2013.

Sub-regional Task Force(s) Potentially Affected: Entire Four-State Region

State(s): Texas *Country:* United States

Implementing Organization: LBJ School, University of Texas at Austin

Contact Name: David Eaton *E-mail Address:* eaton@mail.utexas.edu

Collaborating Organization(s): Local governmental units in the Texas border region

Cost: $175,000 *Source of Funding:* EPA, through the TCEQ

Summary of Status:
The LBJ School made grants to six projects, all of which were completed by July 2013.

The School issued the RFP in October 2012. An independent committee reviewed twenty-one applications and recommended six projects: two cities, an irrigation district, and three school districts. The University awarded grants to those entities, which subsequently completed their projects by the summer of 2013.

ED_002319B_00012865-00003

Project Number: 1.5.02

Project Title: **Initiation of Phase 2 of Coahuila's State Climate Action Plan (PEAC)**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Perform an econometric evaluation of the mitigation policies that were selected in Phase 1, and complete by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Comisión de Cooperación Ecológica Fronteriza (COCEF)

Contact Name: Tomás Balarezo *E-mail Address:* tbalarezo@cocef.org

Collaborating Organization(s): Coahuila State Government

Cost: $275,000 *Source of Funding:* Border Environment Cooperation Commission

Summary of Status:
A "Comité Intersecretarial ante el Cambio Climático" (CICC) has been established, as well as Integrated Technical Working Groups (TWG) and the Advisory Group (AG). A consultant has been hired, and a local coordinator and local experts recruited.

ED_002319B_00012865-00004

Project Number: 1.5.03

Project Title: **Initiation of Phase 2 of the State Climate Action Plan (PEAC) for Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Select a number of prioritized policies for mitigation of climate change by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Comisión de Cooperación Ecológica Fronteriza (COCEF)

Contact Name: Tomás Balarezo *E-mail Address:* tbalarezo@cocef.org

Collaborating Organization(s): Tamaulipas State Government

Cost: $100,000 *Source of Funding:* Border Environment Cooperation Commission

Summary of Status:
Five technical groups began work in July 2012.

In 2013-14, the state strategy was redesigned. A "Comité Intersecretarial ante el Cambio Climático" (CICC) was been established, as well as Integrated Technical Working Groups (TWG) and the Advisory Group (AG). A consultant was hired.

Project Number: 1.5.04

Project Title: **Researching the potential for harnessing wind power for electricity in Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

This project is a subset of project # 1.5.11. See that latter project below.

Sub-regional Task Force(s) Potentially Affected:

State(s): *Country:*

Implementing Organization:

Contact Name: *E-mail Address:*

Collaborating Organization(s):

Cost: *Source of Funding:*

Summary of Status:
See project # 1.5.11.

ED_002319B_00012865-00005

Project Number: 1.5.05

Project Title: **Researching the potential for harnessing wind power for electricity in Nuevo León**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Establish wind monitors in selected areas of the state by the end of 2013, and begin generating wind maps in 2014.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Nuevo León *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Sustentable (SDS)

Contact Name: Norma Rangel Sevilla *E-mail Address:* normaarangel@gmail.com

Collaborating Organization(s):

Cost: $10,000 *Source of Funding:* Mexican federal funds and/or CONACYT

Summary of Status:
Based on information from monitors installed by an independent party, SDS has generated a wind map with data with a resolution of 5 km. In the next stage, SDS will generate a map with a resolution of 1 km. SDS expects to have the latter completed in 2015.

Project Number: 1.5.06

Project Title: **Generation of electricity from methane extracted from the Nuevo Laredo landfill**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Construct the facility and have it in full operation by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Municipio de Nuevo Laredo

Contact Name: Ing. Carlos De Anda *E-mail Address:* cdeandah@hotmail.com

Collaborating Organization(s): Servicios de Tecnología Ambiental S.A. (SETASA)

Cost: $3,500,000 *Source of Funding:* Company to be selected will provide financing, and subsequently obtain revenue from the sale of electricity to CFE.

Summary of Status:
A feasibility study was completed 2008 with funding from USAID. Issuance of a tender for construction has been pending for several years; the municipio needs to obtain the property title. As of the fall of 2014, the project was on hold.

ED_002319B_00012865-00006

Project Number: 1.5.07

Project Title: **Emission-reduction technologies for Mexican heavy-duty trucks in cross-border trade in Nuevo Laredo-Lar**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Implement a pilot program to diagnose the existing Mexican fleet of heavy-duty commercial trucks in cross-border trade in the Laredo -Nuevo Laredo area, identify retrofit technologies that would reduce emissions, and share information on those technologies, their costs, and suppliers at a binational forum.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT)

Contact Name: Ing. Eduardo Olivares *E-mail Address:* eduardo.olivares@semarnat.gob.mx

Collaborating Organization(s):

Cost: $50,000 *Source of Funding:* EPA funding through the BECC

Summary of Status:
The project was completed in 2013.

The study collected information from 456 companies and on 2,756 drayage trucks. Half of the sampled trucks were from model year 2000 or earlier, and 84 percent were model year 2006 or earlier.

A final report summarized the information and offered information on retrofit technologies that could reduce emissions, and a workshop was held in Nuevo Laredo in September 2013.

ED_002319B_00012865-00007

Project Number: 1.5.08

Project Title: **Establishment of an air quality monitoring network in selected municipios in Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Establish an air quality monitoring network in the municipios of Piedras Negras, Nava, Acuña, Sabinas, and Saltillo, Coahuila by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente

Contact Name: Humberto Fuentes Ramírez *E-mail Address:* humberto.fuentes@coahuila.gob.mx

Collaborating Organization(s): The municipios

Cost: $1,400,000 *Source of Funding:* Secretario de Medio Ambiente

Summary of Status:
Implementation was begun, but the schedule for completion has been extended by two or more years.

In 2013 SEMA began working with local officials to include these projects in the plans of the applicable "Metropolitan Zones".

Plans currently call for a network to be deployed in Saltillo in 2015 and in Piedras Negras in 2016.

ED_002319B_00012865-00008

Project Number: 1.5.09

Project Title: **Application of energy-efficiency retrofits to public buildings in Piedras Negras and Acuña, Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Hold a series of workshops to Involve municipal agencies in Piedras Negras and Acuña in identifying opportunities for energy-efficiency retrofits, and select at least 10 buildings for pilot projects.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente (SEMA)

Contact Name: Alejandra Carrera *E-mail Address:* alejandra.carrera@sema.gob.mx

Collaborating Organization(s): Municipios of Piedras Negras and Acuña

Cost: $500,000 *Source of Funding:* Secretaría de Medio Ambiente

Summary of Status:
With assistance from the BECC, workshops were held in December 2013 in Piedras Negras and Acuña, disseminating information on how public buildings could be made more energy-efficient.

No information is available regarding whether 10 pilot projects are being pursued.

ED_002319B_00012865-00009

Project Number: 1.5.10

Project Title: **Design and implementation of vehicle emission inspection programs in Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Have a vehicle inspection program in operation in border municipios by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Urbano y Medio Ambiente (SEDUMA)

Contact Name: Ing. Humberto Rene Salinas *E-mail Address:* seduma@tamaulipas.gov.mx

Collaborating Organization(s): SEMARNAT

Cost: *Source of Funding:* SEDUMA and SEMARNAT

Summary of Status:
SEDUMA initiated a pilot program focused on the state-owned fleet in early 2013. Additonal implementation has been put on hold, with the hope that a program for private vehicles can be initiated in 2015.

ED_002319B_00012865-00010

Project Number: 1.5.11

Project Title: **Promotion of renewable and alternative energy use in Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Prepare action plan for nine wind power projects and for the state's strategic energy program.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Urbano y Medio Ambiente

Contact Name: Ing. Humberto Rene Salinas *E-mail Address:* seduma@tamaulipas.gov.mx

Collaborating Organization(s): SEMARNAT

Cost: *Source of Funding:* SEDUMA and SEMARNAT

Summary of Status:
All intentions for 2013-2014 were essentially met.

In October 2014 SEDUMA hosted the Third International Congress on Renewable Energy in Cd. Victoria. The same month, the governor established an energy council with representatives from business, academia, and government. Promotion of renewable energy and efficiency was among its charges.

The most successful renewable development in 2013-2014 has been with wind energy. As of January 2014, companies had registered 26 wind farm proposals, with total potential capacity of nearly 2,600 MW, for possible development. Two of them, totaling 91 MW of capacity, are expected to be in operation by the end of 2015, with a third project of undetermined size also possible in that time frame.

The state developed and distributed practical guides on conservation of energy for offices and schools, small businesses, industry, the home, automobile use, and public lighting systems, as well as a set of practical recommendations on avoiding unnecessary expenses in standby mode.

In addition, 16 companies set up a trust fund (fideicomiso) to expand renewable energy infrastructure in Tamaulipas.

ED_002319B_00012865-00011

Project Number: 1.5.12

Project Title: **Strengthening Tamaulipas' atmospheric monitoring system**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Have the system fully operating in at least eight municipios, with programmatic consistency standards, by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Urbano y Medio Ambiente

Contact Name: Ing. Humberto Rene Salinas *E-mail Address:* seduma@tamaulipas.gov.mx

Collaborating Organization(s): SEMARNAT and EPA

Cost: *Source of Funding:* SEDUMA and EPA/BECC

Summary of Status:

Eight municipalities have the equipment for air monitoring of PM10 (Matamoros, Reynosa, Nuevo Laredo, Victoria, Mante, Tampico, Madero, and Altamira). Currently only three of these have their network in operation (Nuevo Laredo, Victoria, and Tampico).

ED_002319B_00012865-00012

Project Number: 1.5.13

Project Title: **Environmental management system that includes energy efficiency in all border municipios of Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Train staff in all border municipios by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Urbano y Medio Ambiente

Contact Name: Ing. Humberto Rene Salinas *E-mail Address:* seduma@tamaulipas.gov.mx

Collaborating Organization(s): EPA and BECC

Cost: $100,000 *Source of Funding:* EPA/BECC

Summary of Status:
The project was completed.

Tamaulipas authorities trained approximately 100 persons from 16 municipalities in the border region and the San Fernando Valley region at a workshop held in Reynosa (no information was given on when this occurred).

ED_002319B_00012865-00013

Project Number: 1.5.14

Project Title: **Support for attendance of school district officials at statewide conference on energy efficiency**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Provide financial support for (a) one staff person responsible for facilities and operations and (b) one member of the district board of directors from each of nine school districts in the Texas border region at the annual Clean Energy through Energy Efficiency conference in November 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf, Falcon, and Amistad Task

State(s): Regional *Country:* United States

Implementing Organization: LBJ School of Public Affairs, University of Texas at Austin

Contact Name: David Eaton , Ph.D. *E-mail Address:* eaton@mail.utexas.edu

Collaborating Organization(s): LBJ School of Public Affairs at UT Austin and school districts

Cost: $27,000 *Source of Funding:* EPA and TCEQ

Summary of Status:
This project was completed.

In September 2014 the LBJ School of Public Affairs issued a solicitation of interest in September 2014 to 100 school districts in the border region. Seven districts applied and were granted support; three additional districts would have applied but they had scheduling conflicts. One of the seven districts failed to show up at the conference.

ED_002319B_00012865-00014

Goal 2: Improve Access to Clean and Safe Water

Project Number: 2.0.01

Project Title: **Construction and operation of a desalination plant in Nuevo León that uses a renewable source of energy**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

This project address the Border 2020 goal, but does not fall under any of the specific, formal objectives for this goal that are laid out in the Border 2020 framework.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Have the plant in operation by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Nuevo León *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Sustentable (SDS)

Contact Name: Norma Rangel Sevilla *E-mail Address:* normaarangel@gmail.com

Collaborating Organization(s): Servicios de Agua y Drenaje de Monterrey (SADM)

Cost: *Source of Funding:* SADM, EPA/BECC and Comisión Nacional de Agua

Summary of Status:
The project was cancelled.

ED_002319B_00012865-00015

Project Number: 2.0.02

Project Title: **Organizing periodic Water Awareness Summits in the Lower Rio Grande Valley**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

This project address the Border 2020 goal, but does not fall under any of the specific, formal objectives for this goal that are laid out in the Border 2020 framework.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Organize a periodic Water Awareness Summit to educate the public in the Lower Rio Grande Valley about where their water comes from, how the planning process works, and the outlook is for supply, and the importance of conservation.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas *Country:* United States

Implementing Organization: Texas Commission on Environmental Quality

Contact Name: Claudia Lozano *E-mail Address:* claudia.lozano@tceq.texas.gov

Collaborating Organization(s): State Representative Eddie Lucio III, cities and water utilities, the Rio Grande Regional Wa

Cost: $15,000 *Source of Funding:* Local agencies and private sponsors

Summary of Status:
The objectives were fully met.

The first Water Awareness Summit was held in February 2013. More than 200 people attended and expressed interest in making the event annual. A second Summit was held in March 2014, with approximately 300 attendees. A third Summit will be held in December 2014.

ED_002319B_00012865-00016

Project Number: 2.0.03

Project Title: **Compliance training for small water utilities**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

This project address the Border 2020 goal, but does not fall under any of the specific, formal objectives for this goal that are laid out in the Border 2020 framework.work.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Hold workshops in three different locations in the Lower Rio Grande Valley in 2014 for small water supply systems in the Texas, with at least one workshop in Spanish, and invite Mexican utilities.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas and Tamaulipas *Country:* United States and Mexico

Implementing Organization: Texas A&M Engineering Extension Service

Contact Name: Bessie Orr Williams *E-mail Address:* Bessie.Williams@teex.tamu.edu

Collaborating Organization(s):

Cost: $15,000 *Source of Funding:* U.S. EPA

Summary of Status:
The project was completed.

Three identical workshops were held on successive days in September 2014 in Rio Grande, McAllen, and South Padre Island, Texas. A total of 68 utility staff persons attended, 20 of them from Mexico. The workshop in McAllen was provided in Spanish. Topics included basic water quality, groundwater production, surface water production, disinfection, and distribution.

ED_002319B_00012865-00017

Project Number: 2.1.01

Project Title: **Feasibility studies for wastewater treatment plants in Hidalgo and Guerrero, Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: Promote the increase in the number of homes connected to safe drinking water and adequate wastewater treatment.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Sub-objective 1.b: By 2015, promote access to adequate wastewater sanitation to 42,000 households. Revise target every two years.

Intended Activities:

Conduct feasibility studies for wastewater treatment plants in the municipalities of Hidalgo and Guerrero, Coahuila by 2014.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente (SEMA)

Contact Name: Alejandra Carrera *E-mail Address:* alejandra.carrera@sema.gob.mx

Collaborating Organization(s): SEMA and CEAS (State of Coahuila) and CONAGUA (federal)

Cost: $15,000 *Source of Funding:* State of Coahuila and CONAGUA

Summary of Status:
The feasibility studies were completed in 2013, and CEAS expressed the intention of implementing water management programs in those municipalities.

ED_002319B_00012865-00018

Project Number: 2.2.01

Project Title: **Educational water-quality monitoring events in conjunction with 2012/2013 World Water Monitoring Chal**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Provide teacher training workshops and/or on-site facilitators to help teachers, students, or other volunteers to identify monitoring sites, take samples, and submit samples to the Texas Partnership for Water Education for analysis.

Sub-regional Task Force(s) Potentially Affected: Entire Four-State Region

State(s): Texas *Country:* United States

Implementing Organization: Environmental Protection Agency (EPA)

Contact Name: Karen Bick *E-mail Address:* bick.karen@epa.gov

Collaborating Organization(s): Texas Partnership for Water Education, the Water Environment Association of Texas, the

Cost: *Source of Funding:* Various sources will be explored

Summary of Status:
This project was cancelled.

ED_002319B_00012865-00019

Project Number: 2.2.02

Project Title: **Promotion of energy management practices among Texas water and wastewater utilities**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Sub-objective 2.c: Build operational, managerial, and financial capacity through training of drinking water and wastewater service providers in the border region.

Intended Activities:

Promote energy management practices among Texas water and wastewater utilities by conducting quarterly meetings on energy management planning, training on a pumping-system assessment tool, and on-site energy efficiency assessments (key cities include Laredo, Roma, Mission, Agua Specialty Utility District, Edinburg, McAllen, Pharr, Weslaco, Mercedes, Harlingen, and Brownsville).

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas *Country:* United States

Implementing Organization: Environmental Protection Agency (EPA)

Contact Name: David Reazin *E-mail Address:* reazin.david@epa.gov

Collaborating Organization(s): Identify a university partner

Cost: $75,000 *Source of Funding:* Various funding sources will be explored.

Summary of Status:
Although insufficient funding was available for the original plan, a scaled-back project was completed. EPA partnered with the BECC instead of a university to organize a workshop in late September 2014 in Brownsville, Texas.

Besides the Brownsville PUB as host, other participants included the City of Laredo and Laredo Water Utilities, the City of Pharr, the City of San Benito, the East Rio Honda WSC, McAllen Water Utilities, San Antonio Water Supply, the City of Weslaco, and Santa Cruz Irrigation District #15. Also in attendance were the Office of the Texas Secretary of State, the Community Resource Group, CPS Energy, and the Texas Water Development Board. Presenters and participants discussed best energy management practices and exchanged experiences.

ED_002319B_00012865-00020

Project Number: 2.2.03

Project Title: **Organization of a workshop on fats, oils and grease (FOG) in Laredo**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Hold a workshop and follow-up meetings with utilities to discuss implementation of FOG programs.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas *Country:* United States

Implementing Organization: Laredo Utilities

Contact Name: Karla Robles *E-mail Address:* krobles@ci.laredo.tx.us

Collaborating Organization(s): City of Laredo, Webb County and Nuevo Laredo

Cost: $23,000 *Source of Funding:* Border 2020

Summary of Status:
The entire project (workshop and follow-up meetings) was completed in January 2014.

Laredo Utilities organized a binational workshop in March 2013, presenting "best management practices" with regard to management of fats, oils, and grease. More than 350 people, including representatives from the maquiladora sector in Nuevo Laredo and restaurants in both cities, attended the event.

Laredo Utilities subsequently coordinated two follow-up meetings in August and December 2013, at which participants shared their experience in applying the practices. The utility also produced a 7-minute video about FOG management, for use in the education of commercial establishments. Out of 22 establishments that participated in the original workshop, 14 decreased their amount of FOG generation more than 50%.

ED_002319B_00012865-00021

Project Number: 2.2.04

Project Title: **Training on management of fats, oils, and grease for small businesses in Reynosa**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Conduct training for small businesses in the Reynosa area on best practices for managing discharges of fats, oils, and grease, including measures both pre- and post-discharge.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Municipio de Reynosa

Contact Name: Mauricio Chalons *E-mail Address:* ecologiareynosa@hotmail.com

Collaborating Organization(s):

Cost: $16,000 *Source of Funding:* Hope to obtain EPA/BECC grant

Summary of Status:
The project was cancelled.

ED_002319B_00012865-00022

Project Number: 2.2.05

Project Title: **Public awareness campaign related to non-point source pollution**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Implement a public campaign to increase awareness of problems of non-point-source pollution in the Lower Rio Grande Valley of Texas, through signs posted on roadways and at public facilities, messages on a school district television station, presentations at numerous public events and meetings, and newsletters of various organizations.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas *Country:* United States

Implementing Organization: Texas A&M University-Kingsville

Contact Name: Javier Guerrero *E-mail Address:* jguer0351@aol.com

Collaborating Organization(s): Fifteen cities in the Lower Rio Grande Valley that belong to the Texas Pollution Discharge

Cost: $40,000 *Source of Funding:* U.S. EPA through the BECC

Summary of Status:
The project was completed in 2013.

Workshops were coordinated with the Cities of Harlingen, San Benito, La Feria, Palm Valley, Primera, Weslaco, Donna, Alamo, San Juan, La Joya, Edinburg, Palmview, and Mission. A total of 104 signs were installed by those cities at various locations, and those locations were GPS'd.

ED_002319B_00012865-00023

Project Number: 2.2.07

Project Title: **Upgrading of sewer line infrastructure to connect to Nuevo Laredo's wastewater treatment plant**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Sub-objective 2.b: Improve energy efficiency and efficient water use provided by drinking water and wastewater service providers in the border region.

Intended Activities:

Upgrade and connect five different sewer collection lines to the wastewater treatment system.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: COMAPA Nuevo Laredo

Contact Name: Mr. Delfino Gonzalez C.P *E-mail Address:* dgcdelfino@comapanuevolaredo.gob.mx

Collaborating Organization(s): COMAPA and Municipio de Nuevo Laredo

Cost: $5,000,000 *Source of Funding:* North American Development Bank (NADBank)

Summary of Status:
BECC certified the project in September 2012, and all work is expected to be completed by January 2015.

The objective was to address five sewer collection lines, all with upgrades. Of the five, one of them was completed by mid-2014 and connected to the wastewater treatment system. The remaining four collectors were under repair and still discharging about 1.6 MGD to the stormwater system. Another discharge point from La Joya Creek was identified by COMAPA and will be repaired after an agreement is signed with a private property owner where it is located.

ED_002319B_00012865-00024

Project Number: 2.2.08

Project Title: **Workshops and audits on energy efficiency for water utilities in Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Sub-objective 2.c: Build operational, managerial, and financial capacity through training of drinking water and wastewater service providers in the border region.

Intended Activities:

Hold workshops on energy efficiency for water utilities and perform energy audits of those utilities in five municipios in Tamaulipas—Nuevo Laredo, Reynosa, Rio Bravo, Cd. Victoria, and Matamoros.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Comisión de Cooperación Ecológica Fronteriza (COCEF)

Contact Name: Abdias Moreno *E-mail Address:* amoreno@cocef.org

Collaborating Organization(s): BECC and the water utilities in Nuevo Laredo, Reynosa, Rio Bravo, Cd. Victoria, and Mata

Cost: $250,000 *Source of Funding:* EPA through the BECC

Summary of Status:
The project was completed.

Workshops were held in 2013, and then final energy audits were presented at a meeting in Matamoros in early July 2014. The audits recommended retrofits requiring a total investment of $3.7 million, with average payback times of one-two years.

ED_002319B_00012865-00025

Project Number: 2.3.01

Project Title: **Development of region-specific materials forproduction of a "W aters to the Sea--Rio Grande" module**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 3: Work bi-nationally to identify and reduce surface water contamination in transboundary waterbodies and watersheds.

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Develop and produce region-specific supplemental materials necessary to produce a "Waters to the Sea- Rio Grande" module (place-based education with comprehensive watershed focus). By the end of 2014, recruit and establish an advisory board, produce videos and other materials, identify one or two ISDs to pilot program, and conduct training for at least 25 teachers.

Sub-regional Task Force(s) Potentially Affected: Gulf, Falcon, and Amistad Task

State(s): Texas *Country:* United States

Implementing Organization: Environmental Protection Agency (EPA)

Contact Name: Karen Bick *E-mail Address:* bick.karen@epa.gov

Collaborating Organization(s): EPA, WET, AWWA, the Center for Global Environmental Education at Hamline University,

Cost: $150,000 *Source of Funding:* EPA

Summary of Status:
This project was cancelled.

ED_002319B_00012865-00026

Project Number: 2.3.03

Project Title: **Implementation of local campaigns and land conservation agreements for water-body ecosystems in Coah**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Design and begin implementing local public conservation programs related to the Rio San Rodrigo and Arroyo Las Vacas that include land conservation agreements by end of 2014.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente (SEMA)

Contact Name: Ing. Alejandra Carrera *E-mail Address:* alejandra.carrera@sema.gob.mx

Collaborating Organization(s): SEMA (State of Coahuila), Municipio de Piedras Negras, Municipio de Acuña and TCEQ

Cost: $400,000 *Source of Funding:* State of Coahuila and Border 2020

Summary of Status:
The objectives for 2013-2014 were attained.

SEMA obtained EPA funding through the BECC in spring 2014 to restore and conserve the Arroyo Las Vacas.

SEMA has developed partnerships for the arroyo with TCEQ, Ciudad Acuña, local academic institutions, and UT Austin. SEMA and BECC finalized a workplan and are preparing the project's quality assurance plan as required by EPA. In October 2014 in Cd. Acuña SEMA held a ribbon cutting for the Arroyo Las Vacas project and a complementary signing ceremony regarding land conservation.

Several entities are collaborating on the development of a similar project for the Rio San Rodrigo. The projects will promote public awareness and take actions to improve the ecosystems of the arroyo and the river.

ED_002319B_00012865-00027

Project Number: 2.3.04

Project Title: **Removal of invasive plants from the Rio Grande**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

By the end of 2014, increase the activities of the invasive species plant removal program in the Rio Grande on the border of Coahuila.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente (SEMA)

Contact Name: Alejandra Carrera *E-mail Address:* alejandra.carrera@sema.gob.mx

Collaborating Organization(s): SEMA (State of Coahuila), CONANP, and Profauna

Cost: $85,000 *Source of Funding:* SEMA, CONANP, Profauna, and others to be identified

Summary of Status:
No information has been available from SEMA.

ED_002319B_00012865-00028

Project Number: 2.3.05

Project Title: **Regional workshop on water conservation in Laredo**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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

Sub-objective Number and Text (these apply only to some of the water-related projects):

This water project does not pertain to a pre-established sub-objective.

Intended Activities:

Hold a regional workshop in Laredo and enlist 10 new Water Sense Partners

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Regional *Country:* United States and Mexico

Implementing Organization: Laredo Utilities

Contact Name: Miguel Pescador *E-mail Address:* mpescador@ci.laredo.tx.us

Collaborating Organization(s): City of Laredo, EPA, TCEQ, Texas Water Development Board, Piedras Negras Technological

Cost: $6,000 *Source of Funding:* City of Laredo, EPA, TCEQ and local sponsors

Summary of Status:
The major objective was attained.

A day-long workshop was organized and hosted by Laredo in March 2013. More than 100 persons attended from both sides of the border, including Texas and Tamaulipas state agencies, and discussed conservation strategies. U.S. EPA is not aware of any utilities that joined its team of WaterSense Partners as a result.

ED_002319B_00012865-00029

Project Number: 2.3.06

Project Title: **Binational water quality initiative for the Lower Rio Grande**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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

Sub-objective Number and Text (these apply only to some of the water-related projects):

Sub-objective 3.a: Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam.

Intended Activities:

Establish a collaborative partnership by early 2013 and make substantive progress on objectives by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas and Tamaulipas *Country:* United States and Mexico

Implementing Organization: Texas Commission on Environmental Quality (TCEQ)

Contact Name: Kelly Holligan *E-mail Address:* kelly.holligan@tceq.texas.gov

Collaborating Organization(s): TCEQ (State of Texas), EPA, IBWC, CILA, CONAGUA, and other federal, state, and local gov

Cost: *Source of Funding:* TCEQ, EPA, IBWC, CILA, CONAGUA

Summary of Status:
Participating entities developed and agreed to terms of reference that serve as the framework for collaboration. Follow-up was partially delayed.

In February and July 2013, the TCEQ hosted training sessions on water-quality modeling software (QUAL-TX andLAQUAL) for Mexican and EPA staff. In July 2014 the TCEQ began taking water samples in the target stretch of the Rio Grande for analysis, but funding was not yet available on the Mexican side. In late 2014 a tentative agreement was made regarding dates for water sampling by both sides in early 2015.

ED_002319B_00012865-00030

Goal 3: Promote Materials Management, Waste Management, and Clean Sites

Project Number: 3.1.01

Project Title: **Linking and promoting SEMARNAT's "Green Schools" program in Tamaulipas, Nuevo León, and Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Register 150 schools in the three Mexican border states in SEMARNAT's "Green Schools" program by July 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf, Falcon, and Amistad Task

State(s): Regional *Country:* Mexico

Implementing Organization: Secretaría de Medio Ambiente y Recursos Naturales

Contact Name: Delfino Ramirez *E-mail Address:* Delfino.ramirez@semarnat.tamaulipas.g

Collaborating Organization(s): SEMARNAT/Coahuila and state agencies in Tamaulipas, Coahuila, and Nuevo León

Cost: *Source of Funding:* SEMARNAT

Summary of Status:

SEMARNAT implemented the program very successfully in Tamaulipas and on a very limited basis in Coahuila. No information is available from Nuevo León.

By mid-2013 in Tamaulipas, 135 schools had been registered in the program—33 in Nuevo Laredo, 50 in Reynosa, and nine in Matamoros.

SEMARNAT Coahuila has certified one school in Cd. Acuña in the program.

ED_002319B_00012865-00031

Project Number: 3.1.02

Project Title: **Bilingual public outreach campaign against illegal dumping in Cameron County, Texas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Design and implement a bilingual public outreach campaign against illegal dumping, using billboards, newspapers, and workshops in schools in Cameron County, Texas. Finish the project by the end of 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas *Country:* United States

Implementing Organization: Lower Rio Grande Development Council

Contact Name: Marcie Oviedo *E-mail Address:* moviedo@irgvdc911.org

Collaborating Organization(s): Cameron County and the Valley Proud Environmental Council

Cost: $10,000 *Source of Funding:* Lower Rio Grande Valley Development Council and TCEQ

Summary of Status:
The project was completed.

Cameron County and the Valley Proud Environmental Council engaged in a media campaign against illegal dumping, using billboards and newspapers throughout the Lower Rio Grande Valley. The two entities received numerous phone calls during the campaign, expressing concern about the trash that they had seen dumped throughout the valley.

ED_002319B_00012865-00032

Project Number: 3.1.03

Project Title: **Enhancement of recycling and composting programs in Lower Rio Grande Valley**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Through the purchase of equipment, enhance the the recycling programs in three local jurisdictions and the composting operations in two jurisdictions, all in the Lower Rio Grande Valley, by the end of 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas *Country:* United States

Implementing Organization: Lower Rio Grande Valley Development Council

Contact Name: Marcie Oviedo *E-mail Address:* moviedo@irgvdc911.org

Collaborating Organization(s): The Cities of Pharr, Mission, McAllen, and Mercedes, an d the Town of Bayview

Cost: $160,000 *Source of Funding:* The Lower Rio Grande Valley Development Council, the TCEQ, and individual local governments

Summary of Status:

All local governments except one completed their projects (Bayview cancelled its activity). The cities expanded and enhanced their recycling capabilities at their recycling centers by purchasing mobile recycling trailers, forklifts, and other equipment. Also, Pharr has introduced Curby the recycling robot in outreach activities, and the City of Lyford hired an enforcement officer to investigate illegal dumping within the city.

ED_002319B_00012865-00033

Project Number: 3.1.04

Project Title: **Creation of an environmental education organization in Nuevo Laredo**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Establish an environmental organization in Nuevo Laredo in 2013 and affiliate the organization with Keep America Beautiful by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas and Tamaulipas *Country:* United States and Mexico

Implementing Organization: Reciclado en Acción/Fundación Verde

Contact Name: Tania Gallindo *E-mail Address:* tancira@gmail.com

Collaborating Organization(s): Keep Laredo Beautiful, Keep America Beautiful, and the Municipio of Nuevo Laredo

Cost: *Source of Funding:* Laredo Environmental Services, local partners, and Keep America Beautiful

Summary of Status:
The project's objectives are expected to be fully completed in early 2015.

Reciclado en Acción/Fundación Verde was established in 2013 and initiated environmental awareness events in Nuevo Laredo. Keep Laredo Beautiful, a division of the the City of Laredo's Environmental Services Department, will be covering the membership fees (about $6,000) for the organization to be affiliated with Keep America Beautiful.

ED_002319B_00012865-00034

Project Number: 3.1.07

Project Title: **Expansion of Nuevo Laredo's municipal recycling program**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Nuevo Laredo will expand a municipal recycling program started in March 2012. The program currently consists of public bins in parks. The municipio will place bins in all elementary schools in 2013 and then resume environmental education programs in the schools.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Municipio de Nuevo Laredo

Contact Name: Osvaldo Valencia *E-mail Address:* valencia_osvaldo@hotmail.com

Collaborating Organization(s):

Cost: *Source of Funding:* Municipio of Nuevo Laredo

Summary of Status:
The project was completed.

Bins were installed in elementary schools, and environmental education conferences were resumed at elementary schools in February 2013.

ED_002319B_00012865-00035

Project Number: 3.1.09

Project Title: **Increased distribution of SEDUMA's "E-Conexion" newsletter**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Extend the distribution of the "E-Conexion" newsletter to all Tamaulipas municipios.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretariat for Desarollo Urbano y Medio Ambiente

Contact Name: Dra. Silvia Casas González *E-mail Address:* silviacasas757@gmail.com

Collaborating Organization(s):

Cost: *Source of Funding:* SEDUMA

Summary of Status:
The project was completed.

SEDUMA expanded the electronic distribution to include 43 municipalities, all their state offices, environmentally certified schools (SIMA-E), and private industry.

To save paper and ink, SEDUMA no longer prints and distributes hard copies. Minor changes were made to the design, and the use of background colors is minimized.

ED_002319B_00012865-00036

Project Number: 3.1.10

Project Title: **Solid waste management tour of model Texas facilities for Mexican private- and public-sector officials**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Organize a tour of Mexican visitors to a model landfill in Texas and also a major recycling facility.

Sub-regional Task Force(s) Potentially Affected: Falcon and Amistad Task Forces

State(s): Nuevo León and Coahui *Country:* United States and Mexico

Implementing Organization: Texas Commission on Environmental Quality

Contact Name: Eddie Moderow *E-mail Address:* eddie.moderow@tceq.texas.gov

Collaborating Organization(s): Red Ambiental (headquartered in Monterrey), the Secretariat for Sustainable Developme

Cost: *Source of Funding:* Red Ambiental paid for all travel costs of the visiting delegation

Summary of Status:

The project was completed. The visiting group included fourteen public- and private-sector officials from six Mexican states. They spent two days in Austin in October 2014 talking with Austin City officials and TCEQ staff and visiting the Texas Disposal Systems landfill in Creedmore and the Balcones Resources' recycling facility in Austin.

ED_002319B_00012865-00037

Project Number: 3.2.01

Project Title: **Increased institutional capacity in scrap-tire management throughout the region**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

The project was completed in 2013.
SDS surveyed more than 20 local governments on both sides of the border and then developed a manual for local governments on best practices for scrap-tire management. With this manual as the focus, SDS collaborated with the TCEQ to organize a binational workshop held in March 2013. Representatives of 10 local governments plus state and federal governments, as well as private industry, attended the workshop.

Sub-regional Task Force(s) Potentially Affected: Gulf, Falcon, and Amistad Task

State(s): Regional *Country:* United States and Mexico

Implementing Organization: Secretaría de Desarrollo Sustentable (SDS)

Contact Name: Norma Rangel Sevilla *E-mail Address:* normaarangel@gmail.com

Collaborating Organization(s): Secretariat for Sustainable Development (State of Nuevo León) and the Texas Commission

Cost: $35,000 *Source of Funding:* EPA through the BECC

Summary of Status:
The project was completed.

SDS surveyed more than 20 local governments on both sides of the border and then developed a manual for local governments on best practices for scrap-tire management. With this manual as the focus, SDS collaborated with the TCEQ to organize a workshop held in March 2013. Representatives of 10 local governments plus state and federal governments, as well as private industry, attended the workshop.

ED_002319B_00012865-00038

Project Number: 3.2.02

Project Title: **Preparation and applications of compost from organic urban waste in Sabinas Hidalgo, Nuevo León**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Use organic waste generated in Sabinas Hidalgo, Nuevo León to make compost and then apply it to agricultural uses and urban gardening. By the end of 2014, compost 100% of organic waste collected by the municipality from large waste generators.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Nuevo León *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Sustentable (SDS)

Contact Name: Norma Rangel Sevilla *E-mail Address:* normaarangel@gmail.com

Collaborating Organization(s): SEMARNAT and the Municipio of Sabinas Hidalgo, Nuevo León

Cost: $67,000 *Source of Funding:* SEMARNAT

Summary of Status:
This particular project was cancelled and replaced by a related but different project in the same municipio. See project # 3.2.08 below.

ED_002319B_00012865-00039

Project Number: 3.2.03

Project Title: **Feasibility of using scrap tires for heavy-duty road-bed construction in Brownsville, Texas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Through a demonstration project, assist communities in building capacity for scrap-tire management.

Sub-regional Task Force(s) Potentially Affected:

State(s): *Country:*

Implementing Organization: Texas A&M University-Kingsville

Contact Name: Dr. Kim Jones *E-mail Address:* kfkdj00@tamuk.edu

Collaborating Organization(s): City of Brownsville, Texas

Cost: $15,000 *Source of Funding:* EPA through the BECC

Summary of Status:

With the grant funds available, TAMUK managed a demonstration project that baled approximately 62,500 scrap tires (625 bales), and used 125 of the bales as part of the sub-base of a section of a landfill road bed in Brownsville. TAMUK is looking for an additional $15-20K to use the remaining 500 bales and complete the extension of the road.

ED_002319B_00012865-00040

Project Number: 3.2.04

Project Title: **Use of wastewater sludge and yard wastes to create compost for local use in Nuevo Laredo, Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Develop a composting operation in Nuevo Laredo using sludge from the wastewater treatment plant and from collected yard wastes, and then apply the product in municipal parks as well as in homes (through sales to homeowners). The program, including applications and sales, is expected to be in full operation by sometime in 2013.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Comisión Municipal de Agua Potable y Alcantarillado (COMAPA)

Contact Name: Carlos Montiel Saeb *E-mail Address:* carlosmontielsaeb@hotmail.com

Collaborating Organization(s): COMAPA and the Municipio of Nuevo Laredo

Cost: $30,000 *Source of Funding:* Municipio of Nuevo Laredo

Summary of Status:
Significant progress was made during the two years of this Action Plan.

By mid-2013 compost was being generated by COMAPA and applied to the germination of seeds and vegetables in the greenhouse of the municipio's Research and Environmental Education Center. The utility subsequently began distributing compost to schools for landscaping and gardening and also began using it at COMAPA facilities.

COMAPA uses 5 to 10% of all the bio solids generated at the wastewater treatment plant for the compost. In 2015 the utility expects to sign an agreement with the municipio to purchase equipment that will enable generation of more compost, and then begin selling it to commercial establishments and businesses.

ED_002319B_00012865-00041

Project Number: 3.2.05

Project Title: **Development of collection and management program for used electronic products in Reynosa, Tamaulipa**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

The municipio of Reynosa, Tamaulipas will have a collection and management program for used electronic products in full operation by spring 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Municipio de Reynosa

Contact Name: Mauricio Chalons *E-mail Address:* ecologiareynosa@hotmail.com

Collaborating Organization(s):

Cost: $30,000 *Source of Funding:* EPA through the BECC

Summary of Status:
The project was completed.

The first steps of implementation had been taken in August 2012, and the program was in full operation in 2013. In that year, the city collected about 27.7 tons of used electronic waste and sent the material for recycling.

Project Number: 3.2.06

Project Title: **Design and implementation of a state scrap-tire management program in Tamaulipas that includes valuati**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

SEDUMA will develop policies and a management plan for scrap tires by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Urbano y Medio Ambiente

Contact Name: Ing. Humberto Rene Salinas *E-mail Address:* seduma@tamaulipas.gov.mx

Collaborating Organization(s): SEMARNAT and EPA

Cost: $400,000 *Source of Funding:*

Summary of Status:
SEDUMA put the project on hold.

ED_002319B_00012865-00042

Project Number: 3.2.07

Project Title: **Exploitation of the energy value of waste in Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

SEDUMA will evaluate the ways in which energy could be recovered from waste and put to use. An action plan will be completed by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* United States and Mexico

Implementing Organization: Secretaría de Desarrollo Urbano y Medio Ambiente

Contact Name: Ing. Humberto Rene Salinas *E-mail Address:* seduma@tamaulipas.gov.mx

Collaborating Organization(s): EPA

Cost: $300,000 *Source of Funding:* SEDUMA and EPA

Summary of Status:
SEDUMA put the project on hold.

Project Number: 3.2.08

Project Title: **Characterization of the municipal solid waste stream in Sabinas Hidalgo, Nuevo León**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

SDS will study and characterize the municipal solid waste stream in Sabinas Hidalgo, Nuevo León.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Nuevo León *Country:* Mexico

Implementing Organization: Secretaría de Desarrollo Sustentable (SDS)

Contact Name: Norma Rangel Sevilla *E-mail Address:* normaarangel@gmail.com

Collaborating Organization(s): The Municipio of Sabinas Hidalgo, NL

Cost: $25,000 *Source of Funding:* BECC

Summary of Status:
[This project was a replacement for project # 3.2.02, and was not initiated until mid-2014.]

By the end of 2014, the study was 35% completed.

ED_002319B_00012865-00043

Project Number: 3.3.01

Project Title: **Completion of remediation of old oxidation lagoons in Piedras Negras, Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 3: By 2020, improve knowledge at every level of government (federal, state, local) to characterize and remediate contaminated sites.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Complete the remediation of the remaining 10.3 acres by the end of 2013, after which the municipality will develop a road extension to and a green area at the site.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Municipio de Piedras Negras

Contact Name: Ing. Maria Teresa Molina *E-mail Address:* teduada@hotmail.com

Collaborating Organization(s): Secretariat for the Environment (State of Coahuila)

Cost: $300,000 *Source of Funding:* SEMA

Summary of Status:
Prior to 2012, 19.7 acres of the 30-acre site had been remediated. No new information has been available from Piedras Negras since then.

Project Number: 3.3.02

Project Title: **Cleaning up an old waste disposal site near the Rio Grande in Eagle Pass**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 3: By 2020, improve knowledge at every level of government (federal, state, local) to characterize and remediate contaminated sites.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Finish the remediation and develop a green area on the site.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Texas *Country:* United States

Implementing Organization: City of Eagle Pass

Contact Name: Hector Chavez *E-mail Address:* hchavez@eaglepasstx.us

Collaborating Organization(s): City of Eagle Pass

Cost: $3,500,000 *Source of Funding:* City of Eagle Pass plus additional funding source to be determined

Summary of Status:
Remediation of a portion of the site was carried out prior to 2010. In 2014, the city decided that it needed to seek assistance through the TCEQ's Brownfields Site Assessment Program to determine whether the site meets the federal definition of a brownfields site and is eligible for funding under the EPA's brownfields program.

ED_002319B_00012865-00044

Project Number: 3.3.03

Project Title: **Sustainable scrap-tire management plan for Piedras Negras, Coahuila**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Objective 3: By 2020, improve knowledge at every level of government (federal, state, local) to characterize and remediate contaminated sites.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

The municipio will develop a management plan and put it into full operation by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Coahuila *Country:* Mexico

Implementing Organization: Secretario de Medio Ambiente (SEMA)

Contact Name: Miguel Angel Leal Reyes *E-mail Address:* miguel.reyes@sema.gob.mx

Collaborating Organization(s): Municipio of Piedras Negras

Cost: $400,000 *Source of Funding:* Unknown

Summary of Status:

By mid-2013, SEMA determined they need to perform a feasibility study on using coal pits as disposal sites for scrap tires. No information has been available since then.

ED_002319B_00012865-00045

Goal 4: Enhance Joint Preparedness for Environmental Response

Project Number: 4.2.01

Project Title: **Emergency response plan for the maquiladoras in Brecha E-99 in Reynosa, Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Develop an emergency response plan by the end of 2014.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Unknown

Contact Name: Dr. Emilio Sonderegger Arriol *E-mail Address:* emilio.sonderegger@landisgyr.com

Collaborating Organization(s): Reynosa Industrial Park Mutual Aid Committee

Cost: $10,000 *Source of Funding:* EPA through the BECC

Summary of Status:
This project was cancelled.

Project Number: 4.2.02

Project Title: **Determination of database needs related to storage of hazardous materials in Lower Rio Grande Valley**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:
##################

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas and Tamaulipas *Country:* United States and Mexico

Implementing Organization: Environmental Protection Agency (EPA)

Contact Name: Paige Delgado *E-mail Address:* delgado.paige@epa.gov

Collaborating Organization(s): Fire departments from Texas and Tamaulipas municipalities in the Gulf Task Force area, E

Cost: *Source of Funding:* EPA and the U.S. Northern Command (USNORTHCOM)

Summary of Status:
The project has been on hold because of the uncertainty of funding from NORTHCOM.

ED_002319B_00012865-00046

Project Number: 4.2.03

Project Title: **Binational chemical-spill exercise at the World Trade Bridge (Nuevo Laredo, Tamaulipas and Laredo, Texas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Hold a binational chemical-spill exercise after the U.S.and Mexican governments have approved permits that allow hazardous waste to be transported on this bridge.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas and Tamaulipas *Country:* United States and Mexico

Implementing Organization: Protección Civil de Nuevo Laredo

Contact Name: Mr. Juan Ochoa *E-mail Address:* juan.u8a@hotmail.com

Collaborating Organization(s): The Laredo Fire Department

Cost: $5,000 *Source of Funding:* EPA Border 2020 grant

Summary of Status:
The project is on hold.

The U.S. Department of State issued a "presidential permit" in May 2014 to allow the crossing of hazardous materials. The Mexican government is awaiting the completion of water quality study on the Rio Grande that CONAGUA required before the permit is issued. If and when a Mexican permit is issued and both nations sign diplomatic notes, local officials will organize a binational exercise.

ED_002319B_00012865-00047

Project Number: 4.2.04

Project Title: **Development of a cross-border contingency plan for the Solidarity Bridge near Laredo-Nuevo Laredo**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Include the Solidarity Bridge, which is upstream from Laredo and Nuevo Laredo, to the Joint Contingency Plan for Laredo and Nuevo Laredo by 2013.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas and Nuevo León *Country:* United States and Mexico

Implementing Organization:

Contact Name: *E-mail Address:*

Collaborating Organization(s): Civil protection and fire departments for both Colombia and Nuevo Laredo, CODEFRONT a

Cost: $0 *Source of Funding:* City of Laredo and Nuevo Laredo

Summary of Status:
See the following project (4.2.05).

