#### **GOAL 1: - REDUCE AIR POLLUTION**

Objective 1: Establish reliable and sustainably operated air monitoring networks and provide real-time access to air quality data

I Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Collecting continuous PM2.5 air data from temporary Met One NPM3 sensor at Akela, New Mexico Reservation  Fort	ort Sill Apache Tribe	(EPA) - Clean Air Act 103 Grant	Jennifer Heminokeky jennifer.heminokeky@fortsill apache-nsn.gov Monte Scammahorn monte.scammahorn@fortsill apache-nsn.gov	inventory and justification for a more permanent or official air monitoring at the site.	Achieve a foundational database and summary of levels detected to be used in developing an emissions inventory and to use as a basis for more permanent monitoring.	Initial Progress

Objective 1a: By 2023, increase knowledge-transfer and provide at least one training opportunity on performance standards and applications of low-cost air quality sensors.

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Maintain operation of Rural Areas air quality monitoring network for reliable data reporting to community of PM <sub>10</sub> levels, as well as other priority contaminants, as established under the New Mexico Office of		NMED Border and co-funding from NMDOH-OBH	Michael Baca michael.baca1@state.nm.us Freida Adams Freida.adams@state.nm.us  Dave DuBois dwdubois@nmsu.edu	sensor development and dust storm weather pattern	<ul> <li>Through an analysis map and monitor the sources of windblown dust in the three states.</li> <li>Integrate air quality monitoring efforts, data sharing and reporting among state and local authorities and</li> </ul>	Deliverable Achieved

		G	GOAL 1: – REDUCE A	AIR POLLUTION		
Border Health at the Department of Health (NMDOH-OBH) funded by the Binational Air Quality Assessment	Consortium including: New Mexico State University (NMSU)  University of Texas El Paso (UTEP)  Universidad Autónoma de Ciudad Juárez (UACJ)  Desert Research Institute  National Weather Service Santa Teresa			binational air quality monitoring information reporting to be included in the State of Chihuahua's ProAire.  • Make data available on Internet and other appropriate public access outlets (including mass and social media) in all three states.	universities of New Mexico, Northern Chihuahua, and West Texas.  • Assessment of climatological and meteorological phenomena.  • Inventory and characterization of sources of Particulates during extreme weather events.	
Air Quality Education in West Ciudad Juárez	Universidad Autónoma de Ciudad Juárez (UACJ)	\$36,982 Border 2025 funded project	Dr. Adrian F Vazquez fvazquez@uacj.mx  Briselda Duarte BDuarte@nadb.org	<ul> <li>Install a meteorological and air quality monitoring station in a community center in west Ciudad Juárez, Chihuahua to monitor PM10 and ozone and other meteorological data.</li> <li>Implementation of an environmental education program through workshops to the community centers of the west of the city.</li> </ul>	<ul> <li>Increase awareness on the public health effects associated with exposure to high levels of ozone and PM 2.5 in the El Paso, Texas and Ciudad Juarez, Chihuahua air basin.</li> <li>Low-cost sensors will be used to assess PM2.5 and O3 concentrations in a community center.</li> <li>Conduct a series of workshops to teach residents on the public health impact of poor air quality.</li> </ul>	Initial Progress

	GOAL 1: – REDUCE AIR POLLUTION								
Joint project on Air Quality Monitoring in the Paso del Norte (PDN) Region on Low-Cost Sensory Study	Universidad Autónoma de Ciudad Juárez (UACJ) University of Texas at El Paso (UTEP)	UT Austin - LBJ School of Public Affairs	Dr. Adrian F Vazquez fvazquez@uacj.mx;  Dr. Wen-Whai Li wli@utep.edu  Eddie Moderow Eddie.Moderow@tceq.texas .gov	<ul> <li>Improve Air Quality monitoring in the border region</li> <li>Produce a case study of scientific measurement and analysis.</li> <li>Foster binational technical exchange, while enhancing binational research collaboration among universities and students</li> <li>Present findings to the Joint Advisory Committee (JAC)</li> <li>Continue to operate network on both sides of the border in accordance with binational Quality Assurance Project Plan</li> </ul>	<ul> <li>Project team met with local stakeholders on October 19, 2022.</li> <li>Collect PM air monitoring data from 26 school sites in El Paso and Ciudad Juarez.</li> <li>12 months of PM Data will be complete in March 2023.</li> <li>Project completion date August 2023</li> </ul>	Significant Progress			
Objective 1b: By 2024, of	develop and implement	t a sustainable fundi	ng mechanism for air quality	monitoring in at least one Mexical	n state.				
Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status			
Binational Air Quality Monitoring Fund	Joint Advisory Committee (JAC) Fund Committee and Administrative Unit	\$99,753.00 North America Development Bank (NADBank) – Binational Air Quality Fund (AQF)	mitchell.mariama@epa.gov  Oscar Fentanes, oscar.fentanes@inecc.gob.	The fund established in February 2021 and managed by NADBank is to provide a sustainable financing mechanism to strengthen air quality monitoring		Significant Progress			