ED_002319B_00012865-00048

Project Number: 4.2.05

Project Title: **Updating the 1998 cross-border contingency plan between Laredo, Texas and Nuevo Laredo, Tamaulipas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Hold new meetings of the staff of the two cities in 2013 in order to revisit the language of the draft revision and possibly develop alternative language.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas and Tamaulipas *Country:* United States and Mexico

Implementing Organization: City of Laredo Fire Department

Contact Name: Eloy Vega *E-mail Address:* evega@ci.laredo.tx.us

Collaborating Organization(s): Laredo Fire Department, Protección Civil de Nuevo Laredo, and CILA

Cost: $0 *Source of Funding:*

Summary of Status:
The project is on hold.

Laredo officials met in 2013 to make changes to one sentence in a draft of the new cross-border contingency plan that had been originally prepared in 2009. The changes were intended to clarify that Laredo could not send personnel across the border, because of security and liability concerns, but could assist in other ways. The revised agreement has been approved subsequently by Nuevo Laredo, but has been awaiting action by the Laredo City Council since that time.

ED_002319B_00012865-00049

Project Number: 4.2.06

Project Title: **Enhancing the cross-border contingency plans for Texas-Coahuila sister cities**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

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.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Complete the new plans for both pairs of sister cities by the end of 2013.

Sub-regional Task Force(s) Potentially Affected: Amistad Task Force

State(s): Texas and Coahuila *Country:* United States and Mexico

Implementing Organization: Comisión de Cooperación Ecológica Fronteriza

Contact Name: Briselda Duarte *E-mail Address:* bduarte@cocef.org

Collaborating Organization(s): City of Eagle Pass, Municipio de Piedras Negras, City of Del Rop, Municipio de Ciudad Acu

Cost: $130,000 *Source of Funding:* EPA Border 2020 grant through BECC

Summary of Status:

The project was completed by the end of 2013. Under contract from the BECC, two workshops were organized in the first half of 2012 for staff from the two pairs of sister cities to discuss protocols and risks. After delays and hiring of a new contractor, additional workshops were held in July 2013. In November of that year, the two sister-city pairs each signed a Memorandum of Cooperation for new cross-border contingency plans. Each community commited to providing resources and mutual aid in case of chemical accidents.

ED_002319B_00012865-00050

Goal 6: Promote Cross-Cutting Efforts related to Environmental Health and Environm

Project Number: 6.0.01

Project Title: **Training health professionals for community outreach in Texas-Tamaulipas related to environmental hazar**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Train promotoras in Laredo and Harlingen, Texas and adjoining areas of Tamaulipas on how to address pre-natal and childhood exposure to pesticides, lead, solvents, second-hand tobacco, and diesel exhaust, so that they can engage in community outreach. Complete the project by the end of 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Texas *Country:* United States

Implementing Organization: University of Texas Health Science Center in San Antonio

Contact Name: Claudia Miller M.D. *E-mail Address:* MillerCS@uthscsa.edu

Collaborating Organization(s): The University of Texas Health Science Center in San Antonio

Cost: $50,000 *Source of Funding:* EPA border grant through BECC

Summary of Status:

The project was fully implemented in 2013.

Two training sessions were held for 40 promotoras (lay healthcare workers)--20 from the N.Laredo/Laredo area and 20 from Cameron County and adjoining municipios in Tamaulipas. The classes covered 17 types of potentially hazardous exposures during pregnancy and childhood, and how to avoid these exposures. Subsequent to the training, the promotoras provided outreach to 400 pregnant women or mothers with young children in a three-month period. Each of those families made an oral commitment to discuss lessons learned with two other families.

ED_002319B_00012865-00051

Project Number: 6.0.02

Project Title: **Educating farmworker families on handling and disposal of pesticides in selected areas of Texas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Produce the EPA-written play "El Moscas y los Pesticidas" using students in two locations--a city a city in the Lower Rio Grande Valley and Laredo--in the first half of 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Texas *Country:* United States

Implementing Organization: Association of Farmworker Programs

Contact Name: Noemi Ochoa *E-mail Address:* ochoa@afop.org

Collaborating Organization(s):

Cost: $20,000 *Source of Funding:* EPA border grant through BECC

Summary of Status:
The project was completed in 2013.

Project staff organized student groups in Laredo and Edinburg to perform the play. Total attendance at the two locations was more than 2000 people.

ED_002319B_00012865-00052

Project Number: 6.0.03

Project Title: **Development of a binational repository of databases on environmental stresses and public health effects**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Review the literature, build a cross-border partnership of professionals at the local, state, and national levels, identify health hazards in the environment and relevant indicators, and build a binational repository of databases by the end of 2013.

Sub-regional Task Force(s) Potentially Affected: Gulf, Falcon, and Amistad Task

State(s): Regional *Country:* United States and Mexico

Implementing Organization: Texas A&M Health Science Center, School of Rural Public Health

Contact Name: Genny Carrillo M.D. *E-mail Address:* gcarrillo@srph.tamhsc.edu

Collaborating Organization(s): PAHO, HIDAREY COBINA,Hidalgo County Health Department

Cost: $50,000 *Source of Funding:* EPA through the BECC

Summary of Status:

Project staff accomplished as much as possible during the grant period, but encountered unanticipated difficulties with selected objectives.

The project reviewed literature, and on the U.S. side talked with local, state, and national environmental health professionals, identified environmental stresses and health effects on the U.S. side to track, and established a repository of databases. The project made contact with local, state, and national health professionals in Mexico but had difficulty finding relevant databases on that side of the border. The ones that were located were online, but tended to be outdated. The project also discovered that the Mexican professionals use different parameters than are used in the United States.

In late 2014 project staff partnered with a Mexican college in obtaining a new grant with related objectives, and are hopeful that the partnership will be fruitful.

ED_002319B_00012865-00053

Project Number: 6.0.04

Project Title: **Identification of, and education on, environmental health issues in Webb County**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Address children's environmental health issues in Laredo, Texas and Webb County by surveying a sample of homes and identifying health risks, tracking reported exposures through selected hospitals and clinics, developing and implementing a public outreach campaign regarding the identified risks, and identifying and publicizing two relevant online courses available for physicians. Complete the project by the end of 2013.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas *Country:* United States

Implementing Organization: City of Laredo Health Department

Contact Name: Waldo Lopez *E-mail Address:* wlopez@ci.laredo.tx.us

Collaborating Organization(s): Laredo Health Department

Cost: $50,000 *Source of Funding:* EPA border grant through BECC

Summary of Status:

Laredo completed the project by the end of 2013.

Project staff surveyed the use of pesticides and household hazardous materials in more than 135 homes.

More than 50 physicians and health providers were trained on diagnosing illnesses related to pesticide exposure through the use of a web-based diagnostic tool, allowing them to assist survey respondents with symptoms related to pesticide exposure.

Staff distributed publications on lead and pesticides to over 120 homes.

ED_002319B_00012865-00054

Project Number: 6.0.05

Project Title: **Annual Environmental Summit in the Lower Rio Grande Valley**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Organize annual enviromental summits for the public in the Lower Rio Grande Valley, in cooperation with State Representative Eddie Lucio III's office.

Sub-regional Task Force(s) Potentially Affected: Gulf Task Force

State(s): Texas *Country:* United States

Implementing Organization: Texas Commission on Environmental Quality (TCEQ)

Contact Name: Imelda Peña *E-mail Address:* Imelda.Pena@tceq.texas.gov

Collaborating Organization(s): TCEQ and cities in the Lower Rio Grande Valley

Cost: $15,000 *Source of Funding:* Local sponsors and EPA

Summary of Status:

Valley Enviromental Summits were held in October 2013 and October 2014. These were the fourth and fifth in this series of annual events.

An estimated 300 people attended the 2013 Summit. The priority interests were illegal dumping, marine debris, and community cleanup programs.

The 2014 Summit attracted approximately 350 attendees. The topics of interest were sustainability, local enforcement programs, and household hazardous waste programs.

ED_002319B_00012865-00055

Project Number: 6.0.06

Project Title: **Annual Environmental Summits in Webb County, Texas**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Hold Environmental Summis in Laredo in the fall of 2013 and 2014, in cooperation with State Senator Judith Zaffirini.

Sub-regional Task Force(s) Potentially Affected: Falcon Task Force

State(s): Texas *Country:* United States

Implementing Organization: Texas Commission on Environmental Quality (TCEQ)

Contact Name: Carmen Ramirez *E-mail Address:* carmen.ramirez@tceq.texas.gov

Collaborating Organization(s): TCEQ and the City of Laredo

Cost: $15,000 *Source of Funding:* EPA and local sponsors

Summary of Status:

Environmental Summits were held in Laredo in October 2013 and November 2014. These were the fourth and fifth in an annual series.

The 2013 Summit had more than 400 attendees. Speakers discussed recycling, energy efficiency, and water conservation.

The 2014 Summit had a theme of "Focus on Nature" and targetted high school students, who comprised a majority of the 325 attendees. Topics included weather preparedness and energy efficiency. There were also hands-on activities on building a natural habitat and sampling water quality parameters.

ED_002319B_00012865-00056

Project Number: 6.0.07

Project Title: **Extension of Tamaulipas's program in environmental management systems**

Objective under the "Goal" (these are objectives pre-established by Border 2020):

Goal 6 is a creation of the Four-State Regional Workgroup and has no specific, pre-established objectives.

Sub-objective Number and Text (these apply only to some of the water-related projects):

Intended Activities:

Promote the adoption of Tamaulipas/SEDUMA's environmental management program by all elementary schools and state offices in the border region.

Sub-regional Task Force(s) Potentially Affected: Gulf and Falcon Task Forces

State(s): Tamaulipas *Country:* Mexico

Implementing Organization: Secretariat for Desarollo Urbano y Medio Ambiente

Contact Name: Dra. Silvia Casas González *E-mail Address:* silviacasas757@gmail.com

Collaborating Organization(s): Elementary schools in border municipios

Cost: $300,000 *Source of Funding:* EPA and SEDUMA

Summary of Status:

SEDUMA made significant progress in expanding the use of its guidelines for environmental management programs. This program has the objectives of reducing energy and water consumption and developing waste management programs.

SIMA has two divisions: SIMA-E targets the education sector, specifically elementary schools; and SIMA-I ("I" for Institutional) targets state offices.

More than 90 schools in Matamoros, Tampico, and Victoria have registered for SIMA-E. Each school held workshops on water, waste, and energy efficiency, reaching a total of 26,000 students. The schools also received equipment such as low-flow water toilets, recycling containers, and energy-efficient light bulbs.

Through SIMA-I, more than 1,800 state employees learned about water conservation, energy efficiency, and recycling. State offices that registered for the program received water filters and energy-efficient light bulbs and saved 13.03% on energy costs from January to August 2014, equivalent to $65,000 USD. Tamaulipas will expand both programs to more schools and state offices in 2015.

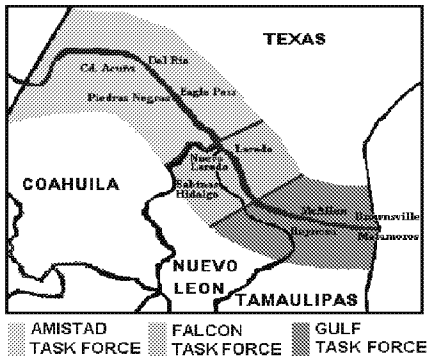
ED_002319B_00012865-00057

BORDER 2020

2017-2018 Amistad Task Force Action Plan

TX-COAH-TAMP-NL Regional Workgroup

October 2017



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 2017-2018 version is the second of its kind. Several projects have been carried over from the 2015-2016 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.

In October of 2016, the three task forces held meetings to discuss initial priorities for the 2017-2018 Action Plan as well as several conference calls with leaders to develop a consensus of priorities at the local and regional workgroup levels.

Regional Priorities

Goal 1: Reduce Air Pollution

a) Implement atmospheric monitoring programs under the same criteria of analysis and promote the dissemination of results in the four states
b) Set actions in accordance with the public policies of micro and macro-economic analysis of climate change state programs
c) Promote the implementation of the PROAIRE air quality program and its strategies in the border communities

Goal 2: Improve Access to Clean and Safe Water

a) Continue to improve energy efficiency for water operators in border municipalities
b) Continue the water conservation programs and encourage the reuse of treated water for irrigation
c) Strengthen wastewater sanitation programs and actions
d) Disseminate green infrastructure actions for sustainable development of border communities
e) Promote strategies for adequate wastewater management in Tamaulipas border municipalities

Goal 3: Promote Materials Management and Waste Management, and Clean Sites

a) Increase institutional capacity at the local and state levels for sustainable practices in solid waste management
b) Develop collection and comprehensive waste management programs for used electronics for municipalities in the border area

c) Develop collection and comprehensive waste management programs for proper disposal of household hazardous waste for municipalities in the border area
d) Continue efforts to implement comprehensive scrap tire management programs
e) Strengthen operations of the sanitary landfills in border municipalities, with plans to capture and take advantage of the biogas and convert to energy
f) Develop comprehensive actions to eliminate unauthorized open-air dump sites
g) Encourage municipal programs for holistic waste management
h) Promote the integral waste management in the Mexican municipalities

Goal 4: Enhance Joint Preparedness for Environmental Response

a) Continue the binational relationship in emergency response for training, equipment and drills
b) Promote the creation of risk atlases for waste management and hazardous materials in border communities
c) Carry out the required border studies for the protection of local communities
d) Generate a diagnosis of equipment, training, and ability to respond to an emergency in border municipalities

Goal 5: Enhance Compliance Assurance and Environmental Stewardship

a) Implement binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals, to promote the exchange of information and improve understanding of each country's respective compliance and enforcement programs
b) Promote the updating, sharing and application of municipal environmental regulations in border communities
c) Carry out the land management plans in the states and municipalities along the border region
d) Establish regulatory and operational mechanisms for the control of wild hogs

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

a) Develop a study that identifies the five top main risks on environmental health in border communities

Fundamental Strategies

a) Promote actions and environmental education programs on waste, recycling, water and fauna in the Kickapoo reservation
b) Implement a study related to the handling and disposal of used accumulators and their impact on public health
c) Establish a binational bilingual program for education purposes on environmental and public health topics according to regional priorities.

Amistad Task Force

Goal 1: Reduce Air Pollution

1. Establish and strengthen vehicle emissions programs in Acuña, Piedras Negras and Nava
2. Promote initiatives to develop energy efficiency and reforestation programs in the industrial sector in Acuña and Piedras Negras
3. Promote the implementation of strategies by the SEMARNAT PRO AIRE air quality program in Acuña, Piedras Negras and Nava

Goal 2: Improve Access to Clean and Safe Water

1. Conduct water quality monitoring of tributaries along the Rio Grande in Acuña and Piedras Negras
2. Develop Fats, Oils and Grease (FOG) workshops in Acuña and Piedras Negras, replicating the model in Laredo

3. Promote and develop green infrastructure projects and water conservation programs in Acuña and Piedras Negras

Goal 3: Promote Materials Management, Waste Management and Clean Sites

1. Promote the implementation of integrated solid, household hazardous waste and used electronic programs in Acuña and Piedras Negras
2. Strengthen scrap tire management programs and promote scrap tire reuse for projects in Acuña and Piedras Negras
3. Promote initiatives to develop plastic bag reduction programs in Acuña and Piedras Negras

Goal 4: Enhance Joint Preparedness for Environmental Response

1. Update the directory of emergency response personnel in the Acuña-Del Rio and Eagle Pass-Piedras Negras and develop a knowledge exchange workshop in Eagle Pass
2. Coordinate two emergency response tabletop exercises and joint response drills between Eagle Pass and Piedras Negras and Del Rio and Acuña

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

1. Develop awareness programs on vector borne illnesses such as Zika and Dengue virus in Acuña and Piedras Negras
2. Launch a binational environmental education program on recycling, energy efficiency and water conservation in Eagle Pass and Piedras Negras using social and broadcast media

GOAL # 1: Reduce Air Pollution

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of Funding	Contact(s)	Objective 2017-2018	Status Complete Ongoing; New for 2017	Progress Towards Target
1.5.01	**Coahuila Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC, in Spanish) for Coahuila: quantification of mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	Organize meetings with the technical work groups, the advisory group, and the Climate Change Committee.		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 Action Plan is ready and is in the process of being published in the Official Journal of the State.
1.5.02		SEMA (Coahuila),	12 Million	SEMARNAT	Santiago Barrios,	Initiate the project. It is		The project has been authorized and is in the review phase prior to

	Air Quality Network in Coahuila Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	Municipalities of Piedras Negras, Acuña, Nava, Sabinas, Saltillo	Pesos		SEMA/Coahuila, santiago.barrios@sema.gob.mx	currently in the review phase prior to bidding.		bidding. Three air monitoring stations were installed and have been operating for a year.

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)	Objective 2017-2018	Status Complete Ongoing; New for 2017	Progress Towards Target
	Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
*3.1.03	**Construction of and Equipment for Type A Landfill in the Coal Deposit Region**	SEMA, SEMARNAT, Municipalities of Múzquiz and Sabinas	25 Millones Pesos	SEMARNAT PEF 2015	Oscar Flores, SEMA, oscar.flores@sema.gob.mx 01152844 698-1091 ext. 7268	Construction and operation.		Conduct soil studies. Under analysis prior to request for bids. The project is still in progress. The bidding process for the project ended and the technical studies are ready. The construction of the landfill started in September 2017.
*3.1.04	**Construction of and Equipment for a**	SEMA, Municipality of Juárez and Progreso	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, oscar.flores	Construction and operation.		Under analysis prior to request for bids. The project is still in progress.

	Regional Landfill in the Municipalities of Juárez and Progreso, Coahuila				@sema.gob.mx 01152844 698-1091 ext.7268			The construction of the landfill was completed. Municipalities will receive the equipment in September 2017.
*3.1.05	**Construction of and Equipment for Two Urban Solid Waste Transfer Stations in the Municipality of Múzquiz, Coahuila**	SEMA, Municipio de Múzquiz	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, oscar.flores@sema.gob.mx 01152844 698-1091 ext.7268	Construction and operation.		Under analysis prior to request for bids. The project is still in progress. The transfer stations are currently in the bidding process for funds, and will be installed after the construction of a landfill in the coal region
3.1.06	**RECOLECTRÓN Program** Collection program for used electronics in the municipalities. Inform and educate the population of the benefits of reusing used electronic products.	SEMA, Municipalities of Acuña, Allende, Nava and Sabinas	2 Million Pesos $16,777	SEMA Border 2020	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx Oscar Flores, SEMA, 01152844 698-10-91 ext.7268 oscar.flores@sema.gob.mx	Continue collecting tons of waste. Conduct an assessment as well as training of municipal ecology staff on used electronics and implement actions for adequate disposal.		To date 44.89 tons has been collected. More than 442 tons of used electronics was collected, surpassing the goal of 259 tons that was set by the current six-year administration. The project is in progress.
3.1.07	**Responsible Disposal of Tires**	Municipality of Acuña, Coahuila	$12,000	Municipio de Acuña, Coahuila	Biól. Carlos Alejandro Flores Diego,	Continue collecting tons of waste.		A regulatory framework regulates management and a program is underway for storage, but infrastructure is required for final disposal. . The municipio created a

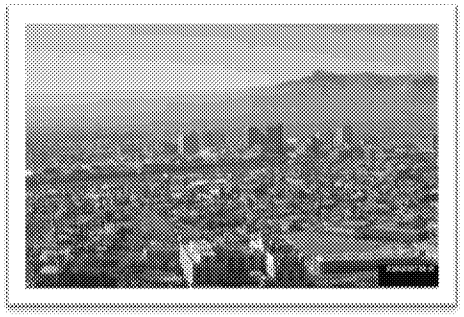
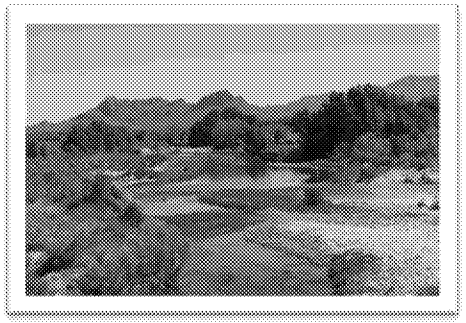
	Operation of a scrap tire disposal center. Using three slices, reduce the volume and risk of standing water, a breeding ground for mosquitoes (vectors for dengue fever).				Director of Ecology, floresdiegocarlos@yahoo.com.mx 01152877773-1458			certification program for auto body shops and generators that manage scrap tires, which requires these establishments to cut the tires in three pieces to properly dispose them, and maintain their operating license. To date more than 58,000 tires were collected, mitigating about 95% of vectors. The project is in progress.
3.1.08	**Disposal of Used Electronic and Hazardous Waste** Create a storage center for the special management of waste, in which small generators can adequately dispose of items according to norms.	Municipality of Acuña, Coahuila	$12,500	Municipality of Acuña, Coahuila	Biól. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx 01152877773-1458	Continue collecting and disposing of electronic and hazardous waste.		The regulatory framework was approved by the city council as well as changes to municipal environmental regulations regarding an approval for an operating license for six months and certification of training workshops. . To date 29 tons of waste have been collected. The program is carried out in coordination with SEMA. The municipio made an agreement with Promotora Ambiental (PASA)—a waste services provider-- to pick up hazardous and electronic waste from generators in the community. PASA ships the waste to a storage facility in Piedras Negras and to a refinery for final disposal.
3.1.10	**Electronic Waste Recycling**	Grupo Ecológico Green Tec-Osos del Instituto	$36,054	Border 2020	Ing. Víctor Ibarra, Instituto Tecnológico	Conduct workshops and campaigns at schools and public events		Public events on used electronics were conducted in Piedras Negras, resulting in the collection of more than 15 tons in the collection

	Develop an educational campaign aimed at reducing used electronics by creating an integrated electronic waste recycling program and promoting sustainable practices.	Tecnológico de Piedras Negras			de Piedras Negras, ing_victor_m@prodigy.net.mx 01152878135-0185	on used electronics.		centers that were installed by the municipio. The Technological Institute of Piedras Negras organized workshops and awareness campaigns on used electronics in more than 16 schools in Piedras Negras and Eagle Pass, training more than 103,500 residents on the proper management of used electronics, which resulted in the collection of more than 61 tons. The project ended in June.

*Projects that are not in the border area

Programa Ambiental México-Estados Unidos Grupo Regional

Tamaulipas - Nuevo León – Coahuila - Texas

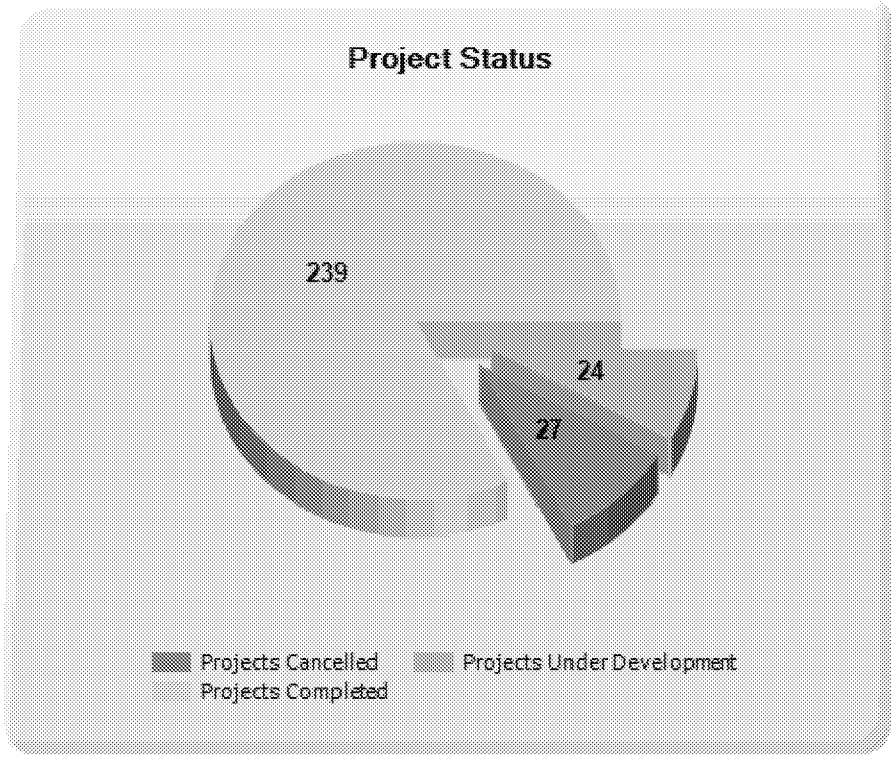
Acuña, Coahuila Abril 4, 2017

SEMARNAT
SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Experiencias Sobre Proyectos Financiados por Frontera 2020

Resumen

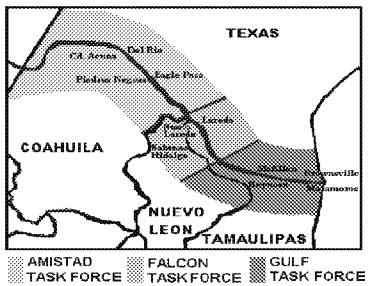


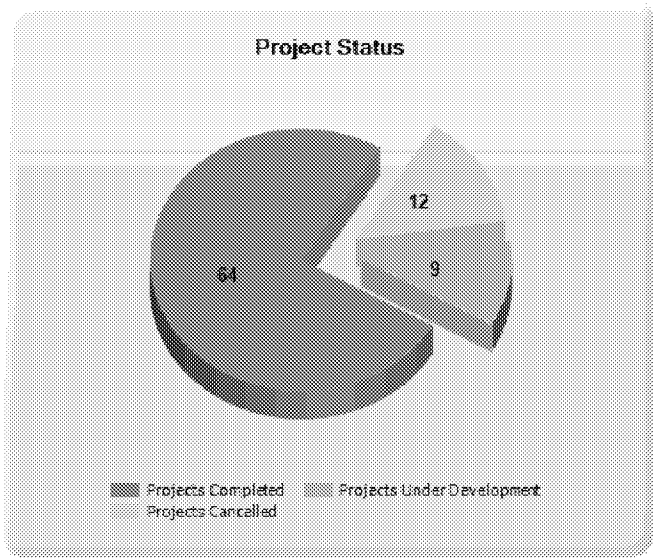
El Programa ha invertido mas de $12MD en aprox. 290 proyectos.

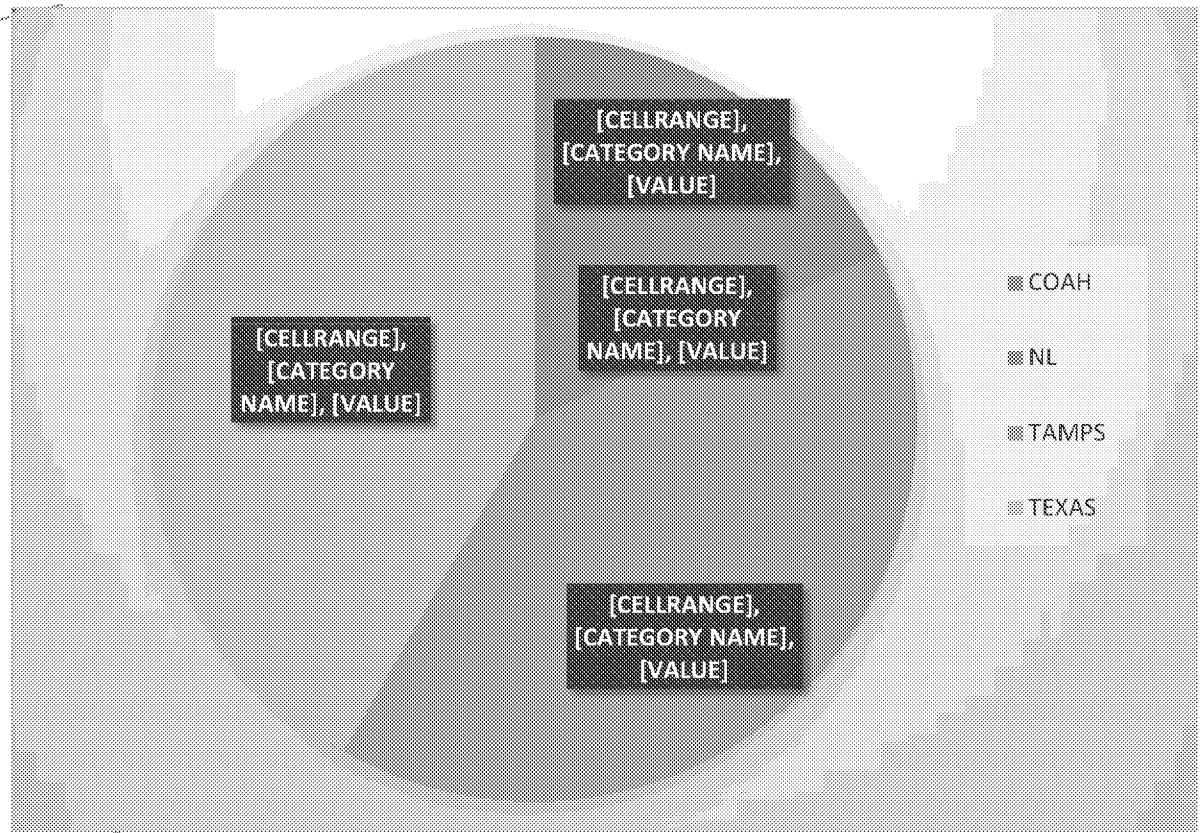
Program Project Status All Regions

Status	AZ	BC	CA	CHIH	COAH	NL	NM	SON	TAMPS	TX	Total
Cancelled	0	5	1	2	1	0	1	5	11	1	27
Concluded	19	60	17	23	10	3	10	33	22	42	239
In Progress	3	2	3	4	2	0	0	3	1	6	24
Total	**22**	**67**	**21**	**29**	**13**	**3**	**11**	**41**	**34**	**49**	**290**

Tamaulipas - Nuevo León – Coahuila - Texas
Estatus

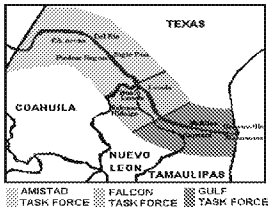


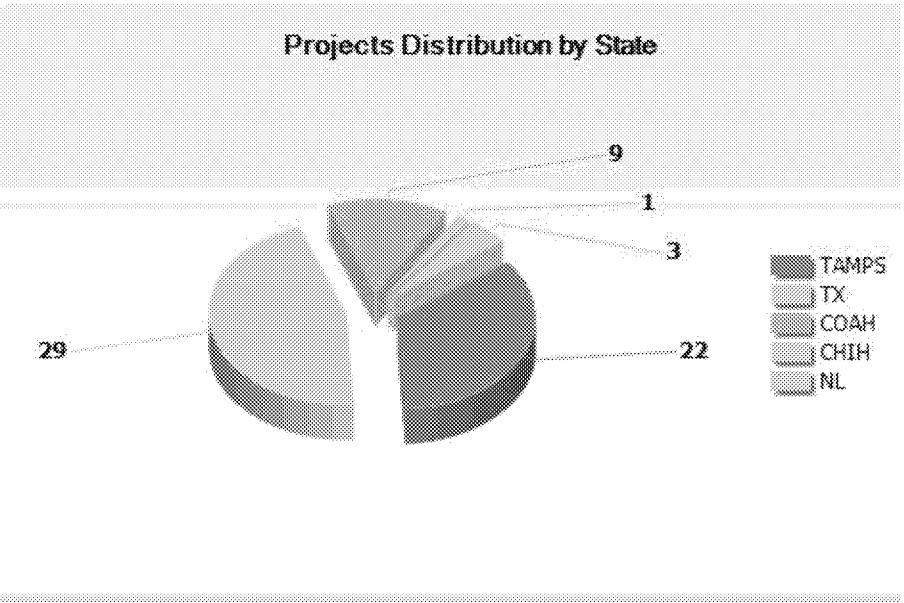


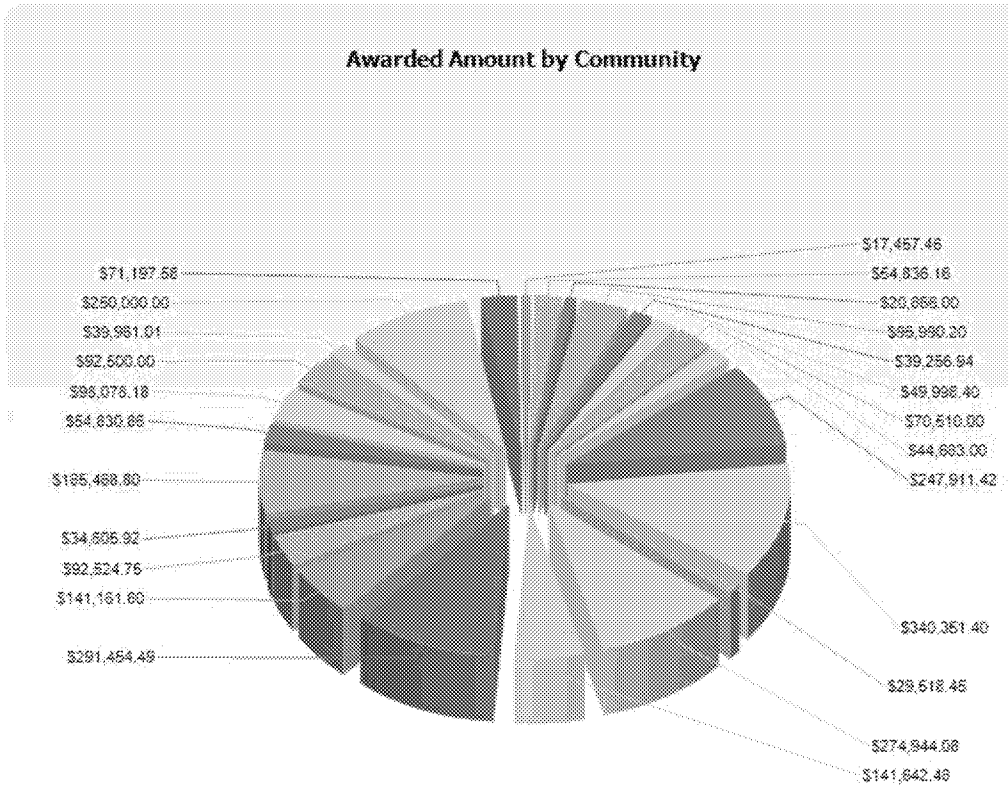


La Región de los 4 Estados
Total de 84 proyectos con una inversion de $2,544,725

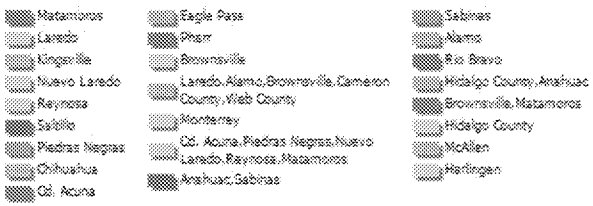
Tamaulipas - Nuevo León – Coahuila - Texas
Proyectos Completados



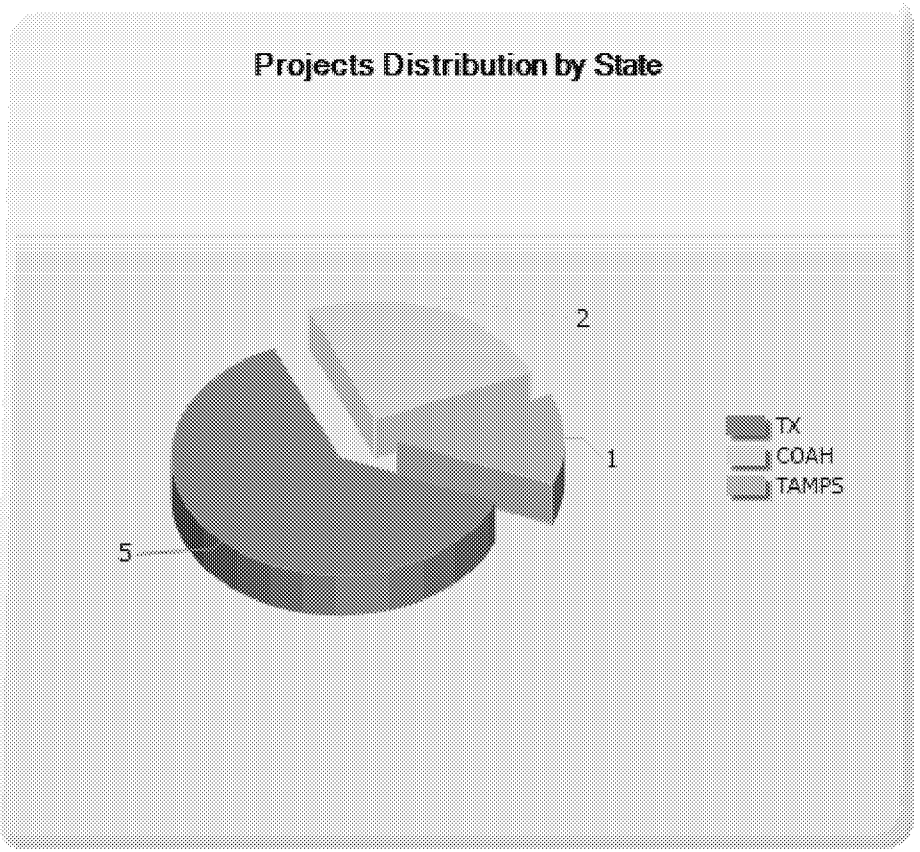


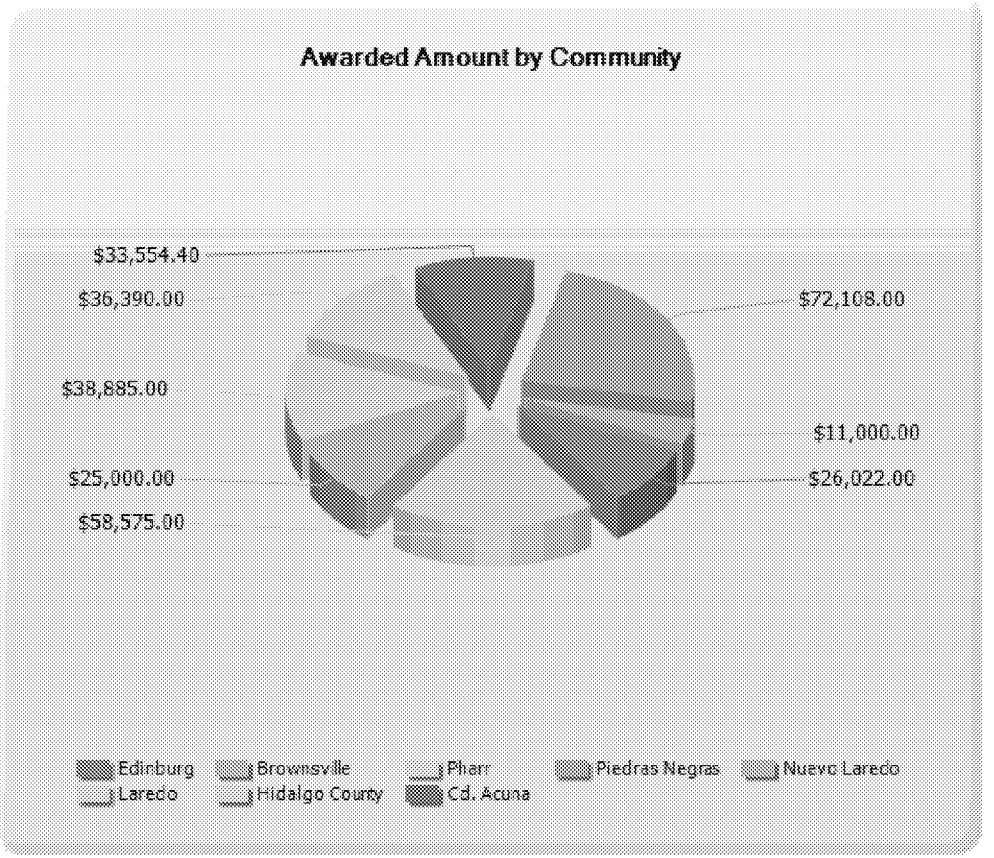


En la Región de los 4 Estados
Se han concluido 64 proyectos
con una inversion
de $2,292,889 USD



Tamaulipas - Nuevo León – Coahuila - Texas
Proyectos en Progreso





En desarollo 8 proyectos con una inversión de $301,535 USD

Para finales de 2017 se contemplan concluir 84 proyectos con una inversion de $2,544,725 USD

Políticas publicas y estrategias para mejorar calidad del aire

Estudios de Factibilidad para el Aprovechamiento de **Metano** en el Relleno Sanitario Municipal de Saltillo, Coah.