	Quality (TCEQ) \$102,000 in pass-	Administrative Unit: Eddie Moderow  Eddie.Moderow@tceq.texas	capabilities in Ciudad Juárez, Chihuahua, shared air basin  The AQF shall provide funding for:  Operating & Maintenance expense to support Ciudad Juárez's air quality monitoring stations  Infrastructure, technology and new equipment	<ul> <li>Continue operation and maintenance of sites</li> <li>Conduct an audit on monitoring network in Ciudad Juárez.</li> <li>On February 16, 2023 a new air quality monitoring station was inaugurated in Ciudad Juárez to expand the air monitoring network in the region.</li> </ul>	
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Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Deploy, maintain & operate Ciudad Juárez, Chihuahua Air Quality Monitoring network that jointly with El Paso Texas and Doña Ana County, New Mexico	Ciudad Juárez Ecology Air Quality Program Joint Advisory Committee (JAC) Technical Air Quality Monitoring Committee	Ciudad Juárez's \$55,000.00 from its appropriations budget	Cesar Fierro cfierro@chihuahua.gob.mx	Monitoring Network assessment, repairs, upgrade, and internet installment to improve connection to improve real time reporting and forecasting of ozone, PM2.5, and PM10 air quality.	Establish mechanism for sustainable means of financial support for air quality monitoring station.  Effective operation of air monitoring stations and real-time air monitoring data on web.	Significant Progress

	O	GOAL 1: – REDUCE A	IR POLLUTION	
Texas Commission on Environmental Quality (TCEQ)		<u>a.gob.mx</u>		
New Mexico Environment Department (NMED)				
City of El Paso Ysleta Del Sur Pueblo (YDSP)				
Mexico's Secretariat of Environment and Natural Resources (SEMARNAT)				
Mexico's National Institute of Ecology and Climate Change (INECC)				
State of Chihuahua, Secretariat for Urban Development and Ecology (SDUE)				
Universidad Autónoma de Ciudad Juárez (UACJ)				

	GOAL 1: – REDUCE AIR POLLUTION									
Air Quality Monitoring, assessment	Texas Commission on Environmental Quality (TCEQ) - Air Quality Monitoring Division	TCEQ annual budget	Eddie Moderow Eddie.Moderow@tceq.texas .gov		West Texas to capture information on three specific pollutants  Images were posted on TCEQ public website.  TCEQ will surplus the current camera equipment or determine if there are other viable logistics to retrieve the defunct camera equipment.  TCEQ will assess options to locate new cameras to capture similar data in the West Texas area at a site with safe and regular access to operate and maintain the cameras.  The Chelsea Street cameras continue to be non-functional due to construction activity and will need to be relocated in the area.  Project completed in April 2022.	Deliverable Achieved				
Texas Commission on Environmental Quality (TCEQ) Air Quality	TCEQ - Air Quality Monitoring Division		Eddie Moderow	Operation of border air monitoring stations and summary in End-of-Year report.	Monitoring sites will report 75% or greater data return each quarter. If required 75% data	Significant Progress				

	GOAL 1: – REDUCE AIR POLLUTION								
Assessment and Planning				the Upper, Middle, and Lower Rio Grande Valley sub-regions for specific parameters that vary by location, in accordance with applicable regulations, Quality	Environmental Protection Agency Region 6 Air Monitoring and Grants Section Chief within				
Ceilometer Operations and Maintenance in the Paso del Norte	Texas Commission on Environmental Quality (TCEQ)  University of Texas El Paso (UTEP)  Universidad Autónoma de Ciudad Juárez (UACJ)	\$200,000 US federal and state funds		of three Ceilometers, two in El Paso and one in Ciudad Juárez. Analyze, publish, and archive	Ceilometer data from El Paso and Ciudad Juárez. Project will be completed August 2023.	Significant Progress			
Binational Homologation: Quality Assurance/Quality Control (QA/QC)	Texas Commission on Environmental Quality (TCEQ) Air Quality Fund Technical experts from Mexico City and Monterrey, Nuevo León	\$30,000 U.S. federal and state funds	Jose Palacios  Jose.L.Palacios@Tceq.Te  xas.Gov  Eddie Moderow  Eddie.Moderow@tceq.te  xas.gov	<ul> <li>Two binational technical exchanges: one virtual and one in-person.</li> <li>A crosswalk or technical comparison of Mexico and United States Quality Assurance Project Plan (QAPP) for air quality monitoring.</li> <li>A Mexico approved QAPP for operations in Ciudad Juárez.</li> </ul>	On February 15 and February 17, 2023, 40 U.S. and Mexican air quality managers and operators participated in two QA/QC workshops in Ciudad Juárez and El Paso, respectively. The workshops strengthened collaborations between U.S. and Mexican technical experts and promoted knowledge exchange as well as sharing of QA/QC best practices.	Moderate Progress			

Juárez's Vehicle

Program (VEIP)

**Emissions Inspection** 

## Border 2025 Action Plan (2021-2023) Texas – New Mexico – Chihuahua Region

GOAL 1: - REDUCE AIR POLLUTION								
					Complete target outputs by August 2023			
Objective 2: Increase th Indigenous communitie		_	issions inventories across	the border and among federal	, state, local, Tribal government	s and Mexican		
<b>Objective 2a</b> : By 2023, s and municipal emissions monoxide, lead, sulfur did	inventories, starting w	ith at least two binati	ional airsheds. The initial focเ	ation, and pursue greater harmorus will be on "criteria" pollutants a	nization when developing and impl and their precursors (particulate ma	roving national, st atter, carbon		
<b>Objective 2b:</b> By 2024, e maintenance.	expand technical trainii	ng to promote standa	ardized approaches to emissi	ions inventory development (inclu	uding source measurement and te	sting) and		
Objective 3: Reduce veh		e border region, inc	luding by establishing or s	trengthening programs that re	duce the number of vehicles tha	at do not comply		
Objective 3a: By 2024, in standards.	ncrease cross-border (	interagency, intersta	ite, and international) access	to databases that officials can us	se to verify that used vehicles mee	et emission		
Objective 3b: By 2025, in or more Mexican states.	mplement new vehicle	inspection and main	ntenance programs or improv	e the existing programs, achievir	ng at least 50% compliance in two			
Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status		
compliance of Ciudad				Increase of 25% from previous	At least (if not more) 50% of total			

\$15.0 per VEIP test

paid by Vehicle

Owner

Ciudad Juárez's

**Ecology Department** 

Ricardo Aragon Burciaga activity will be in motion on a ricardoaragonb@gmail.com yearly basis until all vehicle

year's Vehicles Inspected this

fleets in Ciudad Juárez comply with Vehicle Inspection Program.

activity will be in motion on a

vehicle fleet to be inspected.

Moderate Progress

GOAL 1: – REDUCE AIR POLLUTION							
Surveillance of freight and public transportation compliance of Emissions Inspection as per Chihuahua State Regulation	State of Chihuahua, Secretariat for Urban Development and Ecology (SDUE)	\$20.0 per Rigg or Bus inspected paid by vehicle owner	Francisco Gomez Licón	inspections this activity will be in motion on a yearly basis until all freight and public in Juárez comply with Emission Inspection Program	vehicle of Freight and Public Bus circulating within City of Juárez	Significant Progress	

#### **GOAL 1: – REDUCE AIR POLLUTION**

**Objective 3c:** By 2025, reduce emissions from freight transportation in the border region by increasing information exchange and harmonization between U.S. EPA's SmartWay program and Mexico's Transporte Limpio program.