Estrategia de "retrofit" tecnologías para la reducciones de emisiones

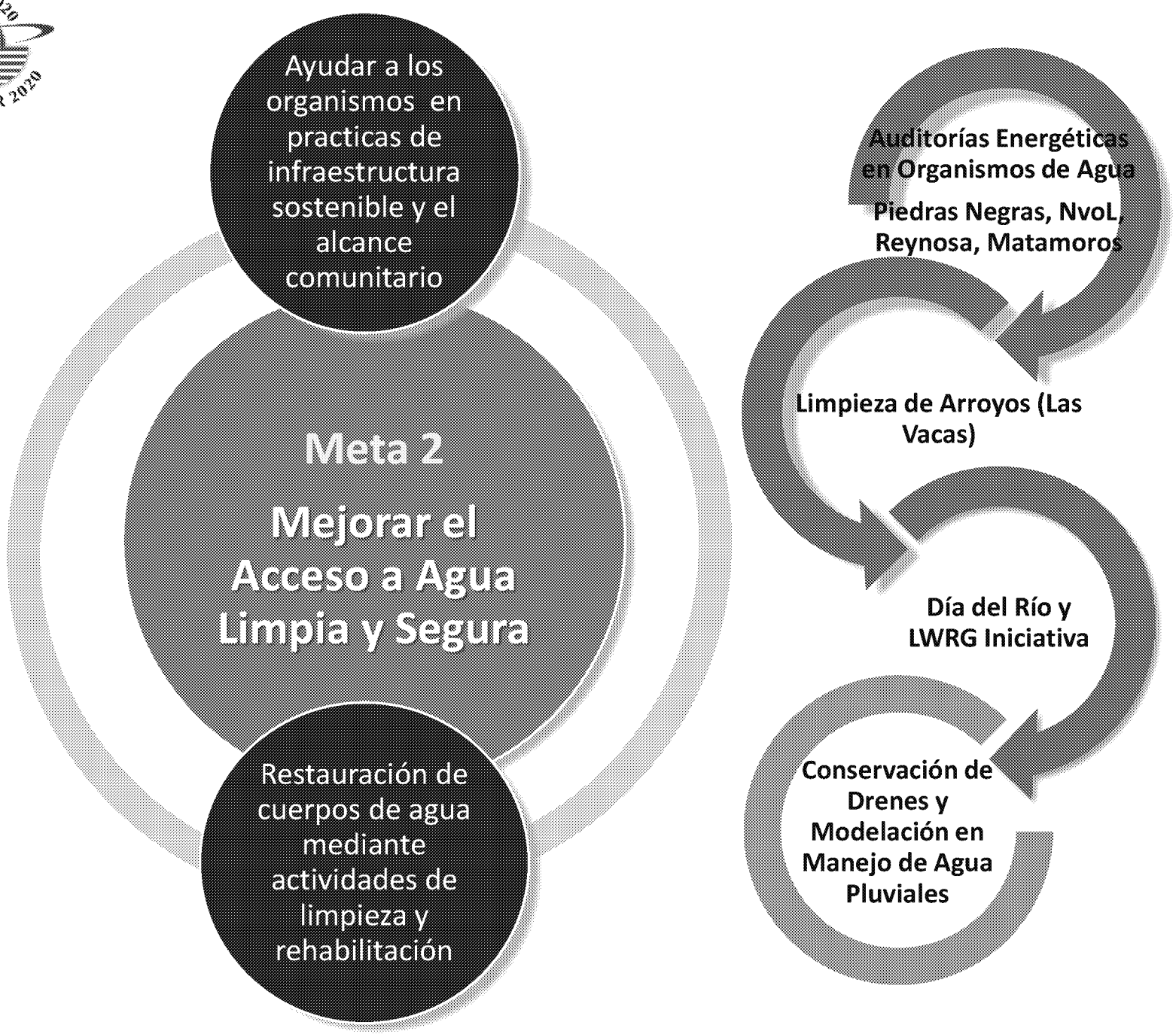
Meta 1

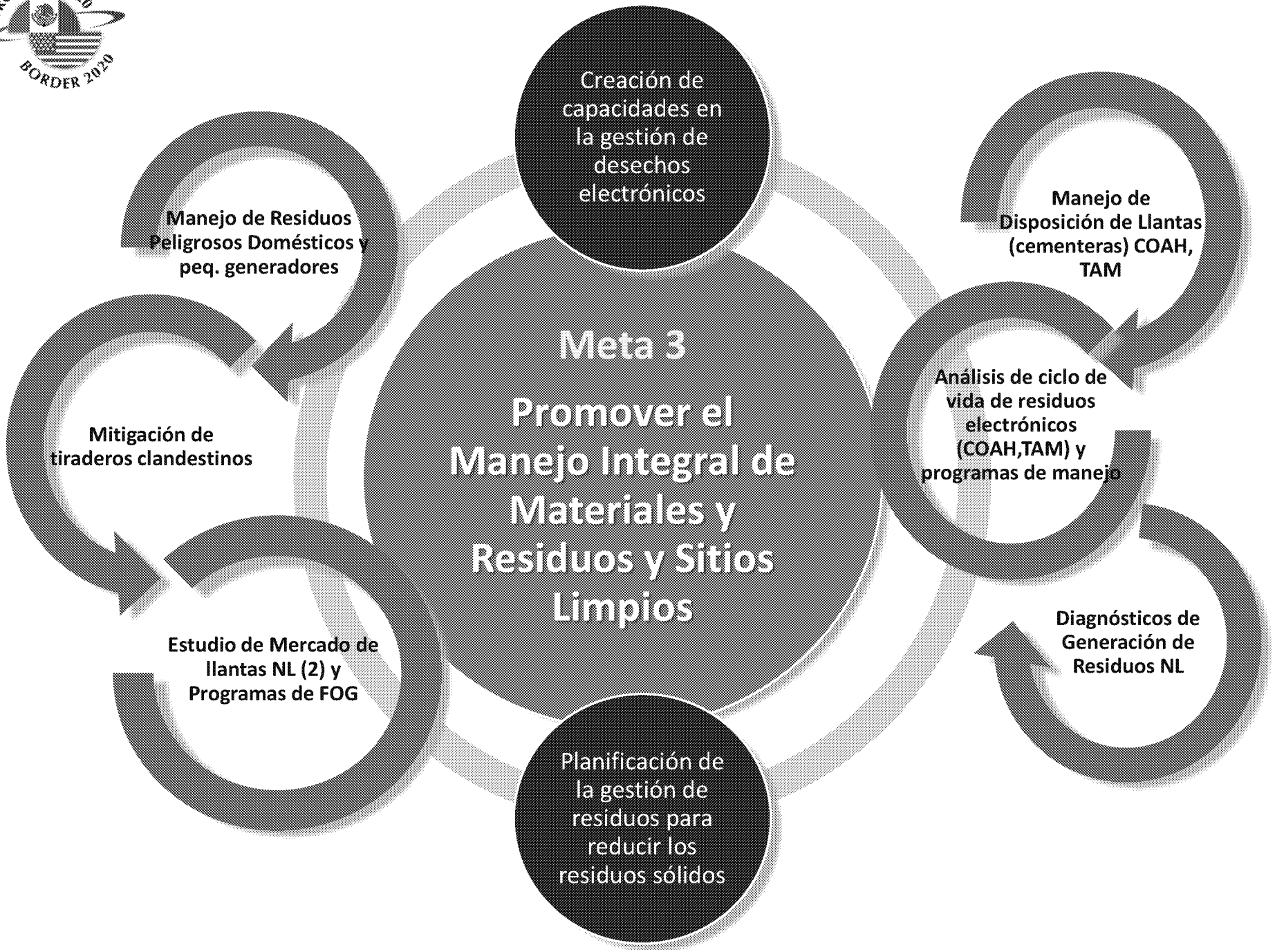
Reducir Contaminación del Aire

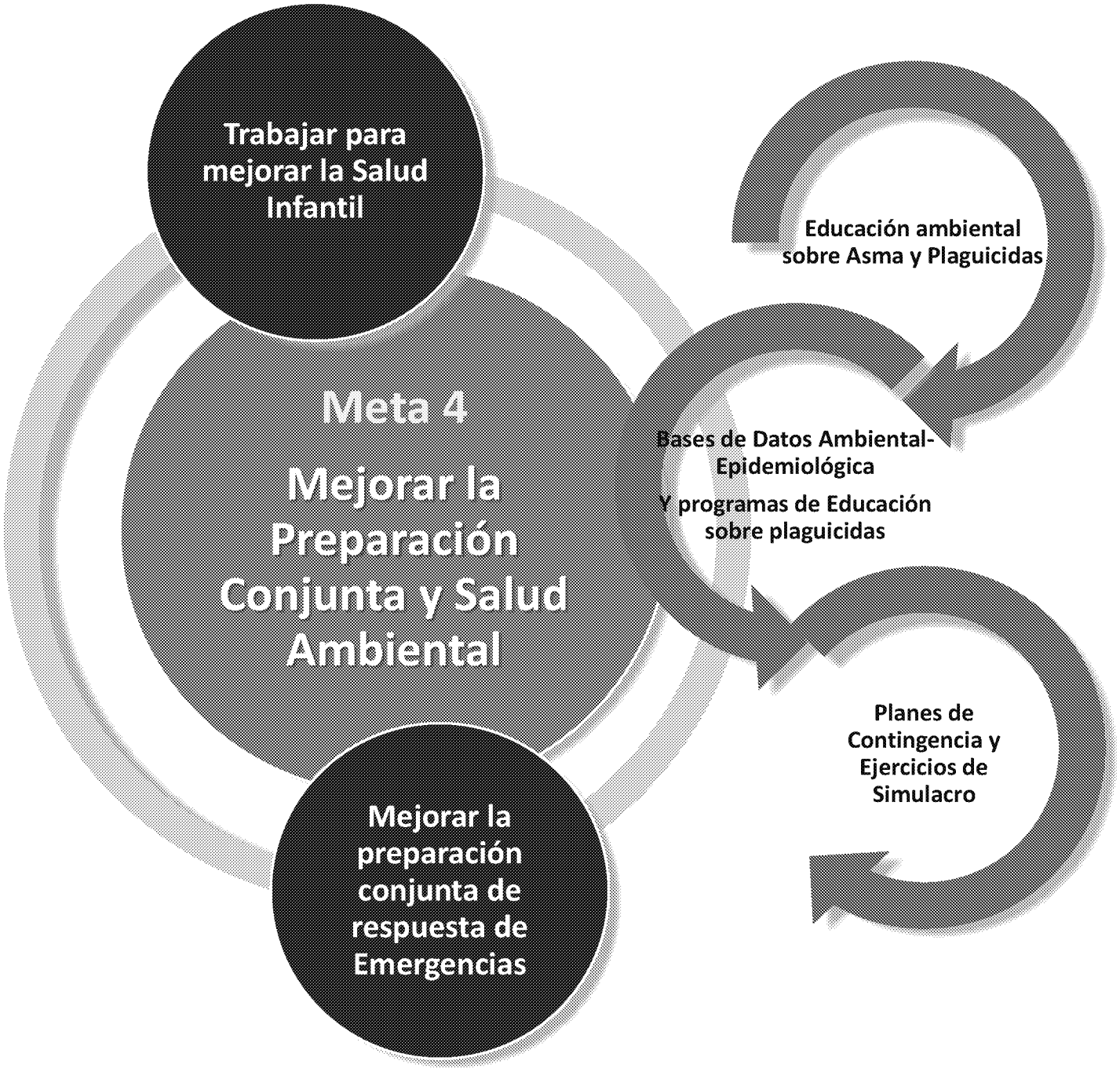
Reducción de emisiones de contaminantes y sus impactos asociados

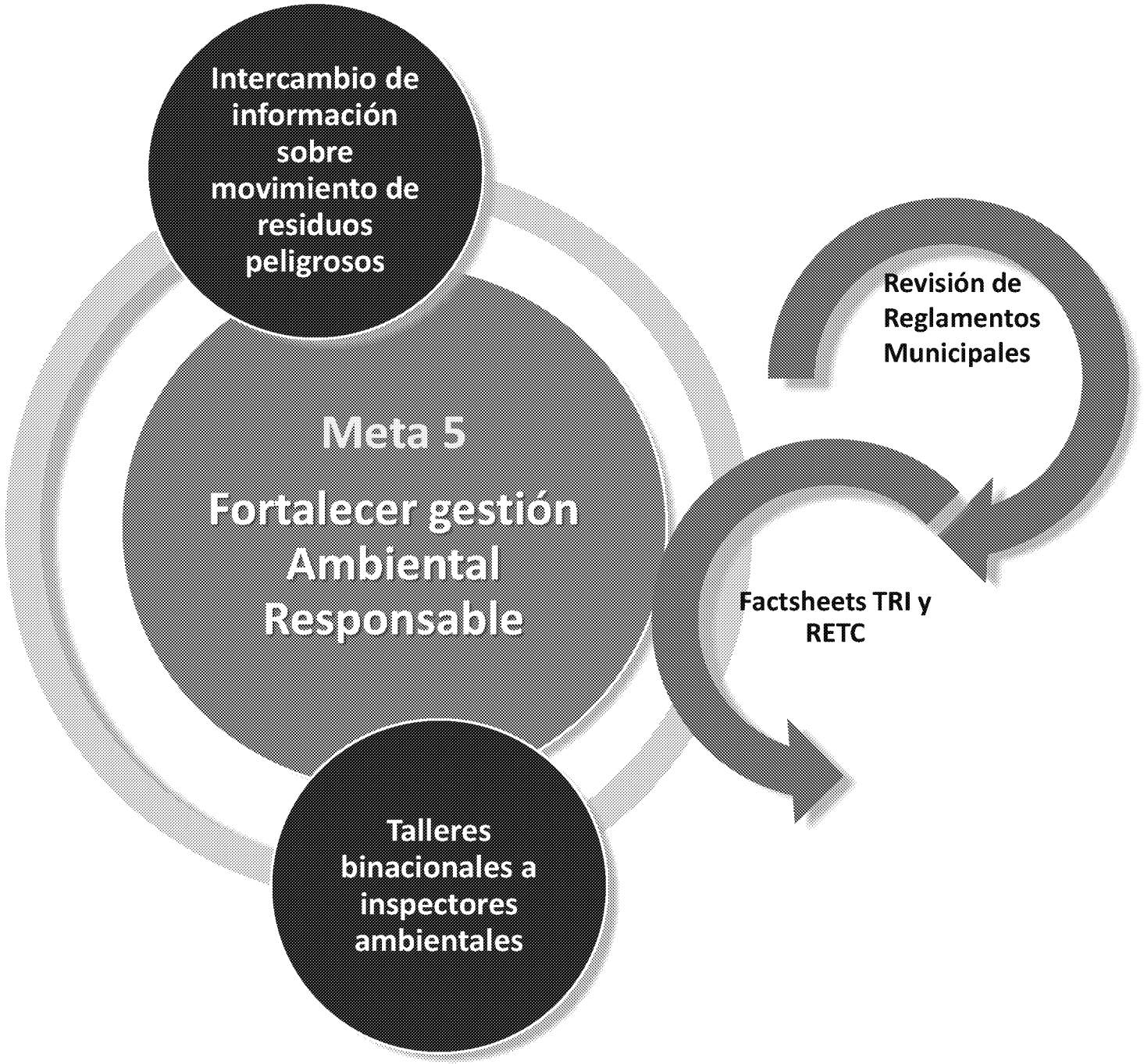
Talleres de Eficiencia Energética en Sistemas de Alumbrado

PLAN ESTATAL DE ACCIÓN CLIMÁTICA DE COAHUILA (PEAC COAH).


Ayudar a los organismos en practicas de infraestructura sostenible y el alcance comunitario
Meta 2
Mejorar el Acceso a Agua Limpia y Segura
Restauración de cuerpos de agua mediante actividades de limpieza y rehabilitación
Auditorías Energéticas en Organismos de Agua
Piedras Negras, NvoL, Reynosa, Matamoros
Limpieza de Arroyos (Las Vacas)
Día del Río y LWRG Iniciativa
Conservación de Drenes y Modelación en Manejo de Agua Pluviales


FRONTERA 2020
BORDER 2020
Creación de capacidades en la gestión de desechos electrónicos
Manejo de Residuos Peligrosos Domésticos y peq. generadores
Manejo de Disposición de Llantas (cementeras) COAH, TAM
Meta 3
Promover el Manejo Integral de Materiales y Residuos y Sitios Limpios
Mitigación de tiraderos clandestinos
Análisis de ciclo de vida de residuos electrónicos (COAH,TAM) y programas de manejo
Estudio de Mercado de llantas NL (2) y Programas de FOG
Diagnósticos de Generación de Residuos NL
Planificación de la gestión de residuos para reducir los residuos sólidos


Trabajar para mejorar la Salud Infantil
Educación ambiental sobre Asma y Plaguicidas
Meta 4
Mejorar la Preparación Conjunta y Salud Ambiental
Bases de Datos Ambiental-Epidemiológica
Y programas de Educación sobre plaguicidas
Planes de Contingencia y Ejercicios de Simulacro
Mejorar la preparación conjunta de respuesta de Emergencias


Intercambio de información sobre movimiento de residuos peligrosos
Revisión de Reglamentos Municipales
Meta 5
Fortalecer gestión Ambiental Responsable
Factsheets TRI y RETC
Talleres binacionales a inspectores ambientales

Experiencias Sobre Proyectos Financiados por Frontera 2020

Recomendaciones

- **Planeación Estratégica** – *Sinergia*- Tiempos y alcance de Actores
- **Investigación Especifica-** Tecnologías, Estudios de Mercado y Estudios de Factibilidad, potencial de desarrollo.
- **Metodología** "Train the trainer" buscando componente binacional
- **Impacto** – Regionalización,
  Jurisdicción – (políticas publicas, alianzas)
  Sustentabilidad

BIBLIOTECA DIGITAL

ENGLISH ESPAÑOL

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BECC COCEF COMISIÓN DE COOPERACIÓN ECOLÓGICA FRONTERIZA

Proceso de certificación | Programas de financiamiento | Proyectos | Nuestro impacto | Desarrollo de capacidades

Biblioteca Digital

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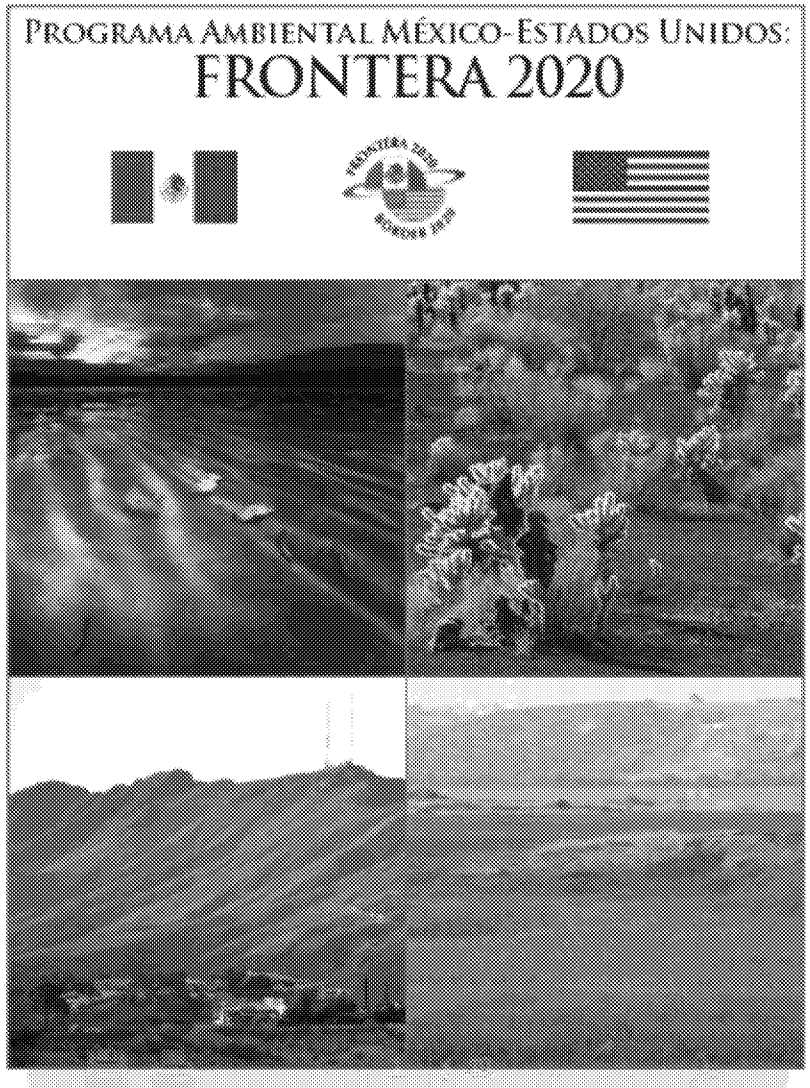
residuos

374 registros encontrados.
Desplegando registros 1 al 20

limitar resultados >

	Título	Autor
1	Archivo Computadora	Chávez Ramírez, Martín

HERRAMIENTAS DEL PROGRAMA FRONTERA 2020



https://www.epa.gov/sites/production/files/documents/frontera2020.pdf

Experiencias Sobre Proyectos Financiados por Frontera 2020

Proyectos Concluidos

Project Name Spanish	Project Description Spanish	Goal
Entrenamiento Binacional y Ejercicio sobre Riesgos en Transporte de Residuos Peligrosos en MCALLEN-MISIÓN-PHARR / REYNOSA.	El objetivo del proyecto es fortalecer la capacidad de respuesta a traves del entrenamiento adecuado para los oficiales responsables en las áreas de McAllen-Mission-Pharr-Reynosa. Más de 100 camiones que transportan materiales peligrosos viajan a través de los puertos de entrada en el sur de Texas. El personal del Departamento de Bomberos de McAllen en conjunto con la Misión y Pharr unirán sus fuerzas para trabajar conjuntamente en la actualización de la notificación de emergencia relacionada con emergencias de materiales peligrosos.	Goal 4
Mitigacion de Contigencias relacionados con Fugas de Residuos Peligrosos en Vagones de Carga, en el area de El Paso/Juarez/Dona Ana Region	El proyecto mejorará la capacidad de la región para mitigar las fugas de materiales peligrosos. El proyecto consistirá en evento de capacitación de un día, cada comunidad recibirá kits para continuar la capacitación local de manera permanente.	Goal 4
Taller de Eficiencia Energetica en Sistemas de Alumbrado Publico Municipal de Tamaulipas	Capacitar al menos a 30 servidores públicos de 10 municipios con herramientas básicas para lograr una mayor eficiencia energética y que ello se refleje en una disminución en la emisión de Gases Efecto Invernadero a la atmosfera y a su vez en un ahorro económico para las administraciones muncipales	Goal 1
Proyecto de manejo integral de residuos sólidos en Rio Bravo y Valle Hermoso, Tamaulipas	El proyecto consiste en realizar un Diagnostico Básico sobre el Manejo Integral de Residuos Sólidos Urbanos de los municipios de Rio Bravo y Valle Hermoso	Goal 3
Ejercicios Binacionales de Simulacro de Emergencias entre las ciudades de Harlingen y Matamoros.	La ciudad de Harlingen Departamento de Bomberos, propone avanzar en la meta 4, objetivo 2 por la implementación de capacitacion sobre manejo de materiales peligrosos, una mesa y un ejercicio funcional. Escenario propuesto consiste en un accidente de un remolque cisterna que derrama producto petro en las vías fluviales México. La ciudad de Harlingen presenta un acuerdo de ciudad hermana desde 2014 para apoyar la ayuda de respuesta de emergencia mutua entre Harlingen y Matamoros.	Goal 4

2015-2016
Proyectos en progreso

Project Name Spanish	Project Description Spanish	Goal
Determinando el material poroso ideal para barrera, para el Manejo de Aguas Pluviales en el Sur de Texas LWG	Evaluar el funcionamiento de un barrera biologica en un estacionamiento, comparandola, en cuanto a sus descargas de aguas de lluvia y solidos, con respecto a un estacionamiento sin barreras y desarrollar la mezcla de materiales para obtener el mejor funcionamiento de la barrera	Goal 2
Proyecto de manejo integral de residuos electrónicos en Piedras Negras, Coahuila e Eagle Pass, Texas	el proyecto consiste en un programa de educación ambiental y de salud para unir de esfuerzos en la captación de los desechos sólidos eléctricos y electrónicos en el municipio de Piedras Negras, Coahuila ye Eagle Pass en Texas.	Goal 3
Proyecto de manejo integral de residuos electrónicos en Piedras Negras, Coahuila e Eagle Pass, Texas	el proyecto consiste en un programa de educación ambiental y de salud para unir de esfuerzos en la captación de los desechos sólidos eléctricos y electrónicos en el municipio de Piedras Negras, Coahuila ye Eagle Pass en Texas.	Goal 3
Iniciativa sobre Calidad del Agua en el Rio Bravo	La Universidad de Texas en Austin (UT), propone avanzar en la Meta 2, Objetivo 3, proporcionando información a las principales autoridades binacionales locales, sobre las fuentes de contaminación del agua del Río Grande y encontrar medidas de mitigacion sobre posibles problemas de contaminacion en la porcion del Rio de la presa Falcon y el Golfo de Mexico. El proyecto propone organizar 5 talleres y desarrollar un Memorandum de Entendimiento entre las partes interesadas.	Goal 2
Campana sobre manejo y gestion de Grasas y Aceites en Brownsville, Texas.	La Junta de Servicios Públicos de Brownsville, una entidad del gobierno, se propone avanzar en la Meta 2, Objetivo 2 mediante la implementación de una campaña de Grasas y Aceites pública, dirigido a empresas o negocios con esta problematica. También se proporcionará capacitacion a través de 4 talleres trimestrales.	Goal 2
Reforma Legislativa y Educación Ambiental en Nuevo Laredo	La Universidad Autónoma de Tamaulipas, se propone avanzar en los objetivos 2, 3 y 5 por la mejora de la aplicación de la legislación ambiental, fortalecer la cooperación ambiental y el intercambio de información entre Nuevo Laredo, Tamaulipas y Laredo, Texas, y capacitar a los inspectores ambientales y personal de la unidad ambiental municipal.	Goal 5
Programa de limpieza en la ciudad de Pharr, Texa	El proyecto consiste en educar a los residentes de la ciudad de Pharr en la sostenibilidad del medio ambiente y los métodos de eliminación de residuos sólidos en lugares adecuados.	Goal 3
Electronic Waste Management project in Ciudad Acuna, Piedras Negras and Guerrero in Coahuila	• Informar y educar a la población sobre los beneficios de la reutilización de productos electrónicos; la necesidad de practicar el consumo responsable, así como de la importancia de darle un destino final adecuado a estos residuos.	Goal 3
Herramienta para la toma de decisiones para aguas pluviales en la parte baja del rio Grande en Texas	El proyecto promoverá la investigación específica y temas educativos destacando cómo las estrategias de infraestructura verde se pueden utilizar para mitigar el escurrimiento de las aguas pluviales.	Goal 2

GRACIAS

Green Tec Osos

INFORME AVANCE DEL PROYECTO

NOMBRE DEL RESPONSABLE DEL PROYECTO:
ING. VÍCTOR MANUEL IBARRA BALDERAS

TÍTULO DEL PROYECTO:
MANEJO INTEGRAL DE RESIDUOS ELECTRÓNICOS EN PIEDRAS NEGRAS, COAHUILA E EAGLE PASS, TEXAS

Fecha de inicio: Duración total del Proyecto (meses)
01 ENERO DE 2016 18 MESES

Porcentaje del total del Proyecto hasta

MARZO DE 2017: 97% DE AVANCE

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BANDERAZO DE ARRANQUE DE RAEE

fppt.com

Inicio de la 2ª Caminata y el 2º RALLY de Botargas cuyo lema está relacionada a los desechos de RAEE

Open House de SEMAS de Piedras Negras y los muchachos de Green tec-osos

Fecha 19 de Marzo de 2016

Remolque asignado a Green Tec-Osos para el programa RAEE Fecha: 11de Abril de 2016

TRABAJO EN COLONIAS

TRABAJO EN COLONIAS

SIMPOSIO DE IMPACTO AMBIENTAL

Datos relevantes del
PRIMER SIMPOSIUM DE IMPACTO AMBIENTAL, EDUCACIÓN Y SALUD

Instituciones Organizadoras
ITPN, COLEF Piedras Negras y Grupo Ecológico Green Tec-Osos

Instituciones de apoyo
Municipio de Piedras Negras, SEMA, SEMARNAT, Frontera 2020, COCEF, EPA, Municipio de Eagle Pass, Texas

Escuelas participantes
Universidad politécnica, UTNC, UANE, CONALEP, CBTIS # 34, Universidad Vizcaya, Universidad Pedagógica Nacional Zona Piedras Negras, CECyTEC Piedras Negras Norte, Instituto Tecnológico Superior de Acuña, ITPN y el Grupo Ecológico Green Tec-Osos.

Numero de Ponencias participantes en el Simposio: 54

Número de Participantes en el Simposio: 350 personas

Una Conferencia Magistral

9 panelistas

DISPOSICIÓN FINAL

APOYO A EMPRESAS PRIVADAS

CONFERENCIAS ESCUELAS

RESULTADO FINAL EN PIEDRAS NEGRAS

Disposición Final: 46,550.00 KGS.

- Centro de Acopio localizado a una cuadra de la presidencia municipal
- Un Centro de Acopio y un contenedor-movil en el ITPN
- Centro de Acopio localizado en el área de Reciclaje de Obras Publicas de la ciudad de Eagle Pass, Texas

fppt.com

WELCOME
TO THE CITY OF EAGLE PASS
RECYCLING DROP OFF CENTER
MONDAY-FRIDAY 8:00AM-12:00PM - 1:00PM-5:00PM
SATURDAY 8:00AM-12:00PM
USE DUCT CYCLE
USE DUCT CYCLE

fppt.com

MALL DE LAS AGUILAS

MALL DE LAS AGUILAS

fppt.com

RESULTADO FINAL EN EAGLE PASS

Disposición Final: 9,150.00 KGS.

- Centro de Acopio localizado a una cuadra de la presidencia municipal
- Un Centro de Acopio y un contenedor-movil en el ITPN
- Centro de Acopio localizado en el área de Reciclaje de Obras Publicas de la ciudad de Eagle Pass, Texas

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Tabla de la cantidad de RAEE que se Acopio durante los meses de Febrero 2016 a Marzo 2017

Tipo de atención	Toneladas de RAEE (Febrero – Dic.)	Población Atendida (habitantes)
22 colonias de Piedras Negras. Coahuila 3 Mercaditos durante el año	32.22	45,000-50,000 habitantes de una población de 163,595 datos del ultimo censo de 2010
Escuelas de Piedras Negras y Nava del Estado de Coahuila.	8.83	5,500
Empresas y Lugares Varios	5.50	2,500
Eagle Pass, Texas a través del Depto. de reciclaje de la dirección de Obras Publicas Durante los meses de Abril-Octubre de 2016	9.15	28,765 habitantes datos de la ultima actualización de la población del mes de julio 2015
TOTALES	55.70	103,500

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Resultados

- Se logro disminuir 55.70 toneladas en residuos eléctricos y electrónicos que fue un enorme beneficio para ambos lados de la frontera y así impactar las emisiones de gases de efecto invernadero generado por esta basura Electrónica

- Se Atendió el 40% de los habitantes de Piedras Negras Coahuila y de Eagle Pass, Texas, en el programa de educación ambiental y promoción.

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Actividades Programadas de Abril a Junio 2017

- Programar en conjunto con el **LIC. ISMAEL NAVEJA MACIAS Cónsul de México en la ciudad de Eagle Pass, Tx.** un ciclo de 2 a 3 Conferencias en Educación Ambiental de los RAEE con los miembros de la comunidad de la ciudad.
- Segundo evento con **Obras Publicas de Eagle Pass (área de reciclaje)** en el MALL de LAS AGUILAS, sobre Educación Ambiental y los impactos de los RAEE
- Conferencia-Platica con **Obras Publicas de Eagle Pass (área de reciclaje)** en Educación Ambiental para saber como mitigar los impactos de los RAEE; en las 2 escuelas de High School.
- Conferencia-Platica con **Obras Publicas de Eagle Pass (área de reciclaje)** en Educación Ambiental para saber como mitigar los impactos de los RAEE; en las 2 escuelas de Jr. High School.
- Seguir apoyando las actividades promoción y difusión de la recolección de los RAEE durante Abril-Junio de 2017 a **Obras Publicas de Eagle Pass (área de reciclaje)** de la ciudad.
- Realizar el ultimo confinamiento final de los RAEE en la ciudad de Piedras Negras, Coahuila en el mes de Junio de 2017

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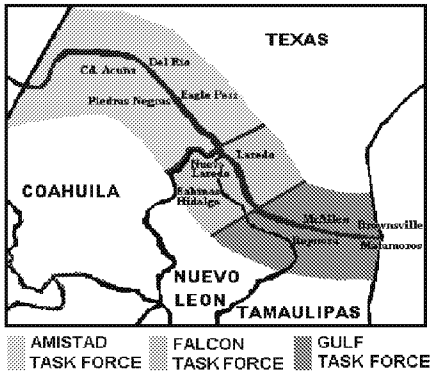
BORDER 2020

2013-2014 Action Plan
for the TX-COAH-TAMP-NL Regional Workgroup

June 3, 2014



The **Four-State Regional Workgroup** is the most complex of the four regional workgroups, because of its geographical expanse and the number of municipalities. The region includes parts of three states and a total of at least 29 municipios 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 has established subject-specific committees related to its priority concerns.

During the first half of 2012, the various committees have held meetings to discuss initial priorities for the Border 2020 program, and a regional meeting of leaders was held in June 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. Analyze emissions and emission sources in specific airsheds
   b. Engage in both road-paving and reforestation (using native species)
   c. Establish or improve vehicle inspection programs in those cities where the respective federal governments require them
   d. Increase energy efficiency at the consumption level and the use of renewable energy at all appropriate levels
2. Improve water quality by taking the following actions:
   a. Evaluate the portion of the Rio Grande watershed that is in the region
   b. Reduce contamination by providing wastewater treatment to unserved communities in the watershed
   c. Improving the existing treatment facilities by applying the most effective technologies and providing training to operators
   d. Develop more applications for the re-use of water
   e. Reduce non-native species in the water bodies
   f. Continue and expand environmental education efforts such as “Adopt the River” and “Day of the River”

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3. Address problems of improper waste disposal:
    a. Develop comprehensive plans for solid waste management, including special wastes (such as sludge from wastewater treatment plants, scrap tires, and used electronic products) and hazardous wastes (residues from pesticides, extraction of fossil fuels, and medical facilities), looking for economic/productive uses of wastes whenever possible
    b. Expand environmental education related to waste issues
    c. Close and remediate open dumps wherever required by regulation
4. Assure that each project includes a component of environmental education (such as teacher training or building an environmental library), at least one indicator related to public health, and inspection and surveillance

Individual Task Force Priorities

Amistad Task Force

1. Reduction of energy consumption in buildings and street lighting
2. Increased use of alternate and renewable energy sources (such as landfill gas and solar energy)
3. Construction of sanitary landfills
4. Attention to waste disposal in gas drilling operations
5. Continuing attention to emergency response
6. Harmonization of protocols related to coal mining and remediation and to petroleum materials
7. Improvement of vehicle inspection programs in Coahuila
8. Joint programs in communication and environmental education, and development of an environmental educators group

Falcon Task Force

1. Re-use of treated water
2. Monitoring of drilling operations in the Eagle Ford Shale
3. Finalizing the cross-border contingency plan

Gulf Task Force

1. Improvement of water-related infrastructure, and increased attention to wáter conservation and re-use
2. Increased recycling
3. Continuing capacity-building at the local, state, and federal levels of government
4. Technical exchanges, including best practices and lessons learned

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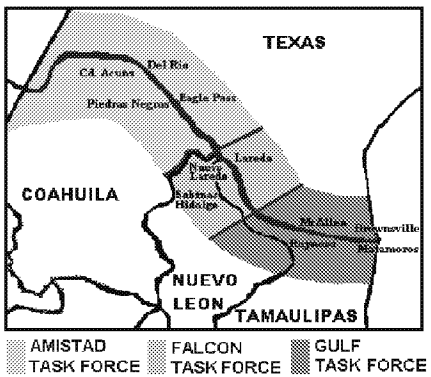
Border 2020

2013-2014 Action Plan Grid for the 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 #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
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							
1.1.01	Continue to develop Coahuila's vehicle inspection program, partly in consultation with Texas regarding the latter's experience.	SEMA (Coahuila), COMIMSA, Municipio de Piedras Negras, Municipio de Acuña, TCEQ	$700,000	SEMA Coahuila	Miguel Ángel Leal Reyes (SEMA) miguel.reyes@sema.gob.mx	Inspect 40% of the vehicles in Acuña, Piedras Negras, Monclova, Saltillo, and Ramos Arizpe .	Coahuila initiated vehicle inspections in border cities in June 2012. SEMA signed a Memorandum of Agreement with the TCEQ in May 2013; specific forms of collaboration are being negotiated.

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Objective 5: By 2020, reduce emissions and associated impacts, through energy efficiency and/or alternative/renewable energy projects							
1.5.01	Implement a competitive grants program aimed at local governments, dedicated to improvements in energy efficiency.	University of Texas at Austin, LBJ School	$175,000	EPA and TCEQ	David Eaton (LBJ School), eaton@mail.utexas.edu	Complete all projects by August 2013	UT issued RFP in October 2012. An independent committee reviewed applications and recommended six projects that were then funded by UT—two cities, an irrigation district, and three school districts—in early 2013. All six projects were completed by July 2013.
1.5.02	Initiate Phase 2 of the State Climate Action Plan for Coahuila (PEAC): Quantification of the mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC	CICC is installed Integrated Technical Working Groups (TWG) and the Advisory Group (AG). Consultant hired. Local Coordinator and local experts recruited	Develop a document with quantitative measurements of reductions in GHG emissions from the selected Mitigation Policies (MP), the impacts of these MP in local Gross Domestic Product (GDP), employment and per capita income and amount of funds to finance new MP.
1.5.03	Initiate Phase 2 of the State Climate Action Plan for Tamaulipas (PEAC): Quantification of the mitigation public policies selected in Phase 1.	Tamaulipas State Government and BECC	$151,000	BECC	Tomás Balarezo, BECC	State strategy work is redesigned. CICC is installed. Integrated Technical Working Groups (TWG) and the Advisory Group (AG). Consultant hired	Develop a document of Selected Mitigation Policies through an open and participatory process.
1.5.04	Research the potential for harnessing wind power for electricity in Tamaulipas.	SEMARNAT and SEDUMA		SEMARNAT will seek	Delfino.ramirez@semarnat.tamaulipas.g	Conduct research and explore business opportunities	A forum was held in October 2012. No information available

				funds	ob.mx		since then.
1.5.05	Research the potential for harnessing wind power for electricity generation in Nuevo León.	Secretaría de Desarrollo Sustentable de Nuevo León	$10,000	Mexican federal funds/CONACYT	Norma Rangel (SDS, Nuevo León), normaarangel@gmail.com	Establish wind monitors in selected areas of the state by the end of 2013, and begin generating wind maps in 2014.	SDS continues to search for funding.
1.5.06	Construct and operate a facility that extracts methane gas from the Nuevo Laredo landfill and burns it to generate electricity for the municipality.	Municipio de Nuevo Laredo and Setasa (Servicios de Tecnología Ambiental S.A.)	$3.5 million	Private sector; a company will be selected and then will build and operate the plant, selling the electricity to CFE and giving a portion of revenues from carbon credits to the municipio.	Sergio Martínez López sergiomartinezlopez@hotmail.com	Have the facility in full operation by the end of 2014.	A feasibility study was completed 2008 with funding from USAID. Issuance of a tender for construction is pending (the municipio needs to obtain the property title).
1.5.07	Implement a pilot program to diagnose the existing Mexican fleet of heavy-duty commercial trucks in cross-border trade in the Laredo -Nuevo Laredo area, identify retrofit technologies that would reduce emissions, and share information on those technologies, their costs, and suppliers at a binational forum.	SEMARNAT and the Municipio of Nuevo Laredo	$50,000	EPA border grant through the BECC	Ing. Eduardo Olivares (SEMARNAT-Clean Transportation Program), eduardo.olivares@semarnat.gob.mx, and Osvaldo Valencia (Municipio de Nuevo Laredo—Ecology Program), valencia_osvaldo@hotmail.com	Complete the project by the end of 2013.	The final report Generated information to raise awareness to the transportation companies on the issue of emissions of diesel. Information of 2,756 trucks and 456 companies had. 50% of the sample trucks are 2000 or earlier model, the trucks are aged over 13 years, and 84% are 2006 model or earlier, aged 7 years or more.
1.5.08	Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo,	SEMA (Coahuila), Municipio de Piedras Negras, Acuña, Nava,	1,400,000	SEMA Coahuila	Miguel Ángel Leal Reyes (SEMA Coahuila)	Have air quality monitoring network in operation for Piedras	SEMA has begun working with local officials to include these

	Coahuila.	Sabinas, Saltillo			miguel.reyes@sema.ob.mx	Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila	projects in the plans of the applicable "Metropolitan Zones".
1.5.09	Apply retrofit technologies to public buildings in Piedras Negras and Acuña, Coahuila that will reduce energy consumption.	SEMA (Coahuila), Municipio de Piedras Negras y Municipio de Acuña	$500,000	SEMA Coahuila	Olga Rumayor (SEMA Coahuila) olga.rumayor@sema.gob.mx	Involve municipal agencies through a series of workshops and select at least 10 buildings to pilot retrofit technologies.	The project is still in the planning phase, and will be proposed to the BECC to obtain support.
1.5.10	Design and implement vehicle emission verification programs or campaigns in Tamaulipas.	SEDUMA	To be defined	SEDUMA/ SEMARNAT	Ing. Humberto Rene Salinas seduma@tamaulipas	Have vehicle verification program in the border area of the state by end of 2014	Pilot program focused on the state-owned fleet was initiated in early 2013.
1.5.11	Promote and encourage the use and exploitation of renewable energy sources and alternative energy potential in Tamaulipas.	SEDUMA	To be defined	SEDUMA/ SEMARNAT	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	Prepare action plan for nine wind power projects and state's strategic energy program	Baseline information is being collected.
1.5.12	Strengthen Tamaulipas' atmospheric monitoring system.	SEDUMA	Por definirse	SEDUMA/ EPA/COCEF	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	By 2014, the system will operate at 100% with programmatic consistency standards	8 municipalities of the State and have the equipment for air monitoring of PM10 (Matamoros, Reynosa, Laredo Nvo, Victoria, Mante, Tampico, Madero and Altamira). Currently only 3 of these eight municipalities are operating the system of air monitoring (Nvo Laredo, Victoria, Tampico)
1.5.13	Implementation of a environmental management system as a strategy for energy efficiency in Tamaulipas.	SEDUMA/Municipios	$ 100,000	SEDUMA/ EPA/COCEF	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	By 2014, train in collaboration with ICLEI and INECC 100% of the border municipalities	State trained 16 municipalities from the border region and the San Fernando Valley region, with an attendance of approximately 100

							people, the workshop was held in Reynosa.

Goal # 2: Improve Access to Clean and Safe Water

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
General							
2.0.01	Build and begin operation of a desalination plant in Nuevo León, using renewable energy as the energy source for the plant.	Servicios de Agua y Drenaje de Monterrey (SADM, Nuevo León's water utility)		SADM, BECC, and National Water Commission	Norma Rangel (SDS, Nuevo León), normaarangel@gmail.com y Carlos Avila, carlos.avila@sadm.gob.mx	Have the plant in operation by the end of 2014.	Project Canceled
2.0.02	Organize a "Water Awareness Summit" to educate the public in the Lower Rio Grande Valley about where their water comes from, how the planning process works, what the outlook is, and the importance of conservation.	State Representative Eddie Lucio III, TCEQ, cities and their water utilities, the Rio Grande Regional Water Authority, and the Lower Rio Grande Valley Development Council	$10,000-15,000	Local funding efforts/sponsors	Claudia Lozano (TCEQ) claudia.lozano@tceq.texas.gov	Hold the conference in early 2013	The first Water Awareness Summit was held in February 2013. More than 200 people attended and expressed interest in making the event annual. A second Summit was held in March 2014, with approximately 300 attendees, and a third Summit will be held in early 2015.
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.							
2.2.01	Provide teacher training workshop(s) and/or on-site facilitators to implement educational water quality monitoring events in conjunction with 2012/13 World Water Monitoring	Texas Partnership for Water Education (TPWE); EPA, WEAT, TAWWA Scout Troops, ISDs,	Funding needed varies with # of participants	Various funding possibilities will be explored	Karen Bick, EPA, Region 6 (214) 665-7539 bick.karen@epa.gov	Teachers &/or students, as well as interested community members will have identified monitoring site. Sampling results	Awaiting information

	Challenge.	informal environmental education (EE) providers	Testing Kits $25/ 30 individuals/ site.			are submitted to TPWE's WWMC Program Coordinator.	
2.2.02	Promote energy management practices among Texas water and wastewater utilities by conducting quarterly meetings on energy management planning, training on a pumping-system assessment tool, and on-site energy efficiency assessments (key cities include Laredo, Roma, Mission, Agua Specialty Utility District, Edinburg, McAllen, Pharr, Weslaco, Mercedes, Harlingen, and Brownsville).	Partner with a university to conduct meetings, trainings and on-site energy assessment involving engineering students. 2012 partners are the Texas Manufacturing Assistance Centers at the University of Texas at Arlington and the University of Texas Pan American.	Funding sought $75,000/yr or $150,000	Various funding possibilities will be explored	David Reazin, EPA Region 6 (214) 665-7501	Hold quarterly meetings to develop energy management plan and benchmark energy use and costs, 1 PSAT training, and 2 on-site assessments.	Awaiting information
2.2.03	Organize a workshop in Laredo for water utilities and the restaurant industry to discuss best practices related to abatement of discharges of fats, oils, and grease (will also involve Nuevo Laredo).	City of Laredo water utility, Webb County, and Nuevo Laredo	$23,000	EPA border grant through the BECC	Karla Robles (City of Laredo Utilities) krobles@ci.laredo.tx.us	Hold the workshop by the spring of 2013 and then follow-up meetings with utilities to discuss implementation of FOG programs in the summer and fall of 2013.	The project was completed in January 2014. Laredo Utilities organized a binational workshop in March 2013, presenting "best management practices" with regard to management of fats, oils and grease. More than 350 people, including representatives from the maquiladora sector in Nuevo Laredo and restaurants in both cities, attended the event. Laredo Utilities then coordinated two follow-up meetings in August and December 2013, at which participants shared their experience in applying the practices, and also

							produced a7-minute video about FOG management, for use in education of commercial establishments. Out of 22 establishments that participated in the original workshop, 14 decreased their amount of FOG generation more than 50%.
2.2.04	Conduct training for small businesses in the Reynosa area on best practices related to discharges of fats, oils, and grease (will include before and after measures).	Municipio of Reynosa	$16,000	EPA border grant through the BECC	Mauricio Chalons (Municipio of Reynosa), 899 263-3798, ecologiareynosa@hotmail.com	Organize a workshop or training event(s).	Project canceled.
2.2.05	Implement a public campaign to increase awareness of problems of non-point-source pollution in the Lower Rio Grande Valley of Texas, through signs posted on roadways and at public facilities, messages on a school district television station, presentations at numerous public events and meetings, and newsletters of various organizations.	Fourteen cities in the Lower Rio Grande Valley (LRGV) that are members of the Texas Pollution Discharge Elimination System Stormwater Task Force, Texas A&M Kingsville, school districts, and NGOs	$30,000	EPA border grant through the BECC	Javier Guerrero (Lower Rio Grande Valley TPDES Stormwater Task Force, Texas A&M University-Kingsville), 956- 457-3023 jguer0351@aol.com	Project Completed by end of 2013.	Workshops were done with the Cities of Harlingen, Kingsville, San Benito, La Feria, Palm Valley, Primera, Weslaco, Donna, Alamo, San Juan, La Joya, Brownsville, Palmview, and Mission. A total of 104 signs were installed by those cities at various locations, and those locations were GPS'd.
2.2.06 [Sub-Obj. 3a]	Implement a binational Lower Rio Grande Water Quality Initiative (from Falcon to the Gulf) that characterizes the state of the river, develops a strategic plan to improve environmental conditions, and proposes a monitoring plan to document progress.	TCEQ, EPA, IBWC, CONAGUA, and federal, state, and local government agencies		TCEQ, EPA, IBWC, and federal, state, and local governmental agencies	Kelly Holligan (TCEQ), 512-239-2369, Kelly.holligan@tceq.texas.gov	Establish the collaborative partnership by early 2013, and make substantive progress on objectives by the end of 2014.	Terms of reference were developed that serve as the framework used by participating entities in the collaboration. In February and July 2013, TCEQ hosted training sessions on water quality modeling software (QUAL-TX and LAQUAL) for Mexican agency and

							EPA staff:
2.2.07 (Sub-obj. 2b)	Install/upgrade new sewer lines connected to Nuevo Laredo's wastewater treatment plant to prevent contaminated discharges to the Rio Grande.	COMAPA and Municipio de Nuevo Laredo	$5,000,000	North American Development Bank (NADB)	Claudia López Aguilar (Comisión Municipal de Agua Potable y Alcantarillado—COMAPA) claudialopez@comapanuevolaredo.gob.mx New Manager CP Delfino González Muñoz Tel: 867-8900900 dgcdelfino@hotmail.com dianarigal@comapanuevolaredo.gob.mx	Complete the project by December 2014.	BECC certified the project in September 2012. COMAPA will complete the construction of four sewer collectors to the wastewater treatment plant by August 2013 and will work with CONAGUA on securing funding to address sewer discharges (about 280,000 GD) from La Joya Creek to the Rio Grande. COMAPA and the municipio are in the process of signing an agreement with the property owner to allow crews to repair the discharge point from La Joya creek since it is on private property. Along with this effluent discharge, COMAPA has identified five discharge points. Here is a breakdown on the work being conducted on these collectors: More than 230,000 gallons per day from the 5 de febrero collector have been eliminated and 40% of the repairs have been completed for the second phase

							90% of the work to repair the Guatemala collector has been finished. The total amount (420,000 GD) that is currently discharging should be eliminated by May 2014 Work is underway to rehabilitate the America, Anahuac and Iturbide collectors, which are discharging about 1.2 MGD. All sewer discharges should be eliminated by November 2014.
Objective 3: Work binationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.							
2.3.01	Develop and produce region-specific supplemental materials necessary to produce a *Waters to the Sea*- Rio Grande module. (*Place-based education with comprehensive watershed focus).*	Center for Global Environmental Education (CGEE)- Hamline University. Harte Research Institute @ A&M-Corpus Christi. EPA R6, WEAT, AWWA.	Approx $100,000 in 2013 $ 50,000 in 2014	Various funding possibilities will be explored	CGEE- Tracy Fredin Karen Bick, EPA, Region 6 (214) 665-7539 bick.karen@epa.gov	Recruit and establish an advisory board, produce videos and other materials, identify one or two ISDs to pilot program, and conduct training for at least 25 teachers in 2014.	Exploratory discussions were underway in 2012. No information since then.
2.3.02	Conduct feasibility studies for wastewater treatment plants in the municipalities of Hidalgo and Guerrero, Coahuila.	CEAS Coahuila, SEMA Coahuila	$15,000	CNA, Coahuila	Alejandra Carrera (SEMA Coahuila), alejandra.carrera@sema.gob.mx	Complete the studies by early 2014	CEAS has completed the feasibility studies and is making efforts to implement water management programs in those municipalities.
2.3.03	Design and implement local public conservation campaigns and land conservation agreements for Rio San Rodrigo and Arroyo Las Vacas.	SEMA Coahuila, Municipio de Piedras Negras and Municipio de Acuña	$400,000	Coahuila will fund first part and will be seeking	Alejandra Carrera (SEMA Coahuila), alejandra.carrera@sema.gob.mx	Begin implementing the campaigns and conclude the land conservation agreements by the end of 2014.	SEMA obtained funding from the EPA through the BECC in November 2013 to restore and conserve the Arroyo

				funding for the rest			Las Vacas. SEMA has developed partnerships with TCEQ, Ciudad Acuña, local academic institutions, and UT Austin, and is finalizing the workplan. The project will promote awareness and take actions to improve the eco-system of the arroyo.
2.3.04	Implement a program to remove invasive plants in the Rio Grande.	SEMA Coahuila, CONANP, Profauna	$85,000	SEMA Coahuila, CONANP, Profauna – and will seek other funding sources	Alejandra Carrera (SEMA Coahuila) alejandra.carrera@sema.gob.mx	By the end of 2014, increase the invasive species plant removal program in the Rio Grande.	No progress yet.
2.3.05	Organize a regional workshop to disseminate "best practices" related to water conservation policy, programs (such as EPA's Water Sense), and public education, and implement enhanced programs in at least one pair of sister cities.	City of Laredo, EPA, TCEQ, TX Water Development Board, Piedras Negras Technological Institute	$6,000	City of Laredo, EPA, TCEQ, and local sponsors	Miguel A. Pescador mpescador@ci.laredo.tx.us Debora Browning EPA, Region 6 browning.debora@epa.gov	Hold a regional workshop in Laredo by spring 2013, and implement a new campaign in two sister cities by 2014. Enlist 10 new WaterSense Partners.	Workshop was hosted by Laredo in March 2013. More than 100 persons attended. No new WaterSense Partners by mid-July 2013.