Objective 4: Deploy strategies and technologies to reduce pollutant emissions and improve public health outcomes.

**Objective 4a:** By 2023, implement a program on air-quality-related health effects and/or a communication campaign on air-quality-related health risks and mitigation measures in at least one additional urban airshed (e.g., a public awareness campaign on the health impacts of agricultural burning).

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Mapping the General Urban Heat and Identifying Urban Heat Island Spots	City of El Paso	\$22,692  Border 2020 funded project  Funds from National Integrated Heat Health Information System (NIHHIS) – Climate Adaptation Planning and Analytics (CAPA) Urban Heat Island Mapping Campaign	Fernando Berjano berjanofl@elpasotexas.gov	To produce heat maps for El Paso Engage the public to understand heat related problems and explore solutions.	<ul> <li>On the campaign date, July 10, 2020, 41 volunteers collected temperature and humidity measurements in different areas within the city.</li> <li>CAPA produced three different time-stamped maps showing heat fluctuations within the city.</li> <li>Two hybrid workshops were held on Jun 24, 2021, and Nov. 4, 2021, with over 50 participants.</li> <li>An online survey was completed by 116 El Paso residents.</li> </ul>	Deliverable Achieved
Air Quality Assessment: International Bridge of the	University of Texas at	\$99,586		To monitor and assess air quality conditions and their effects at	The project goal is to monitor and assess air quality conditions	Initial Progress
Americas (BOTA), El		Border 2025 funded		one of the international crossings		Initial Progress
Paso Texas	,	project	Briselda Duarte	in the Paso del Norte airshed.	crossing of BOTA, using	

GOAL 1: - REDUCE AIR POLLUTION							
				Address indoor and outdoor air quality pollution sources.	personal and low-cost sensors that will measure PM2.5 emissions.		
Ysleta del Sur Pueblo (YDSP) Participation in a course on "Addressing Air Quality in Tribal Communities"	Northern Arizona University Institute for Tribal Environmental Professionals YDSP	No Cost		Raise awareness in Tribal Communities	Raise awareness in Tribal Communities by articulating tribes' main air quality issues and identifying resources needed for them to address ambient air quality issues in their community.	Deliverable Achieved	

**Objective 4b**: By 2025, implement at least two policy-based (e.g., multi-pollutant assessment, co-mitigation of short-lived climate pollutants, and Global Methane Initiative) or technology-based (e.g., renewable energy financing or other incentives) programs targeting specific pollutants or sectoral emissions of local concern

Objective 4c: Implement additional emission reduction strategies consistent with applicable State Implementation Plans (SIPs) and PROAIREs

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
ProAire Subcommittee Meetings, Ciudad Juárez	State of Chihuahua, Secretariat for Urban Development and Ecology (SDUE)  Mexico's Secretariat of Environment and	No Cost	Martha Erika Caballero Sanchez <u>mcaballero@chihuahua.gob</u> <u>.mx</u>	on ProAire Strategies and Measures for Ciudad Juárez. Meetings have been held Aug. 5, 15, and 25, 2022 to discuss strategies and measures for air	ProAire meetings will be held monthly. Update ProAire for state of Chihuahua.	Moderate Progress
	Natural Resources (SEMARNAT)			quality improvement in Ciudad Juárez.		

Objective 5: By 2025, support update and/or completion of climate action plans in each of the six northern Mexican Border States (as appropriate) and build the necessary capacity to guarantee sustained implementation.

#### **GOAL 2: IMPROVE WATER QUALITY**

Objective 1: Address Border Water Management in the Tijuana River Watershed. The EPA and SEMARNAT are to coordinate with specific federal, state, and local entities to plan and implement high priority infrastructure projects that address transboundary pollution affecting the Tijuana River watershed. (Region 9 ONLY: N/A for Region 6)

**Objective 1a:** Carry out the planning, design, construction, and operation and maintenance of high priority treatment works in the Tijuana River Watershed. (Region 9 ONLY: N/A for Region 6)

Objective 2: Improve Drinking Water and Wastewater Treatment Infrastructure. Ten drinking water and/or wastewater projects will be developed and certified by the NADB Board of Directors by 2025 under the Border Water Infrastructure Program

Objective 2a: Increase access to safe drinking water and wastewater treatment in underserved communities.