Goal # 3: Promote Materials Management, Waste Management and Clean Sites

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.01	Link and promote the Mexican federal program "Green Schools" in all three Mexican states in the region and explore	SEMARNAT/Tamaulipas and state agencies in Tamaulipas, Nuevo	??	SEMARNAT	Delfino Ramirez (SEMARNAT/Tamaulipas), Delfino.ramirez@semarna	Reach 150 schools in the 3 Mexican States by July 2013.	Program very successful in Tamaulipas--135

	possible use in Texas.	León, and Coahuila			t.tamaulipas.gob.mx	Hold an information exchange meeting w/Texas 2014	schools are registered in the Green School Program, of which 33 are in Nuevo Laredo, 50 in Reynosa and 9 in Matamoros. Information not available from other states.
3.1.02	Design and implement a bilingual campaign against illegal dumping in Cameron County, Texas, using billboards, newspapers, and workshops at schools.	Cameron County and the Valley Proud Environmental Council	$10,000	Lower Rio Grande Valley Development Council, TCEQ	Marcie Oviedo (Lower Rio Grande Development Council), moviedo@lrgvdc911.org, (956) 682-3481	Finish the project by the end of 2013.	The project has been completed.
3.1.03	Through purchase of equipment, enhance the recycling programs in three local jurisdictions and composting operations in two jurisdictions.	The Cities of Pharr, Mission, McAllen, and Mercedes, and the Town of Bayview	$160,000	Lower Rio Grande Valley Development Council, TCEQ, and individual local government	Marcie Oviedo (Lower Rio Grande Development Council), moviedo@lrgvdc911.org, (956) 682-3481	Finish the five separate but related projects by the end of 2013.	As of mid-July 2013, four of the five entities had completed their projects; the project in McAllen is in progress.
3.1.04	Establish an environmental organization to develop environmental awareness and clean-up programs in Nuevo Laredo.	Keep Laredo Beautiful, Keep America Beautiful, and the Municipio de Nuevo Laredo	$5,000	The Gateway Rotary Club and Keep America Beautiful	Ing. Marco Antonio Garza Delgado y Lic. María Guadalupe Herrera Rodríguez U.T. (Programa Zona Verde, Nuevo Laredo) Lynne Nava (Keep Laredo Beautiful), lnava1@ci.laredo.tx.us	Recruit reps of non-profit organizations and school officials as members of a board of directors in 2013.	No progress toward target as of July 2013.
3.1.07	Expand a municipal recycling program started in March 2012 in Nuevo Laredo and currently consisting of placing public bins in parks, to include all elementary	Municipio de Nuevo Laredo	???	Municipio de Nuevo Laredo	Osvaldo Valencia (Municipio de Nuevo Laredo—Ecology	Install the bins at all elementary schools in 2013 and start	Environmental education conferences were resumed at city elementary schools in

	schools in Nuevo Laredo.				Program) valencia_osvaldo@hotmail.com	relevant environmental education programs for students.	February 2013.
3.1.08	Extend Tamaulipas' environmental management system program (SIMA) to private institutions, schools, and shops.	SEDUMA	$ 300,000	EPA/SEDUMA/SEMARNAT	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	Reach out to 100% of the border cities	The SIMA Program has been implemented in 30 schools in the municipality of Matamoros. State has invested 1 million 800 thousand pesos for replacement of furniture and equipment of high efficiency consumption of water and energy, clean energy production, waste recycling, rainwater collection and environmental education workshops. In the 2nd half of 2014 will support equipment (containers for medical waste and saving features) at 2 participants SIMA schools.
3.1.09	Redesign and extend coverage of the E-conexion Newsletter as strategy to share best practices.	SEDUMA	$ 30,000	SEDUMA	Ing. Humberto Rene Salinas (SEDUMA), seduma@tamaulipas.gob.mx	Extend the dissemination of the E-Conexion to 100% of the Tamaulipas municipalities	
Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.							
3.2.01	Build capacity in scrap-tire management throughout the region.	Sustainable Development Secretariat, State of	$35,000	EPA border grant	Norma Rangel Sevilla (SDS, Nuevo León), normaarangel@gmail.co	Prepare a "best practices" manual and perhaps hold a regional	Tire manual for tire recollection center

		Nuevo León		through the BECC	m	workshop	
3.2.02	Use organic waste generated in Sabinas Hidalgo, Nuevo León to make compost and then apply it to agricultural uses and urban gardening.	Sustainable Development Secretariat, SEMARNAT-Municipio of Sabinas Hidalgo, Nuevo León	Mexican federal funds $67,000	Municipio of Sabinas Hidalgo Nuevo León	Norma Rangel Sevilla (SDS, Nuevo León), normaarangel@gmail.com y chel1977@live.com.mx	By the end of 2014, compost 100% of organic waste collected by the municipality from large waste generators.	Project canceled
3.2.03	Assess the feasibility of using scrap tires for heavy-duty road-bed construction in Brownsville, Texas.	Texas A&M University – Kingsville	$15,000	EPA border grant through the BECC	Dr. Kim Jones kfkdj00@tamuk.edu	assist rural communities to build capacity for sustainable waste management, including the development of scrap tire management and disposal plans for long term solutions of the regional scrap tire problem in rural communities	The project has been completed. This demonstration project safely disposed of 125 tire bales which is approximately 12,500 waste tires buried; also about 500 bales (50,000 waste tires) were disposed in the construction of one road in Brownsville
3.2.04	Develop a composting operation in Nuevo Laredo using sludge from the wastewater treatment plant and yard wastes, and apply the product in municipal parks as well as in homes (through sales to homeowners).	COMAPA and Municipio de Nuevo Laredo	$30,000 ¿?	Municipio de Nuevo Laredo	Carlos Montiel Saeb (Comisión Municipal de Agua Potable y Alcantarillado—COMAPA) carlosmontielsaeb@hotmail.com	The program, including applications and sales, is expected to be in full operation by sometime in 2013.	Currently the compost is being applied to the germination of seeds and vegetables in the greenhouse of the municipio's Research and Environmental Education Center.
3.2.05	Implement a collection program for used electronic products in Reynosa, Tamaulipas.	Municipio of Reynosa	$30,000	EPA border grant through the BECC	Mauricio Chalons (Municipio of Reynosa), 899 263-3798 ecologiareynosa@hotmail.com	Promote sustainable routes to properly manage waste streams generated by electronic waste in Reynosa, Tamaulipas	Project completed by the end of 2013. The city collected about 27.7 tons of e-waste and sent for recycling.
3.2.06	Design and implement a state scrap tire management program that includes valuation.	SEDUMA	$ 400,000	SEDUMA/SEMARTANT/EPA	Ing. Humberto Rene Salinas (SEDUMA), seduma@tamaulipas.gob.mx	Develop public policy and management plan for scrap tires	No progress on the project

3.2.07	Evaluate and take advantage of energy potential of waste in Matamoros landfills.	SEDUMA	$ 300,000	SEDUMA/EPA	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	Complete action plan	No progress on the project

Objective 3: By 2020, improve knowledge in every level of government (federal, state, local) to characterize and remediate contaminated sites.							
3.3.01	Complete the remediation of old oxidation lagoons.	Municipio de Piedras Negras and State of Coahuila environmental agency (SEMA)	$300,000	State of Coahuila environmental agency (SEMA)	Alfredo Lucero (Piedras Negras), aalm68@hotmail.com	Complete the remediation of the remaining 10.3 acres by the end of 2013, after which the municipality will develop a road extension to and a green area at the site.	Prior to 2012, 19.7 acres of the 30-acre site had been remediated. No new information available.
3.3.02	Clean up an old waste disposal site near the river banks of the Rio Grande in Eagle Pass.	City of Eagle Pass	$3.5 million	City of Eagle Pass plus an additional funding source to be determined	Hector Chavez (Eagle Pass) hchavez@eaglepasstx.us	Finish the remediation in 2013, if supplementary funding can be identified, and then develop a green area on the site.	Remediation of a portion of the site was carried out prior to 2010. The city determined that it was a priority to identify additional funding for completion, but has not sought any funding since that time.
3.3.03	Establish a sustainable management plan for scrap tires in Piedras Negras, Coahuila.	SEMA, Municipio de Piedras Negras	$400,000	¿?	Miguel Angel Leal (miguel.leal@sema.gob.mx)	Develop plan and place in full operation by the end of 2014	SEMA determined they need to perform a feasibility study on using coal pits as disposal sites for scrap tires.

Goal #4: Enhance Joint Preparedness for Environmental Response

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
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.							
4.2.01	Develop an emergency response plan for the maquiladoras in Brecha E-99 in Reynosa,Tamaulipas.	CAMPIR (Comite de Ayuda Mutua del Parque Industrial Reynosa) (Reynosa	$10,000	EPA border grant through the	Dr. Emilio Sonderegger Arriola emilio.sonderegger@l	???	Project canceled.

		Industrial Park Mutual Aid Committee)		BECC	andisgyr.com		
4.2.02	Hold a second "knowledge exchange" on risk mapping for first responders on both sides of the Lower Rio Grande Valley in Texas-Tamaulipas, for the purpose of identifying and gaining access to existing sources of data on hazmat storage and determining additional needs.	Fire departments from Texas and Mexican municipalities in the Gulf Task Force area, EPA, TCEQ, Civil Protección Tamaulipas and Mexico Civil Protección	$30,000(?)	EPA and NORTHCOM	Paige Delgado (EPA), Delgado.paige@epa.gov EPA Region 6	Hold the exchange during the first half of 2013	A first exchange was held in July 2012. As of July 2013, the project is on hold because of the uncertainty of funding from NORTHCOM.
4.2.03	Hold a binational chemical-spill exercise at the World Trade Bridge between Nuevo Laredo, Tamaulipas and Laredo, Texas.	Civil Protection and Fire Department of Nuevo Laredo, Tamps., and the City of Laredo Fire Department	$5,000	EPA border grant through the BECC	Lic. Juan Ernesto Rivera Gómez (Civil Protección de Nuevo Laredo), proteccioncivilnuevolaredo@hotmail.com or ernestorivera5775@hotmail.com New Manager: Ing. Juan Ulises Ochoa Correa uochoa@nuevolaredo.gob.mx juan.u8a@hotmail.com Tel: 867-7124635 867-7124911	Hold the exercise after the Mexican federal government has approved a permit that allows hazardous waste to be transported on this bridge.	The U.S. Department of State issued a "presidential permit" in May 2014 for the use of the bridge for transport of hazardous materials, but the Mexican government is awaiting the completion of a flow study that CONAGUA is conducting in the Río Grande before issuing its permit. If and when a Mexican permit is issued, local officials will organize a binational exercise. Still waiting for a date to finish this study and define next steps
4.2.04	Develop a cross-border contingency plan for the Solidarity Bridge, involving first responders from Colombia (Nuevo León), Nuevo Laredo (Tamaulipas), and Laredo (Texas), recognizing that Colombia, upstream from the other two cities, is	Civil Protección and fire departments for both Colombia and Nuevo Laredo, CODEFRONT, and the City of Laredo	$5,000 -	EPA, COCEF, PROFEPA, and Protección Civil	Jorge Camacho (Protección Civil de Nuevo León). jorge.camacho@nuevoleon.gob.mx New officer: Juan	The objective of this training was to perform a simulation in the World Trade International Bridge (Bridge III) as part of the	Pending approval by the Government of Mexico to cross hazardous materials. Part of the process is to wait for a water quality

	much smaller and yet shipments of hazardous materials in the area are currently directed to this bridge.				Ulises Ochoa Correa jochoa@nuevolaredo.gob.mx juan.u8a@hotmail.com Tel: 867-712-4635 867-7128911	training staff of Civil Protection in response to contingencies, taking into account that this port is in the process of authorization to cross hazardous materials eventhoug it already has the infrastructure to handle these materials.	analysis performed by CONAGUA. In reality the materials cross by the Colombia Bridge in Nuevo Leon, but do not have the civil protection resources. In the case of an event, the assistance comes from Nuevo Laredo. Once the permit is released the drill can takes place.
4.2.05	Finish updating the 1998 Cross-Border Contingency Plan between the sister cities of Laredo, Texas and Nuevo Laredo, Tamaulipas, in order to improve emergency response communication and protocols.	Laredo Fire Department, Protección Civil de Nuevo Laredo, and CILA	No cost	City of Laredo and Nuevo Laredo	Eloy Vega (City of Laredo Fire Department), evega@ci.laredo.tx.us Ernesto Rivera (Protección Civil de Nuevo Laredo), proteccioncivilnuevolaredo@hotmail.com	Hold new meetings of the staff of the two cities in 2013 in order to re-visit the language of the draft revision and possibly develop alternative language.	Laredo officials met in May 2013 to make changes to one sentence in a draft of the new cross-border contingency plan that had been originally prepared in 2009. The changes were intended to clarify that Laredo could not send personnel across the border, because of security and liability concerns, but could assist in other ways. The revised agreement was been approved subsequently by Nuevo Laredo, but has been awaiting action by the Laredo City Council since that time.
4.2.06	Update and improve the cross-border contingency plans for emergency response for the sister-city pairs of (a) Eagle Pass, Texas and Piedras Negras, Coahuila and (b) Del Rio, Texas and Ciudad Acuna, Coahuila.	City of Eagle Pass, Municipio de Piedras Negras, City of Del Rio, Municipio de	$130,000	EPA border grant through the BECC	Briseida Duarte (Border Environment Cooperation Commission),	Complete new plans by the end of 2013.	The project was completed by the end of 2013. Under contract from the BECC, two workshops were

	which will include risk analysis and development of risk maps.	Ciudad Acuña, BECC, and the Rio Grande Institute			bduarte@coref.org and M.C. Monica de Jesus Pérez Morales (Consultoría y Servicios en Seguridad Industrial y Medio Ambiente, S.A. de C.V.)		organized in the first half of 2012 for staff from the two pairs of sister cities to discuss protocols and risks. After delays and the hiring of a new contractor, additional workshops were held in July 2013. In November of that year, the two sister-city pairs each signed a Memorandum of Cooperation for new cross-border contingency plans. Each community committed to providing resources and mutual aid in case of chemical accidents.

Multi-Goal Projects

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
Projects potentially related to some combination of air quality, water quality, water conservation, or waste management							
6.0.01	Organize educational campaigns featuring training sessions for health professionals, health students, and promotoras followed by community outreach in the Laredo and Harlingen areas in Texas, addressing how to reduce pre-natal and childhood exposure to pesticides, lead, solvents, second-hand tobacco, and diesel exhaust.	The University of Texas Health Science Center in San Antonio	$50,000	EPA border grant through the BECC	Claudia Miller, M.D., MillerCS@uthscsa.edu or steer@uthscsa.edu	Complete the project by the end of 2013.	Project completed -- through July 2013, trained 40 promotoras in the N. Laredo/ Laredo and Cameron County/ areas on the hazardous exposures in pregnancy and childhood and how to avoid these exposures. These promotoras have already provided

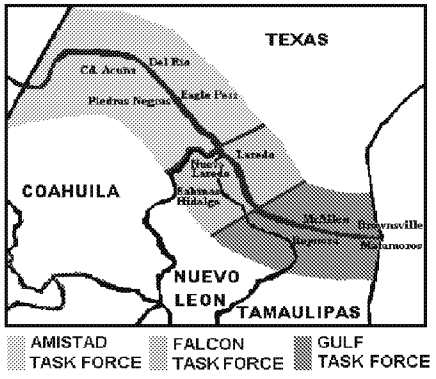
							outreach to 400 families.
6.0.02	Conduct educational workshops/plays on the safe handling and disposal of pesticides for farm workers in the Lower Rio Grande Valley of Texas and in the Laredo area.	Migrants in Action – Weslaco, Texas	$20,000	EPA border grant through the BECC	Noemi Ochoa (Association of Farmworker Opportunity Programs), nochoa@yahoo.com	Produce the EPA-written play "El Moscas y los Pesticidas" using students in two cities in the first half of 2013	Project under development, to be started on August 2014. The outcome expected is to provide capacity awareness to more than 2,000 people from South New Mexico and Texas.
6.0.03	Identify the sources of environmental health hazards through a "knowledge exchange" workshop and establish a binational database on epidemiological data related to these hazards.	Texas A&M Health Science Center; School of Rural Public Health, PAHO, BECC, HIDA-REY COBINA, Hidalgo County Health Dept.	$50,000	EPA border grant through the BECC	Genny Carrillo (Texas A&M Health Science Center, School of Rural Public Health), gcarrillo@srph.tamhsc.edu	Hold the "knowledge exchange" workshop and establish the database by the end of 2013.	[redacted] A database on Environmental and Health issues was created with the US information.
6.0.04	Address children's environmental health issues in Laredo, Texas and Webb County by surveying a sample of homes and identifying health risks, tracking reported exposures through selected hospitals and clinics, developing and implementing a public outreach campaign regarding the identified risks, and identifying and publicizing two relevant online courses available for physicians.	Laredo Health Department	$50,000	EPA border grant through the BECC	Waldo Lopez (City of Laredo Health Department) wlopez@ci.laredo.tx.us	Complete the project by the end of 2014.	The project was completed in December 2013. More than 120 homes were surveyed to analyze the use of household hazardous waste materials. 469 individuals filled out online environmental home assessments, and 155 surveys were completed. The health department adapted a web-based diagnostic tool called Argus 1, which medical personnel can use to obtain information on testing procedures and

							treatment options based on specific symptoms, and trained more than 50 physicians on both sides of the border on its use. Laredo hopes to identify additional funds, to be able to replicate some of the activities in more geographical locations.
6.0.05	Organize an annual Environmental Summit for the public in the Lower Rio Grande Valley, in cooperation with State Representative Eddie Lucio III's office.	TCEQ, and cities in the Lower Rio Grande Valley	$15,000	Local sponsors, EPA	Imelda Pena, TCEQ imelda.pena@tceq.texas.gov	Hold an Environmental Summit in fall of 2013 and fall of 2014.	The fourth annual Valley Environmental Summit was held in October 2013. An estimated 300 people attended. Their priority interests were illegal dumping, marine debris, and community cleanup programs. The fifth summit is scheduled for October 2014.
6.0.06	Organize an annual Environmental Summit for the public in Webb County, in cooperation with State Senator Judith Zaffirini's office.	TCEQ and the City of Laredo	$15,000	Local sponsors, EPA	Carmen Ramirez, TCEQ, carmen.ramirez@tceq.texas.gov	Hold an Environmental Summit fall of 2013.	The fourth annual Laredo Environmental Summit was held in October 2013, attended by more than 400 people. Speakers discussed recycling, energy efficiency, and water conservation. The next summit is being planned for October 2014.

BORDER 2020

2013-2014 Action Plan
for the TX-COAH-TAMP-NL Regional Workgroup

June 3, 2014



The **Four-State Regional Workgroup** is the most complex of the four regional workgroups, because of its geographical expanse and the number of municipalities. The region includes parts of three states and a total of at least 29 municipios 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 has established subject-specific committees related to its priority concerns.

During the first half of 2012, the various committees have held meetings to discuss initial priorities for the Border 2020 program, and a regional meeting of leaders was held in June 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. Analyze emissions and emission sources in specific airsheds
   b. Engage in both road-paving and reforestation (using native species)
   c. Establish or improve vehicle inspection programs in those cities where the respective federal governments require them
   d. Increase energy efficiency at the consumption level and the use of renewable energy at all appropriate levels
2. Improve water quality by taking the following actions:
   a. Evaluate the portion of the Rio Grande watershed that is in the region
   b. Reduce contamination by providing wastewater treatment to unserved communities in the watershed
   c. Improving the existing treatment facilities by applying the most effective technologies and providing training to operators
   d. Develop more applications for the re-use of water
   e. Reduce non-native species in the water bodies
   f. Continue and expand environmental education efforts such as “Adopt the River” and “Day of the River”

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3. Address problems of improper waste disposal:
    a. Develop comprehensive plans for solid waste management, including special wastes (such as sludge from wastewater treatment plants, scrap tires, and used electronic products) and hazardous wastes (residues from pesticides, extraction of fossil fuels, and medical facilities), looking for economic/productive uses of wastes whenever possible
    b. Expand environmental education related to waste issues
    c. Close and remediate open dumps wherever required by regulation
4. Assure that each project includes a component of environmental education (such as teacher training or building an environmental library), at least one indicator related to public health, and inspection and surveillance

Individual Task Force Priorities

Amistad Task Force

1. Reduction of energy consumption in buildings and street lighting
2. Increased use of alternate and renewable energy sources (such as landfill gas and solar energy)
3. Construction of sanitary landfills
4. Attention to waste disposal in gas drilling operations
5. Continuing attention to emergency response
6. Harmonization of protocols related to coal mining and remediation and to petroleum materials
7. Improvement of vehicle inspection programs in Coahuila
8. Joint programs in communication and environmental education, and development of an environmental educators group

Falcon Task Force

1. Re-use of treated water
2. Monitoring of drilling operations in the Eagle Ford Shale
3. Finalizing the cross-border contingency plan

Gulf Task Force

1. Improvement of water-related infrastructure, and increased attention to wáter conservation and re-use
2. Increased recycling
3. Continuing capacity-building at the local, state, and federal levels of government
4. Technical exchanges, including best practices and lessons learned

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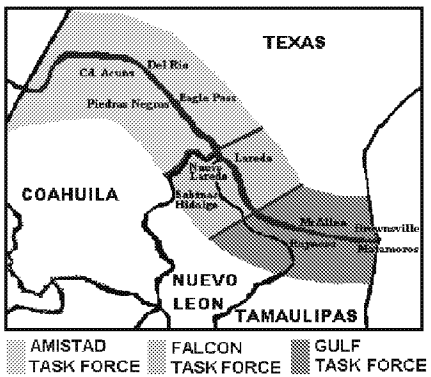
Border 2020

2013-2014 Action Plan Grid for the 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 #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
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							
1.1.01	Continue to develop Coahuila's vehicle inspection program, partly in consultation with Texas regarding the latter's experience.	SEMA (Coahuila), COMIMSA, Municipio de Piedras Negras, Municipio de Acuña, TCEQ	$700,000	SEMA Coahuila	Miguel Ángel Leal Reyes (SEMA) miguel.reyes@sema.gob.mx	Inspect 40% of the vehicles in Acuña, Piedras Negras, Monclova, Saltillo, and Ramos Arizpe .	Coahuila initiated vehicle inspections in border cities in June 2012. SEMA signed a Memorandum of Agreement with the TCEQ in May 2013; specific forms of collaboration are being negotiated.

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Objective 5: By 2020, reduce emissions and associated impacts, through energy efficiency and/or alternative/renewable energy projects							
1.5.02	Initiate Phase 2 of the State Climate Action Plan for Coahuila (PEAC): Quantification of the mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC	CICC is installed Integrated Technical Working Groups (TWG) and the Advisory Group (AG), Consultant hired. Local Coordinator and local experts recruited	Develop a document with quantitative measurements of reductions in GHG emissions from the selected Mitigation Policies (MP), the impacts of these MP in local Gross Domestic Product (GDP), employment and per capita income and amount of funds to finance new MP.
1.5.03	Initiate Phase 2 of the State Climate Action Plan for Tamaulipas (PEAC): Quantification of the mitigation public policies selected in Phase 1.	Tamaulipas State Government and BECC	$151,000	BECC	Tomás Balarezo, BECC	State strategy work is redesigned. CICC is installed. Integrated Technical Working Groups (TWG) and the Advisory Group (AG). Consultant hired	Develop a document of Selected Mitigation Policies through an open and participatory process.
1.5.04	Research the potential for harnessing wind power for electricity in Tamaulipas.	SEMARNAT and SEDUMA		SEMARNAT will seek funds	Delfino.ramirez@semarnat.tamaulipas.gob.mx	Conduct research and explore business opportunities	A forum was held in October 2012. No information available since then.
Comment: This forum was replicated by SEDUMA in November 2012 and have 26 projects in process							
1.5.05	Research the potential for harnessing wind power for electricity generation in Nuevo León.	Secretaría de Desarrollo Sustentable de Nuevo León	$10,000	Mexican federal funds/CONACYT	Norma Rangel (SDS, Nuevo León), normaarangel@gmail.com	Establish wind monitors in selected areas of the state by the end of 2013, and begin generating wind maps in 2014.	SDS continues to search for funding.
1.5.06	Construct and operate a facility that extracts methane gas from the Nuevo	Municipio de Nuevo Laredo and Setasa	$3.5 million	Private sector; a company	Sergio Martínez López	Have the facility in full operation by the end of	A feasibility study was completed 2008 with

	Laredo landfill and burns it to generate electricity for the municipality.	(Servicios de Tecnología Ambiental S.A.)		will be selected and then will build and operate the plant, selling the electricity to CFE and giving a portion of revenues from carbon credits to the municipio.	sergiomartinezlopez@hotmail.com	2014.	funding from USAID. Issuance of a tender for construction is pending (the municipio needs to obtain the property title).
Comment: The project is suspended							
1.5.07	Implement a pilot program to diagnose the existing Mexican fleet of heavy-duty commercial trucks in cross-border trade in the Laredo -Nuevo Laredo area, identify retrofit technologies that would reduce emissions, and share information on those technologies, their costs, and suppliers at a binational forum.	SEMARNAT and the Municipio of Nuevo Laredo	$50,000	EPA border grant through the BECC	Ing. Eduardo Olivares (SEMARNAT-Clean Transportation Program), eduardo.olivares@semarnat.gob.mx, and Osvaldo Valencia (Municipio de Nuevo Laredo—Ecology Program), valencia_osvaldo@hotmail.com	Complete the project by the end of 2013.	The final report Generated information to raise awareness to the transportation companies on the issue of emissions of diesel. Information of 2,756 trucks and 456 companies had. 50% of the sample trucks are 2000 or earlier model, the trucks are aged over 13 years, and 84% are 2006 model or earlier, aged 7 years or more.
1.5.08	Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	SEMA (Coahuila), Municipio de Piedras Negras, Acuña, Nava, Sabinas, Saltillo	1,400,000	SEMA Coahuila	Miguel Ángel Leal Reyes (SEMA Coahuila) miguel.reyes@sema.ob.mx	Have air quality monitoring network in operation for Piedras Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila	SEMA has begun working with local officials to include these projects in the plans of the applicable "Metropolitan Zones".
1.5.09	Apply retrofit technologies to public buildings in Piedras Negras and Acuña, Coahuila that will reduce energy consumption.	SEMA (Coahuila), Municipio de Piedras Negras y Municipio de Acuña	$500,000	SEMA Coahuila	Olga Rumayor (SEMA Coahuila) olga.rumayor@sema.gob.mx	Involve municipal agencies through a series of workshops and select at least 10	The project is still in the planning phase, and will be proposed to the BECC to obtain support.

						buildings to pilot retrofit technologies.	
1.5.10	Design and implement vehicle emission verification programs or campaigns in Tamaulipas.	SEDUMA	To be defined	SEDUMA/ SEMARNAT	Ing. Humberto Rene Salinas seduma@tamaulipas	Have vehicle verification program in the border area of the state by end of 2014	Pilot program focused on the state-owned fleet was initiated in early 2013.
Comment: Pending its implementation, possible start in early 2015							
1.5.11	Promote and encourage the use and exploitation of renewable energy sources and alternative energy potential in Tamaulipas.	SEDUMA	To be defined	SEDUMA/ SEMARNAT	Ing. Humberto Rene Salinas seduma@tamaulipas .gob.mx	Prepare action plan for nine wind power projects and state's strategic energy program	Baseline information is being collected.
Comment: SEDUMA has a demonstration project and currently have 26 projects in process							
1.5.12	Strengthen Tamaulipas' atmospheric monitoring system.	SEDUMA	Por definirse	SEDUMA/ EPA/COCEF	Ing. Humberto Rene Salinas seduma@tamaulipas .gob.mx	By 2014, the system will operate at 100% with programmatic consistency standards	8 municipalities of the State and have the equipment for air monitoring of PM10 (Matamoros, Reynosa, Laredo Nvo, Victoria, Mante, Tampico, Madero and Altamira). Currently only 3 of these eight municipalities are operating the system of air monitoring (Nvo Laredo, Victoria, Tampico)
1.5.13	Implementation of a environmental management system as a strategy for energy efficiency in Tamaulipas.	SEDUMA/Municipios	$ 100,000	SEDUMA/ EPA/COCEF	Ing. Humberto Rene Salinas seduma@tamaulipas .gob.mx	By 2014, train in collaboration with ICLEI and INECC 100% of the border municipalities	State trained 16 municipalities from the border region and the San Fernando Valley region, with an attendance of approximately 100 people, the workshop was held in Reynosa.

Goal # 2: Improve Access to Clean and Safe Water

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
General							
2.0.01	Build and begin operation of a desalination plant in Nuevo León, using renewable energy as the energy source for the plant.	Servicios de Agua y Drenaje de Monterrey (SADM, Nuevo León's water utility)		SADM, BECC, and National Water Commission	Norma Rangel (SDS, Nuevo León), normaarangel@gmail.com y Carlos Avila, carlos.avila@sadm.gob.mx	Have the plant in operation by the end of 2014.	Project Canceled
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.							
2.2.04	Conduct training for small businesses in the Reynosa area on best practices related to discharges of fats, oils, and grease (will include before and after measures).	Municipio of Reynosa	$16,000	EPA border grant through the BECC	Mauricio Chalons (Municipio of Reynosa), 899 263-3798, ecologiareynosa@hotmail.com	Organize a workshop or training event(s).	Project canceled.
2.2.06 (Sub-Obj. 3a)	Implement a binational Lower Rio Grande Water Quality Initiative (from Falcon to the Gulf) that characterizes the state of the river, develops a strategic plan to improve environmental conditions, and proposes a monitoring plan to document progress.	TCEQ, EPA, IBWC, CONAGUA, and federal, state, and local government agencies		TCEQ, EPA, IBWC, and federal, state, and local government agencies	Kelly Holligan (TCEQ), 512-239-2369, Kelly.holligan@tceq.texas.gov	Establish the collaborative partnership by early 2013, and make substantive progress on objectives by the end of 2014.	Terms of reference were developed that serve as the framework used by participating entities in the collaboration. In February and July 2013, TCEQ hosted training sessions on water quality modeling software (QUAL-TX and LAQUAL) for Mexican agency and EPA staff.
2.2.07 (Sub-obj. 2b)	Install/upgrade new sewer lines connected to Nuevo Laredo's wastewater treatment plant to prevent contaminated discharges to the Rio Grande.	COMAPA and Municipio de Nuevo Laredo	$5,000,000	North American Development Bank (NADB)	Claudia López Aguilar (Comisión Municipal de Agua Potable y Alcantarillado—COMAPA) claudialopez@comapan	Complete the project by December 2014.	BECC certified the project in September 2012. COMAPA will complete the construction of four sewer collectors to the

					uevolaredo.gob.mx New Manager CP Delfino González Muñoz Tel: 867-8900900 dgcdelfino@hotmail.com dianarigal@comapanuevolaredo.gob.mx		wastewater treatment plant by August 2013 and will work with CONAGUA on securing funding to address sewer discharges (about 280,000 GD) from La Joya Creek to the Rio Grande. COMAPA and the municipio are in the process of signing an agreement with the property owner to allow crews to repair the discharge point from La Joya creek since it is on private property. Along with this effluent discharge, COMAPA has identified five discharge points. Here is a breakdown on the work being conducted on these collectors: More than 230,000 gallons per day from the 5 de febrero collector have been eliminated and 40% of the repairs have been completed for the second phase 90% of the work to repair the Guatemala collector has been finished. The total amount (420,000 GD) that is currently discharging should be eliminated by May 2014 Work is underway to rehabilitate the America,

							Anahuac and Iturbide collectors, which are discharging about 1.2 MGD. All sewer discharges should be eliminated by November 2014.
Comment: Conclusion of activities in January 2015, in March 2015 the IBWC conduct a monitoring water quality of the river							
Objective 3: Work binationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.							
2.3.02	Conduct feasibility studies for wastewater treatment plants in the municipalities of Hidalgo and Guerrero, Coahuila.	CEAS Coahuila, SEMA Coahuila	$15,000	CNA, Coahuila	Alejandra Carrera (SEMA Coahuila), alejandra.carrera@sema.gob.mx	Complete the studies by early 2014	CEAS has completed the feasibility studies and is making efforts to implement water management programs in those municipalities.
2.3.03	Design and implement local public conservation campaigns and land conservation agreements for Rio San Rodrigo and Arroyo Las Vacas.	SEMA Coahuila, Municipio de Piedras Negras and Municipio de Acuña	$400,000	Coahuila will fund first part and will be seeking funding for the rest	Alejandra Carrera (SEMA Coahuila), alejandra.carrera@sema.gob.mx	Begin implementing the campaigns and conclude the land conservation agreements by the end of 2014.	SEMA obtained funding from the EPA through the BECC in November 2013 to restore and conserve the Arroyo Las Vacas. SEMA has developed partnerships with TCEQ, Ciudad Acuña, local academic institutions, and UT Austin, and is finalizing the workplan. The project will promote awareness and take actions to improve the ecosystem of the arroyo.
2.3.04	Implement a program to remove invasive plants in the Rio Grande.	SEMA Coahuila, CONANP, Profauna	$85,000	SEMA Coahuila, CONANP, Profauna –	Alejandra Carrera (SEMA Coahuila) alejandra.carrera@sema.gob.mx	By the end of 2014, increase the invasive species plant removal program in the Rio	No progress yet.

				and will seek other funding sources		Grande.	

Goal # 3: Promote Materials Management, Waste Management and Clean Sites

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.01	Link and promote the Mexican federal program "Green Schools" in all three Mexican states in the region and explore possible use in Texas.	SEMARNAT/Tamaulipas and state agencies in Tamaulipas, Nuevo León, and Coahuila	??	SEMARNAT	Delfino Ramirez (SEMARNAT/Tamaulipas), Delfino.ramirez@semarnat.tamaulipas.gob.mx	Reach 150 schools in the 3 Mexican States by July 2013. Hold an information exchange meeting w/Texas 2014	Program very successful in Tamaulipas--135 schools are registered in the Green School Program, of which 33 are in Nuevo Laredo, 50 in Reynosa and 9 in Matamoros. Information not available from other states.
Comment: The program was completed in the 2012-2013 school year. This program was replicated by SEDUMA. The new strategy is called by SEDUMA SIMAE (School Environmental Management System) under the principles of Green School.							
3.1.04	Establish an environmental organization to develop environmental awareness and clean-up programs in Nuevo Laredo.	Keep Laredo Beautiful, Keep America Beautiful, and the Municipio de Nuevo Laredo	$5,000	The Gateway Rotary Club and Keep America Beautiful	Ing. Marco Antonio Garza Delgado y Lic. María Guadalupe Herrera Rodríguez U.T. (Programa Zona Verde, Nuevo Laredo) Lynne Nava (Keep Laredo Beautiful), lnava1@ci.laredo.tx.us	Recruit reps of non-profit organizations and school officials as members of a board of directors in 2013.	No progress toward target as of July 2013.
3.1.07	Expand a municipal recycling program started in March 2012 in Nuevo Laredo and currently consisting of placing public	Municipio de Nuevo Laredo	???	Municipio de Nuevo Laredo	Osvaldo Valencia (Municipio de Nuevo Laredo—Ecology	Install the bins at all elementary schools in 2013 and start	Environmental education conferences were resumed at city

	bins in parks, to include all elementary schools in Nuevo Laredo.				Program) valencia_osvaldo@hotmail.com	relevant environmental education programs for students.	elementary schools in February 2013.
Comment: The program was completed.							
3.1.08	Extend Tamaulipas' environmental management system program (SIMA) to private institutions, schools, and shops.	SEDUMA	$ 300,000	EPA/SEDUMA/SEMARNAT	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	Reach out to 100% of the border cities	The SIMA Program has been implemented in 30 schools in the municipality of Matamoros. State has invested 1 million 800 thousand pesos for replacement of furniture and equipment of high efficiency consumption of water and energy, clean energy production, waste recycling, rainwater collection and environmental education workshops. In the 2nd half of 2014 will support equipment (containers for medical waste and saving features) at 2 participants SIMA schools.
3.1.09	Redesign and extend coverage of the E-conexion Newsletter as strategy to share best practices.	SEDUMA	$ 30,000	SEDUMA	Ing. Humberto Rene Salinas (SEDUMA), seduma@tamaulipas.gob.mx	Extend the dissemination of the E-Conexion to 100% of the Tamaulipas municipalities	Activity in process
Comment: The edition of the newsletter is every three months.							
Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.							

3.2.01	Build capacity in scrap-tire management throughout the region.	Sustainable Development Secretariat, State of Nuevo León	$35,000	EPA border grant through the BECC	Norma Rangel Sevilla (SDS, Nuevo León), normaarangel@gmail.com	Prepare a "best practices" manual and perhaps hold a regional workshop	Tire manual for tire recollection center
3.2.02	Use organic waste generated in Sabinas Hidalgo, Nuevo León to make compost and then apply it to agricultural uses and urban gardening.	Sustainable Development Secretariat, SEMARNAT-Municipio of Sabinas Hidalgo, Nuevo León	Mexican federal funds $67,000	Municipio of Sabinas Hidalgo Nuevo León	Norma Rangel Sevilla (SDS, Nuevo León), normaarangel@gmail.com y chel1977@live.com.mx	By the end of 2014, compost 100% of organic waste collected by the municipality from large waste generators.	Project canceled
3.2.04	Develop a composting operation in Nuevo Laredo using sludge from the wastewater treatment plant and yard wastes, and apply the product in municipal parks as well as in homes (through sales to homeowners).	COMAPA and Municipio de Nuevo Laredo	$30,000 ¿?	Municipio de Nuevo Laredo	Carlos Montiel Saeb (Comisión Municipal de Agua Potable y Alcantarillado—COMAPA) carlosmontielsaeb@hotmail.com	The program, including applications and sales, is expected to be in full operation by sometime in 2013.	Currently the compost is being applied to the germination of seeds and vegetables in the greenhouse of the municipio's Research and Environmental Education Center.
3.2.05	Implement a collection program for used electronic products in Reynosa, Tamaulipas.	Municipio of Reynosa	$30,000	EPA border grant through the BECC	Mauricio Chalons (Municipio of Reynosa), 899 263-3798 ecologiareynosa@hotmail.com	Promote sustainable routes to properly manage waste streams generated by electronic waste in Reynosa, Tamaulipas	Project completed by the end of 2013. The city collected about 27.7 tons of e-waste and sent for recycling.
3.2.06	Design and implement a state scrap tire management program that includes valuation.	SEDUMA	$ 400,000	SEDUMA/SEMARTANT/EPA	Ing. Humberto Rene Salinas (SEDUMA), seduma@tamaulipas.gob.mx	Develop public policy and management plan for scrap tires	No progress on the project
3.2.07	Evaluate and take advantage of energy potential of waste in Matamoros landfills.	SEDUMA	$ 300,000	SEDUMA/EPA	Ing. Humberto Rene Salinas seduma@tamaulipas.gob.mx	Complete action plan	No progress on the project

Objective 3: By 2020, improve knowledge in every level of government (federal, state, local) to characterize and remediate contaminated sites.							
3.3.01	Complete the remediation of old oxidation lagoons.	Municipio de Piedras Negras and State of Coahuila environmental agency (SEMA)	$300,000	State of Coahuila environmental agency (SEMA)	Alfredo Lucero (Piedras Negras), aalm68@hotmail.com	Complete the remediation of the remaining 10.3 acres by the end of 2013, after which the municipality will develop a road extension to and a green area at the site.	Prior to 2012, 19.7 acres of the 30-acre site had been remediated. No new information available.
3.3.03	Establish a sustainable management plan for scrap tires in Piedras Negras, Coahuila.	SEMA, Municipio de Piedras Negras	$400,000	¿?	Miguel Angel Leal (miguel.leal@sema.gob.mx)	Develop plan and place in full operation by the end of 2014	SEMA determined they need to perform a feasibility study on using coal pits as disposal sites for scrap tires.

Goal #4: Enhance Joint Preparedness for Environmental Response

Project #	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
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.							
4.2.01	Develop an emergency response plan for the maquiladoras in Brecha E-99 in Reynosa,Tamaulipas.	CAMPIR (Comite de Ayuda Mutua del Parque Industrial Reynosa) (Reynosa Industrial Park Mutual Aid Committee)	$10,000	EPA border grant through the BECC	Dr. Emilio Sonderegger Arriola emilio.sonderegger@landisgyr.com	???	Project canceled.

4.2.03	Hold a binational chemical-spill exercise at the World Trade Bridge between Nuevo Laredo, Tamaulipas and Laredo, Texas.	Civil Protection and Fire Department of Nuevo Laredo, Tamps., and the City of Laredo Fire Department	$5,000	EPA border grant through the BECC	Lic. Juan Ernesto Rivera Gómez (Civil Protección de Nuevo Laredo), proteccioncivilnuevolaredo@hotmail.com or ernestorivera5775@hotmail.com New Manager: Ing. Juan Ulises Ochoa Correa jochoa@nuevolaredo.gob.mx juan.u8a@hotmail.com Tel: 867-7124635 867-7128911	Hold the exercise after the Mexican federal government has approved a permit that allows hazardous waste to be transported on this bridge.	The U.S. Department of State issued a "presidential permit" in May 2014 for the use of the bridge for transport of hazardous materials, but the Mexican government is awaiting the completion of a flow study that CONAGUA is conducting in the Rio Grande before issuing its permit. If and when a Mexican permit is issued, local officials will organize a binational exercise. Still waiting for a date to finish this study and define next steps
4.2.04	Develop a cross-border contingency plan for the Solidarity Bridge, involving first responders from Colombia (Nuevo León), Nuevo Laredo (Tamaulipas), and Laredo (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.	Civil Protección and fire departments for both Colombia and Nuevo Laredo, CODEFRONT, and the City of Laredo	$5,000 -	EPA, COCEF, PROFEPA, and Protección Civil	Jorge Camacho (Protección Civil de Nuevo León) jorge.camacho@nueveoleon.gob.mx New officer: Juan Ulises Ochoa Correa jochoa@nuevolaredo.gob.mx juan.u8a@hotmail.com Tel: 867-712-4635 867-7128911	The objective of this training was to perform a simulation in the World Trade International Bridge (Bridge III) as part of the training staff of Civil Protection in response to contingencies, taking into account that this port is in the process of authorization to cross hazardous materials eventhoug it already has the infrastructure to handle these materials.	Pending approval by the Government of Mexico to cross hazardous materials. Part of the process is to wait for a water quality analysis performed by CONAGUA. In reality the materials cross by the Colombia Bridge in Nuevo Leon, but do not have the civil protection resources. In the case of an event, the assistance comes from Nuevo Laredo. Once the permit is released the drill can takes place.

4.2.05	Finish updating the 1998 Cross-Border Contingency Plan between the sister cities of Laredo, Texas and Nuevo Laredo, Tamaulipas, in order to improve emergency response communication and protocols.	Laredo Fire Department, Protección Civil de Nuevo Laredo, and CILA	No cost	City of Laredo and Nuevo Laredo	Eloy Vega (City of Laredo Fire Department), evega@ci.laredo.tx.us Ernesto Rivera (Protección Civil de Nuevo Laredo), proteccioncivilnuevolaredo@hotmail.com	Hold new meetings of the staff of the two cities in 2013 in order to re-visit the language of the draft revision and possibly develop alternative language.	Laredo officials met in May 2013 to make changes to one sentence in a draft of the new cross-border contingency plan that had been originally prepared in 2009. The changes were intended to clarify that Laredo could not send personnel across the border, because of security and liability concerns, but could assist in other ways. The revised agreement was been approved subsequently by Nuevo Laredo, but has been awaiting action by the Laredo City Council since that time.
4.2.06	Update and improve the cross-border contingency plans for emergency response for the sister-city pairs of (a) Eagle Pass, Texas and Piedras Negras, Coahuila and (b) Del Rio, Texas and Ciudad Acuna, Coahuila, which will include risk analysis and development of risk maps.	City of Eagle Pass, Municipio de Piedras Negras, City of Del Rio, Municipio de Ciudad Acuña, BECC, and the Rio Grande Institute	$130,000	EPA border grant through the BECC	Briselda Duarte (Border Environment Cooperation Commission), bduarte@cocef.org and M.C. Mónica de Jesús Pérez Morales (Consultoría y Servicios en Seguridad Industrial y Medio Ambiente, S.A. de C.V.)	Complete new plans by the end of 2013.	The project was completed by the end of 2013. Under contract from the BECC, two workshops were organized in the first half of 2012 for staff from the two pairs of sister cities to discuss protocols and risks. After delays and the hiring of a new contractor, additional workshops were held in July 2013. In November of that year, the two sister-city pairs each signed a Memorandum

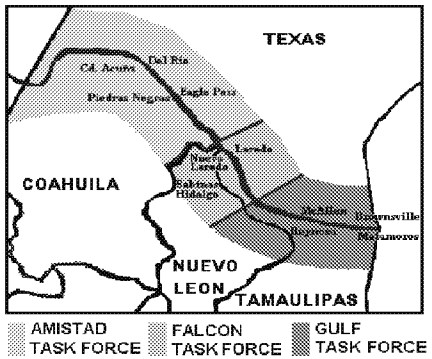
							of Cooperation for new cross-border contingency plans. Each community committed to providing resources and mutual aid in case of chemical accidents.

BORDER 2020

2017-2018 Amistad Task Force Action Plan

TX-COAH-TAMP-NL Regional Workgroup

October 2017



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 2017-2018 version is the second of its kind. Several projects have been carried over from the 2015-2016 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.

In October of 2016, the three task forces held meetings to discuss initial priorities for the 2017-2018 Action Plan as well as several conference calls with leaders to develop a consensus of priorities at the local and regional workgroup levels.

Regional Priorities

Goal 1: Reduce Air Pollution

a) Implement atmospheric monitoring programs under the same criteria of analysis and promote the dissemination of results in the four states
b) Set actions in accordance with the public policies of micro and macro-economic analysis of climate change state programs
c) Promote the implementation of the PROAIRE air quality program and its strategies in the border communities

Goal 2: Improve Access to Clean and Safe Water

a) Continue to improve energy efficiency for water operators in border municipalities
b) Continue the water conservation programs and encourage the reuse of treated water for irrigation
c) Strengthen wastewater sanitation programs and actions
d) Disseminate green infrastructure actions for sustainable development of border communities
e) Promote strategies for adequate wastewater management in Tamaulipas border municipalities

Goal 3: Promote Materials Management and Waste Management, and Clean Sites

a) Increase institutional capacity at the local and state levels for sustainable practices in solid waste management
b) Develop collection and comprehensive waste management programs for used electronics for municipalities in the border area

c) Develop collection and comprehensive waste management programs for proper disposal of household hazardous waste for municipalities in the border area
d) Continue efforts to implement comprehensive scrap tire management programs
e) Strengthen operations of the sanitary landfills in border municipalities, with plans to capture and take advantage of the biogas and convert to energy
f) Develop comprehensive actions to eliminate unauthorized open-air dump sites
g) Encourage municipal programs for holistic waste management
h) Promote the integral waste management in the Mexican municipalities

Goal 4: Enhance Joint Preparedness for Environmental Response

a) Continue the binational relationship in emergency response for training, equipment and drills
b) Promote the creation of risk atlases for waste management and hazardous materials in border communities
c) Carry out the required border studies for the protection of local communities
d) Generate a diagnosis of equipment, training, and ability to respond to an emergency in border municipalities

Goal 5: Enhance Compliance Assurance and Environmental Stewardship

a) Implement binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals, to promote the exchange of information and improve understanding of each country's respective compliance and enforcement programs
b) Promote the updating, sharing and application of municipal environmental regulations in border communities
c) Carry out the land management plans in the states and municipalities along the border region
d) Establish regulatory and operational mechanisms for the control of wild hogs

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

a) Develop a study that identifies the five top main risks on environmental health in border communities

Fundamental Strategies

a) Promote actions and environmental education programs on waste, recycling, water and fauna in the Kickapoo reservation
b) Implement a study related to the handling and disposal of used accumulators and their impact on public health
c) Establish a binational bilingual program for education purposes on environmental and public health topics according to regional priorities.

Amistad Task Force

Goal 1: Reduce Air Pollution

1. Establish and strengthen vehicle emissions programs in Acuña, Piedras Negras and Nava
2. Promote initiatives to develop energy efficiency and reforestation programs in the industrial sector in Acuña and Piedras Negras
3. Promote the implementation of strategies by the SEMARNAT PRO AIRE air quality program in Acuña, Piedras Negras and Nava

Goal 2: Improve Access to Clean and Safe Water

1. Conduct water quality monitoring of tributaries along the Rio Grande in Acuña and Piedras Negras
2. Develop Fats, Oils and Grease (FOG) workshops in Acuña and Piedras Negras, replicating the model in Laredo

3. Promote and develop green infrastructure projects and water conservation programs in Acuña and Piedras Negras

Goal 3: Promote Materials Management, Waste Management and Clean Sites

1. Promote the implementation of integrated solid, household hazardous waste and used electronic programs in Acuña and Piedras Negras
2. Strengthen scrap tire management programs and promote scrap tire reuse for projects in Acuña and Piedras Negras
3. Promote initiatives to develop plastic bag reduction programs in Acuña and Piedras Negras

Goal 4: Enhance Joint Preparedness for Environmental Response

1. Update the directory of emergency response personnel in the Acuña-Del Rio and Eagle Pass-Piedras Negras and develop a knowledge exchange workshop in Eagle Pass
2. Coordinate two emergency response tabletop exercises and joint response drills between Eagle Pass and Piedras Negras and Del Rio and Acuña

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

1. Develop awareness programs on vector borne illnesses such as Zika and Dengue virus in Acuña and Piedras Negras
2. Launch a binational environmental education program on recycling, energy efficiency and water conservation in Eagle Pass and Piedras Negras using social and broadcast media

GOAL # 1: Reduce Air Pollution

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of Funding	Contact(s)	Objective 2017-2018	Progress Towards Target
1.5.01	**Coahuila Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC, in Spanish) for Coahuila: quantification of mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	Organize meetings with the technical work groups, the advisory group, and the Climate Change Committee.	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 Action Plan is ready and is in the process of being published in the Official Journal of the State.

1.5.02	**Air Quality Network in Coahuila** Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	SEMA (Coahuila), Municipalities of Piedras Negras, Acuña, Nava, Sabinas, Saltillo	12 Million Pesos	SEMARNAT	Santiago Barrios, SEMA/Coahuila, santiago.barrios@sema.gob.mx	Initiate the project. It is currently in the review phase prior to bidding.	The project has been authorized and is in the review phase prior to bidding. Three air monitoring stations were installed and have been operating for a year.

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)	Objective 2017-2018	Progress Towards Target
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
*3.1.03	**Construction of and Equipment for Type A Landfill in the Coal Deposit Region**	SEMA, SEMARNAT, Municipalities of Múzquiz and Sabinas	25 Millones Pesos	SEMARNAT PEF 2015	Oscar Flores, SEMA, oscar.flores@sema.gob.mx 01152844 698-1091 ext. 7268	Construction and operation.	Conduct soil studies. Under analysis prior to request for bids. The project is still in progress. The bidding process for the project ended and the technical studies are ready. The construction of the landfill started in September 2017.
*3.1.04	**Construction of and Equipment for a Regional Landfill in the Municipalities of Juárez and Progreso, Coahuila**	SEMA, Municipality of Juárez and Progreso	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, oscar.flores@sema.gob.mx 01152844 698-1091 ext.7268	Construction and operation.	Under analysis prior to request for bids. The project is still in progress. The construction of the landfill was completed. Municipalities will receive the equipment in September 2017.

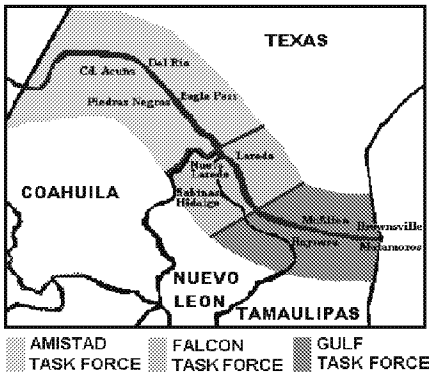
*3.1.05	**Construction of and Equipment for Two Urban Solid Waste Transfer Stations in the Municipality of Múzquiz, Coahuila**	SEMA, Municipio de Múzquiz	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, oscar.flores@sema.gob.mx 01152844 698-1091 ext.7268	Construction and operation.	Under analysis prior to request for bids. The project is still in progress. The transfer stations are currently in the bidding process for funds, and will be installed after the construction of a landfill in the coal region
3.1.06	**RECOLECTRÓN Program** Collection program for used electronics in the municipalities. Inform and educate the population of the benefits of reusing used electronic products.	SEMA, Municipalities of Acuña, Allende, Nava and Sabinas	2 Million Pesos $16,777	SEMA Border 2020	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx Oscar Flores, SEMA, 01152844 698-10-91 ext.7268 oscar.flores@sema.gob.mx	Continue collecting tons of waste. Conduct an assessment as well as training of municipal ecology staff on used electronics and implement actions for adequate disposal.	To date 44.89 tons has been collected. More than 442 tons of used electronics was collected, surpassing the goal of 259 tons that was set by the current six-year administration. The project is in progress.
3.1.07	**Responsible Disposal of Tires** 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, floresdiegocarlos@yahoo.com.mx 01152877 773-1458	Continue collecting tons of waste.	A regulatory framework regulates management and a program is underway for storage, but infrastructure is required for final disposal. . The municipio created a certification program for auto body shops and generators that manage scrap tires, which requires these establishments to cut the tires in three pieces to properly dispose them, and maintain their operating license. To date more than 58,000 tires were collected, mitigating about 95% of vectors. The project is in progress.

3.1.08	**Disposal of Used Electronic and Hazardous Waste** Create a storage center for the special management of waste, in which small generators can adequately dispose of items according to norms.	Municipality of Acuña, Coahuila	$12,500	Municipality of Acuña, Coahuila	Biól. Carlos Alejandro Flores Diego, Director de Ecología, floresdiegocarlos@yahoo.com.mx 01152877 773-1458	Continue collecting and disposing of electronic and hazardous waste.	The regulatory framework was approved by the city council as well as changes to municipal environmental regulations regarding an approval for an operating license for six months and certification of training workshops. . To date 29 tons of waste have been collected. The program is carried out in coordination with SEMA. The municipio made an agreement with Promotora Ambiental (PASA)—a waste services provider-- to pick up hazardous and electronic waste from generators in the community. PASA ships the waste to a storage facility in Piedras Negras and to a refinery for final disposal.
3.1.10	**Electronic Waste Recycling** Develop an educational campaign aimed at reducing used electronics by creating an integrated electronic waste recycling program and promoting sustainable practices.	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	$36,054	Border 2020	Ing. Víctor Ibarra, Instituto Tecnológico de Piedras Negras, ing_victor_m@prodigy.net.mx 01152878 135-0185	Conduct workshops and campaigns at schools and public events on used electronics.	Public events on used electronics were conducted in Piedras Negras, resulting in the collection of more than 15 tons in the collection centers that were installed by the municipio. The Technological Institute of Piedras Negras organized workshops and awareness campaigns on used electronics in more than 16 schools in Piedras Negras and Eagle Pass, training more than 103,500 residents on the proper management of used

							electronics, which resulted in the collection of more than 61 tons. The project ended in June.

*Projects that are not in the border area

BORDER 2020
2018-2019 Action Plan
TX-COAH-TAMP-NL Regional Workgroup
Amistad Task Force
July 2018



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 2017-2018 version is the second of its kind. Several projects have been carried over from the 2015-2016 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.

In October of 2016, the three task forces held meetings to discuss initial priorities for the 2017-2018 Action Plan as well as several conference calls with leaders to develop a consensus of priorities at the local and regional workgroup levels.

Amistad Task Force

Goal 1: Reduce Air Pollution

1. Establish and strengthen vehicle emissions programs in Acuña, Piedras Negras and Nava
2. Promote initiatives to develop energy efficiency and reforestation programs in the industrial sector in Acuña and Piedras Negras
3. Promote the implementation of strategies by the SEMARNAT PRO AIRE air quality program in Acuña, Piedras Negras and Nava

Goal 2: Improve Access to Clean and Safe Water

1. Conduct water quality monitoring of tributaries along the Rio Grande in Acuña and Piedras Negras
2. Develop Fats, Oils and Grease (FOG) workshops in Acuña and Piedras Negras, replicating the model in Laredo
3. Promote and develop green infrastructure projects and water conservation programs in Acuña and Piedras Negras

Goal 3: Promote Materials Management, Waste Management and Clean Sites

1. Promote the implementation of integrated solid, household hazardous waste and used electronic programs in Acuña and Piedras Negras
2. Strengthen scrap tire management programs and promote scrap tire reuse for projects in Acuña and Piedras Negras
3. Promote initiatives to develop plastic bag reduction programs in Acuña and Piedras Negras

Goal 4: Enhance Joint Preparedness for Environmental Response

1. Update the directory of emergency response personnel in the Acuña-Del Rio and Eagle Pass-Piedras Negras and develop a knowledge exchange workshop in Eagle Pass
2. Coordinate two emergency response tabletop exercises and joint response drills between Eagle Pass and Piedras Negras and Del Rio and Acuña

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

1. Develop awareness programs on vector borne illnesses such as Zika and Dengue virus in Acuña and Piedras Negras
2. Launch a binational environmental education program on recycling, energy efficiency and water conservation in Eagle Pass and Piedras Negras using social and broadcast media

Border 2020

2018-2019 Action Plan Grid
Amistad Task Force

Legend:

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

GOAL # 1: Reduce Air Pollution

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of Funding	Contact(s)	Objective 2018-2019	Progress Towards Target
1.5.01	**Coahuila Climate Action Plan** Initiate Phase 2 of the State Climate Action Plan (PEAC, in Spanish) for Coahuila: quantification of mitigation policies selected in Phase 1.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC, tbalarezo@cocef.org	Organize meetings with the technical work groups, the advisory group, and the Climate Change Committee.	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 document is being adjusted for

							publication in the Official Journal of the State.
1.5.02	**Air Quality Network in Coahuila** Establish an air quality monitoring network in the areas of Piedras Negras-Nava, Acuña, Sabinas, and Saltillo, Coahuila.	SEMA (Coahuila), Municipalities of Piedras Negras, Acuña, Nava, Sabinas, Saltillo	12 Million Pesos	SEMARNAT	Santiago Barrios, SEMA/Coahuila, santiago.barrios@sema.gob.mx	Initiate the project. It is currently in the review phase prior to bidding.	The project has been authorized and is in the review phase prior to bidding. Three air monitoring stations were installed and have been operating for a year. Two mobile monitoring stations are in the process of being purchased by the state.
1.5.03	**PROAIRE** Implement an air quality management program in the State of Coahuila.	SMADU (Coahuila) Nucleus Committee		SMADU	Oscar Flores , SMADU/Coahuila, oscar.flores@sema.gob.mx	Consolidate the Nucleus Committee.	Meetings to review progress and follow up on goals and objectives.

Goal # 2: Improve Access to Clean and Safe Water

Project N°	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Contact(s)	Objective 2018-2019	Progress Towards Target
Objective 3: Work bi-nationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.							
2.3.04	**Green Infrastructure Workshop**	SEMA, COCEF		SEMA, COCEF	Tomás Balarezo, COCEF, tbalarezo@cocef.org	Train municipalities in border states 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.
Project N°	**Description of Project**	**Collaborating Organizations**	**Anticipated Cost**	**Source(s) of funding**	**Contact(s)**	**Objective 2018-2019**	**Progress Towards Target**
2.3.05	**Construction of a water pipeline from the "Los Potreros" spring to Nava, Coahuila**	Coahuila de Zaragoza State Government, National Water Commission, City of Nava, Coahuila	74 million pesos	CONAGUA, NADBANK and City of Nava Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Finalize the construction of a pipeline to the Nava Water Plant	The water pipeline will extend 23.1 km (about 14.2 miles) and it is 30 by 24" in diameter, benefiting more tan 22,190 residents in the city of Nava. The project is in progress.
2.3.06	**Extension of the water pipeline of San Carlos to Jiménez.**	Coahuila de Zaragoza State Government, National Water Commission, and the Municipality of Jiménez, Coahuila	16 million pesos	CONAGUA, NADBANK and Municipality of Jiménez, Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Finish the extensión of the water pipeline.	The pipeline will provide drinking water to the Municipality of Jiménez, Coahuila. The first phase consists of finishing the extensión of 8.5 km (5.3 miles) from San Carlos to EJ Tepeyac. The project is in progress
2.3.07	**Construction of the Wastewater Treatment Plant in Allende, Coahuila**	Coahuila de Zaragoza State Government, National Water Commission, and the Municipality of Allende, Coahuila	70 million pesos	CONAGUA, NADBANK and Municipality of Allende Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Update the engineering plans and the design of the plant	The wastewater treatment plant will have a treatment capacity of 60 LPS (1.3 million gallons per day) and will benefit more than 22,043 residents. The project is in progress.

2.3.08	**Construction of the Wastewater Treatment Plant in Nava, Coahuila**	Coahuila de Zaragoza State Government, National Water Commission, Municipality of Nava Coahuila	70 million pesos	CONAGUA, NADBANK and Municipality of Nava Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Update the engineering plans and the design of the plant	The wastewater treatment plant will have a treatment capacity of 60 LPS (1.3 million gallons per day) and will benefit more than 22,190 residents. The project is in progress.
2.3.09	**Construction of the Wastewater Treatment Plant in Zaragoza Coah**	Coahuila de Zaragoza State Government, National Water Commission and the Municipality of Zaragoza, Coahuila	48 million pesos	CONAGUA, NADBANK and Municipality of Zaragoza Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Elaborate the engineering plans and the design of the plant	The wastewater treatment plant will have a treatment capacity of 30 LPS (684,600 gallons per day) and will benefit more than 10,750 residents in Zaragoza, Coahuila. The project is in progress
2.3.10	**Construction of the Wastewater Treatment Plant in Morelos Coah**	Coahuila de Zaragoza State Government, National Water Commission and Municipality of Morelos Coah.	39 million pesos	CONAGUA, NADBANK and Municipality of Morelos Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Planning phase of the design of the plant	The wastewater treatment plant will have a treatment capacity of 20 LPS (456,400 gallons per day) and will benefit more than 7,600 residents in Morelos, Coahuila. The project is under review.

2.3.11	**Construction of sanitary sewer lines and wastewater treatment plant in San Carlos municipality of Jiménez, Coahuila**.	Coahuila de Zaragoza State Government, National Water Commission and Municipality of Jiménez, Coahuila.	55 million pesos	CONAGUA, NADBANK and Municipality of Jimenez, Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Design the engineering plan for the construction of sanitary sewer lines and the wastewater treatment plant	Sanitary sewer lines will be constructed to connect them to the wastewater treatment plant, which will have a treatment capacity of 10 LPS (228, 200 gallons per day), benefiting more than 3,300 residents in Jiménez, Coahuila. The project is under review
2.3.12	**Construction of Stormwater System in Piedras Negras Coah. (Arroyos: El Soldado, Primavera, El Tornillo and Downtown Area)**	Coahuila de Zaragoza State Government, National Water Commission and Municipality of Piedras Negras Coah.	$190.000 pesos	CONAGUA, NADBANK and Municipality of Piedras Negras Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Elaborate the architectural plans of the stormwater lines	Stormwater lines will be constructed to reduce flooding in Piedras Negras, Coahuila. The project is in progress
2.3.13	**Construction of Stormwater System in Ciudad Acuña, Coah. (Arroyos: El Abuelo, Santa Martha, El Macho, La Hormiga and Downtown area)**	Coahuila de Zaragoza State Government, National Water Commission and Municipality of Acuña Coahuila.	$180.000 pesos	CONAGUA, NADBANK and Municipality of Acuña, Coah.	Lic. Lemuel Burciaga Acosta, CEAS Raul.lemuel@ceas.gob.mx	Elaborate the architectural plans of the stormwater lines	Stormwater lines will be constructed to reduce flooding in Ciudad Acuña, Coahuila. The project is in progress

2.3.14	**Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH and Del Río, TX.** Develop manuals to improve sanitation and stormwater management plans in Cd. Acuña and develop educational projects to reduce environmental risks,	Universidad Carolina	$26,035.00 dollars	NADBANK Border 2020	Arq. Cecilia Pelletier Bravo, Universidad de Carolina cpelletierbravo@gmail.com	Master Plan including Green Infrastrusture and stormwater * Development of a Green Infrastructure Manual * Urban Planning Workshops	

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)	Objective 2017-2018	Progress Towards Target
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
3.1.03	**Construction of and Equipment for Type A Landfill in the Coal Deposit Region**	SEMA, SEMARNAT, Municipalities of Múzquiz and Sabinas	25 Millones Pesos	SEMARNAT PEF 2015	Oscar Flores, SEMA, oscar.flores@sema.gob.mx 01152844 698-1091 ext. 7268	Start of operations. Second semester of 2018	Conduct soil studies. Under analysis prior to request for bids. The construction of the landfill started in September 2017, it is in the construction phase. The project is still in progress
3.1.04	**Construction of and Equipment for a Regional Landfill in the**	SEMA, Municipality of Juárez and Progreso	8 Millones Pesos	PEMEX Hydrocarbon Fund	Oscar Flores, SEMA, oscar.flores@sema.gob.mx	Start of operations.	Under analysis prior to request for bids.

	Municipalities of Juárez and Progreso, Coahuila				01152844 698-1091 ext.7268	Second semester of 2018	The landfill is in the construction phase. The project is still in progress.
3.1.06	**RECOLECTRÓN Program** Collection program for used electronics in the municipalities. Inform and educate the population of the benefits of reusing used electronic products.	SEMA, Municipalities of Acuña, Allende, Nava and Sabinas	2 Million Pesos $16,777	SEMA Border 2020	Griselda Salas Alemán, SEMA, griselda.salas@sema.gob.mx Oscar Flores, SEMA, 01152844 698-10-91 ext.7268 oscar.flores@sema.gob.mx	Continue collecting tons of waste. Conduct an assessment as well as training of municipal ecology staff on used electronics and implement actions for adequate disposal.	From 2012 to November 2017 more than 494 tons of used electronics were collected in the state. In this region in particular, 114.79 tons were collected. The campaign for the North and Five Springs area is scheduled for September 2018. The project is still in progress.
3.1.07	**Responsible Disposal of Tires** 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, floresdiegocarlos@yahoo.com.mx 01152877 773-1458	Continue collecting tons of waste.	A regulatory framework regulates management and a program is underway for storage, but infrastructure is required for final disposal. The municipio created a certification program for auto body shops and generators that manage scrap tires, which requires these establishments to cut the tires in three pieces to properly dispose them, and maintain their operating license. In May, the municipio will renew the operating licenses of these establishments to continue with this process.

							More than 62,000 scrap tires were disposed using this method. The municipio is in the process of opening a cell at a site near the landfill to bury the tire pieces, beginning in August 2018. The project is ongoing.
3.1.11	**Green Office Program** The Secretariat of Environment in Coahuila's Green Office Program is an opportunity for offices to incorporate efficient actions to use resources more efficiently, and where the participation of office workers is the key to transforming your office to an environmentally responsible office.	SMADU		SMADU	Griselda Salas Alemán, SMADU, griselda.salas@sema.gob.mx	Develop a collaborative environmental approach among workers of an organization or institution, to carry out actions guided by environmental committees that work with eficient electrical energy indicators, water use efficiency, separation of waste, efficient use of office supplies and maintenance and efficient gasoline use and verification of vehicular fleet.	More than 152 public and private entities participate in the Green Office Program at the state level, of which 13 are in Acuña, two in Piedras Negras and one in Nava. The global results of the program since its inception in 2012 are: **Electrical Energy:** • 76,035.486 MW saved • 50,706.478 Tons of GGH not emitted • Economic Savings: $176´225,863.00 pesos **Separation of waste:** • Paper and cardboard: 3,958.27 Ton • 459 Ton of aluminum • 630 Ton of plastic material • 213 Ton of organic waste • 150.42 Tons of mixed steel • 669.11 Tons of wood • 654.03 Tons of glass

3.1.12	**Reduction of Ecological Footprint**	SMADU		SMADU	Griselda Salas Alemán, SMADU, griselda.salas@sema.gob.mx	Implement ecoefficiency initiatives in households, using an online educational tool.	More than 12 universities and intermediate and higher academic institutions have participated, of which one is in Piedras Negras and one in Acuña. The results are: Teachers: 55 Students: 3,007 Ecoefficiency initiatives implemented: 34,410 KW saved: 188,870 Cubic meters of water saved: 11,096 Cubic meters of gas saved: 5,075 Tons of CO2 reduced: 91.9 Tons of SOx reduced: 2.3 Tons de NOx reduced: 0.31 Ecomonic savings: $684,557.00 pesos NOTE: The applications is part of the curriculum of the Technological Institute of Saltillo. We are trying for other academic institutions to add it to their curriculum.

Message

From: US-MX Border 2020 Program [border2020@epa.gov]
Sent: 1/17/2015 1:21:15 AM
To: Rincon, Carlos [rincon.carlos@epa.gov]
Subject: News from US - MX Border 2020 Program

January 2015

US - MX Border 2020 Program News

Noticias del Programa Ambiental

Mexico-E.U.A. Frontera 2020

Border 2020 Meetings / Reuniones de Frontera 2020

January 22:
Joint Advisory Committee (Cuidad Juarez, Chihuahua - El Paso, Texas)

More details to come in January!

For more information, visit:
http://www.trainex.org/wastepolicyforum/

Announcement!

Under U.S.– Mexico Border 2020 Program, a
Waste Policy Forum Meeting
will be held
February 10-11, 2015
in
Tijuana, Mexico

Questions? Contact Karen Swetland at
Swetland.Karen@epa.gov

Más detalles por venir en enero!

Para obtener más información, visite:
http://www.trainex.org/classdetails.cfm?courseid=1568&classid=6798

¡Anuncio!

Como parte del programa de EE.UU.-México Frontera 2020,
La reunión del Foro de Política de Residuos
se celebrará el
10 a 11 de febrero de 2015
en
Tijuana, México

Envíe sus preguntas a Swetland.Karen@epa.gov

February 10 - 11: Waste Policy Forum (Tijuana, Baja California, Mexico)

February 19-20: 2015 Binational Water Conservation Conference (Laredo, Texas)

Border Partner Meetings / Reuniones de Socios Fronterizos

January 22: IBWC Citizen Forum: Upper Rio Grande (El Paso, Texas)

February 11: Lower Rio Grande Citizens Forum (Mercedes, Texas)

September 18: Southeast Arizona Citizen Forum (Location: TBA)

Public Comments / Consulta Pública

Funding Opportunities / Oportunidades de Financiamento

EPA-OAR-IO-15-03: Tribal Training and Outreach Support for the American Indian Air Quality Training Program

EPA-EE-14-02: Environmental Education Local Grants Program -- Solicitation Notice for 2014

EPA-OSWER-OBLR-15-01: ENVIRONMENTAL WORKFORCE DEVELOPMENT AND JOB TRAINING (EWDJT) GRANTS

EPA-OAR-OTAQ-15-02:A STUDENT PROGRAM FOR ENVIRONMENTAL EXCELLENCE IN DESIGN (SPEED)

EPA-OA-OSBP-15-01: DEVELOPMENT AND MANAGEMENT OF THE NATIONAL SMALL BUSINESS OMBUDSMAN/SMALL BUSINESS ENVIRONMENTAL ASSISTANCE PROVIDER 507 PROGRAM WEBSITE

EPA-EE-14-01:Environmental Education Model Grants Program -- Solicitation Notice for 2014

USDA Rural Development Grants

Grants.gov

Quick Links

SEMARNAT: Frontera 2020

Region 6 Calendar

Region 9 Calendar

Border Environmental Cooperation Commission

US-MX Border Health Commission

Border 2020 Framework: English Spanish

Border 2020 Video: English Spanish

Webinars / Seminario Web

Border 2020: Electronic Waste R2 Solutions Certification Program (Archived)

EPA: Healthy School Environments

EPA: Green Power Partnership

Ecological Risk Assessment Forum STAR Webinar Series (January 20)

New Methods in 21st Century Exposure Science Kick Off Meeting (February 3-4)

EPA/NIEHS Children's Centers 2015 Webinar Series (February 11)

U.S. EPA STAR Cookstoves Kickoff Meeting (February 25-26)

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US - MX Border 2020 Program | 4050 Rio Bravo | Suite 100 | El Paso | TX | 79902

Message

From: U.S. EPA [usaepa@service.govdelivery.com]
Sent: 10/7/2014 7:02:50 PM
To: Rincon, Carlos [rincon.carlos@epa.gov]
Subject: News: U.S. EPA announces funding to reduce water pollution, recycle e-waste, improve environmental health along U.S.– Mexico border

Contact: Suzanne Skadowski, 415-972-3165, skadowski.suzanne@epa.gov

Release Date: October 7, 2014

U.S. EPA announces funding to reduce water pollution, recycle e-waste, improve environmental health along U.S.– Mexico border

SAN DIEGO — The U.S. Environmental Protection Agency is awarding over $8.6 million in grants to fund environmental improvement projects along the U.S.–Mexico border. The funds were announced today during a border tour led by EPA Administrator Gina McCarthy in San Diego.

"Water, waste and environmental health concerns cross national boundaries, and environmental solutions benefit communities on both sides of our shared border," said EPA Administrator Gina McCarthy. "Border environment projects have already benefitted 8 million border residents, providing 63,000 homes with first-time drinking water service and 569,000 homes with first-time wastewater services."

The EPA funds were awarded in partnership with the North American Development Bank and the Border Environment Cooperation Commission to advance commitments in the U.S.–Mexico environmental collaboration known as the Border 2020 Program. These grant awards are in addition to seven environmental improvement projects announced earlier this year along the California and Arizona U.S-Mexico border, which leveraged an additional $425,500 from the recipient organizations.

Border 2020 is a bi-national collaborative effort with a mission to protect human health and the environment along the U.S.–Mexico border. The North American Development Bank and the Border Environment Cooperation Commission are

international organizations established to preserve, protect, and finance environmental infrastructure projects in the U.S.–Mexico border region. To date, EPA has invested $597 million in border environmental programs.

Today's announcement includes:

Border Environment Infrastructure Fund

EPA is providing $5 million to the North American Development Bank for the Border Environment Infrastructure Fund, which funds the construction of drinking water and wastewater infrastructure along the U.S.–Mexico border. Projects along the California, Arizona, New Mexico, and Texas border regions will receive funding based on a selection process conducted by EPA with assistance from the Border Environment Cooperation Commission.

Border Wastewater Treatment Plant Upgrade

The City of Holtville, Calif. will receive $3.5 million from the Border Environment Infrastructure Fund to upgrade its wastewater treatment plant. The $11 million project is jointly funded with a $4 million California Clean Water State Revolving Fund grant and a $3.5 million loan. The project will reduce ammonia pollution discharges to the Salton Sea.

New River Cleanup and Education Campaign

In partnership with Mexican federal, state, and local agencies, the Sonoran Institute, headquartered in Tucson, Ariz., will use $65,000 in EPA Border 2020 funds to clean and restore a segment of the New River in Mexicali, Baja Calif. and launch community environmental education and capacity building efforts to prevent future illegal dumping and degradation in the river that flows north into California.

Electronic Waste Management

Fundación Hélice, a non-profit environmental organization, will use $52,500 in EPA Border 2020 funds to address the growing need to manage discarded electronics (e-waste) in an environmentally protective manner. The project will build capacity to collect and recycle e-waste, using internationally recognized best management practices, and divert these materials from landfills and dumps in Mexicali, Baja Calif., potentially affecting the New River watershed. Similar projects are being implemented in the Arizona-Sonora border region.

Border Environmental Health Assessment

The California Department of Public Health will use $49,180 in EPA Border 2020 funds to collect and analyze important health data to determine environmental health disparities and priority needs along the U.S.–Mexico border. The project will

include a plan of action to replicate this effort in other parts of the border area and help target future environmental health efforts.

For more information on Border 2020, visit: www.epa.gov/border2020

During her visit to San Diego today, Administrator McCarthy presented EPA SmartWay Excellence Awards to freight carriers in California and Arizona at the American Trucking Association's Annual Management Conference. Administrator McCarthy also met with San Diego State University Sage Project students and National City officials working on sustainability issues in their community.

See the full list of SmartWay Excellence awardees, including shippers, logistics, top-truck and multi-modal carriers at: http://www.epa.gov/smartway/about/sw-awards.htm

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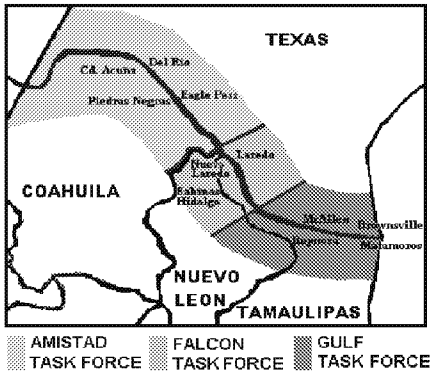
BORDER 2020

2013-2014 Action Plan
for the TX-COAH-TAMP-NL Regional Workgroup
October 12, 2012



The **Four-State Regional Workgroup** is the most complex of the four regional workgroups, because of its geographical expanse and the number of municipalities. The region includes parts of three states and a total of at least 29 municipios 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 has established subject-specific committees related to its priority concerns.

During the first half of 2012, the various committees have held meetings to discuss initial priorities for the Border 2020 program, and a regional meeting of leaders was held in June 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. Analyze emissions and emission sources in specific airsheds
   b. Engage in both road-paving and reforestation (using native species)
   c. Establish or improve vehicle inspection programs in those cities where the respective federal governments require them
   d. Increase energy efficiency at the consumption level and the use of renewable energy at all appropriate levels
2. Improve water quality by taking the following actions:
   a. Evaluate the portion of the Rio Grande watershed that is in the region
   b. Reduce contamination by providing wastewater treatment to unserved communities in the watershed
   c. Improving the existing treatment facilities by applying the most effective technologies and providing training to operators
   d. Develop more applications for the re-use of water
   e. Reduce non-native species in the water bodies
   f. Continue and expand environmental education efforts such as “Adopt the River” and “Day of the River”
3. Address problems of improper waste disposal:

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a. Develop comprehensive plans for solid waste management, including special wastes (such as sludge from wastewater treatment plants, scrap tires, and used electronic products) and hazardous wastes (residues from pesticides, extraction of fossil fuels, and medical facilities), looking for economic/productive uses of wastes whenever possible
b. Expand environmental education related to waste issues
c. Close and remediate open dumps wherever required by regulation

4. Assure that each project includes a component of environmental education (such as teacher training or building an environmental library), at least one indicator related to public health, and inspection and surveillance

Individual Task Force Priorities

Amistad Task Force

1. Reduction of energy consumption in buildings and street lighting
2. Increased use of alternate and renewable energy sources (such as landfill gas and solar energy)
3. Construction of sanitary landfills
4. Attention to waste disposal in gas drilling operations
5. Continuing attention to emergency response
6. Harmonization of protocols related to coal mining and remediation and to petroleum materials
7. Improvement of vehicle inspection programs in Coahuila
8. Joint programs in communication and environmental education, and development of an environmental educators group

Falcon Task Force

1. Re-use of treated water
2. Monitoring of drilling operations in the Eagle Ford Shale
3. Finalizing the cross-border contingency plan

Gulf Task Force

1. Improvement of water-related infrastructure, and increased attention to wáter conservation and re-use
2. Increased recycling
3. Continuing capacity-building at the local, state, and federal levels of government
4. Technical exchanges, including best practices and lessons learned

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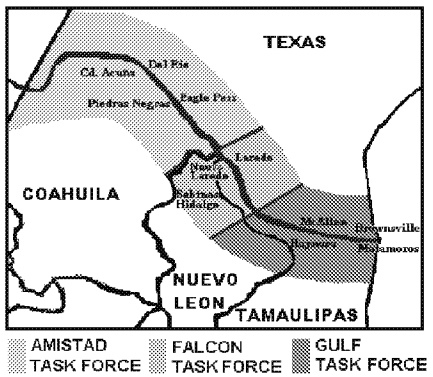
Border 2020

2013-2014 Action Plan Grid for the 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

B2020 Obj.	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
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							
1	Continue to develop Coahuila's vehicle inspection program, partly in consultation with Texas regarding the latter's experience.	SEMA (Coahuila), COMIMSA, Municipio de Piedras Negras, Municipio de Acuña, TCEQ	$700,000	SEMA Coahuila	Miguel Ángel Leal Reyes (SEMA) miguel.reyes@sema.gob.mx	Inspect 40% of the vehicles in Acuña, Piedras Negras, Monclova, Saltillo and Ramos Arizpe	Planning in progress
Objective 5: By 2020, reduce emissions and associated impacts, through energy efficiency and/or alternative/renewable energy projects							
2	Design and implement vehicle emission verification programs or campaigns	SEDUMA	To be defined	SEDUMA/ SEMARNAT	Ing. Salvador Treviño seduma@tamaulipas	Vehicle verification in the border area	By November 2012

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3	Promote and encourage the use and exploitation of renewable energy sources and alternative energy potential	SEDUMA	To be defined	SEDUMA/ SEMARNAT	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	Action plan for 9 wind power projects and state's strategic energy program	Baseline information is being collected
4	Strengthen the state's atmospheric monitoring system	SEDUMA	Por definirse	SEDUMA/ EPA/COCEF	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	By 2014, the system operating at 100% with programmatic consistency standards	Federal resources will be requested
5	Implementation of a environmental management system as a strategy for energy efficiency	SEDUMA/Municipios	$ 100,000	SEDUMA/ EPA/COCEF	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	By 2014, train 100% of the border municipalities	Develop a strategy
6	Implement a competitive grants program aimed at local governments, dedicated to improvements in energy efficiency	University of Texas at Austin, LBJ School	$175,000	EPA and TCEQ	David Eaton (LBJ School), eaton@mail.utexas.edu	Complete all projects by August 2013	RFP will be issued in October 2012
7	Initiate 2nd phase of the State Climate Action Plan for Coahuila (PEAC): Quantification of the mitigation public policies selected in the 1rst. Phase.	Coahuila State Government and BECC	$275,000	BECC	Tomás Balarezo, BECC	Econometric evaluation of mitigation public policies selected on 1rst. Phase	In early coordination with the state government
8	Initiate 1st phase of the State Climate Action Plan for Tamaulipas (PEAC): Quantification of the mitigation public policies selected in the 1rst. Phase.	Tamaulipas State Government and BECC	$100,000	BECC	Tomás Balarezo, BECC	Selection of a number of prioritized mitigation public policies for climate change.	Work of five technical groups began on July 2012
9	Research the potential for harnessing wind power for electricity in Tamaulipas	SEMARNAT and SEDUMA		SEMARNAT - ill be seeking for funds	Delfino.ramirez@semarnat.tamaulipas.gob.mx	Conduct research and explore business opportunities	Late October 2012 – Forum in Reynosa
10	Research the potential for harnessing wind power for electricity generation in Nuevo León	Secretaría de Desarrollo Sustentable de Nuevo León	$10,000	Fondos Federales/CONACYT	normaarangel@gmail.com	Establish wind monitors in selected areas of the state by the end of 2013, and begin generating wind maps in 2014.	
11	Construct and operate a facility that extracts methane gas from the Nuevo	Municipio de Nuevo Laredo and Setasa	$3.5 million	Private sector; a	Sergio Martínez López	Have the facility in full operation by the end	A feasibility study was completed 2008 with

	Laredo landfill and burns it to generate electricity for the municipality	(Servicios de Tecnología Ambiental S.A.)		company will be selected and then will build and operate the plant, selling the electricity to CFE and giving a portion of revenues from carbon credits to the municipio.	sergiomartinezlopez@hotmail.com	of 2014.	funding from USAID. An RFP for a builder-operator will be issued in early 2013.
12	Implement a pilot program to diagnose the existing Mexican fleet of heavy-duty commercial trucks in cross-border trade in the Laredo -Nuevo Laredo area, identify retrofit technologies that would reduce emissions, and share information on those technologies, their costs, and suppliers at a binational forum	SEMARNAT and the Municipio de Nuevo Laredo	$50,000	EPA Border Grant thru BECC	Ing. Eduardo Olivares (SEMARNAT-Clean Transportation Program) eduardo.olivares@semarnat.gob.mx, and Osvaldo Valencia (Municipio de Nuevo Laredo—Ecology Program) valencia_osvaldo@hotmail.com	Complete the project by the end of 2014.	
13	Establish an air quality monitoring network in Piedras Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila	SEMA (Coahuila), Municipio de Piedras Negras, Acuña, Nava, Sabinas, Saltillo	1,400,000	SEMA Coahuila	Miguel Ángel Leal Reyes (SEMA Coahuila) miguel.reyes@sema.ob.mx	Have air quality monitoring network in operation for Piedras Negras-Nava Region, Acuña, Sabinas Region and Saltillo Region, Coahuila	Planning in progress
14	Apply retrofit technologies to public buildings in Piedras Negras and Acuña, Coahuila that will reduce energy consumption	SEMA (Coahuila), Municipio de Piedras Negras y Municipio de Acuña	$500,000	SEMA Coahuila	Olga Rumayor (SEMA Coahuila) olga.rumayor@sema.gob.mx	Involve municipal agencies through a series of workshops and select at least 10 buildings to pilot	Planning in progress

						retrofit technologies.	

Goal # 2: Improve Access to Clean and Safe Water

B 2020 Obj.	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
General							
15	Build and begin operation of a desalination plant in Nuevo León, using renewable energy as the energy source for the plant	Servicios de Agua y Drenaje de Monterrey (SADM, Nuevo León's water utility)		SADM, BECC, and National Water Commission	normaarangel@gmail.com y carlos.avila@sadm.gob.mx	Have the plant in operation by the end of 2014	
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.							
16	Provide Teacher Training Workshop(s) and/or on-site facilitators to implement educational water quality monitoring events in conjunction with 2012/13 World Water Monitoring Challenge.	Texas Partnership for Water Education (TPWE): EPA, WEAT, TAWWA Scout Troops, ISDs, Informal environmental education (EE) providers	Funding needed varies with # of participants: Testing Kits $25/ 30 individuals/ site.	Various funding possibilities will be explored	Karen Bick, EPA, Region 6 (214) 665-7539 bick.karen@epa.gov	Teachers &/or students, as well as interested community members will have identified monitoring site. Sampling results are submitted to TPWE's WWMC Program Coordinator.	
17	Promote energy management practices among water and wastewater utilities from Laredo to Brownsville, Texas. Conduct quarterly meetings on energy management planning, training on Pumping System Assessment Tool, and on-site energy efficiency assessments. Key cities include Laredo, Roma, Mission, Agua Specialty Utility District, Edinburg, McAllen, Pharr, Weslaco,	Partner with a university to conduct meetings, trainings and on-site energy assessment involving engineering students. 2012 partners are the Texas Manufacturing Assistance Centers at the University of	Funding sought: $75,000/yr or $150,000	Various funding possibilities will be explored	David Reazin, EPA Region 6 (214) 665-7501	Hold quarterly meetings to develop energy management plan and benchmark energy use and costs, 1 PSAT training, and 2 on-site assessments.	