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Ciudad Juárez, Chihuahua – Wastewater Collection Rehabilitation	Region 6 Environmental Protection Agency (EPA) – Project Development Assistance Program (PDAP)  North American Development Bank (NADBank)  Junta Municipal de Aguas y Saneamiento (JMAS)	\$11,500,000	Gilbert Tellez Tellez.gilbert@epa.gov	Final design is complete and financial analysis is in progress.  Address four major wastewater collectors in the Northwest area of Ciudad Juárez known to have wastewater discharges to the Rio Grande in the vicinity of El Paso, Texas.	Certify project and begin construction	Significant Progress
"Closing America's Wastewater Gap" pilot project	Environmental Protection Agency (EPA) - Headquarters Office of Water and	In-kind	Salvador Gandara <u>Gandara.salvador@epa.gov</u>	Project will take place in Chaparral, New Mexico and will evaluate their existing conditions, provide community	Initial meetings with community	Initial Progress

		G	OAL 2: IMPROVE WA				
	Region 6			outreach/education if necessary and provide the community with a roadmap/action plan that can identify alternatives to septic tanks, identify funding sources to implement the findings			
Objective 2b: Reduce di Grande/Rio Bravo waters		wastewater into the	oceans and transboundary ri	ivers such as those in the Tijuana	River, New River, Santa Cruz Riv	er and the Rio	
Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status	
Storm Water Pollution Prevention Inspections for developing sites on tribal land in accordance with the National Pollution Discharge Elimination System.	Environmental Protection Agency (EPA) - Indian Environmental General Assistance Program (IGAP)  Ysleta del Sur Pueblo (YDSP)	EPA Headquarters Office of Water and Region 6 In-kind	Barbra Valdivieso bvaldivieso@ydsp-nsn.gov	Inspections for pollution prevention conducted monthly for ongoing construction activities on tribal land to prevent the discharge of pollutants into nearby U.S. or Tribal waters.	Maintain effective pollution prevention measures to minimize the discharge of pollutants into nearby waters of the U.S. and Tribe.	Moderate Progress	
Objective 3: Improve O		r and Wastewater In	frastructure.				
Objective 3a: Ensure tha	at infrastructure project	ts funded by the U.S.	or Mexico have adequate C	0&M reserves and long-term plani	ning.		
Objective 3b: Build capa wastewater discharged to	acity at water utilities the a public wastewater t	nrough training and patreatment plant); Ope	rograms that improve the follorational, managerial, and fin	lowing: Asset management; Wast ancial management.	ewater pretreatment (treatment of	industrial	
Describlian at Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status	
Sunland Park, New Mexico – Asset Management	Region 6 Environmental Protection Agency (EPA) – Project Development	\$135,000	Gilbert Tellez <u>Tellez.gilbert@epa.gov</u>	Development, analysis and purchase of asset management software. This software is a database that keeps track of water and wastewater assets	Utility implementation of the asset management software by 2023.	Significant Progress	

		G	OAL 2: IMPROVE W	ATER QUALITY		
	Assistance Program (PDAP)  North American Development Bank (NADBank)  Camino Real Regional Utility Authority (CRUUA)			(tracks capital improvement, tracks existing equipment, material, and others). This planning tool will increase the efficiency of management of the utility.		
American Rescue Plan Act Financial, Operational, Technical and Managerial Training		\$75,000	Gilbert Tellez <u>Tellez.gilbert@epa.gov</u>	Support Tornillo, Texas, in identifying, addressing aging infrastructure, regulatory requirements, user fees/rates, utility financial audits, utility technical training and Capital Improvement Plan development.	Development of workplan	Initial Progress

Objective 4: Promote beneficial reuse of treated wastewater and conservation of water and energy. 100% of Border Water Infrastructure Program projects selected for development will include an assessment of water reuse opportunities, if appropriate by 2025.

Objective 4a: Assess opportunities to fund wastewater reuse projects through the infrastructure program, complying with current regulations.

Objective 4b: Develop at least one wastewater reuse pilot project, or one utility-driven water/energy audit.

Objective 5: Implement projects to prevent and reduce the levels of trash and sediment from entering high priority binational watersheds. Projects that prevent/reduce marine litter should primarily focus on preventing waste at the source through improvements to solid waste management systems, education campaigns, and monitoring as well as reducing trash from entering the aquatic environment through the capture of litter using river booms in known watershed litter hot spots. Funding sources are intended for at least one project in Tijuana River, New River, Rio Grande, and Santa Cruz River watersheds will be implemented to address trash or sediment by 2025.

### **GOAL 2: IMPROVE WATER QUALITY**

Objective 6: Improve access to transboundary water quality data.

I DESCRIPTION OF ACTION	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Agua	inta Municipal de ua y Saneamiento (JMAS) Ciudad Juárez	In-kind by organizers	Manuel Herrera	•	Increase knowledge on water sustainability in the Paso del Norte Region.  Presentation topics: viability and climate change: drought, over exploited aquifers, industrial and agricultural sustainability, access to safe and clean drinking water: a human right, binational mechanisms, 1944 water treaty and climate change, cooperation agreements, binational agreements for water sustainability.	Deliverable Achieved

**Objective 6a**: Ensure sewage spill notification protocols are in place for all communities affected by transboundary flows of untreated sewage. A sewage runoff model will be developed for Tijuana by 2021. Spill notification protocols will be developed in three high priority watersheds by 2025.

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Binational Notification Process for Sunland Park, New Mexico – Ciudad Juárez, Chihuahua in the event of transboundary sewage spill	U.S. International Boundary and Water Commission US section (IBWC) and Mexican section (CILA)  Environmental Protection Agency (EPA)	No Cost	Gilbert Anaya gilbert.anaya@ibwc.gov  Carlos Rincon Rincon.carlos@epa.gov	<ul> <li>To notify and address on both sides of the border any wastewater spill events.</li> <li>From May 2021 to May 2022, there have been approximately seven notifications, of which one notification included the State of Texas.</li> </ul>	list in 2022.	Moderate Progress

	GOAL 2: IMPROVE WATER QUALITY								
Camino Real Regional Utility Authority (CRUUA)	In 2021 the spill notification contact list was updated								
New Mexico Environment Department (NMED)									
Junta Municipal de Agua y Saneamiento (JMAS)									
Comisión Nacional del Agua (CONAGUA)									
U.S. Customs									

**Objective 6b**: Increase awareness of beach contamination from marine debris and untreated sewage through modeling, monitoring (should focus on sources and types of marine debris) and special studies.

**Objective 6c:** Ensure that U.S. Section of the International Boundary and Water Commission (IBWC) website displays timely information on water quality in high-priority watersheds including the Lower Rio Grande/Bravo, the New River, the Santa Cruz River and the Tijuana River

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
International Boundary and Water Commission (IBWC) Water Data Portal	IBWC	Part of IBWC Budget	Gilbert Anaya gilbert.anaya@ibwc.gov		Continue with data on website and to update the public  IBWC hopes to add the discreet water sample data collected by the Texas Clean Rivers program for the Rio Grande basin. Also on the Rio Grande, there are some near-real time conductivity	

GOAL 2: IMPROVE WATER QUALITY						
				sensors run by Mexican section of the IBWC that will be turned back on.		
Objective 6d: Continue the work of the binational water quality improvement plan as part of the Lower Rio Grande Water Quality Initiative in the Lower Rio Grande below Falcon International Dam. (N/A to 3 state region.)						

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

Objective 1: By 2025, share information and experiences on sustainable materials management and resource efficiency practices with local and state-level institutions, tribal governments, and indigenous and Afro-Mexican communities.