	Mercedes, Harlingen, and Brownsville	Texas at Arlington and University of Texas Pan American.					
18	Organize a workshop in Laredo for water utilities and the restaurant industry to discuss best practices related to abatement of discharges of fats, oils, and grease (will also involve Nuevo Laredo)	City of Laredo water utility, Webb County, and Nuevo Laredo,	$23,000	EPA Border 2012 grant through the BECC	Karla Robles (City of Laredo Utilities) krobles@ci.laredo.tx.us	Hold the workshops by the spring of 2013	Planning in progress
19	Conduct training for small busniness on best practices related to discharges of fats, oils, and grease (will include before and after measures)	Municipio of Reynosa	$16,000	EPA Border 2012 grants through the BECC	Mauricio Chalons (Municipio of Reynosa), 899 263-3798 ecologiareynosa@hotmail.com	Training to be held???	Workplan is being developed
20	Implement a public campaign to increase awareness of problems of non-point -source pollution in the Lower Rio Grande Valley of Texas, through signs posted on roadways and at public facilities, messages on a school district television station, presentations at numerous public events and meetings, and newsletters of various organizations.	15 Lower Rio Grande Valley (LRGV) cities that are members of the Texas Pollution Discharge Elimination System Stormwater Task Force, Texas A&M Kingsville, school districts, and NGOs	$40,000	EPA Border 2012 Grant Program through the BECC	Javier Guerrero (Lower Rio Grande Valley TPDES Stormwater Task Force, Texas A&M University-Kingsville), 956- 457-3023 jguer0351@aol.com	Complete the project by the end of 2013.	As of May 2012, the project team had begun scheduling presentations at events in rural areas.
21 Sub-Obj. 3a	Implement a binational Lower Rio Grande Water Quality Initiative (from Falcon to the Gulf) that characterizes the state of the river, develops a strategic plan to improve environmental conditions, and proposes a monitoring plan to document progress	TCEQ, EPA, IBWC, CONAGUA, and federal, state, and local government agencies		TCEQ, EPA, IBWC, and federal, state, and local government agencies	Kelly Holligan (TCEQ), 512-239-2369, Kelly.holligan@tceq.texas.gov	Establish the collaborative partnership by early 2013, and make substantive progress on objectives by the end of 2014.	Efforts are being made in 2012 to form the partnership
22 Sub-obj. 2b	Install/upgrade new sewer lines connected to Nuevo Laredo's wastewater treatment plant to prevent contaminated discharges to the Rio	COMAPA and Municipio de Nuevo Laredo	$5,000,000	North American Development Bank	Carlos Montiel Saeb (Comisión Municipal de Agua Potable y Alcantarillado—	Complete the project by summer 2013.	The project was certified by the BECC in

	Grande			(NADB)	COMAPA) carlosmontielsaeb@hotmail.com		July 2012
Objective 3: Work binationally to identify and reduce surface water contamination in transboundary waterbodies or watersheds.							
23	Develop & produce region specific supplemental materials necessary to produce a *Waters to the Sea*- Rio Grande module. (*Place- based education with comprehensive watershed focus)*	Center for Global Environmental Education (CGEE)- Hamline University Harte Research Institute @ A&M-Corpus Christi. EPA R6, WEAT, AWWA	Approx $100,000 in 2013 $ 50,000 in 2014	Various funding possibilities will be explored	CGEE- Tracy Fredin Karen Bick, EPA, Region 6 (214) 665-7539 bick.karen@epa.gov	Recruit & establish an advisory board, produce videos & other materials, identify 1 or 2 ISDs to pilot program, and conduct training for at least 25 teachers in 2014.	Exploratory discussions are underway
24	Conduct feasibility studies for wastewater treatment plants in the municipalities of Hidalgo and Guerrero, Coahuila	CEAS Coahuila, SEMA Coahuila	$15,000	CNA, Coahuila	Alejandra Carrera (SEMA Coahuila), alejandra.carrera@sema.gob.mx	Complete the studies by early 2014	
25	Design and implement local public conservation campaigns and land conservation agreements for Rio San Rodrigo and Arroyo Las Vacas	SEMA Coahuila, Municipio de Piedras Negras and Municipio de Acuña	$400,000	Coahuila will fund first part and will be seeking funding for the rest	Alejandra Carrera (SEMA Coahuila), alejandra.carrera@sema.gob.mx	Begin implementing the campaigns and conclude the agreements by the end of 2014.	
26	Implement a program to remove invasive plant m in the Rio Grande	SEMA Coahuila, CONANP, Profauna	$85,000	SEMA Coahuila, CONANP, Profauna – and will sekk for other funding sources	Alejandra Carrera (SEMA Coahuila) alejandra.carrera@sema.gob.mx	By the end of 2014, increase the invasive species plant removal program in the Rio Grande	
27	Organize a regional workshop to disseminate "best practices" related	City of Laredo, EPA, TCEQ, TX Water Development Board,	$6,000	City of Laredo, EPA, TCEQ,	Miguel A. Pescador mpescador@ci.laredo.tx.us	Hold a regional workshop in Laredo by spring 2013, and	

	to water conservation policy, programs – such as EPA's WaterSense program, and public education, and implement enhanced programs in at least one pair of sister cities.	Piedras Negras Technological Institute		and local sponsors,	Debora Browning EPA, Region 6 browning.debora@epa.gov	implement a new campaign in two sister cities by 2014 Enlist 10 new WaterSense Partners	

Goal # 3: Promote Materials Management, Waste Management and Clean Sites

B 2020 Obj.	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
General							
Objective 1: By 2020, increase local and state-level knowledge and experience in the area of sustainable material management practices.							
28	Extend the state's environmental management system program (SIMA) to private institutions, schools and shops	SEDUMA	$ 300,000	EPA/SEDUMA/SEMARNAT	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	Reach out to 100% of the border cities	A strategy will be developed
29	Redesign and extend coverage of the E-conexion Newsletter as strategy to share best practices	SEDUMA	$ 30,000	SEDUMA	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	Extend the dissemination of the E-Conexion to 100% of the Tamaulipas municipalities	A strategy will be developed
30	Link and promote the Mexican federal program "Green Schools" in all three Mexican states in the region and explore possible use in Texas	SEMARNAT/Tamaulipas and state agencies in Tamaulipas, Nuevo León, and Coahuila	FEDERAL FUNDS FROM SEMARNAT	SEMARNAT	Delfino Ramirez (SEMARNAT/Tamaulipas), Delfino.ramirez@semarnat.tamaulipas.gob.mx	Reach 150 schools in the 3 Mexican States by July 2013 Hold an information exchange meeting w/Texas 2014	First phase is complete
31	Design and implement a bilingual campaign against illegal dumping in Cameron County, Texas, using billboards, newspapers and workshops	Cameron County and the Valley Proud Environmental	$10,000	LRGVDC, TCEQ	Marcie Oviedo (Lower Rio Grande Development Council),	Finish the project by the end of 2014.	In progress

	at schools	Council			moviedo@lrgvdc.org (956) 682-3481		
32	Through purchase of equipment, enhance the recycling programs in three local jurisdictions and composting operations in two jurisdictions, and develop and implement a public education campaign regarding illegal dumping in a sixth jurisdiction	The Cities of Pharr, Mission, McAllen, and Mercedes, the Town of Bayview, and Cameron County	$160,000	Lower Rio Grande Valley Development Council, TCEQ, and individual local government	Marcie Oviedo (Lower Rio Grande Development Council), moviedo@lrgvdc.org (956) 682-3481	Finish the six separate but related projects by the end of 2014.	In progress
33	Establish an environmental organization to develop environmental awareness and clean-up programs in Nuevo Laredo.	Keep Laredo Beautiful, Keep America Beautiful, and the Municipio de Nuevo Laredo	$5,000	The Gateway Rotary Club and Keep America Beautiful	Lynne Nava (Keep Laredo Beautiful) lnava1@ci.laredo.tx.us	Recruit reps of non-profit organizations and school officials as members and name a board of directors in 2013.	In progress (Need a leader in Nuevo Laredo)
34	Expand a municipal recycling program started in March 2012 in Nuevo Laredo and currently consisting of placing public bins in parks, to include all elementary schools in Nuevo Laredo	Municipio de Nuevo Laredo	???	Municipio de Nuevo Laredo	Osvaldo Valencia (Municipio de Nuevo Laredo—Ecology Program) valencia_osvaldo@hotmail.com	Install the bins at all elementary schools in 2013 and start relevant environmental education programs for students.	In progress
Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.							
35	Design and implement a state scrap tire management program that includes valuation	SEDUMA	$400,000	SEDUMA/ SEMARTANT/EPA	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	Design of public policy and management plan for scrap tires	A study will be conducted
36	Evaluate and take advantage of energy potential of waste in Matamoros landfills	SEDUMA	$ 300,000	SEDUMA/ EPA	Ing. Salvador Treviño seduma@tamaulipas.gob.mx	Complete action plan	Information will be gathered

37	Assess the feasibility of using scrap tires for heavy-duty road-bed construction in Brownsville, TX	Texas A&M University – Kingsville	$15,000	EPA Border Grant thru BECC	Dr. Kim Jones kfkdj00@tamuk.edu	Goals for 2013-2014???	In Progress
38	Implement a collection program for used electronic products	Municipio of Reynosa	$30,000	EPA Border 2012 Grant Program	Mauricio Chalons (Municipio of Reynosa), 899 263-3798 ecologiareynosa@hotmail.com	The project will be in full operation by spring 2013	First steps tp initiate program were taken in August 2012
39	Build capacity in scrap-tire management throughout the region	Sustainable Development Secretariat, State of Nuevo León	$35,000	EPA Border Grant thru BECC	Lic. Norma a. Rangel Sevilla	Prepare a "best practices" manual and perhaps hold a regional workshop	Funding already approved by BECC – In progress
40	Use organic waste generated in Sabinas Hidalgo, Nuevo León to make compost and then apply it to agricultural uses and urban gardening	Sustainable Development Secretariat, SEMARNAT-Municipio of Sabinas Hidalgo, Nuevo León	Mexican federal funds $67,000	Municipio of Sabinas Hidalgo Nuevo León	normaarangel@gmail.com y chel1977@live.com.mx	By the end of 2014, compost 100% of organic waste collected by the municipality from large waste generators.	Under discussion. New administration may pose roadblocks
41	Develop a composting operation in Nuevo Laredo using sludge from the wastewater treatment plant and yard wastes, and apply the product in municipal parks as well as in homes (through sales to homeowners).	COMAPA and Municipio de Nuevo Laredo	$30,000 ¿?	Municipio de Nuevo Laredo	Carlos Montiel Saeb (Comisión Municipal de Agua Potable y Alcantarillado—COMAPA) carlosmontielsaeb@hotmail.com	The program, including applications and sales, is expected to be in full operation by sometime in 2013.	As of April 2012 the equipment had been purchased, and process is being tested.
Objective 3: By 2020, improve knowledge in every level of government (federal, state, local) to characterize and remediate contaminated sites.							
42	Complete the remediation of old oxidation lagoons	Municipio de Piedras Negras and State of Coahuila environmental agency (SEMA)	$300,000	State of Coahuila environmental agency (SEMA)	Alfredo Lucero (Piedras Negras), aalm68@hotmail.com	Complete the remediation of the remaining 10.3 acres will by the end of 2013, after which the municipality will	Prior to 2012, 19.7 acres of the 30-acre site had been remediated.

						develop a road extension to and a green area at the site.	
43	Clean up an old waste disposal site near the river banks of the Rio Grande in Eagle Pass	City of Eagle Pass	$3.5 million	City of Eagle Pass plus an additional funding source to be determined	Hector Chavez (Eagle Pass) hchavez@eaglepasstx.us	Finish the remediation in 2013, if supplementary funding can be identified, and then develop a green area on the site.	Prior to 2012, five acres had been cleaned up and a protective cap constructed.
44	Establish a sustainable management plan for scrap ties in Piedras Negras, Coahuila	SEMA, Municipio de Piedras Negras	$400,000	¿?	Miguel Angel Leal (miguel.leal@sema.gob.mx)	Develop plan and place in full operation by the end of 2014	

Goal #4: Enhance Joint Preparedness for Environmental Response

B2020 Obj.	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
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.							
45	Develop an emergency response plan for the maquiladoras in Brecha E-99 in Reynosa,Tamaulipas	CAMPIR (Comite de Ayuda Mutua del Parque Industrial Reynosa) (Reynosa Industrial Park Mutual Aid Committee)	$10,000	EPA Border Grant thru BECC	Dr. Emilio Sonderegger Arriola emilio.sonderegger@landisgyr.com	???	Project On-Hold
46	Hold a second "knowledge exchange" on risk mapping for first responders on both	Fire departments from Texas and	$30,000(?)	EPA Border 2012 and	Paige Delgado (EPA), Delgado.paige@epa.	Hold the exchange during the first half of	A first exchange was held in July 2012

	sides of the Lower Rio Grande Valley in Texas-Tamaulipas, for the purpose of identifying and gaining access to existing sources of data on hazmat storage and determining additional needs s	Mexican municipalities in the Gulf Task Force area, EPA, TCEQ, Civil Protección Tamaulipas and Mexico Civil Protección		NORTHCOM	gov EPA Region 6	2013	In-progress
47	Hold a binational chemical-spill exercise at Bridge III between Nuevo Laredo, Tamaulipas and Laredo, Texas	Civil Protection and Fire Department of Nuevo Laredo, Tamps., and the City of Laredo Fire Department	$5,000	EPA Border Grant thru BECC	Lic. Juan Ernesto Rivera Gómez (Civil Protección de Nuevo Laredo), proteccioncivilnuevolaredo@hotmail.com or ernestorivera5775@hotmail.com	???	No permit to cross yet – on hold – Bridge #3
48	Develop a joint contingency plan for the Solidarity Bridge that involves first responders from Colombia (Nuevo León), Nuevo Laredo (Tamaulipas), and Laredo (Texas), recognizing that Colombia, which is upstream from the other two cities, is much smaller and yet shipments of hazardous materials in the area are currently directed to this bridge	Civil Protección and fire departments for both Colombia and Nuevo Laredo, CODEFRONT, and the City of Laredo	$5,000 - will be looking for funders	EPA, COCEF, PROFEPA, and Protección Civil	Jorge Camacho, Protección Civil)	Add appropriate information related to the Solidarity Bridge to the Joint Contingehcy Plan for Laredo and Nuevo Laredo by the end of 2013.	Joint mock exercises have taken place.
49	Finish updating the 1998 Cross-Border Contingency Plan between the sister cities of Laredo, Texas and Nuevo Laredo, Tamaulipas, in order to improve emergency response communication and protocols.	Laredo Fire Department, Protección Civil de Nuevo Laredo, and CILA	No cost	City of Laredo and Nuevo Laredo	Eloy Vega (City of Laredo Fire Department) evega@ci.laredo.tx.us Ernesto Rivera (Protección Civil de Nuevo Laredo) proteccioncivilnuevol	Hold new meetings of the staff of the two cities in 2013 in order to re-visit the language of the draft revision and possibly develop alternative language.	A draft version of the plan was completed, but the Laredo City Council has postponed approval because of security and personnel concerns

					aredo@hotmail.com		
50	Update and improve the Cross-Border Contingency Plans for emergency response for the sister-city pairs of (a) Eagle Pass, Texas and Piedras Negras, Coahuila and (b)and Del Rio, Texas and Ciudad Acuna, Coahuila, which will include risk analysis and development of risk maps.	City of Eagle Pass, Municipio de Piedras Negras, City of Del Rio, Municipio de Ciudad Acuña, BECC, and the Rio Grande Institute	$130,000	EPA Border Grant thru BECC	Bill Skeen (Rio Grande Institute), Bskeen@apttx.com	Finalize and sign both revised plans by the end 2013.	In the first half of 2012 the Rio Grande Institute conducted two workshops to seek input on cross-border emergency response protocols and identify transboundary risks.

Multi-Goal Projects

B 2020 Obj.	Description of Project	Collaborating Organizations	Anticipated Cost	Source(s) of funding	Points of Contact	2013-2014 Target	Progress Towards Target
Projects Potentially related to Air Quality, Water, Water Quality, and Waste Management							
51	Organize educational campaigns featuring training sessions for health professionals, health students, and promotoras followed by community outreach in the Laredo and Harlingen areas in Texas, addressing how to reduce pre-natal and childhood exposure to pesticides, lead, solvents, second-hand tobacco, and diesel exhaust	The University of Texas Health Science Center in San Antonio	$50,000	EPA Border 2012 Grant Program thru BECC	Claudia Miller, M.D., MillerCS@uthscsa.edu or steer@uthscsa.edu	Complete the project by the end of 2013.	In Progress
52	Conduct educational workshops on safe handling and disposal of pesticides for farm workers in Laredo and the Lower Rio Grande Valley of Texas	Migrants in Action – Weslaco, Texas	$20,000	EPA Border Grant thru BECC	Noemi Ochoa (Association of Farmworker Opportunity Programs), ochoa@afop.org	Complete the project by the end of 2013.	In progress – 1st presentations will take place in Laredo on October 18
53	Identify the sources of environmental health hazards through a "knowledge	Texas A&M Health Science Center,	$50,000	EPA Border 2012 Grant	Genny Carrillo (Texas A&M Health	Hold the "knowledge exchange" workshop	The project began on

	exchange" workshop and establish a binational database on epidemiological data related to these hazards	School of Rural Public Health, PAHO, BECC, HIDA-REY COBINA, Hidalgo County Health Dept.		Program thru BECC	Science Center, School of Rural Public Health), gcarrillo@srph.tamhsc.edu	and establish the database by the end of 2013.	April 1, 2012.
54	Address children's environmental health issues in Laredo, Texas by surveying a sample of homes and identifying health risks, tracking reported exposures through selected hospitals and clinics, developing and implementing a public outreach campaign regarding the identified risks, and identifying and publicizing two relevant online courses available for physicians	Laredo Health Department	$50,000	EPA Border 2012 Grant Program thru BECC	Waldo Lopez (City of Laredo Health Department) wlopez@ci.laredo.tx.us	Complete the project by the end of 2014.	As of May 2012, the project team had started the survey of homes and the tracking of data from hospitals and clinics.

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	EPA	BECC	EPA	BECC	JOINT DECISION *(EPA-BECC)*		NO.	Title	Name
1	YES	YES	YES	YES	YES	**1-TS**	1	Dr.	Juan Pedro
2	YES	YES	YES	YES	YES	**19-TS**	2		Jose Luis
3	YES	YES	YES	YES	YES	**1-FS**	1	Ocean.	Heberto
4	YES	YES	YES	YES	YES	**25-FS**	25		Oscar Alejandro

5	YES	YES	YES	YES	YES	**31-FS**	31	Chief	Rogelio
6	NO	YES	YES	YES	YES	**11-TS**	11		Juan Armando
7	MAYBE	MAYBE	NO	YES	YES	**18-TS**	18		Gerardo
8	NO	YES	MAYBE	MAYBE	YES	**22-FS**	22	Ocean.	Heberto
9	YES	MAYBE / YES	NO	YES	YES	**12-FS**	12	Ph.D	Kim D.

10	MAYBE	MAYBE / YES	YES	MAYBE / YES	YES	**4-FS**	4	Ing.	Víctor Manuel
11	MAYBE	MAYBE / YES	MAYBE	MAYBE / YES	YES	**9-FS**	9		David
12	YES	NO	MAYBE	MAYBE / YES	YES / overlap activities	**2-FS**	2		Alicia
13	YES	MAYBE / NO	YES	NO		**26-FS**	26	Ing.	Akelao
14	YES	MAYBE / NO	YES	MAYBE / NO	YES	**17-FS**	17		Grace
	YES	YES	YES	MAYBE / NO	YES	**24-FS**	24	Dr.	Juan Antonio

	YES	MAYBE/YES			NO	**16-FS**	16	Ph.D	Wolfram Friedrich

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Schaffler	wfschaffler@tamiu.edu

SOLTA1	
Project Applicant	**Proposal**
Universidad Autónoma de Ciudad Juárez	**Programa Sustentable de Disposición de Lodos Residuales o Biosolidos en Suelos Agrícolas**
Federación Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.	**Vivienda sustentable y resiliente area poniente en Ciudad Juárez, Chihuahua**
Subsecretaria de Medio Ambiente	**Programas Municipales de Residuos Sólidos Urbanos en Tamaulipas**
Secretaría de Medio Ambiente del Estado de Coahuila de Zaragoza	**Coordinación intersectorial para el adecuado manejo de residuos eléctricos-electrónicos**

City of Harlingen Fire Department	**Binational Tabletop and Functional Exercises between the cities of Harlingen and Matamoros**
Instituto Tecnológico de Ciudad Juárez	**Infraestructura verde en espacio publico verde de Avenida Valle del Sol**
Universidad Autónoma de Chihuahua – Facultad de Zootecnia y Ecología	**Mejoramiento de servicios ambientales en ranchos ganaderos mediante el pastoreo**
Secretaría de Desarrollo Urbano y Medio Ambiente	**Eficiencia Energética en sistemas de alumbrado público municipal de Tamaulipas**
Texas A&M University-Kingsville	**Decision Making Tool (DMT^{G}) for Determining LID Stormwater Detention**

Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	**Sistema Integral de Reciclaje Sustentable en Residuos Electricos y Electrónicos**
The University of Texas at Austin	**The Rio Grande/Río Bravo Water Quality Initiative**
Brownsville Public Utilities Board	**Fat, Oil and Grease (FOG) Public Outreach Campaign**
Junta de Aguas y Drenaje de la Ciudad de Matamoros	**Difusión y concientización al reglamento para el control de descargas**
City of Pharr, Recycling Center	**Lets Clean it Up and Green it Up**
Universidad Autónoma de Tamaulipas, Facultad de Comercio, Administración y Ciencias Sociales de Nuevo Laredo	**Reforma Legislativa y Educación Ambiental**

Texas A&M International University	**Building Binational Networks on Environmental Issues**

5-010

Description	GOAL	OBJECTIVE	PM	TYPE OF PROJECT	REGION
The Universidad Autonoma de Ciudad Juarez proposes to advance on Goal 3, Objective 1 by developing an appropriate training program for farmers and agricultural technicians. The grant will help leverage partnership and funds with $19,941 from federal mexican programs like SAGARPA And CONAGUA and establish a sustainable program for recycling biosolids in agricultural land through a committee of the use of biosolids as well as an educational and training program that will help promote sustainability.	3	1	JH	1	3ST
The NGO called *Federación Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.* , proposes to advance on the Fundamental Strategy of Building Capacity towards Climate Change Resiliency by the implementation of green construction practices through technical assitance and supervision. The grant will help leverage funds with $105,600 from the Federación Mexicana de Asociaciones Privadas to deliver a catalogue of mechanisms, tools and technologies to improve energy efficiency, construction and equipment for resilience through green infrastructure for low-income housing and will link the results of the project with the housing microfinance project from Federación Mexicana de Asociaciones Privadas to help promote sustainability.	FS-CC	N/A	AH	1	3ST
The Subsecretaria del Medio Ambiente from the state ofTamaulipas, proposes to advance on Goal 3, by having a strategic planing document to describe the current situation regarding the solid waste in Rio Bravo and Valle Hermoso and carry out a diagnosis of illegal dump sites in the municipalities. The grant will help leverage partnership with the amount of S 11,227 from the state government for staff salaries.	3	1	JH	1	4ST
The Secretaria del Medio Ambiente from the state of Coahuila, proposes to advance on Goal 3, by educating the public about the benefits of reuse of electronic products, the need to practice responsible consumption, as well as the importance of giving an appropriate final disposal to these waste material. The grant will help leverage partnership of S 62,568 from the state government and municipality resources. The project will install a permanent collection center in Ciudad Acuña, Coahuila, and will be sustained in the long term from through the installation of an intersectoral group.	3	1	JH	1	4ST

The City of Harlingen Fire Department, proposes to advance on Goal 4, Objective 2 by the implementation of a hazmat training, a tabletop, and a functional exercise. Proposed Scenario consists of a tanker trailer roll-over accident carrying a petro product spilling into Mexico waterways. The City of Harlingen presnts a sister city agreement since 2014 to support mutual emergency response aid. Project will involve partnering with first responders from Matamoros and Cameron County. The project will help to promote sustainability by practicing the last update of the sister contingency plan to evaluate its reliability.	4	2	BD	2	4ST
The Instituto Tecnologico de Ciudad Juarez, proposes to advance on the Fundamental Strategy of Building Capacity towards Climate Change Resiliency by the implementation of a demonstrative project of techniques of green infrastructure in a public park. The grant will help leverage funds with $5,506 in wages to deliver the implementation of passive systems for harvesting of the rainwater, strengthening the inventory of native vegetation; Incorporation and use of existing urban infrastructure and will Involve residents in the design, commissioning and maintenance to help promote sustainability.	FS-CC		AH		3ST
The Universidad Autonoma de Chihuahua, proposes to advance on Goal 1, objective 1 by the implementation of a sustainable solution to mitigate dust control in the areas of Ascension and Palomas in Chihuahua. The proposed solution is to implement a planned pasturage process to grow grassland. Project will implement a baseline monitoring system and training on recovery practices of 68,000 has. The grant will help leverage funds with $25,600 and in partnership with several livestock associatiosn and the Comision Nacional de Areas Naturales Protegidas.	1	1	BD	1	3ST
The Secretaria de Desarrollo Urbano y Medio Ambiente, from the government of Tamaulipas, proposes to advance on Goal 1, Objective 2 by the implementation of a integral training program.The objective is to train 30 municipal officers from 10 municipalities in energy efficiency (municipal street lighting and energy efficiency on building and facilities), as well as the implementation of a train the trainer program. The grant will help leverage funds with $5,000 in salaries and facilities from the Government. The project will help to promote sustainability by replicating best practices along the state.	1		BD		4ST
The Texas A&M University – Kingsville, proposes to advance on Goal 2 Objective 2 by developing a software(modeling) to mitigate storm water floatables on localized flooding sites. The intention is to reduce the detention pond footprint by allowing the storage volume to be incorporated to design detention calculations. Project will also include 4 workshops and a website development. The grant will help leverage funds of $7,000 on staff time. The project will help to promote sustainability by maintaining the operation capability of the model.	2	2	BD	2	4ST

The Grupo Ecologico Green Tec-Osos from the Insituto tecnologico de Piedras Negras, proposes to develop sustainable practices in the handling of e-waste materials to enhance the value of their respective markets and to support the recovery and recycling of electronic and electrical waste. The grant will help leverage funds with $39,840 in wages to give presentatios and to generate awareness on solid waste reduction and sustainable recycling of electrical and electronic waste, to help promote sustainability.	3	2	JH	2	4ST
The University of Texas at Austin (UT), proposes to advance on Goal 2, Objective 3 by providing information to local binational stakeholders, about sources of water pollution to the Rio Grande and by gathering information from key stakeholders about potential local solutions to the river's water quality problems. The project proposes to organize 5 workshops and develop MOU among stakeholders. The grant will help leverage funds with $40,109 of staff time, and committed coordination with the IBWC.	2	3 & 3a	BD	1	4ST
The Brownsville Public Utilities Board, a government entity, proposes to advance on Goal 2, Objective 2 by implementing a public FOG campaign, targeting businesses with violations and reaching out to them. It will also provide education through community outreach and public awareness through 4 quarterly workshops. The grant will help leverage funds of $49,561 from the City.	2	2	BD	2	4ST
The Junta de Aguas y Drenaje from the City of Matamoros, proposes to advance on Goal 2 Objective 2 by providing training to businessess and industries about the control of wastewater discharges in Matamoros. There will be 10 workshops and wastewater testing. The goal is to train 50% of the users involved in the implementation of this Regulation Program to control discharges and perform wastewater FOG testing to 10% of users. The grant will help leverage funds with $50,000 on staff and facilities. The project promotes sustainability by permanently implementing the Regulation Program.	2	2	BD	2	4ST
The City of Pharr Recycling Center, a governmental entity, proposes to advance on Goal 3, Objective 1 by developing final disposal events to divert items from the landfill, as well as workshops aimed to generate awareness on recycling opportunities. The grant will help leverage funds from the City of Pharr, of $123,397.45 to continue with a cleanup program to reduce illegal dumping in the streams of hazardous domestic waste , used oil and used electronics to help promote sustainability	3	1 & 2	AH	1 & 2	4ST
The Universidad Autónoma de Tamaulipas, proposes to advance on Goals 2, 3 and 5 by improving the implementation of environmental legislation, strengthen the environmental cooperation and exchange of information between Nuevo Laredo, Tamaulipas and Laredo, Texas, and train environmental inspectors and staff of the municipal environmental unit. The grant will help leverage funds with $5,500 from Universidad Autónoma of Tamaulipas.	5&2&3		AH		4ST

Texas A&M International University, proposes to advance on Goals 5, Objective 4 by developing a "Best Practices" Seminar series for Government and private stakeholders in the topic of "Compliance and Environmental Stewardship". The grant will help leverage funds with $49,9100 from TAMIU to conduct 5 Seminars designed to exchange information and improve understanding of each Country's respective compliance and enforcement programs and tools including field studies. to help promote sustainability A permanent updating of the reports of all stakeholders that participate in the project and send their information will be available to the general public at the website of the Binational Center of the Texas A&M International University.	5	4	AH	1	4ST

TOTAL AMOUNT	LEVERAGE LETTERS	LEVERAGE AMOUNT	AMOUNT REQUESTED
$ 68,451.00	8	$ 19,941.00	$ 48,510.00
$ 155,600.00	2	$ 105,600.00	$ 50,000.00
$ 32,093.00	3	$ 11,227.00	$ 20,866.00
$ 79,345.42	6	$ 62,568.22	$ 16,777.20

$ 60,000.00	$ -	2	$ 60,000.00
$ 43,204.00	$ 5,506.00	3	$ 48,710.00
$ 41,388.54	$ 25,611.46	5	$ 67,000.00
$ 9,385.00	$ 4,925.00	1	$ 14,310.00
$ 38,885.00	$ 7,000.00	1	$ 45,885.00

$ 36,054.00	$ 39,840.00	4	$ 75,894.00
$ 58,575.00	$ 78,422.00	1	$ 136,997.00
$ 25,000.00	$ 49,561.00	2	$ 74,561.00
$ 25,000.00	$ 50,000.00	2	$ 100,000.00
$ 36,390.00	$ 123,397.45	3	$ 159,787.45
$ 11,000.00	$ 5,500.00	4	$ 16,500.00

$ 49,910.00	$ 53,318.00	1	$ 103,228.00

Discussion comments

Can it be aligned with another Grant?
Include more detail on specific environmental benefits, not only landscaping or benefitting the park
Partner with other agricultural agencies to strengthen the BMP. Consider bitantional efforts, including a US ranch
Requires more details on proposal.
Ask EPA if there are ongoing efforts in this project

Coordinate between the City of Matamoros, and Brownsville to integrate overlapping activities as part of both proposals.. Reduction on budgets required. Coordination should be set immediately with possible grantees.		
	Possible granted amount	**Available amount**
This proposal was originally selected, but was not considered during the discussion on our last call	**$ 521,034.74**	**$601,437**

A sugestion from EPA on this proposal for possible selection was risen; however, in consultation with BECC´slegal department, it is not possible to pay salaries to governement officials as requested by this proposal, so it cannot be considered for selection

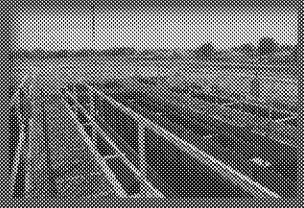
Unallocated funds

$80,402

Cell: U14
Comment: jmarruffo:
Original proposed budget: 30,778
Suggested budget: 25,000

Cell: U15
Comment: jmarruffo:
Original proposed budget: 50,000
Suggested budget: 25,000

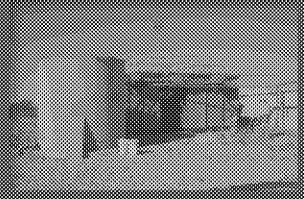
EPA Region 6



QUARTERLY REPORT

October - December 2017

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-00F92501



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-00F92501

Grant Period: Sep. 17, 2004 – Aug. 31, 2019

REPORTING PERIOD:

October – December 2017

TO:

Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:

Javier Torres
North American Development Bank
Technical Assistance Manager

January 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-00F92501

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☒ October 1 – December 31, 2017, Reporting period: report due on January 30, 2018
- ☐ January 1 – March 31, 2018, Reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, Reporting period: report due on July 30, 2018
- ☐ July 1 – September 30, 2018, Reporting period: report due on October 30, 2018
- ☐ October 1 – December 31, 2018, Reporting period: report due on January 30, 2019
- ☐ January 1 – March 31, 2019, Reporting period: report due on April 30, 2019
- ☐ April 1 – June 30, 2019, Reporting period: report due on July 30, 2019
- ☐ July 1 – August 30, 2019, Reporting period: report due on September 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

None to report.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

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- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

GOAL 2: ***Water – Improve Access to Clean and Safe Water***

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

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Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.
- **Project type 4:** Develop a hazardous materials risk analysis.

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GOAL 5. – Enhance *Compliance Assurance and Environmental Stewardship*

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

Summary of approved Work Plan activities performed during the reporting quarter.

Projects in progress during reporting period:

Project ID	Goal	Objective	Project Name	Status
20298	3	1	Sewage Sludge and Biosolids Agricultural Soils Project in the Valle de Juarez, Chihuahua	Project Status: Activities for this quarter include attending the meetings of District Rural Development Councils convened by SAGARPA to continue the dissemination and activation of the Commission for the Use of Biosolids; support UACJ researchers in the preparation and dissemination of brochures for agricultural producers. Collect and analyze all the information that has been obtained in the activities and support the Project Director in writing the project's final report. The final report will be delivered by March 31, 2018.
20303	FS	NA	Healthy and Resilient Housing in west Ciudad Juarez, Chihuahua	Project Status: Project progress of 98%; ecological technologies completed in 50 homes, manual on energy savings

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				completed as well. Project will be finished on January 2018, waiting on final report and factsheet.
20302	FS	NA	Green Infrastructure in Public Space on Valle del Sol Avenue, Ciudad Juarez, Chihuahua	Project concluded on December 2017. Some of the most relevant outputs and outcomes are: Monitoring of rain water volume occurred during17 months, from July 2016 to November 2017, with a total volume collected of 472,502.33 gallons of rainwater. To have a clearer understanding of the results, consider a 12-month period where precipitation was of 13.79 in, resulting in a capture volume of 436,203 gal. Regarding the contaminants analyses, there was not enough rainwater volume to have a representative sample to be tested. In reference to the vegetation, there was an acceptable surviving index of the planted trees and bushes. The park has not had the need for irrigation, since rainwater does its part. Finally, with the green infrastructure project, the social value of the park increased.
20297	2	2	Decision Making Tool (DMT[G]) for Determining LID Stormwater Detention, Brownsville, Texas	Project Status: Activities for this quarter include: the development of a website for the project; sponsor finalized the QAPP and was approved by EPA; completed the modeling of outcomes and developed the DMT in a friendly format. A presentation was prepared for a binational workshop held on October 2017 in Brownsville, TX. Project extended to conclude by March 2018.

Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

None to report.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

None

Resolutions to Problems Previously Reported.

None to report.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

Continue with the development of active projects.

Discuss what key personnel did on the project.

Briselda Duarte and Jorge Hernandez coordinated project development activities with EPA and sponsors. Marielena Constandse prepared this report and provided Contract Administration. Javier Torres provided Grant Administration coordination with EPA. Joaquin Marruffo supervised the execution of the project activities.

Discuss any changes in key personnel.

No personnel changes have taken place.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

None to report.

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement.***

TABLE 1

Summary of Quarterly Expenses by Category (Report Period October 1 to December 31, 2017)

Work Plan Tasks	Approved Work Plan Budget	Previously Expended	Expenses this Quarter	Total Cumulative Expenses
Task A- Projects	$ 278,255.00	$184,150	$8,279	$192,428
Task B- Emergency Response	$ 26,290.00	$25,055	$0	$25,055
Indirect Cost	$30,455.00	$20,920	$828	$21,748
TOTAL Cumulative Expenses	**$335,000.00**	**$230,125**	**$9,106**	**$239,231**

TABLE 2			
Budget Categories (programmatic costs only)	**Task A Projects**	**Task B Emergency Response**	**TOTAL Quarterly Expenses**
Personnel	$0	$0	$0
Fringe Benefits	$0	$0	$0
Travel	$0	$0	$0
Equipment	$0	$0	$0
Other (specify)	$8,278.50	$0	$8,278.50
TOTAL Direct Charges	$8,278.50	$0	$8,278.50
Indirect Costs	$827.85	$0	$827.85
TOTAL Cumulative Expenses	$9,106.35	$0	$9,106.35

[1]*EPA defines equipment as items that cost $5,000 or more with a useful life of more than one year. Items costing less than $5,000 are considered supplies.*
[2]*Applicants must comply with the procurement procedures contained in 40 CFR 31.36, or for non-profits, with 40 CFR30.40.*

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** January 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20298	3	1	**Sewage Sludge and Biosolids Agricultural Soils project in the Valle de Juarez, Chihuahua**	Universidad Autónoma de Cd. Juárez	Jorge Hernandez (PM)	$ 48,510.00 $ 11,743.08	**Project Status:** Activities for this quarter include attending the meetings of District Rural Development Councils convened by SAGARPA to continue the dissemination and activation of the Commission for the Use of Biosolids; support UACJ researchers in the preparation and dissemination of brochures for agricultural producers. Collect and analyze all the information that has been obtained in the activities and support the Project Director in writing the project's final report. The final report will be delivered by March 31, 2018
2	20303	FS	N/A	**Healthy and Resilient Housing in west Ciudad Juarez, Chihuahua**	Federación Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.	Briselda Duarte (PM)	$ 50,000.00 $ 40,866.98	**Project Status:** Project progress of 98%; ecological technologies completed in 50 homes, manual on energy savings completed as well. Project will be finished on January 2018, waiting on final report and factsheet.
3	20302	FS	N/A	**Green Infrastructure in Public Space on Valle del Sol Avenue, Ciudad Juarez, Chihuahua**	Instituto Tecnológico de Ciudad Juarez	Joaquín Marrufo (PM)	$ 43,204.00 $ 42,231.02	**Project Status:** Project concluded on December 2017. Some of the most relevant outputs and outcomes are: Monitoring of rain water volume occurred during 17 months, from July 2016 to November 2017, with a total volume collected of 472,502.33 gallons of rainwater. To have a clearer understanding of the results, consider a 12-month period, where precipitation was of 13.79 in, resulting in a capture volume of 436,203 gal. Regarding the contaminants analyses, there was not enough rainwater volume to have a representative sample to be tested. In reference to the vegetation, there was an acceptable surviving index of the planted trees and bushes. The park has not had the need for irrigation, since rainwater does its part. Finally, with the green infrastructure project, the social value of the park increased.
						Amount Approved	$ 141,714.00	
						Amount Disbursed	$ 94,841.08	

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20270	4	2	**Hazardous Materials First Responders Binational Training in McAllen, Mission, Pharr, TX and Reynosa, Tamaulipas**	City of McAllen Juan Gloria (956)681-2540 jgloria@mcallen.net	Marielena Constandse (CO) / Briselda Duarte (PM)	$ 25,055.00 $ 25,055.00	**Project Status:** Project concluded on February. Some of the significant project contributions are: - Increase hazmat response skills and capabilities to first responders in McAllen, Mission and Pharr Fire Departments and first responders from northern Mexico. - Equipment will also be used in future binational trainings.
2	20255	3	1	**Comprehensive Solid Waste Management Project in Rio Bravo and Valle Hermoso, Tamaulipas**	Secretaria de Medio Ambiente	Jorge Hernandez (PM)	$ 19,871.16 $ 19,871.16	**Project Status:** The two municipal programs have been completed, and in August 10 and 24 they were presented for approval by the respective city councils. Some of the significant project contributions are: + The generation and waste composition studies allow both communities to know the type and amount of waste generated per inhabitant and could be marketed. The studies also calculate the areas required for the final disposal site according to their generation. + Both programs have been completed, and presented for approval by the respective city councils.
3	20255	3	1	**Interagency coordination for the management of electronic and electrical waste in Ciudad Acuna and Piedras Negras, Coahuila**	Secretaria de Medio Ambiente del Estado de Coahuila de Zaragoza	Jorge Hernandez (PM)	$ 16,898.67 $ 16,898.67	**Project Status:** The project concluded in March 2017. The results of the project are: Collection of 56 tons of electronic waste (25 tons were targeged), which included 3 campaigns of massive collection of e-waste in several municipalities, 36 public and private organizations were trained and supported the campaign. A permanent collection of electronic waste was opened in Ciudad Acuña.

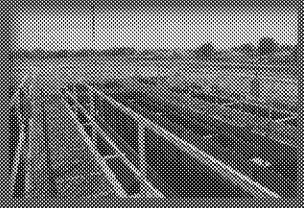
4	20297	4	2	**Binational Tabletop and Functional Exercises between Harlingen, TX and Matamoros, Tamaulipas.**	City of Harlingen Fire Department	Briselda Duarte (PM)	$ 44,692.30 $ 44,692.30	**Project status:** The project concluded in August. Some of the significant project contributions are: -Training of 19 officers and students from Harlingen (2), Mission (2), Brownsville (1) and Matamoros (14). -Harlingen and Matamoros have established the ability to implement standardized response and real time communication in the event of Hazardous Materials incidents. -A foundation for enhanced emergency response and cooperative incident management has been created
5	20297	2	2	**Decision Making Tool (DMT^{G})** for Determining LID Stormwater Detention in Bronwsville, Texas	Texas A&M University-Kingsville	Jorge Hernandez (PM)	$ 38,885.00 $ 15,769.89	**Project Status:** Activities for this quarter include: the development of a website for the project; sponsor finalized the QAPP and was approved by EPA; completed the modeling of outcomes and developed the DMT in a friendly format. A presentation was prepared for a binational workshop held on October 2017 in Brownsville, TX. Project extended to conclude by March 2018

Updated December 31, 2017

Amount Approved	$	145,392.13
Amount Disbursed	$	122,277.02

Total Approved	$	287,106.13
Total Disbursed	$	217,118.10

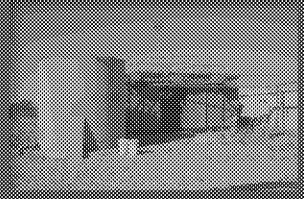
EPA Region 6



QUARTERLY REPORT

October - December 2017

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-01F04901



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-01F04901

Grant Period: August 12, 2015 – October 31, 2019

REPORTING PERIOD:

October - December 2017

TO:

Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:

Javier Torres
North American Development Bank
Technical Assistance Manager

January 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-01F04901

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☒ October 1 – December 30, 2017, Reporting period: report due on January 30, 2018
- ☐ January 1 – March 31, 2018, Reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, Reporting period: report due on July 30, 2018
- ☐ July 1 – September 30, 2018, Reporting period: report due on October 30, 2018
- ☐ October 1 – December 30, 2018, Reporting period: report due on January 30, 2019
- ☐ January 1 – March 31, 2019, Reporting period: report due on April 30, 2019
- ☐ April 1 – June 30, 2019, Reporting period: report due on July 30, 2019
- ☐ July 1 – August 30, 2019, Reporting period: report due on October 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

No growth is expected for the projects under-development at this time.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

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GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

Objective 5. - By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Possible projects could include: Border-wide training for border stakeholders in instituting and sustaining urban energy efficiency measures; green building training/workshops; forums in which states, localities, non-governmental organizations (NGOs) and industry can share program information and technologies; and energy efficiency co-benefits through reduction of criteria air contaminant emissions (stationary and vehicle sources)

GOAL 2: *Water – Improve Access to Clean and Safe Water*

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

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GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.
- **Project type 4:** Develop a hazardous materials risk analysis.

GOAL 5. – Enhance ***Compliance Assurance and Environmental Stewardship***

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

Summary of approved Work Plan activities performed during the reporting quarter.
Projects in progress during reporting period:

Project ID	Goal / Fund. Strategy	Objective	Project Name	Status
20288	1	1	Improvements to Environmental Services in Cattle Ranches via Livestock Grazing, Ascensión, Chihuahua.	Project Status: Air and soil sampling was scheduled for completion; the project will be finished by January 2018.
20293	5	4	Legislative Reform and Environmental Education, Nuevo Laredo, Tamaulipas.	Project Status: Project concluded.
20286	3	2	Comprehensive E-Waste Management in Piedras Negras, Coahuila and Eagle Pass, Texas.	Project Status: Project concluded.
20290	2	3	The Rio Grande/Río Bravo Water Quality Initiative, Laredo, Texas.	Project Status: CILA requested a new facilitator to join the team; as a result, focus group meetings will likely occur in February. A project extension request was approved; completion date is June 2018.
20291	2	2	Fat, Oil and Grease (FOG) Public Outreach Campaign, Brownsville, Texas.	Project Status: Project concluded.
20294	3	1	Let's Clean it Up and Green it Up, Pharr, Texas	Project Status: Project concluded.

Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

There are no performance outputs and outcome to report at the project level.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

No problems have been reported.

Resolutions to Problems Previously Reported.

No problems have been reported.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

- Coordinate with the sponsors the implementation of the active projects in accordance with the approved workplans.

- Nine projects were preselected for implementation and funding for this grant. Activities for the next three months include coordinating with the sponsors the implementation of the projects in accordance with the approved workplans.

- Five projects were preselected for Three State Region under this grant:
    1. Climate and Air Quality Network UACJ, Ciudad Juarez, CHIH.
    2. Reduction of Emissions Through Collective Transportation Infrastructure, Ciudad Juarez, CHIH / El Paso, TX.
    3. Safe Drinking Water for US/Mexico border Colonias, El Paso, TX and Ciudad Juarez, CHIH.
    4. RESET 17: Innovation for the Future, El Paso, TX and Ciudad Juarez, CHIH.
    5. Green Infrastructure in the Paso del Norte Region: Seminar, Implementation Guide, Ciudad Juarez, CHIH.

- Four projects were preselected for Four States Region under this grant:
    1. Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH and Del Río, TX.
    2. Mitigating Localized Flooding - Development of a Green Infrastructure Master Plan, Mercedes, TX.
    3. Agrochemicals and their Risks to Health and the Environment, Frontera de Tamaulipas
    4. Transforming Urban Compacted Land into Infiltration Field, Edinburg, TX

Discuss what key personnel did on the project.

Joaquin Marruffo provided overall project coordination as well as the communication with EPA. Briselda Duarte, and Jorge Hernandez manage the implementation of the projects in close coordination with EPA. Marielena Constandse prepared this report. Marielena Constandse, Abril Quiroz and Javier Torres provided RFP coordination and Grant Administration.

Discuss any changes in key personnel.

There are no changes to report.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

N/A

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant

agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement.***

TABLE 1				
Summary of Quarterly Expenses by Category (Report Period October 1 to December 31, 2017)				
Work Plan Tasks	**Approved Work Plan Budget**	**Previously Expended**	**Expenses this Quarter**	**Total Cumulative Expenses**
Task A - RFP	$66,234	$78,385.46	$16,204	$94,589
Task B - Projects	$600,584	$129,795.82	$22,556	$152,352
Task C - Logistics	$65,000	$0	$0	$0
Indirect Cost	$73,182	$20,818.14	$3,876	$24,694
TOTAL Cumulative Expenses	**$805,000**	**$228,999**	**$42,636**	**$271,636**

TABLE 2				
Budget Categories (programmatic costs only)	**Task A- RFP**	**Task B- Projects**	**Task C- Logistical Support**	**TOTAL Quarterly Expenses**
Personnel	$14,831.25	$0	$0	$14,831.25
Fringe Benefits	$1,372.56	$0	$0	$1,372.56
Travel	$0	$0	$0	$0
Contractual	$0	$0	$0	$0
Other (specify)	$0	$22,556.28	$0	$22,556.28
TOTAL Direct Charges	$16,203.81	$22,556.28	$0	$38,760.09
Indirect Costs	$1,620.38	$2,255.63	$0	$3,876.01
TOTAL Cumulative Expenses	$17,824.19	$24,811.91	$0	$42,636.10

[1]EPA defines equipment as items that cost $5,000 or more with a useful life of more than one year. Items costing less than $5,000 are considered supplies.
[2]Applicants must comply with the procurement procedures contained in 40 CFR 31.36, or for non-profits, with 40 CFR30.40.