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021-2023	Status
Bill for the Prevention and Integrated Waste Management in the State of Chihuahua	State of Chihuahua, legislative and executive branch Ciudad Juárez	No cost anticipated  Legislative and Executive Office of State of Chihuahua	francisco.gomez@chihuahu a.gob.mx Luisa Mariñelarena luisa.marinelarena@chihua	A legislative bill proposal that would allow matching federal funds from Ramo 16, Federal Appropriation line item to finance annually actions from collection fees possible at each of the three states of the region.	Draft language for the legal statue is completed and is being reviewed by several offices within the state before it goes to the state congress for approval.  Anticipated publication of law is December 2023.	Significant Progress
Waste Task Force Meeting	Environmental Protection Agency (EPA)  Mexico's Secretariat of Environment and Natural Resources (SEMARNAT)	EPA SEMARNAT North American Development Bank (NADBank) Colegio de Chihuahua	Cristina Viesca cristinav@epcounty.com  Nestor Acosta Acosta.ambiental@gmail.co m	Planned presentations: Co-processing of waste tires in a cement kiln, Grupo Cementos de Chihuahua  Frontiers without Tires, Employers Confederation of the Mexican Republic (COPARMEX)  Urban waste management at the border: Case of the Ojinaga landfill, Chihuahua, State of Chihuahua, Secretariat for Urban Development and Ecology	attended by 50 people, 24 in person and 26 via Zoom from various levels of the U.S. and Mexican governments, academia and nongovernmental organizations.  Presentations included information on waste regulation	Deliverable Achieved

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

Objective 2: Identify priority waste streams and develop sustainable materials management and resource efficiency practices that strengthen their respective market value.

Integrated Waste Management Plan for the Landfill of the	Public Works Department, Ciudad Juárez	Border 2025	Gibran Alhe Solis Kanahan dgsp.dl direccion@juarez.	current waste management at the	Improve material reuse, recycle and recovery efforts to work towards a circular economy	Initial Progress
Municipality of Ciudad Juárez, Chihuahua		funded project	<u>gob.mx</u>	Identify available technologies suitable to implement at the landfill.	that will minimize environmental impacts. Formalize the Waste Management Plan for the landfill in Ciudad Juárez.	

Objective 2a: Identify and measure priority waste streams by 2022

Objective 2b. Develop strategies or trainings to reduce illegal dumping, maximize material recovery, and promote environmentally sound disposal practices by 2025.

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
Sustainable utilization of biosolids through compost in Ciudad Juárez, Chihuahua	Junta Municipal de Agua y Saneamiento (JMAS) de Ciudad	Border 2020 funded		for the use of biosolid waste as a fertilizer, activating a composting process.	The project team prepared composts of different sizes with various sludge to organic mulch content. Over 200 cubic meters of suitable quality compost were prepared and used for planting trees in local parks as well as local and rural areas within the Ciudad Juárez – El Paso border region.  This project was broadcasted through news outlets on July	Deliverable Achieved

GOAL 3: PROMOTE SUSTAINABLE MATERIALS MANAGEMENT AND WASTE MANAGEMENT, AND CLEAN SITES								
					23, 2021			
Community Recycling in Ciudad Juárez	Ecology Department of Ciudad Juárez	In-kind	César René Díaz Gutiérrez crdiagut@hotmail.com		Waste collection event was held October 2022.  Collected items included 30 tons of e-waste, 200 liters of motor engine oil, 200 liters of vegetable oil, 2,500 tires, 5 tons cardboard and paper and 2 tons of plastic waste.	Deliverable Achieved		

Objective 3: By 2025, improve knowledge at every level of government (federal, state, local) to improve solid waste disposal site operations

Objective 3a: By 2023, identify strategies to reduce illegal dumping and promote clean sites.

I Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
En F	exas Commission on nvironmental Quality (TCEQ) Environmental Protection Agency (EPA)	LIA	Eddie Moderow <u>Eddie.Moderow@tceq.texas</u> <u>.gov</u>	Increase knowledge on rethinking scrap tires as a resource and sustainable end of life uses.	<ul> <li>Binational webinar was held August 26, 2022</li> <li>Presenters included EPA, TCEQ, City of Laredo, Ciudad Juárez Employers Confederation of the Mexican Republic (COPARMEX), City of Nuevo Laredo, City of Guadalajara and City of Houston</li> <li>There were approximately 90 webinar attendees.</li> </ul>	Deliverable Achieved
Conduct a tire- recycling Ys event for the Tribal	sleta Del Sur Pueblo (YSDP)	YDSP	Barbra Valdivieso bvaldivieso@ydsp-nsn.gov		Assess Tribal community interest in recycling	Initial Progress

GOAL 3: PROMOTE SUSTAINABLE MATERIALS MANAGEMENT AND WASTE MANAGEMENT, AND CLEAN SITES									
En	Environmental Protection Agency (EPA) - Indian nvironmental General Assistance Program (IGAP)	IGAP	address contami Tribal lands.	ninated sites on					

Objective 3b: By 2025, identify strategies to reduce landfill fires.