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** January 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20288	**Improvements to Environmental Services in Cattle Ranches via Livestock Grazing, Ascensión, Chihuahua.**	Universidad Autónoma de Chihuahua – Facultad de Zootecnia y Ecología	Ascension, Chih.	Briselda Duarte (PM)	7/15/2016	$ 41,388.00	**Project Status:** Air and soil sampling was scheduled for completion; the project will be finished by January 2018.
						7/31/2017	$ 23,031.84	

Amount Approved	$	41,388.00
Amount Disbursed	$	23,031.84

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20283	**Energy Efficiency Workshop for Public Lighting Systems, Reynosa, Tamaulipas.**	Secretaria de Desarrollo Urbano y Medio Ambiente	Reynosa, Tamps.	Briselda Duarte (PM)	2/22/2016 5/2/2016	$ 9,330.33 $ 9,330.33	Project Status: Concluded on August 2016. Technical training provided to 30 technical officials from the municipalities of Nuevo Laredo, Guerrero, Mier, Miguel Aleman, Camargo, Diaz Ordaz, Reynosa, Rio Bravo, Valle Hermoso and Matamoros, Tamaulipas. Thirty (30) energy efficiency guidelines including maintenance recommendations to reduce Kwh electrical consumption were revised.
2	20293	**Legislative Reform and Environmental Education, Nuevo Laredo, Tamaulipas.**	Universidad Autónoma de Tamaulipas en Nuevo Laredo	Nuevo Laredo, Tamps.	Briselda Duarte (PM)	5/26/2016 5/2/2017	$ 11,000.00 $ 9,078.04	Project Status: Project Status: Work Plan activities were completed. Nuevo Laredo upgraded its municipal code. More than 2000 students and 20 inspectors informed.
3	20295	**Comprehensive E-Waste Management in Piedras Negras, Coahuila and Eagle Pass, Texas.**	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	Piedras Negras, Coahuila and Eagle Pass, Texas	Jorge Hernandez (PM)	1/21/2016 7/18/2017	$ 35,054.00 $ 25,270.21	Project Status: Project concluded on August 2017. Some of the project significant contributions are: 47 tons of e-waste collected in Piedras Negras and 15 tons in Eagle Pass. 40,000 inhabitants were visited in 22 colonias in Piedras Negras. A workshop was conducted at ITPN for 55 Green TEC associates. A health and environment conference was held to promote the e-waste recycling. The main promotion of the project was a walk performed in March 2016 with more than 1200 participants. A permanent collection center was established in the public works department at Piedras Negras.
4	20290	**The Rio Grande/Rio Bravo Water Quality Initiative, Laredo Texas**	The University of Texas at Austin	Laredo, TX.	Briselda Duarte (PM)	2/22/2016 8/31/2017	$58,575.00 $ 30,260.16	**Project Status:** CILA requested a new facilitator to join the team; as a result, focus group meetings will likely occur in February. A project extension request was approved; completion date is June 2018.
		Fat, Oil and Grease (FOG) Public			Briselda Duarte	2/22/2016	$21,471.05	**Project Status:** Project concluded on May 2017. Some of the project significant contributions are: -12.58% reduction in service calls received by BPUB

5	20/91	**Outreach Campaign, Brownsville, Texas**	Brownsville Public Utilities Board	Brownsville, TX	(PM)	2/2/2017	$ 21,471.05	related to fats, oil and grease issues. * 84 public outreach and trainings * 1713 participating residents and business owners.
6	20/92	**Air Emissions and Discharge Control Plans**	Instituto Para la Educación de la Ciudad de Pharr, Pharr-San Juan-Alamo	Pharr, Texas	Alejandro Chavez (PM)	TBD TBD	$ 25,000.00	**Project Status**: Cancelled due to an unsuccessful bid process to implement the construction phase of the project. It was important to receive the facility in the last PFP, when the municipal property is legally ready etc.
7	20/94	**Let's Clean It Up and Green It Up, Pharr, Texas**	City of Pharr, Recycling Center	Pharr, TX	Jorge Hernandez (PM)	2/22/2016 4/2/2017	$ 33,910.47 $ 33,910.47	**Project Status**: Project concluded on May 2017. Some of the project significant contributions are: The city of Pharr participated on over 100 occasions where environmental education was discussed. More than 20 meetings, 40 events and about 50 presentations were given to students and/or residents on environmental issues. During the 14-month period of the project implementation, over 20,000 used tires were collected. The project included the 96-gallon recycling containers for advertising purposes.

Updated December 31, 2017

Amount Approved	$	195,340.85
Amount Disbursed	$	129,320.26

Total Approved	$	236,728.85
Total Disbursed	$	152,352.10

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2017 PROJECTS

No.	Project ID	Goal	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1		1	**Climate and air quality network UACJ, Ciudad Juarez, CHIH.**	Universidad Autónoma de Ciudad Juárez Víctor Hernández Jacobo vihernan@uacj.mx	Ciudad Juarez, CHIH.	JH/AQ		$ 29,400.00	**Project Status:**
2		1	**Reduction of Emissions Through Collective Transportation Infrastructure, Ciudad Juarez, CHIH / El Paso TX.**	IMIP Juárez Álvaro Roberto Manuel Mora Palacios/ Alberto Nicolás López Duarte nlopez@imip.org.mx imip@imip.org.mx	Ciudad Juarez, CHIH / El Paso TX	JH/AQ		$ 61,220.00	**Project Status:**
3		2	**Safe drinking water for US/Mexico border Colonias, El Paso TX and Ciudad Juarez CHIH.**	UTEP Ivonne Santiago isantiago@utep.edu	El Paso TX and Ciudad Juarez CHIH.	BD/AQ		$ 79,636.00	**Project Status:**
4		2	**RESET 17: Innovation for the Future, El Paso, TX and Ciudad Juarez, CHIH.**	Fundación AXCEL A.C. Nancy Estrada nancy@funax.org	El Paso, TX and Ciudad Juarez, CHIH.	BD/AQ		$ 29,444.44	**Project Status:**
5		GI	**Green infrastructure in the Paso del Norte Region: Seminar, Implementation Guide, Ciudad Juarez, CHIH.**	Secretaría Técnica del Municipio de Juárez Alejandro César Loaeza Canizales Alejandro.loaeza@juarez.gob.mx aleloaeza2011@hotmail.com	Ciudad Juarez, CHIH.	JM/AQ		$ 31,000.00	**Project Status:**

Amount Approved	$ 230,700.44
Amount Disbursed	$ -

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2017 PROJECTS

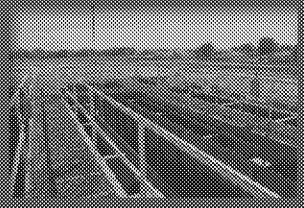
No.	Project ID	Goal / Fund. Strategy	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1		2	**Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH and Del Río, TX.**	Universidad Carolina Cecilia Pelletier Bravo pelletier.cecilia@gmail.com y/o esteban.fish@gmail.com	Ciudad Acuña, COAH and Del Río, TX.	BD/AQ		$ 26,035.00	**Project Status:**
2		2	**Mitigating Localized Flooding - Development of a Green Infrastructure Master Plan, Mercedes, TX.**	City of Mercedes Daniel Tijerina dtijerina@cityofmercedes.com	Mercedes, TX.	JH/AQ		**$30,000.00**	**Project Status:**
3		FS	**Agrochemicals and Their Risks to Health and the Environment, Tamaulipas Border area**	Secretaría de Desarrollo Urbano y Medio Ambiente Celestino Alanís Leal celestino.alanis@tamaulipas.gob.mx	Tamaulipas Border	SV/AQ		**$21,946.00**	**Project Status:**
4		GI	**Transforming Urban Compacted Land into Infiltration Field, Edinburg, TX**	The University of Texas Rio Grande Valley Andrew Lawler sponpro@utrgv.edu	Edinburg, TX	SV/AQ		**$58,925.00**	**Project Status:**

Updated December 31, 2017

Amount Approved	$ 136,906.00
Amount Disbursed	$ -

Total Approved	$	367,606.44
Total Disbursed	$	-

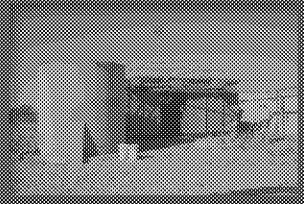
EPA Region 6



QUARTERLY REPORT

October - December 2017

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-00F92501



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-00F92501

Grant Period: Sep. 17, 2004 – Aug. 31, 2019

REPORTING PERIOD:

October – December 2017

TO:

Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:

Javier Torres
North American Development Bank
Technical Assistance Manager

January 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-00F92501

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☒ October 1 – December 31, 2017, Reporting period: report due on January 30, 2018
- ☐ January 1 – March 31, 2018, Reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, Reporting period: report due on July 30, 2018
- ☐ July 1 – September 30, 2018, Reporting period: report due on October 30, 2018
- ☐ October 1 – December 31, 2018, Reporting period: report due on January 30, 2019
- ☐ January 1 – March 31, 2019, Reporting period: report due on April 30, 2019
- ☐ April 1 – June 30, 2019, Reporting period: report due on July 30, 2019
- ☐ July 1 – August 30, 2019, Reporting period: report due on September 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

None to report.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

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- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

GOAL 2: ***Water – Improve Access to Clean and Safe Water***

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

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Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.
- **Project type 4:** Develop a hazardous materials risk analysis.

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GOAL 5. – Enhance *Compliance Assurance and Environmental Stewardship*

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

Summary of approved Work Plan activities performed during the reporting quarter.

Projects in progress during reporting period:

Project ID	Goal	Objective	Project Name	Status
20298	3	1	Sewage Sludge and Biosolids Agricultural Soils Project in the Valle de Juarez, Chihuahua	Project Status: Activities for this quarter include attending the meetings of District Rural Development Councils convened by SAGARPA to continue the dissemination and activation of the Commission for the Use of Biosolids; support UACJ researchers in the preparation and dissemination of brochures for agricultural producers. Collect and analyze all the information that has been obtained in the activities and support the Project Director in writing the project's final report. The final report will be delivered by March 31, 2018.
20303	FS	NA	Healthy and Resilient Housing in west Ciudad Juarez, Chihuahua	Project Status: Project progress of 98%; ecological technologies completed in 50 homes, manual on energy savings

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				completed as well. Project will be finished on January 2018, waiting on final report and factsheet.
20302	FS	NA	Green Infrastructure in Public Space on Valle del Sol Avenue, Ciudad Juarez, Chihuahua	Project concluded on December 2017. Some of the most relevant outputs and outcomes are: Monitoring of rain water volume occurred during17 months, from July 2016 to November 2017, with a total volume collected of 472,502.33 gallons of rainwater. To have a clearer understanding of the results, consider a 12-month period where precipitation was of 13.79 in, resulting in a capture volume of 436,203 gal. Regarding the contaminants analyses, there was not enough rainwater volume to have a representative sample to be tested. In reference to the vegetation, there was an acceptable surviving index of the planted trees and bushes. The park has not had the need for irrigation, since rainwater does its part. Finally, with the green infrastructure project, the social value of the park increased.
20297	2	2	Decision Making Tool (DMT[G]) for Determining LID Stormwater Detention, Brownsville, Texas	Project Status: Activities for this quarter include: the development of a website for the project; sponsor finalized the QAPP and was approved by EPA; completed the modeling of outcomes and developed the DMT in a friendly format. A presentation was prepared for a binational workshop held on October 2017 in Brownsville, TX. Project extended to conclude by March 2018.

Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

None to report.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

None

Resolutions to Problems Previously Reported.

None to report.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

Continue with the development of active projects.

Discuss what key personnel did on the project.

Briselda Duarte and Jorge Hernandez coordinated project development activities with EPA and sponsors. Marielena Constandse prepared this report and provided Contract Administration. Javier Torres provided Grant Administration coordination with EPA. Joaquin Marruffo supervised the execution of the project activities.

Discuss any changes in key personnel.

No personnel changes have taken place.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

None to report.

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement.***

TABLE 1

Summary of Quarterly Expenses by Category (Report Period October 1 to December 31, 2017)

Work Plan Tasks	Approved Work Plan Budget	Previously Expended	Expenses this Quarter	Total Cumulative Expenses
Task A- Projects	$ 278,255.00	$184,150	$8,279	$192,428
Task B- Emergency Response	$ 26,290.00	$25,055	$0	$25,055
Indirect Cost	$30,455.00	$20,920	$828	$21,748
TOTAL Cumulative Expenses	**$335,000.00**	**$230,125**	**$9,106**	**$239,231**

TABLE 2			
Budget Categories (programmatic costs only)	**Task A Projects**	**Task B Emergency Response**	**TOTAL Quarterly Expenses**
Personnel	$0	$0	$0
Fringe Benefits	$0	$0	$0
Travel	$0	$0	$0
Equipment	$0	$0	$0
Other (specify)	$8,278.50	$0	$8,278.50
TOTAL Direct Charges	$8,278.50	$0	$8,278.50
Indirect Costs	$827.85	$0	$827.85
TOTAL Cumulative Expenses	$9,106.35	$0	$9,106.35

[1]*EPA defines equipment as items that cost $5,000 or more with a useful life of more than one year. Items costing less than $5,000 are considered supplies.*
[2]*Applicants must comply with the procurement procedures contained in 40 CFR 31.36, or for non-profits, with 40 CFR30.40.*

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** January 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20298	3	1	**Sewage Sludge and Biosolids Agricultural Soils project in the Valle de Juarez, Chihuahua**	Universidad Autónoma de Cd. Juárez	Jorge Hernandez (PM)	$ 48,510.00 $ 11,743.08	**Project Status:** Activities for this quarter include attending the meetings of District Rural Development Councils convened by SAGARPA to continue the dissemination and activation of the Commission for the Use of Biosolids; support UACJ researchers in the preparation and dissemination of brochures for agricultural producers. Collect and analyze all the information that has been obtained in the activities and support the Project Director in writing the project's final report. The final report will be delivered by March 31, 2018
2	20303	FS	N/A	**Healthy and Resilient Housing in west Ciudad Juarez, Chihuahua**	Federación Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.	Briselda Duarte (PM)	$ 50,000.00 $ 40,866.98	**Project Status:** Project progress of 98%; ecological technologies completed in 50 homes, manual on energy savings completed as well. Project will be finished on January 2018, waiting on final report and factsheet.
3	20302	FS	N/A	**Green Infrastructure in Public Space on Valle del Sol Avenue, Ciudad Juarez, Chihuahua**	Instituto Tecnológico de Ciudad Juarez	Joaquín Marrufo (PM)	$ 43,204.00 $ 42,231.02	**Project Status:** Project concluded on December 2017. Some of the most relevant outputs and outcomes are: Monitoring of rain water volume occurred during 17 months, from July 2016 to November 2017, with a total volume collected of 472,502.33 gallons of rainwater. To have a clearer understanding of the results, consider a 12-month period, where precipitation was of 13.79 in, resulting in a capture volume of 436,203 gal. Regarding the contaminants analyses, there was not enough rainwater volume to have a representative sample to be tested. In reference to the vegetation, there was an acceptable surviving index of the planted trees and bushes. The park has not had the need for irrigation, since rainwater does its part. Finally, with the green infrastructure project, the social value of the park increased.
						Amount Approved	$ 141,714.00	
						Amount Disbursed	$ 94,841.08	

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20270	4	2	**Hazardous Materials First Responders Binational Training in McAllen, Mission, Pharr, TX and Reynosa, Tamaulipas**	City of McAllen Juan Gloria (956)681-2540 jgloria@mcallen.net	Marielena Constandse (CO) / Briselda Duarte (PM)	$ 25,055.00 $ 25,055.00	**Project Status:** Project concluded on February. Some of the significant project contributions are: - Increase hazmat response skills and capabilities to first responders in McAllen, Mission and Pharr Fire Departments and first responders from northern Mexico. - Equipment will also be used in future binational trainings.
2	20255	3	1	**Comprehensive Solid Waste Management Project in Rio Bravo and Valle Hermoso, Tamaulipas**	Secretaria de Medio Ambiente	Jorge Hernandez (PM)	$ 19,871.16 $ 19,871.16	**Project Status:** The two municipal programs have been completed, and in August 10 and 24 they were presented for approval by the respective city councils. Some of the significant project contributions are: + The generation and waste composition studies allow both communities to know the type and amount of waste generated per inhabitant and could be marketed. The studies also calculate the areas required for the final disposal site according to their generation. + Both programs have been completed, and presented for approval by the respective city councils.
3	20255	3	1	**Interagency coordination for the management of electronic and electrical waste in Ciudad Acuna and Piedras Negras, Coahuila**	Secretaria de Medio Ambiente del Estado de Coahuila de Zaragoza	Jorge Hernandez (PM)	$ 16,898.67 $ 16,898.67	**Project Status:** The project concluded in March 2017. The results of the project are: Collection of 56 tons of electronic waste (25 tons were targeged), which included 3 campaigns of massive collection of e-waste in several municipalities. 36 public and private organizations were trained and supported the campaign. A permanent collection of electronic waste was opened in Ciudad Acuña.

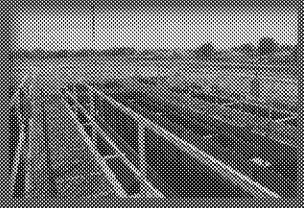
4	20297	4	2	**Binational Tabletop and Functional Exercises between Harlingen, TX and Matamoros, Tamaulipas.**	City of Harlingen Fire Department	Briselda Duarte (PM)	$ 44,692.30 $ 44,692.30	**Project status:** The project concluded in August. Some of the significant project contributions are: -Training of 19 officers and students from Harlingen (2), Mission (2), Brownsville (1) and Matamoros (14). -Harlingen and Matamoros have established the ability to implement standardized response and real time communication in the event of Hazardous Materials incidents. -A foundation for enhanced emergency response and cooperative incident management has been created
5	20297	2	2	**Decision Making Tool (DMT^{G})** for Determining LID Stormwater Detention in Bronwsville, Texas	Texas A&M University-Kingsville	Jorge Hernandez (PM)	$ 38,885.00 $ 15,769.89	**Project Status:** Activities for this quarter include: the development of a website for the project; sponsor finalized the QAPP and was approved by EPA; completed the modeling of outcomes and developed the DMT in a friendly format. A presentation was prepared for a binational workshop held on October 2017 in Brownsville, TX. Project extended to conclude by March 2018

Updated December 31, 2017

Amount Approved	$	145,392.13
Amount Disbursed	$	122,277.02

Total Approved	$	287,106.13
Total Disbursed	$	217,118.10

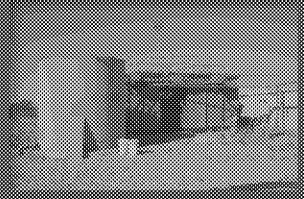
EPA Region 6



QUARTERLY REPORT

October - December 2017

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-01F04901



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-01F04901

Grant Period: August 12, 2015 – October 31, 2019

REPORTING PERIOD:

October - December 2017

TO:

Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:

Javier Torres
North American Development Bank
Technical Assistance Manager

January 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-01F04901

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☒ October 1 – December 30, 2017, Reporting period: report due on January 30, 2018
- ☐ January 1 – March 31, 2018, Reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, Reporting period: report due on July 30, 2018
- ☐ July 1 – September 30, 2018, Reporting period: report due on October 30, 2018
- ☐ October 1 – December 30, 2018, Reporting period: report due on January 30, 2019
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- ☐ April 1 – June 30, 2019, Reporting period: report due on July 30, 2019
- ☐ July 1 – August 30, 2019, Reporting period: report due on October 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

No growth is expected for the projects under-development at this time.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

ED_002319B_00013034-00003

GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

Objective 5. - By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Possible projects could include: Border-wide training for border stakeholders in instituting and sustaining urban energy efficiency measures; green building training/workshops; forums in which states, localities, non-governmental organizations (NGOs) and industry can share program information and technologies; and energy efficiency co-benefits through reduction of criteria air contaminant emissions (stationary and vehicle sources)

GOAL 2: *Water – Improve Access to Clean and Safe Water*

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

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GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.
- **Project type 4:** Develop a hazardous materials risk analysis.

GOAL 5. – Enhance ***Compliance Assurance and Environmental Stewardship***

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

Summary of approved Work Plan activities performed during the reporting quarter.
Projects in progress during reporting period:

Project ID	Goal / Fund. Strategy	Objective	Project Name	Status
20288	1	1	Improvements to Environmental Services in Cattle Ranches via Livestock Grazing, Ascensión, Chihuahua.	Project Status: Air and soil sampling was scheduled for completion; the project will be finished by January 2018.
20293	5	4	Legislative Reform and Environmental Education, Nuevo Laredo, Tamaulipas.	Project Status: Project concluded.
20286	3	2	Comprehensive E-Waste Management in Piedras Negras, Coahuila and Eagle Pass, Texas.	Project Status: Project concluded.
20290	2	3	The Rio Grande/Río Bravo Water Quality Initiative, Laredo, Texas.	Project Status: CILA requested a new facilitator to join the team; as a result, focus group meetings will likely occur in February. A project extension request was approved; completion date is June 2018.
20291	2	2	Fat, Oil and Grease (FOG) Public Outreach Campaign, Brownsville, Texas.	Project Status: Project concluded.
20294	3	1	Let's Clean it Up and Green it Up, Pharr, Texas	Project Status: Project concluded.

Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

There are no performance outputs and outcome to report at the project level.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

No problems have been reported.

Resolutions to Problems Previously Reported.

No problems have been reported.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

- Coordinate with the sponsors the implementation of the active projects in accordance with the approved workplans.

- Nine projects were preselected for implementation and funding for this grant. Activities for the next three months include coordinating with the sponsors the implementation of the projects in accordance with the approved workplans.

- Five projects were preselected for Three State Region under this grant:
    1. Climate and Air Quality Network UACJ, Ciudad Juarez, CHIH.
    2. Reduction of Emissions Through Collective Transportation Infrastructure, Ciudad Juarez, CHIH / El Paso, TX.
    3. Safe Drinking Water for US/Mexico border Colonias, El Paso, TX and Ciudad Juarez, CHIH.
    4. RESET 17: Innovation for the Future, El Paso, TX and Ciudad Juarez, CHIH.
    5. Green Infrastructure in the Paso del Norte Region: Seminar, Implementation Guide, Ciudad Juarez, CHIH.

- Four projects were preselected for Four States Region under this grant:
    1. Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH and Del Río, TX.
    2. Mitigating Localized Flooding - Development of a Green Infrastructure Master Plan, Mercedes, TX.
    3. Agrochemicals and their Risks to Health and the Environment, Frontera de Tamaulipas
    4. Transforming Urban Compacted Land into Infiltration Field, Edinburg, TX

Discuss what key personnel did on the project.

Joaquin Marruffo provided overall project coordination as well as the communication with EPA. Briselda Duarte, and Jorge Hernandez manage the implementation of the projects in close coordination with EPA. Marielena Constandse prepared this report. Marielena Constandse, Abril Quiroz and Javier Torres provided RFP coordination and Grant Administration.

Discuss any changes in key personnel.

There are no changes to report.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

N/A

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant

agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement.***

TABLE 1				
Summary of Quarterly Expenses by Category (Report Period October 1 to December 31, 2017)				
Work Plan Tasks	**Approved Work Plan Budget**	**Previously Expended**	**Expenses this Quarter**	**Total Cumulative Expenses**
Task A - RFP	$66,234	$78,385.46	$16,204	$94,589
Task B - Projects	$600,584	$129,795.82	$22,556	$152,352
Task C - Logistics	$65,000	$0	$0	$0
Indirect Cost	$73,182	$20,818.14	$3,876	$24,694
TOTAL Cumulative Expenses	**$805,000**	**$228,999**	**$42,636**	**$271,636**

TABLE 2				
Budget Categories (programmatic costs only)	**Task A- RFP**	**Task B- Projects**	**Task C- Logistical Support**	**TOTAL Quarterly Expenses**
Personnel	$14,831.25	$0	$0	$14,831.25
Fringe Benefits	$1,372.56	$0	$0	$1,372.56
Travel	$0	$0	$0	$0
Contractual	$0	$0	$0	$0
Other (specify)	$0	$22,556.28	$0	$22,556.28
TOTAL Direct Charges	$16,203.81	$22,556.28	$0	$38,760.09
Indirect Costs	$1,620.38	$2,255.63	$0	$3,876.01
TOTAL Cumulative Expenses	$17,824.19	$24,811.91	$0	$42,636.10

[1]EPA defines equipment as items that cost $5,000 or more with a useful life of more than one year. Items costing less than $5,000 are considered supplies.
[2]Applicants must comply with the procurement procedures contained in 40 CFR 31.36, or for non-profits, with 40 CFR30.40.

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** January 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20288	**Improvements to Environmental Services in Cattle Ranches via Livestock Grazing, Ascensión, Chihuahua.**	Universidad Autónoma de Chihuahua – Facultad de Zootecnia y Ecología	Ascension, Chih.	Briselda Duarte (PM)	7/15/2016	$ 41,388.00	**Project Status:** Air and soil sampling was scheduled for completion; the project will be finished by January 2018.
						7/31/2017	$ 23,031.84	

Amount Approved	$	41,388.00
Amount Disbursed	$	23,031.84

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20283	**Energy Efficiency Workshop for Public Lighting Systems, Reynosa, Tamaulipas.**	Secretaria de Desarrollo Urbano y Medio Ambiente	Reynosa, Tamps.	Briselda Duarte (PM)	2/22/2016 5/2/2016	$ 9,330.33 $ 9,330.33	Project Status: Concluded on August 2016. Technical training provided to 30 technical officials from the municipalities of Nuevo Laredo, Guerrero, Mier, Miguel Aleman, Camargo, Diaz Ordaz, Reynosa, Rio Bravo, Valle Hermoso and Matamoros, Tamaulipas. Thirty (30) energy efficiency guidelines including maintenance recommendations to reduce Kwh electrical consumption were revised.
2	20293	**Legislative Reform and Environmental Education, Nuevo Laredo, Tamaulipas.**	Universidad Autónoma de Tamaulipas en Nuevo Laredo	Nuevo Laredo, Tamps.	Briselda Duarte (PM)	5/26/2016 5/2/2017	$ 11,000.00 $ 9,078.04	Project Status: Project Status: Work Plan activities were completed. Nuevo Laredo upgraded its municipal code. More than 2000 students and 20 inspectors informed.
3	20295	**Comprehensive E-Waste Management in Piedras Negras, Coahuila and Eagle Pass, Texas.**	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	Piedras Negras, Coahuila and Eagle Pass, Texas	Jorge Hernandez (PM)	1/21/2016 7/18/2017	$ 35,054.00 $ 25,270.21	Project Status: Project concluded on August 2017. Some of the project significant contributions are: 47 tons of e-waste collected in Piedras Negras and 15 tons in Eagle Pass. 40,000 inhabitants were visited in 22 colonias in Piedras Negras. A workshop was conducted at ITPN for 55 Green TEC associates. A health and environment conference was held to promote the e-waste recycling. The main promotion of the project was a walk performed in March 2016 with more than 1200 participants. A permanent collection center was established in the public works department at Piedras Negras.
4	20290	**The Rio Grande/Rio Bravo Water Quality Initiative, Laredo Texas**	The University of Texas at Austin	Laredo, TX.	Briselda Duarte (PM)	2/22/2016 8/31/2017	$58,575.00 $ 30,260.16	**Project Status:** CILA requested a new facilitator to join the team; as a result, focus group meetings will likely occur in February. A project extension request was approved; completion date is June 2018.
		Fat, Oil and Grease (FOG) Public			Briselda Duarte	2/22/2016	$21,471.05	**Project Status:** Project concluded on May 2017. Some of the project significant contributions are: -12.58% reduction in service calls received by BPUB

5	20/91	**Outreach Campaign, Brownsville, Texas**	Brownsville Public Utilities Board	Brownsville, TX	(PM)	2/2/2017	$ 21,471.05	related to fats, oil and grease issues. • 84 public outreach and trainings • 1713 participating residents and business owners.
6	20/94	**Aerosols and Discharge Control Plans**	Instituto Para la Ecología de la Frontera de la Charles de Chihuahua	Chihuahua, Mexico	Alejandro Chavez (PM)	TBD TBD	$ 25,000.00	**Project Status**: Cancelled due to an unsuccessful bid process. In addition the consultant proposed work is not complete due to issues in dealing with the local PRP, which the municipal property is legally liable for.
7	20/94	**Let's Clean It Up and Green It Up, Pharr, Texas**	City of Pharr, Recycling Center	Pharr, TX	Jorge Hernandez (PM)	2/22/2016 4/2/2017	$ 33,910.47 $ 33,910.47	**Project Status**: Project concluded on May 2017. Some of the project significant contributions are: The city of Pharr participated on over 100 occasions where environmental education was discussed. More than 20 meetings, 40 events and about 50 presentations were given to students and/or residents on environmental issues. During the 14-month period of the project implementation, over 20,000 used tires were collected. The project included the 96-gallon recycling containers for advertising purposes.

Updated December 31, 2017

Amount Approved	$	195,340.85
Amount Disbursed	$	129,320.26

Total Approved	$	236,728.85
Total Disbursed	$	152,352.10

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2017 PROJECTS

No.	Project ID	Goal	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1		1	**Climate and air quality network UACJ, Ciudad Juarez, CHIH.**	Universidad Autónoma de Ciudad Juárez Víctor Hernández Jacobo vihernan@uacj.mx	Ciudad Juarez, CHIH.	JH/AQ		$ 29,400.00	**Project Status:**
2		1	**Reduction of Emissions Through Collective Transportation Infrastructure, Ciudad Juarez, CHIH / El Paso TX.**	IMIP Juárez Álvaro Roberto Manuel Mora Palacios/ Alberto Nicolás López Duarte nlopez@imip.org.mx imip@imip.org.mx	Ciudad Juarez, CHIH / El Paso TX	JH/AQ		$ 61,220.00	**Project Status:**
3		2	**Safe drinking water for US/Mexico border Colonias, El Paso TX and Ciudad Juarez CHIH.**	UTEP Ivonne Santiago isantiago@utep.edu	El Paso TX and Ciudad Juarez CHIH.	BD/AQ		$ 79,636.00	**Project Status:**
4		2	**RESET 17: Innovation for the Future, El Paso, TX and Ciudad Juarez, CHIH.**	Fundación AXCEL A.C. Nancy Estrada nancy@funax.org	El Paso, TX and Ciudad Juarez, CHIH.	BD/AQ		$ 29,444.44	**Project Status:**
5		GI	**Green infrastructure in the Paso del Norte Region: Seminar, Implementation Guide, Ciudad Juarez, CHIH.**	Secretaría Técnica del Municipio de Juárez Alejandro César Loaeza Canizales Alejandro.loaeza@juarez.gob.mx aleloaeza2011@hotmail.com	Ciudad Juarez, CHIH.	JM/AQ		$ 31,000.00	**Project Status:**

Amount Approved	$ 230,700.44
Amount Disbursed	$ -

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2017 PROJECTS

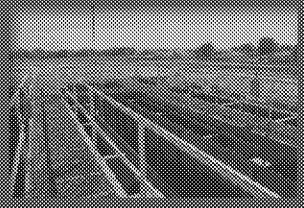
No.	Project ID	Goal / Fund. Strategy	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1		2	**Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH and Del Río, TX.**	Universidad Carolina Cecilia Pelletier Bravo pelletier.cecilia@gmail.com y/o esteban.fish@gmail.com	Ciudad Acuña, COAH and Del Río, TX.	BD/AQ		$ 26,035.00	**Project Status:**
2		2	**Mitigating Localized Flooding - Development of a Green Infrastructure Master Plan, Mercedes, TX.**	City of Mercedes Daniel Tijerina dtijerina@cityofmercedes.com	Mercedes, TX.	JH/AQ		**$30,000.00**	**Project Status:**
3		FS	**Agrochemicals and Their Risks to Health and the Environment, Tamaulipas Border area**	Secretaría de Desarrollo Urbano y Medio Ambiente Celestino Alanís Leal celestino.alanis@tamaulipas.gob.mx	Tamaulipas Border	SV/AQ		**$21,946.00**	**Project Status:**
4		GI	**Transforming Urban Compacted Land into Infiltration Field, Edinburg, TX**	The University of Texas Rio Grande Valley Andrew Lawler sponpro@utrgv.edu	Edinburg, TX	SV/AQ		**$58,925.00**	**Project Status:**

Updated December 31, 2017

Amount Approved	$ 136,906.00
Amount Disbursed	$ -

Total Approved	$	367,606.44
Total Disbursed	$	-

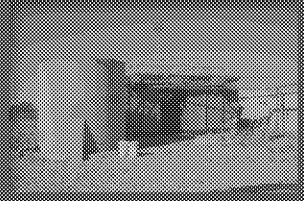
EPA Region 6



QUARTERLY REPORT

January – March 2018

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-00F92501



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-00F92501

Grant Period: Sep. 17, 2004 – Aug. 31, 2019

REPORTING PERIOD:

January – March 2018

TO:
Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:
Javier Torres
North American Development Bank
Technical Assistance Manager

April 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-00F92501

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☐ October 1 – December 31, 2017, Reporting period: report due on January 30, 2018
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- ☐ July 1 – August 30, 2019, Reporting period: report due on September 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

None to report.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

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- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

GOAL 2: ***Water – Improve Access to Clean and Safe Water***

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

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Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.
- **Project type 4:** Develop a hazardous materials risk analysis.

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GOAL 5. – Enhance *Compliance Assurance and Environmental Stewardship*

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

Summary of approved Work Plan activities performed during the reporting quarter.

Projects in progress during reporting period:

Project ID	Goal	Objective	Project Name	Status
20298	3	1	Sewage Sludge and Biosolids Agricultural Soils Project in the Valle de Juarez, Chihuahua	Project Status: Attended meetings of District Rural Development Councils convened by SAGARPA to continue the dissemination and activation of the Commission for the Use of Biosolids; collected and analyzed all the information that has been obtained in the activities and supported the Project Director in writing the final report of the project. The final report will be delivered by June 30, 2018
20297	2	2	Decision Making Tool (DMT[G]) for Determining LID Stormwater Detention, Brownsville, Texas	Project Status: Activities for this quarter include the development of a website for the project; the modeling runs for the Tool were completed in 2017, and the DMT will be finalized and rolled out through workshops in Spring 2018. For this reason, a project no-cost extension is recommended and will be requested through July 31, 2018.

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Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

None to report.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

None

Resolutions to Problems Previously Reported.

None to report.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

Continue with the development of active projects.

Discuss what key personnel did on the project.

Briselda Duarte and Jorge Hernandez coordinated project development activities with EPA and sponsors. Marielena Constandse prepared this report and provided Contract Administration. Javier Torres provided Grant Administration coordination with EPA. Joaquin Marruffo supervised the execution of the project activities.

Discuss any changes in key personnel.

No personnel changes have taken place.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

None to report.

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement***.

TABLE 1				
Summary of Quarterly Expenses by Category (Report Period January 1 to March 31, 2018)				
Work Plan Tasks	**Approved Work Plan Budget**	**Previously Expended**	**Expenses this Quarter**	**Total Cumulative Expenses**
Task A- Projects	$ 278,255.00	$192,428	$6,239	$198,667
Task B- Emergency Response	$ 26,290.00	$25,055	$0	$25,055
Indirect Cost	$30,455.00	$21,748	$624	$22,372
TOTAL Cumulative Expenses	**$335,000.00**	**$239,231**	**$6,863**	**$246,094**

TABLE 2			
Budget Categories (programmatic costs only)	**Task A Projects**	**Task B Emergency Response**	**TOTAL Quarterly Expenses**
Personnel	$0	$0	$0
Fringe Benefits	$0	$0	$0
Travel	$0	$0	$0
Equipment	$0	$0	$0
Other (specify)	$6,239.12	$0	$6,239.12
TOTAL Direct Charges	$6,239.12	$0	$6,239.12
Indirect Costs	$623.91	$0	$623.91
TOTAL Cumulative Expenses	$6,863.03	$0	$6,863.03

[1]EPA defines equipment as items that cost $5,000 or more with a useful life of more than one year. Items costing less than $5,000 are considered supplies.
[2]Applicants must comply with the procurement procedures contained in 40 CFR 31.36, or for non-profits, with 40 CFR30.40.

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** April 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ED_002319B_00013062-00009

ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20298	3	1	**Sewage Sludge and Biosolids Agricultural Soils project in the Valle de Juarez, Chihuahua**	Universidad Autónoma de Cd. Juárez	Jorge Hernandez (PM)	$ 48,510.00 $ 11,743.08	**Project Status:** Attended meetings of District Rural Development Councils convened by SAGARPA to continue the dissemination and activation of the Commission for the Use of Biosolids; collected and analyzed all the information that has been obtained in the activities and supported the Project Director in writing the final report of the project. The final report will be delivered by June 30, 2018
2	20303	FS	N/A	**Healthy and Resilient Housing in west Ciudad Juarez, Chihuahua**	Federacion Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.	Briselda Duarte (PM)	$ 50,000.00 $ 47,106.10	**Project Status:** Project progress of 98%; ecological technologies completed in 50 homes, manual on energy savings completed as well. Project will be finished on January 2018, waiting on final report and factsheet.
3	20302	FS	N/A	**Green Infrastructure in Public Space on Valle del Sol Avenue, Ciudad Juarez, Chihuahua**	Instituto Tecnológico de Ciudad Juarez	Joaquin Marrufo (PM)	$ 42,231.02 $ 42,231.02	**Project Status:** Project concluded on December 2017. Some of the most relevant outputs and outcomes are: Monitoring of rain water volume occurred during 17 months, from July 2016 to November 2017, with a total volume collected of 472,502.33 gallons of rainwater. To have a clearer understanding of the results, consider a 12-month period, where precipitation was of 13.79 in, resulting in a capture volume of 436,203 gal. Regarding the contaminants analyses, there was not enough rainwater volume to have a representative sample to be tested. In reference to the vegetation, there was an acceptable surviving index of the planted trees and bushes. The park has not had the need for irrigation, since rainwater does its part. Finally, with the green infrastructure project, the social value of the park increased.
						Amount Approved	$ 140,741.02	
						Amount Disbursed	$ 101,080.20	

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20270	4	2	Hazardous Materials First Responders Binational Training in McAllen, Mission, Pharr, TX and Reynosa, Tamaulipas	City of McAllen Juan Gloria (956)681-2540 jgloria@mcallen.net	Marielena Constandse (CO) / Briselda Duarte (PM)	$ 25,055.00 $ 25,055.00	**Project Status:** Project concluded on February. Some of the significant project contributions are: - Increase hazmat response skills and capabilities to first responders in McAllen, Mission and Pharr Fire Departments and first responders from northern Mexico. - Equipment will also be used in future binational trainings.
2	20255	3	1	Comprehensive Solid Waste Management Project in Rio Bravo and Valle Hermoso, Tamaulipas	Secretaria de Medio Ambiente	Jorge Hernandez (PM)	$ 19,871.16 $ 19,871.16	**Project Status:** The two municipal programs have been completed, and in August 10 and 24 they were presented for approval by the respective city councils. Some of the significant project contributions are: + The generation and waste composition studies allow both communities to know the type and amount of waste generated per inhabitant and could be marketed. The studies also calculate the areas required for the final disposal site according to their generation. + Both programs have been completed, and presented for approval by the respective city councils.
3	20255	3	1	Interagency coordination for the management of electronic and electrical waste in Ciudad Acuna and Piedras Negras, Coahuila	Secretaria de Medio Ambiente del Estado de Coahuila de Zaragoza	Jorge Hernandez (PM)	$ 16,898.67 $ 16,898.67	**Project Status:** The project concluded in March 2017. The results of the project are: Collection of 56 tons of electronic waste (25 tons were targegted), which included 3 campaigns of massive collection of e-waste in several municipalities, 36 public and private organizations were trained and supported the campaign. A permanent collection of electronic waste was opened in Ciudad Acuña.

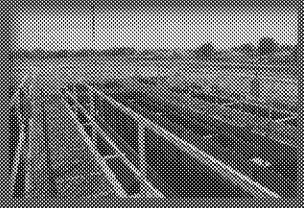
4	20297	4	2	Binational Tabletop and Functional Exercises between Harlingen, TX and Matamoros, Tamaulipas.	City of Harlingen Fire Department	Briselda Duarte (PM)	$ 44,682.30 $ 44,682.30	**Project status:** The project concluded in August. Some of the significant project contributions are: -Training of 19 officers and students from Harlingen (2), Mission (2), Brownsville (1) and Matamoros (14). -Harlingen and Matamoros have established the ability to implement standardized response and real time communication in the event of Hazardous Materials incidents. -A foundation for enhanced emergency response and cooperative incident management has been created
5	20297	2	2	**Decision Making Tool (DMT[G])** for Determining LID Stormwater Detention in Bronwsville, Texas	Texas A&M University-Kingsville	Jorge Hernandez (PM)	$ **38,885.00** $ **15,769.89**	**Project Status:** Activities for this quarter include the development of a website for the project; the modeling runs for the Tool were completed in 2017 and the DMT, will be finalized and rolled out through workshops in Spring 2018. For this reason, a project no-cost extension is recommended and will be requested through July 31, 2018

Updated March 31, 2018

Amount Approved	$	145,392.13
Amount Disbursed	$	122,277.02

Total Approved	$	286,133.15
Total Disbursed	$	223,357.22

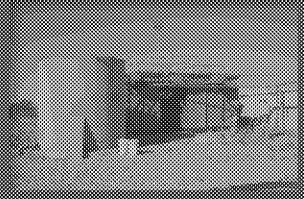
EPA Region 6



QUARTERLY REPORT

January – March 2018

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-01F04901



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-01F04901

Grant Period: August 12, 2015 – October 31, 2019

REPORTING PERIOD:

January - March 2018

TO:

Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:

Javier Torres
North American Development Bank
Technical Assistance Manager

April 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-01F04901

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☐ October 1 – December 30, 2017, Reporting period: report due on January 30, 2018
- ☒ January 1 – March 31, 2018, Reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, Reporting period: report due on July 30, 2018
- ☐ July 1 – September 30, 2018, Reporting period: report due on October 30, 2018
- ☐ October 1 – December 30, 2018, Reporting period: report due on January 30, 2019
- ☐ January 1 – March 31, 2019, Reporting period: report due on April 30, 2019
- ☐ April 1 – June 30, 2019, Reporting period: report due on July 30, 2019
- ☐ July 1 – August 30, 2019, Reporting period: report due on October 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

No growth is expected for the projects under-development at this time.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

ED_002319B_00013065-00003

GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of 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 reduction measures.

- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

Objective 5. - By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.

Possible projects could include: Border-wide training for border stakeholders in instituting and sustaining urban energy efficiency measures; green building training/workshops; forums in which states, localities, non-governmental organizations (NGOs) and industry can share program information and technologies; and energy efficiency co-benefits through reduction of criteria air contaminant emissions (stationary and vehicle sources)

GOAL 2: *Water – Improve Access to Clean and Safe Water*

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

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GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.
- **Project type 4:** Develop a hazardous materials risk analysis.

GOAL 5. – Enhance ***Compliance Assurance and Environmental Stewardship***

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

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Summary of approved Work Plan activities performed during the reporting quarter.
Projects in progress during reporting period:

Project ID	Goal / Fund. Strategy	Objective	Project Name	Status
20288	1	1	Improvements to Environmental Services in Cattle Ranches via Livestock Grazing, Ascensión, Chihuahua.	Project Status: Project delayed, final due date May 2018. Tasks to be finished: groundwater monitoring, air monitoring, and soil carbon monitoring.
20290	2	3	The Rio Grande/Río Bravo Water Quality Initiative, Laredo, Texas.	Project Status: CILA requested a new facilitator to join the team; as a result, focus group meetings will likely occur in May. A project extension request was approved; completion date is June 2018.

Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

There are no performance outputs and outcome to report at the project level.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

No problems have been reported.

Resolutions to Problems Previously Reported.

No problems have been reported.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

- Coordinate with the sponsors the implementation of the active projects in accordance with the approved workplans.

- Nine projects were selected for implementation and funding under this grant. Activities for the next three months include coordinating with the sponsors the implementation of the projects in accordance with the approved workplans.

- Five projects were selected for Three State Region under this grant:
    1. Climate and Air Quality Network UACJ, Ciudad Juarez, CHIH.
    2. Reduction of Emissions Through Collective Transportation Infrastructure, Ciudad Juarez, CHIH / El Paso, TX.
    3. Safe Drinking Water for US/Mexico Border Colonias, El Paso, TX and Ciudad Juarez, CHIH.
    4. RESET 17: Innovation for the Future, El Paso, TX and Ciudad Juarez, CHIH.
    5. Green Infrastructure in the Paso del Norte Region: Seminar, Implementation Guide, Ciudad Juarez, CHIH.

- Three projects were selected for Four States Region under this grant:
    1. Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH.
    2. Agrochemicals and their Risks to Health and the Environment, Frontera de Tamaulipas
    3. Transforming Urban Compacted Land into Infiltration Field, Edinburg, TX

- One project was selected border wide under this grant:
    1. U.S.-Mexico Borderlands GIS Mapping, BORDER WIDE.

Discuss what key personnel did on the project.

Joaquin Marruffo provided overall project coordination as well as the communication with EPA. Briselda Duarte, and Jorge Hernandez manage the implementation of the projects in close coordination with EPA. Marielena Constandse prepared this report. Marielena Constandse, Abril Quiroz and Javier Torres provided RFP coordination and Grant Administration.

Discuss any changes in key personnel.

There are no changes to report.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

N/A

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement.***

TABLE 1

Summary of Quarterly Expenses by Category (Report Period January 1 to March 31, 2018)

Work Plan Tasks	Approved Work Plan Budget	Previously Expended	Expenses this Quarter	Total Cumulative Expenses
Task A - RFP	$108,091	$94,589	$11,676	$106,265
Task B - Projects	$600,584	$152,352	$0	$152,352
Task C – Logistical Support	$23,143	$0	$0	$0
Indirect Cost	$73,182	$24,694	$1,168	$25,862
TOTAL Cumulative Expenses	**$805,000**	**$271,636**	**$12,843**	**$284,479**

TABLE 2

Budget Categories (programmatic costs only)	Task A- RFP	Task B- Projects	Task C- Logistical Support	TOTAL Quarterly Expenses
Personnel	$10,115.19	$0	$0	$10,115.19
Fringe Benefits	$1,560.35	$0	$0	$1,560.35
Travel	$0	$0	$0	$0
Contractual	$0	$0	$0	$0
Other (specify)	$0	$0	$0	$0
TOTAL Direct Charges	$11,675.54	$0	$0	$11,675.54
Indirect Costs	$1,167.56	$0	$0	$1,167.56
TOTAL Cumulative Expenses	$12,843.10	$0	$0	$12,843.10

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** April 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20288	**Improvements to Environmental Services in Cattle Ranches via Livestock Grazing, Ascensión, Chihuahua.**	Universidad Autónoma de Chihuahua – Facultad de Zootecnia y Ecología	Ascension, Chih.	Briselda Duarte (PM)	7/15/2016	$ 41,388.00	**Project Status:** Project delayed, final due date May 2018. Tasks to be finished: groundwater monitoring, air monitoring, and soil carbon monitoring.
						7/31/2017	$ 23,031.84	

Amount Approved	$	41,388.00
Amount Disbursed	$	23,031.84

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20283	**Energy Efficiency Workshop for Public Lighting Systems, Reynosa, Tamaulipas.**	Secretaria de Desarrollo Urbano y Medio Ambiente	Reynosa, Tamps.	Briselda Duarte (PM)	2/22/2016 5/2/2016	$ 9,330.33 $ 9,330.33	Project Status: Concluded on August 2016. Technical training provided to 30 technical officials from the municipalities of Nuevo Laredo, Guerrero, Mier, Miguel Aleman, Camargo, Diaz Ordaz, Reynosa, Rio Bravo, Valle Hermoso and Matamoros, Tamaulipas. Thirty (30) energy efficiency guidelines including maintenance recommendations to reduce Kwh electrical consumption were revised.
2	20293	**Legislative Reform and Environmental Education, Nuevo Laredo, Tamaulipas.**	Universidad Autónoma de Tamaulipas en Nuevo Laredo	Nuevo Laredo, Tamps.	Briselda Duarte (PM)	5/26/2016 5/2/2017	$ 11,000.00 $ 9,078.04	Project Status: Project Status: Work Plan activities were completed. Nuevo Laredo upgraded its municipal code. More than 2000 students and 20 inspectors informed.
3	20295	**Comprehensive E-Waste Management in Piedras Negras, Coahuila and Eagle Pass, Texas.**	Grupo Ecológico Green Tec-Osos del Instituto Tecnológico de Piedras Negras	Piedras Negras, Coahuila and Eagle Pass, Texas	Jorge Hernandez (PM)	1/21/2016 7/18/2017	$ 35,054.00 $ 25,270.21	Project Status: Project concluded on August 2017. Some of the project significant contributions are: 47 tons of e-waste collected in Piedras Negras and 15 tons in Eagle Pass. 40,000 inhabitants were visited in 22 colonias in Piedras Negras. A workshop was conducted at ITPN for 55 Green TEC associates. A health and environment conference was held to promote the e-waste recycling. The main promotion of the project was a walk performed in March 2016 with more than 1200 participants. A permanent collection center was established in the public works department at Piedras Negras.
4	20290	**The Rio Grande/Rio Bravo Water Quality Initiative, Laredo Texas**	The University of Texas at Austin	Laredo, TX.	Briselda Duarte (PM)	2/22/2016 8/31/2017	**$58,575.00** **$ 30,260.16**	**Project Status:** CILA requested a new facilitator to join the team; as a result, focus group meetings will likely occur in May. A project extension request was approved; completion date is June 2018.

5	20291	**Fat, Oil and Grease (FOG) Public Outreach Campaign, Brownsville, Texas**	Brownsville Public Utilities Board	Brownsville, TX	Briselda Duarte (PM)	2/22/2016 2/2/2017	**$21,471.05** $ 21,471.05	**Project Status:** Project concluded on May 2017. Some of the project significant contributions are: • 12.56% reduction in service calls received by BPUB related to fats, oil and grease issues. • 84 public outreach and trainings. • 1713 participating residents and business owners.
6	20293	**Awareness and Discharge Control Project**	Unidos de Rio Grande Colonias de Cameron, Hidalgo and Willacy Counties	Brownsville, Texas	Briselda Duarte (PM)	TBD TBD	$75,000.00	**Project Status:** Cancelled due to an inadequate scope in relation to environmental residential costs. It was suggested to resubmit for funding in future LDFE, when the number of projects is better defined.
7	20294	**Let's Clean it Up and Green it Up, Pharr, Texas**	City of Pharr, Recycling Center	Pharr, TX	Jorge Hernandez (PM)	2/22/2016 4/2/2017	$ 33,910.47 $ 33,910.47	**Project Status:** Project concluded on May 2017. Some of the project significant contributions are: The city of Pharr participated on over 100 occasions where environmental education was discussed. More than 20 meetings, 40 events and about 50 presentations were given to students and/or residents on environmental issues. During the 14-month period of the project implementation, over 20,000 used tires were collected. The project included the 96-gallon recycling containers for advertising purposes.

Updated March 31, 2018

Amount Approved	$	195,340.85
Amount Disbursed	$	129,320.26

Total Approved	$	236,728.85
Total Disbursed	$	152,352.10

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2017 PROJECTS

No.	Project ID	Goal / Fund. Strategy	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20325	1	**Climate and air quality network UACJ, Ciudad Juarez, CHIH.**	Universidad Autónoma de Ciudad Juárez Víctor Hernández Jacobo vihernan@uacj.mx	Ciudad Juarez, CHIH.	JH/AQ		$ 29,400.00	**Project Status:**
2	20326	1	**Reduction of Emissions Through Collective Transportation Infrastructure, Ciudad Juarez, CHIH / El Paso TX.**	IMIP Juárez Álvaro Roberto Manuel Mora Palacios/ Alberto Nicolás López Duarte nlopez@imip.org.mx imip@imip.org.mx	Ciudad Juarez, CHIH / El Paso TX	JH/AQ		$ 61,220.00	**Project Status:**
3	20327	2	**Safe drinking water for US/Mexico border Colonias, El Paso TX and Ciudad Juarez CHIH.**	UTEP Ivonne Santiago isantiago@utep.edu	El Paso TX and Ciudad Juarez CHIH.	BD/AQ		$ 79,636.00	**Project Status:**
4	20314	2	**RESET 17: Innovation for the Future, El Paso, TX and Ciudad Juarez, CHIH.**	Fundación AXCEL A.C. Nancy Estrada nancy@funax.org	El Paso, TX and Ciudad Juarez, CHIH.	BD/AQ		$ 29,444.44	**Project Status:**
5	20321	GI	**Green infrastructure in the Paso del Norte Region: Seminar, Implementation Guide, Ciudad Juarez, CHIH.**	Secretaría Técnica del Municipio de Juárez Alejandro César Loaeza Canizales Alejandro.loaeza@juarez.gob.mx aleloaeza2011@hotmail.com	Ciudad Juarez, CHIH.	JM/AQ		$ 31,000.00	**Project Status:**

Amount Approved	$	230,700.44
Amount Disbursed	$	-

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2017 PROJECTS

No.	Project ID	Goal / Fund. Strategy	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20330	2	**Strategy for Reduction and Prevention of Disasters in Ciudad Acuña, COAH.**	Universidad Carolina Cecilia Pelletier Bravo pelletier.cecilia@gmail.com y/o esteban.fish@gmail.com	Ciudad Acuña, COAH.	BD/AQ		**$ 26,035.00**	**Project Status:**
2	20331	FS	**Agrochemicals and Their Risks to Health and the Environment, Tamaulipas Border area**	Secretaría de Desarrollo Urbano y Medio Ambiente Celestino Alanís Leal celestino.alanis@tamaulipas.gob.mx	Tamaulipas Border	SV/AQ		**$21,946.00**	**Project Status:**
3	20329	GI	**Transforming Urban Compacted Land into Infiltration Field, Edinburg, TX**	The University of Texas Rio Grande Valley Andrew Lawler sponpro@utrgv.edu	Edinburg, TX	SV/AQ		**$58,925.00**	**Project Status:**

Amount Approved	$	106,906.00
Amount Disbursed	$	-

BORDER WIDE BORDER 2020 - 2017 PROJECTS

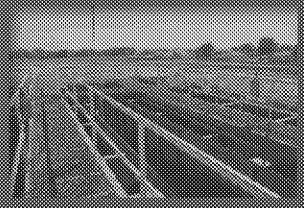
No.	Project ID	Goal / Fund. Strategy	Project Name	Project Implementer / Contact Information	Project Location	BECC Contract Officer & Project Manager	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1		3	**U.S.-Mexico Borderlands GIS Mapping, BORDER WIDE**	U.S.-Mexico Border Philanthropy Partnership Andy Carey Andy@borderpartnership.org	Border Wide	JM/AQ		$ 25,000.00	**Project Status:**

Updated March 31, 2018

Amount Approved	$	25,000.00
Amount Disbursed	$	-

Total Approved	$	362,606.44
Total Disbursed	$	-

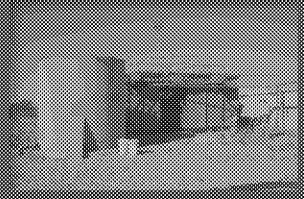
EPA Region 6



QUARTERLY REPORT

January – March 2018

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-00F59501



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-00F59501-3

Grant Period: Sep. 6, 2012 – Aug. 31, 2019

REPORTING PERIOD:

January - March 2018

TO:
Monica Wilson
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:
Javier Torres
North American Development Bank
Technical Assistance Manager

April 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-00F59501

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ October 1 – December 31, 2017, reporting period: report due on January 30, 2018
- ☒ January 1 – March 31, 2018, reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, reporting period: report due on July 30, 2018
- ☐ July 1 – September 30, 2018, reporting period: report due on October 30, 2018
- ☐ October 1 – December 31, 2018, reporting period: report due on January 30, 2019
- ☐ January 1 – March 31, 2019, reporting period: report due on April 30, 2019
- ☐ April 1 – June 30, 2019, reporting period: report due on July 30, 2019
- ☐ July 1 – August 31, 2019, reporting period: report due on October 30, 2019

Check here if this is the final reporting period under your grant ___

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

Not considered during this period.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

Goal #1: Reduce Air Pollution

- ☒ Continue to focus on air pollution reductions in binational airsheds

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☒ By 2018, maintain effective air quality monitoring networks and timely access to air quality data

☒ Reduce greenhouse gas emissions through energy efficiency and alternatives or renewable energy projects

Goal #2: Improve Access to Clean and Safe Water

☒ By 2015, increase homes connected to safe drinking water (DW) and waste water (WW) treatment

☒ Help DW and WW utilities become more efficient and sustainable

☒ Reduce levels of metals, sediment, or bacteria entering rivers and watersheds

Goal #3: Promote Materials and Waste Management and Clean Sites

☒ Develop capacity to improve collection and recycling of e-waste, plastics, and trash

☒ Develop scrap tire pile prevention and recycling capacity

☒ Develop institutional capacity to clean up contaminated sites

☒ Continue to share information on border area hazardous waste facilities

Goal #4: Enhance Joint Preparedness for Environmental Response

☒ Update eight sister city joint contingency plans with risk identification and reduction of all hazards

☒ Facilitate easier trans-boundary movement of equipment and personnel

☒ Continue updating the U.S.-Mexico Joint Contingency Plan

Goal #5: Compliance Assurance and Environmental Stewardship

☒ Improve information sharing between enforcement agencies on the movement of hazardous waste across the border

☒ Use Toxics Release Inventory (in the U.S.) and the Emissions and Contaminant

☒ Transfer Registry (RETC, in Mexico) to identify top polluters of toxic releases

ED_002319B_00013071-00004

☒ Training and information exchange on laws and regulations of respective countries

Summary of approved Work Plan activities performed during the reporting quarter.

The Bioswale Material for South Texas Stormwater Management project concluded on March 2017. Results include that after monitoring rain fall from April 2015 to November 2016, of the five porous materials used in the different parking areas pumice is a hydrologically best performing material for the bioswale porous media.

Overall logistical support for the year was provided for:

- New Mexico – Texas – Chihuahua Waste Task Force meeting, held on February 7, 2017 in Cd. Juarez, Chihuahua.
- New Mexico – Texas – Chihuahua Regional Workgroup Annual Meeting, held on February 14, 2017 in El Paso, Tx.
- Texas- Coahuila – Nuevo Leon – Tamaulipas Regional Workgroup Meeting, held on February 16, 2017 in Laredo, Tx.
- Paso Del Norte Binational Health Council-Environmental Health Committee held on March 22, 2017 in El Paso, Tx.
- Junta de los Rios (Texas – Chihuahua) Rural Task Force Meeting held on March 2, 2017 in Presidio TX
- New Mexico – Chihuahua Rural Task Force Annual Public Meeting held on March 30, 2017 in Palomas, Chih.
- New Mexico – Texas – Chihuahua Health Task Force Public Meeting held on March 30, 2017 in Las Cruces, NM.
- Extreme Heat and Health: Prevention, Mitigation, and Resilience in the Paso del Norte Region Meeting held on May 24th in Juarez, Chihuahua and El Paso, TX.

Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

One project started in this grant:

- Collaborative K12 Capacity Building and Research for Air Quality Monitoring.

Project status: Project had its kickoff meeting on March and will be presented on the next JAC meeting to be held on May. Initial design work is being done.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

No problems have been reported.

Resolutions to Problems Previously Reported.

No problems have been reported.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

- Review and finalize selected proposal workplans and continue with the Technical Assistance process.
- Two selected projects are proposed for development and funding by this grant:
  - Four States Region:
    - Waste Separation Stations, Matamoros, TAMPS.
    - Mitigating Localized Flooding - Development of a Green Infrastructure Master Plan, Mercedes, TX.

Discuss what key personnel did on the project.

Joaquin Marruffo provided overall project coordination as well as the communication with EPA. Briselda Duarte and Jorge Hernandez coordinated and monitored work plan activities of the projects in coordination with EPA. Marielena Constandse prepared this report. Marielena Constandse, Abril Quiroz and Javier Torres provided internal contract and grant administration and grant administration coordination with EPA.

Discuss any changes in key personnel.

No changes in key personnel took place this reporting period.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

N/A

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement***.

TABLE 1				
Summary of Quarterly Expenses by Category (Report Period January 1 to March 31, 2018)				
Work Plan Tasks	**Approved Work Plan Budget**	**Previously Expended**	**Expenses this Quarter**	**Total Cumulative Expenses**
Task A- Logistics	$52,688	$52,668	$0	$0
Task B- RFP	$40,972	$40,972	$0	$0
Task C- Projects	$683,314	$559,984	$0	$0
Task D- NADB Presence	$30,579	$30,579	$0	$0
Task E- Emergency Response	$45,455	$45,455	$0	$0
Indirect Cost	$81,012	$73,169	$0	$0
TOTAL Cumulative Expenses	**$934,000**	**$802,827**	**$0**	**$0**

TABLE 2						
Budget Categories (programmatic costs only)	**Task A- Logistics**	**Task B- RFP**	**Task C- Projects**	**Task D- BECC Presence**	**Task E- Emergency Response**	**TOTAL Quarterly Expenses**
Personnel	$0	$0	$0	$0	$0	$0
Fringe Benefits	$0	$0	$0	$0	$0	$0
Travel	$0	$0	$0	$0	$0	$0
Contractual	$0	$0	$0	$0	$0	$0
Other (specify)	$0	$0	$0	$0	$0	$0
TOTAL Direct Charges	$0	$0	$0	$0	$0	$0
Indirect Costs	$0	$0	$0	$0	$0	$0
TOTAL Cumulative Expenses	$0	$0	$0	$0	$0	$0

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** April 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

ATTACHMENT "A"

THREE STATE (TX-CH-NM) BORDER 2020 - 2013 PROJECTS										
NO.	PROJECT ID	B2020 GOAL	Name	Project Implementer / Contact Information	Project Location	State	PM	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
1	20249	1	Mejoramiento de la Red de Monitoreo de PM10 en Ojinaga	Municipio de Ojinaga, Chihuahua Ing. Miguel Adame Baeza moadameb@hotmail.com, (626)453-2541	Ojinaga	CHIH	IH AQ	4/15/2014 17 months	$ 13,175.35 $ 13,175.35	**Project Status:** This project concluded on September 2015. Some of the project significant contributions were: * A network of monitoring of PM10 fully functional. * Three training events for technical personnel * Development of a Communications Plan for air quality data through local media and information materials.
2	20260	2	Sustaining the Environment at the New Mexico-Chihuahua Border	New Mexico Environment Department Ms. Mary Rose Mary.Rose@state.nm.us	Columbus, Deming	NM	BD MC	11/4/2014 13 months	$ 36,953.43 $ 36,953.43	**Project Status:** This project concluded on December 2015. $63,037 dlls. were returned to the grant. Some of the project significant contributions were: * Completion of two presentations on health impacts and effective, low-cost methods for controlling blowing sand and soil. * Completion of four septic maintenance workshops * Organization of the largest ever water festival held in Columbus, NM.
3	20240	2	Comunidades Unidas en Prevencion de la Contaminacion Ambiental	Adult Youth United Development Association INC Olivia Figueroa Executive Director ayudaorg1@yahoo.com (915) 851-0272	Montana Vista, Cuadrilla, Tornillo	TX	BD AQ	5/1/2014 16 months	$ 49,776.41 $ 49,776.41	**Project Status:** This project concluded on September 2015. Some of the project significant contributions were: * Training program outreach, 2,332 people *Identification of septic tanks with GIS, 467 houses *Surveys conducted, 462 *Creation of mapping and database in Cuadrilla, Montana Vista, Tornilo, and Valle Bonito at El Paso County
4	20262	3	Ysleta del Sur Pueblo Community Collection Center	Ysleta del Sur Pueblo Evaristo Cruz, ecruz@ydsp.nsn.gob (915)859-7913 ext 7755	El Paso	TX	IH MC	10/1/2014 18 months	$ 65,776.92 $ 65,776.92	**Project Status:** Project finished on April 2015. The main results of the project were: * Collection of a total of 250 tires. * 10,800 pounds of electronic waste collected. 42.35 lbs per household during a 14 month period an estimate of 1.4 lbs per household per month. * 5,420 pounds of recyclables collected. 21.25 lbs per household in a 14 month period an estimate of 4.3 lbs per household per month.
5	20247	3	Reciclaje de Biosolidos en Suelos Agricolas del Valle de Juarez, Chihuahua	Universidad Autónoma de Ciudad Juarez Dr. Juan Pedro Flores Margez Tels. 656-688-1800 ext. 1561, 1976 y 1671 Servicos Agropecuarios Paso del Norte, SC Lic. Ana Irene Flores Arras	Valle de Juarez Valle de Juarez	CHIH CHIH	IH AQ IH AQ	4/13/2014 19 months 4/13/2014 19 months	$ 28,329.78 $ 28,329.78 $ 8,406.38 $ 8,406.38	**Project Status:** The Project was concluded on December 2015. Some of the project significant contributions were: The project established a sustainable program on agricultural use of biosolids, through 15 demonstration hectares. Important outputs are: * Establish a program promoting the adoption by farmers on the use of biosolids on agricultural land. * A list of volunteer farmers to continue the application of biosolids on 100 hectares in 2015 * Three field demonstrations, educational materials for 150 producers and agricultural technicians in the region.

6	20245	Environmental Health	Urban Keyhole Gardens using Rain Water Harvesting Techniques	El Paso Water Utilities Anai J. Padilla El Paso Water Utilities Phone: 915.621.2000 Email: ajpadilla@epwu.org	El Paso	TX	AH AQ	4/7/2015 13 months	$ 6,120.08 $ 6,120.08	**Project Status:** The project concluded on May 2015. Some of the project significant contributions were: 14 educational events, with a total of 955 attendees. The overall acceptance of the keyhole gardens, as a vegetable gardening option was well received by the public that attended the various workshops. Final report has been submitted and approved.
7	20250	Environmental Health	[illegible]	[illegible]	[illegible]	[illegible]	AH AQ	[illegible]	$ [illegible]	Project Status: [illegible]

$ 251,826.36
$ 208,750.36

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2012 - 2013 PROJECTS											
NO.	PROJECT ID	B2020 GOAL	Name	Project Implementer / Contact Information	Project Location	State	PM	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed		STATUS
1	20241	1	Characterizing Drayage Activities and Emissions in Laredo-Nuevo Laredo Airshed	Texas A&M Transportation Institute (TTI) Farzaneh, Reza Research Engineer m-farzaneh@tamu.edu (512) 407-1118	Laredo	TX	JH AQ	9/1/2014 18 months	$ $	89,750.00 89,750.00	**Project Status:** The project concluded on March 2016. Some of the project significant contributions were: Important air quality impacts of drayage trucks in the region; specifically, the results show that the Colombia bridge crossing is the most utilized port of entry in the region, and is associated with relatively high emissions caused by high truck volumes and slow speeds, therefore high emissions adjacent to urban area of both Laredos.
2	20258	2	Determining the Ideal Bioswale Material for South Texas Stormwater Management	The University of Texas Pan American Jungseok Ho, Ph.D., P.E. (956) 665-3104, hoj@utpa.edu	Edinburgh	TX	AH AQ	12/1/2014 24 months	$ $	24,133.69 24,133.69	**Project Status:** The Bioswale Material for South Texas Stormwater Management project concluded on March 2017. Results include that after monitoring rain fall from April 2015 to November 2016, of the five porous materials used in the different parking areas pumice is a hydrologically best performing material for the bioswale porous media
3	20245	2	Conservación del Arroyo Las Vacas en Ciudad Acuña, Coahuila, Mexico	SECRETARÍA DE MEDIO AMBIENTE DEL ESTADO DE COAHUILA Alejandra Carrera alejandra.carrera@semarnat.gob.mx (844) 4100014	Acuña	COAH	BD AQ	7/14/2014 22 months	$ $	34,605.92 34,605.92	**Project Status:** The project concluded on May 2016. Some of the project significant contributions are: a) Binational group created among SEMA Coahuila, TCEQ, Acuna City, Tec of Acuna, CILA, IBWC, UT Austin CONANP. b) Diagnostic Report with inventory data of existing vegetation and species along the 26km of the Acuña river, GIS maps accessible to the public. c) Close out of 35 wastewater illegal dumping sites in 2015. d) Reforestation with 225 native trees. e) Binational workshop on water quality with Tecnologico de Acuña and Texas A&M at Austin.
4	20246	3	Diagnóstico de generación de residuos en la región fronterizo norte	Secretaría de Desarrollo Sustentable, Gobierno del Estado de Nuevo León Lic. Norma Rangel Sevilla, normaarangel@gmail.com, (81)2033-1930	Sabinas Hidalgo, NL	NL	JH MC	4/1/2014 15 months	$ $	17,457.39 17,457.39	**Project Status:** This project concluded on August 2015. Some of the project significant contributions were: * Characterization of waste in the municipality * Generation of a manual on handling e-waste * Action plan developed
5	20243	3	Keeping Pharr Beautiful Starts at Home	City of Pharr, Public Works Department Grace Segovia, M.A. City of Pharr, Public Works Department Phone: (956) 402-4350 grace.segovia@pharr-tx.gov	Pharr	TX	AH AQ	4/7/2014 20 months	$ $	19,830.86 19,830.86	**Project Status:** This project concluded on December 2015. Some of the project significant contributions were: * The reduction in illegal dumping cases from 350 in 2013 to 100 in 2014 * The number of tires collected by city workers decreased from 4,991 in 2013 to 4,520 in 2014.

6	20255	3	Alamo Recycling TEAM Includes Everyone (ARTIE)	City of Alamo Melisa Gonzales Storm Water Manager Phone: 956-787-0006 x 140 mgonzales@alamotexas.org	Alamo	TX	AH AO	4/21/2014 24 months	$ $	54,836.16 54,836.16	**Project Status:** Project concluded on May 2016. Some of the significant project contributions are: 1. Development and implementation of a proven sanitation model that can be easily replicated in other drains in Mexicali and other border cities. 2. Established the governance structure for the implementation of this model in other drains in Mexicali that ensures continued collaboration and coordination among government agencies, non-governmental organizations, and community groups. 3. Community members along the International Drain believe, once again, that illegal dumping in the drain can be eliminated.
7	20253	3	Manejo, Gestión y Control de Grasas y Aceites	Comisión Municipal de Agua Potable y Alcantarillado Marisela Flores floresmariela@hotmail.com (867) 712-5399	Nuevo Laredo	TAMPS	BD MC	6/3/2014 17 months	$ $	6,497.10 6,497.10	**Project Status:** This project concluded on February 2016. Some of the project significant contributions were: 449 establishments trained, giving them the necessary tools to establish procedures in its companies to raise their compliance, to strengthen the compromise among employees, creating a synergy with the operator body. 94 of these establishments will continue to be monitor by COMAPA to ensure environmental compliance and 13 establishments set up lats and oils traps. 88% of visited users comply with established procedures and are implementing the strategies presented in the workshops.
8	20252	Environmental Health	Promotora-Led Environmental Health Education for Children	La Amistad AHEC / Southwest Border AHEC Rose Martinez 830.758.1111 rose.martinez@swbahec.org	Eagle Pass	TX	AH MC	6/16/2014 17 months	$ $	69,023.50 69,023.50	**Project Status:** Project concluded on May 2016. Some of the significant project contributions are: 1. Development and implementation of a proven Sanitation Model that can be successfully replicated in other drains in Mexicali and other border cities. 2. Established the governance structure for the implementation of this model in other drains in Mexicali that ensures continued collaboration and coordination among government agencies, non-governmental organizations, and community groups. 3. Community members along the International Drain believe, once again, that illegal dumping in the drain can be eliminated.
9	20251	Environmental Health	Planeación de un Modelo de Información de la frontera Texas/Mexico	El Colegio de la Frontera Norte, A.C. Dr. Felipe Javier Uribe Salas Tel. (878) 782 7207 Texas A&M HSC Dr. Gerry Carrillo Phone: 956.668.6371 gcarrillo@tamhsc.edu	Piedras Negras Piedras Negras	COAH COAH	BD MC BD MC	5/15/2014 18 months 5/15/2014 18 months	$ $ $ $	19,140.15 19,140.15 15,958.30 15,958.30	**Project Status:** The project concluded on April 2016. Some of the project significant contributions are: a) Identification of agencies who manage health information in the region. b) Organization of a working group to discuss the information on environment and health, among: TCEQ, COLEF, SEMA Coahuila, Texas A&M McAllen Campus. c) MOU agreement between Colef and SEMA Coahuila to share health information and define health indicators. d) Diagnostic report with the identification of sources of environmental information with health associated diseases.

10	20270	Environmental Health	McAllen-Mission-Pharr/Reynosa Hazards in Transportation Binational Training and Exercise	City of McAllen Juan Gloria (956)681-2540 jgloria@mcallen.net	McAllen	TX	BD	4/24/2015	$ 45,455.00	**Project Status:** The Project concluded on December 2015. Some of the project significant contributions were: * Update of the Regional Sister City Plan e-directory * Training on HAZMAT response on International border crossing on Sept. 2015.
							MC	5 months	$ 45,455.00	

	$	396,688.07
	$	396,598.07
Total Approved	$	648,514.43
Total Disbursed	$	605,348.43

Updated March 31, 2018

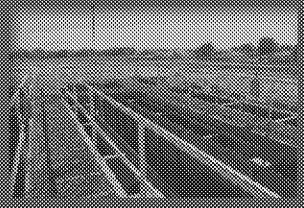
THREE STATE (TX-CH-NM) BORDER 2020 - 2017 PROJECTS											
NO.	PROJECT ID	B2020 GOAL	Name	Project Implementer / Contact Information	Project Location	State	PM	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed		STATUS
1		**2**	Collaborative K12 capacity building and research for air quality monitoring	Center for Environmental Resource Management and Geological Sciences Department, -University of Texas at El Paso Stanley Mubako stmubako@utep.edu			SV/AQ	3/12/2018	$	65,000.00	**Project status:** Project had its kickoff meeting on March and will be presented on the next JAC meeting to be held on May. Initial designing work is being done.
									$	65,000.00	
									$	-	

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2012 - 2013 PROJECTS											
NO.	PROJECT ID	B2020 GOAL	Name	Project Implementer / Contact Information	Project Location	State	PM	TAA signed / Period Of Performance	Amount Approved / Amount Disbursed	STATUS
2	2		Mitigating Localized Flooding - Development of a Green Infrastructure Master Plan, Mercedes, TX.	City of Mercedes Daniel Tijerina dtijerina@cityofmercedes.com	Mercedes	TX	JH/AQ		$30,000.00	**Project Status:**
1		**3**	Waste Separation Stations, Matamoros, TAMPS.	Presidencia Municipal H. Matamoros, Tamaulipas Dirección de Control Ambiental Eduardo Jorge Castilla e_castilla1974@hotmail.com	Matamoros	TAMPS	JH/AQ		$ 12,352.00	**Project status:**
									$42,352.00	
									$ -	

Updated March 31, 2018

Total Approved	$	107,352.00
Total Disbursed	$	-

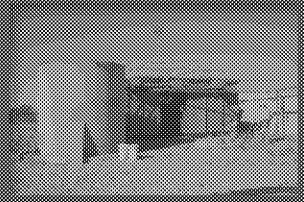
EPA Region 6



QUARTERLY REPORT

July – September 2018

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6
X4-00F92501



Submitted by:
Javier Torres, Technical Assistance Manager

Banco de Desarrollo de América del Norte
North American Development Bank

QUARTERLY STATUS REPORT

US-MEXICO COOPERATIVE AGREEMENT
Implementation of Border 2020 Program
EPA-Region 6

GRANT: X4-00F92501

Grant Period: Sep. 17, 2004 – Aug. 31, 2019

REPORTING PERIOD:

July – September 2018

TO:

Monica Randall
U.S. EPA, Region 6 (6PD)
Environmental Protection Specialist

FROM:

Javier Torres
North American Development Bank
Technical Assistance Manager

October 30, 2018, Cd. Juárez, Chihuahua, México

US Mexico Border 2020 Environmental Program - Quarterly Grant Status Report

Grant Title:	**Grant Agreement No.**
US – Mexico Border Cooperative Agreement Implementation of EPA Region-6 Border 2020 Program	X4-00F92501

Contact:

Primary Contact Name: **Javier Torres**
Organization: North American Development Bank
Telephone & Fax: 01-656-688-4600 Email: jtorres@nadb.org

Reporting Period (please check appropriate period):

- ☐ July 1 – September 30, 2017, Reporting period: report due on October 30, 2017
- ☐ October 1 – December 31, 2017, Reporting period: report due on January 30, 2018
- ☐ January 1 – March 31, 2018, Reporting period: report due on April 30, 2018
- ☐ April 1 – June 30, 2018, Reporting period: report due on July 30, 2018
- ☒ July 1 – September 30, 2018, Reporting period: report due on October 30, 2018
- ☐ October 1 – December 31, 2018, Reporting period: report due on January 30, 2019
- ☐ January 1 – March 31, 2019, Reporting period: report due on April 30, 2019
- ☐ April 1 – June 30, 2019, Reporting period: report due on July 30, 2019
- ☐ July 1 – August 30, 2019, Reporting period: report due on September 30, 2019

Check here if this is the final reporting period under your grant ☐

Please explain any current of expected growth of your project. If there is growth potential, have you consulted with other partners for further or future leveraging of funds, for continuing the project after funding from the Environmental Protection Agency ends?

None to report.

Indicate the goal(s) and objective(s) of the Border 2020 Framework Document that this grant is addressing (http://www.epa.gov/border2020)

GOAL 1. - *Reduce Air Pollution*

Objective 1. - By 2020, in accordance with the NAFTA, promote the reduction of the number of vehicles operating in the border region that do not comply with the respective vehicle emissions' standards and reduce

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vehicle emissions at ports-of-entry through anti-idling and other feasible reduction measures.

- **Project type 1:** Support the development of vehicle emissions programs in collaboration with governmental entities in order to improve compliance, enhance detection and correction of non-compliance vehicles. In addition, capacity building activities to reduce air pollution, in the border cities or at the Ports of Entry (POE), which may include the enforcement of environmental compliance at the time of used vehicle importation.

Objective 2.- By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards (i.e. National Ambient Air Quality Standards (NAAQS) or Norms as they are referred in Mexico) in the El Paso, Texas–Dona Ana County, New Mexico and at State of Chihuahua's border cities' air sheds.

- **Project type 1:** Establish joint collaboration strategies with governmental and/or non-governmental regulatory and planning agencies to identify and implement air pollutant reduction strategies to achieve better air quality in the Paso del Norte region (PdN). Projects should promote, expand, and be consistent with the strategies identified in PROAIREs (Mexico's air shed management plan) or U.S. Clean Air Act (USCAA) State Implementation Plans (SIPs.)

Objective 3. – By 2018, maintain effective Ambient Air Quality Monitoring Network (AAQMN) and provide real-time access to air quality data produced at New Mexico/Texas /Mexico air sheds.

- **Project Type 1:** Initiatives for this objective should aim to ensure the long term sustainability and data quality for the El Paso, Texas – Ciudad Juarez, Chihuahua air quality monitoring network.

GOAL 2: ***Water – Improve Access to Clean and Safe Water***

- **Project type 1:** Efforts under this goal should be targeted to capacity building proposals that incorporate replication strategies, on proper maintenance and/or decommissioning of septic tanks, water conservation and pollution prevention in order to better understand, plan and maintain cleanup sources of drinking water on future groundwater supplies in New Mexico-Texas-Chihuahua border, specifically in Dona Ana County, New Mexico (particularly those communities along the corridor between El Paso, Texas and Las Cruces, New Mexico) and Luna County, New Mexico and El Paso County, Texas.

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.

- **Project type 1:** Conduct energy and/or water audits on small water drinking systems that serve communities with less than a population of 5,000 users, to identify recommendations on how to improve efficiency and provide cost-savings measures for that system.
- **Project type 2:** Outreach and education to improve water quality within the Gulf Task Force Region.

Objective 3. - Work bi-nationally to identify and reduce surface water contamination in Trans - boundary water bodies and watersheds.

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Objective 3a. - Develop a binational watershed protection plan in the Lower Rio Grande below Falcon International Dam. Initial activities could include partnership building, watershed characterization, definition of goals/identification of solutions, determination of waste load, load allocations for each country, and development of an implementation plan.

- **Project type 1:** Continue to support activities that meet objective 3a– The proposals should address any water quality sampling and collection, data analysis, modeling and surveys still required by the bi-national workgroup on this project. In addition, the work should also support any additional training or workshops needed, among others, by the Amistad and Falcon Task Force, as well by the Texas-Coahuila-Nuevo Leon –Tamaulipas, Regional Work Group.

GOAL 3: ***Promote Materials Management & Waste Management, & Clean Sites***

Objective 1. - By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.

- **Project type 1**: Proposals should be aimed to build capacity and establish strategies to improve infrastructure to minimize waste, maximize collections systems, support secondary materials markets, and reduce overall disposal in landfills and open dumps.

Objective 2. - Identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.

- **Project type 1:** Identify priority waste streams in the municipalities from Four States region and develop sustainable waste management programs for those municipalities to include strengthening the market value of the waste.
- **Project type 2:** Develop sustainable management practices to address used electronics, household hazardous waste, and tires in the Region which will include an educational component to promote recycling and solid waste practices.

GOAL 4: ***Enhance Joint Preparedness for Environmental Response***

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

- **Project type 1:** Conduct bi-national training to both U.S. and Mexican local emergency responders, on incidents involving Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE), and/or all hazards response skills enabling them to respond safely and effectively to these types of incidences.
- **Project type 2:** Conduct bi-national training to U.S. and Mexican local emergency responders, specifically on HAZMAT incidences only.
- **Project type 3:** Conduct bi-national: 1) tabletop drill with functional drill/exercise or 2) Full Scale Drill/Exercises to test local sister city plans. In order to meet the definition of bi-national, the drills/exercises should go beyond a simple notification to the local sister-city pair and demonstrate actual

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coordination of resources (expertise, equipment, personnel, etc.) between the sister-cities.

- **Project type 4:** Develop a hazardous materials risk analysis.

GOAL 5. – Enhance *Compliance Assurance and Environmental Stewardship*

Objective 4. - By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including ports-of-entry customs professionals (i.e. Department of Homeland Security-Customs and Border Protection), to promote the exchange of information and improve understanding of each Country's respective compliance and enforcement programs and tools, including field studies.

- **Project type 1:** Proposals should consider events for information exchange to improve understanding each Country's respective compliance and enforcement programs and tools including field inspections and case development practices.

Fundamental Strategies

Promoting Environmental Health

- **Project type 1:** Projects presented under this fundamental strategy should increase engagement and participation by the community and stakeholders to better manage the environment and public health issues along the border.

Building Capacity towards Climate Change Resiliency

- **Project type 1**: The Border 2020 climate change efforts should focus on reducing greenhouse gas (GHG) emissions and on actions to help border communities become more resilient to the effects of climate change.

Summary of approved Work Plan activities performed during the reporting quarter.

Projects in progress during reporting period:

Project ID	Goal	Objective	Project Name	Status
20297	2	2	Decision Making Tool (DMT[G]) for Determining LID Stormwater Detention, Brownsville, Texas	**Project Status**: Project concluded during this quarter. Main results: This new DMT tool will serve as an on-demand platform for stakeholders, engineers, and water planners to improve the understanding of Green Infrastructure and Low Impact Development implementation in the region. It also conducted educational outreach activities to promote this tool to local school district officials, colonias, institutes of higher education, city, and county officials, water professionals, professional organizations and water-related organizations.

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Summary of the Work Plan performance outputs/outcomes achieved during the reporting quarter.

None to report.

Are you on track with your timeline? **Yes** ☒ **No** ☐

A description of problems encountered during the reporting quarter that may affect the project schedule and a discussion of meeting the performance outputs/outcomes.

None

Resolutions to Problems Previously Reported.

None to report.

Activities Anticipated/Planned for Next Three Months and Budgeted Costs.

Continue with the development of active projects.

Discuss what key personnel did on the project.

Briselda Duarte and Jorge Hernandez coordinated project development activities with EPA and sponsors. Marielena Constandse prepared this report and provided Contract Administration. Javier Torres provided Grant Administration coordination with EPA. Joaquin Marruffo supervised the execution of the project activities.

Discuss any changes in key personnel.

No personnel changes have taken place.

Please name any significant partner organizations that you (as the lead organization) have for this project, who are taking responsibility for substantial portions of implementation.

None to report.

BUDGET SUMMARY - Include information on the expenditure of grant agreement funds during the quarter and cumulatively by task in the provided budget tables. The tasks should correspond to the tasks outlined in your approved grant agreement work plan and the tables may be expanded accordingly. In addition, include in your narrative an estimate of funds needed to complete the work required in the grant agreement compared to the funds remaining in the grant agreement. ***Note: This section does not substitute for the annual financial status report (SF-269) required by the grant agreement***.

TABLE 1 Summary of Quarterly Expenses by Category (Report Period July 1 to September 30, 2018)				
Work Plan Tasks	**Approved Work Plan Budget**	**Previously Expended**	**Expenses this Quarter**	**Total Cumulative Expenses**
Task A- Projects	$ 278,255.00	$233,339	$14,517	$247,856
Task B- Emergency Response	$ 26,290.00	$25,055	$0	$25,055
Indirect Cost	$30,455.00	$25,839	$1,452	$27,291
TOTAL Cumulative Expenses	**$335,000.00**	**$284,233**	**$15,969**	**$300,202**

TABLE 2			
Budget Categories (programmatic costs only)	**Task A Projects**	**Task B Emergency Response**	**TOTAL Quarterly Expenses**
Personnel	$0	$0	$0
Fringe Benefits	$0	$0	$0
Travel	$0	$0	$0
Equipment	$0	$0	$0
Other (specify)	$14,517.06	$0	$14,517.06
TOTAL Direct Charges	$14,517.06	$0	$14,517.06
Indirect Costs	$1,451.71	$0	$1,451.71
TOTAL Cumulative Expenses	$15,968.77	$0	$15,968.77

[1]EPA defines equipment as items that cost $5,000 or more with a useful life of more than one year. Items costing less than $5,000 are considered supplies.
[2]Applicants must comply with the procurement procedures contained in 40 CFR 31.36, or for non-profits, with 40 CFR30.40.

Note: An amendment to the grant's budget is in process of approval by EPA.

What is the geographic scope of your project implementation? *(Include whether it is within the Tri-State and/or Four-State Region of Border 2020, whether implementation takes place in both the U.S. and Mexico, and any more specific implementation.)*

The geographic scope of this award covers the Tri-State Region, which includes the states of New Mexico, Chihuahua and the West Texas region; and the Four-State Region which includes the rest of Texas, Coahuila, Tamaulipas and Nuevo Leon.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official:

Printed Name: Javier Torres

Title: Technical Assistance Manager **Date:** October 30, 2018

Within 30 days following the end of each quarter, please submit this report to your EPA Project Officer.

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ATTACHMENT "A"

THREE STATE (TX-CHIH-NM) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20299	3	1	**Sewage Sludge and Biosolids Agricultural Soils project in the Valle de Juarez, Chihuahua**	Universidad Autónoma de Cd. Juarez	Jorge Hernandez (PM)	$ 44,136.56 $ 44,136.56	**Project Status:** Project is concluded. Main results include the implementation of 18 courses-training workshops with a total attendance of 410 people, including farmers, technicians, officials, students and the public in general. These courses were carried out with 12 informative drop-down publications and seven papers on the topics related to the importance of biosolids for the agriculture
2	20303	FS	N/A	**Healthy and Resilient Housing in west Ciudad Juarez, Chihuahua**	Federación Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.	Briselda Duarte (PM)	$ 47,106.10 $ 47,106.10	**Project Status:** Project completed March 2018. Preparation of a regional catalog with 32 eco-technologies. Technical and Financial Assistance customized for each of the 50 homes in the implementation and technical support and supervision of green catalog and construction elements. Quantitative results. 529m3 water saved per month, impermeabilization of 34 homes, 18 windows, 200 people benefitted
3	20302	FS	N/A	**Green Infrastructure in Public Space on Valle del Sol Avenue, Ciudad Juarez, Chihuahua**	Instituto Tecnológico de Ciudad Juarez	Joaquín Marrufo (PM)	$ 42,231.02 $ 42,231.02	**Project Status:** Project concluded on December 2017. Some of the most relevant outputs and outcomes are: Monitoring of rain water volume occurred during 17 months, from July 2016 to November 2017, with a total volume collected of 472,502.33 gallons of rainwater. To have a clearer understanding of the results, consider a 12-month period, where precipitation was of 13.79 in, resulting in a capture volume of 436,203 gal. Regarding the contaminants analyses, there was not enough rainwater volume to have a representative sample to be tested. In reference to the vegetation, there was an acceptable surviving index of the planted trees and bushes. The park has not had the need for irrigation, since rainwater does its part. Finally, with the green infrastructure project, the social value of the park increased
						Amount Approved	$ 133,473.68	
						Amount Disbursed	$ 133,473.68	

FOUR STATE (TX-COAH-NL-TAMPS) BORDER 2020 - 2015 PROJECTS

No.	Project ID	Goal/ Fund. Stategy	Objective	Project Name	Project Implementer / Contact Information	BECC Contract Officer & Project Manager	Amount Approved / Amount Disbursed	STATUS
1	20270	4	2	**Hazardous Materials First Responders Binational Training in McAllen, Mission, Pharr, TX and Reynosa, Tamaulipas**	City of McAllen Juan Gloria (956)681-2540 jgloria@mcallen.net	Marielena Constandse (CO) / Briselda Duarte (PM)	$ 25,055.00 $ 25,055.00	**Project Status:** Project concluded on February Some of the significant project contributions are: - Increase hazmat response skills and capabilities to first responders in McAllen, Mission and Pharr Fire Departments and first responders from northern Mexico. - Equipment will also be used in future binational trainings.
2	20285	3	1	**Comprehensive Solid Waste Management Project in Rio Bravo and Valle Hermoso, Tamaulipas**	Secretaria de Medio Ambiente	Jorge Hernandez (PM)	$ 19,871.16 $ 19,871.16	**Project Status:** The two municipal programs have been completed, and in August 10 and 24 they were presented for approval by the respective city councils. Some of the significant project contributions are: - The generation and waste composition studies allow both communities to know the type and amount of waste generated per inhabitant and could be marketed. The studies also calculate the areas required for the final disposal site according to their generation. - Both programs have been completed, and presented for approval by the respective city councils
3	20295	3	1	**Interagency coordination for the management of electronic and electrical waste in Ciudad Acuña and Piedras Negras, Coahuila**	Secretaría de Medio Ambiente del Estado de Coahuila de Zaragoza	Jorge Hernandez (PM)	$ 16,898.67 $ 16,898.67	**Project Status:** The project concluded in March 2017. The results of the project are. Collection of 56 tons of electronic waste (25 tons were targegted), which included 3 campaigns of massive collection of e-waste in several municipalities. 38 public and private organizations were trained and supported the campaign. A permanent collection of electronic waste was opened in Ciudad Acuña.

4	20297	4	2	**Binational Tabletop and Functional Exercises between Harlingen, TX and Matamoros, Tamaulipas.**	City of Harlingen Fire Department	Briselda Duarte (PM)	$ 44,692.30 $ 44,692.30	**Project status:** The project concluded in August. Some of the significant project contributions are: -Training of 19 officers and students from Harlingen (2), Mission (2), Brownsville (1) and Matamoros (14). -Harlingen and Matamoros have established the ability to implement standardized response and real time communication in the event of Hazardous Materials incidents. -A foundation for enhanced emergency response and cooperative incident management has been created
5	20297	2	2	**Decision Making Tool (DMT[G])** for Determining LID Stormwater Detention in Bronwsville, Texas	Texas A&M University-Kingsville	Jorge Hernandez (PM)	$ 38,885.00 $ 31,443.87	**Project Status:** Project concluded during this quarter. Main results: This new DMT tool will serve as an on-demand platform for stakeholders, engineers, and water planners to improve the understanding of Green Infrastructure and Low Impact Development implementation in the region. It also conducted educational outreach activities to promote this tool to local school district officials, colonias, institutes of higher education, city, and county officials, water professionals, professional organizations and water-related organizations.

Updated September 30, 2018

Amount Approved	$ 145,392.13
Amount Disbursed	$ 137,951.00

Total Approved	$ 278,865.81
Total Disbursed	$ 271,424.68