Objective 4: Prevent and Reduce Pollution in the Marine Environment. Not Relevant to 3state Region

**Objective 4a**: Promote solutions that involve identifying hotspots of litter accumulation in and around waterways, especially in shared watersheds, and build capacity for improving waste management systems and preventing leakage where necessary.

Objective 5: On an annual basis, implement the Binational Consultative Mechanism on sharing information on border area hazardous waste facilities, spent lead acid battery and electronics recycling facilities.

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
Binational Consultative Mechanism (CM)	Environmental Protection Agency (EPA)  Mexico's Secretariat of Environment and Natural Resources (SEMARNAT)			Collect and share information on the hazardous waste facilities, spend lead-acid batter (SLAB) recyclers and electronic waste recyclers that lie 100km on both sides of the border.	<ul> <li>Draft of CM Facilities was received from Texas and New Mexico on July 13, 2022.</li> <li>Updates from the US Facilities were provided to SEMARNAT on October 11, 2022.</li> <li>Awaiting updates from SEMARNAT for Chihuahua</li> </ul>	Moderate Progress

### GOAL 4: IMPROVE JOINT PREPAREDNESS FOR AND RESPONSE TO HAZARDOUS ENVIRONMENTAL EMERGENCIES

Objective 1: Update the Joint Mexico-United States Contingency Plan (JCP) and evaluate the emergency notification system along the border of Mexico and the United States.

**Objective 1a:** In 2021, the JCP notification system should be reviewed and updated to assess its operability and incorporate possible protocol changes and new technological developments.

**Objective 1b:** By the year 2022, a revised and updated version of the JCP will be finalized, including any changes and / or modifications of the participating parties (names, affiliations, etc.) of the governmental structure of both countries.

**Objective 1c**: As part of the evaluation of the operability of the JCP notification system, each country should conduct at least 40 annual chemical emergency notification drills through the National Center of Communication (CENACOM) in Mexico, and the National Response Center (NRC) in the United States.

#### Objective 2: Review, update and evaluate the Sister City Joint Contingency Plans (SCJCPs).

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
Review and update Sister City Communication contacts	City of El Paso Sunland Park Ciudad Juárez Doña Ana County Ysleta del Sur Pueblo (YSDP) Emergency Response personnel			Update tri-National sister city communication contacts	<ul> <li>The sister city stakeholders met to discuss sister city plan updates and emergency response communication protocols on:         <ul> <li>Jul. 20, 2021</li> <li>Aug. 24, 2021</li> <li>Feb. 1, 2022</li> </ul> </li> <li>In April 2022 and January 2023 contact list was updated.</li> <li>Communication contacts will be updated annually.</li> </ul>	Moderate Progress

#### GOAL 4: IMPROVE JOINT PREPAREDNESS FOR AND RESPONSE TO HAZARDOUS ENVIRONMENTAL EMERGENCIES

**Objective 2a:** By 2021, a study of the 15 SCJCPs should be completed utilizing existing risk analysis data. This study must consider, among other aspects, the SCJCP's content and scope.

**Objective 2b:** By the year 2022, a joint study should be carried out in the border region aimed at adjusting the number of Border Sister Cities that are members of the JCP.

**Objective 2c:** Based on the results of the sister city JCP Study, the updated SCJCP's must be promoted to the corresponding stakeholders (Regional Groups, NADB, etc.) during the Border 2025 Environmental Program. The actions carried out in this objective will be aimed at achieving the update of the 15 SCJCP's between 2020 to 2025.

**Objective 2d:** In order to evaluate the SCJCP, each country must conduct at least three annual field drills in the Sister Cities located in the Mexico - United States border region, ensuring a joint response is carried out. Prior to conducting the drills, the participating staff must be trained through the delivery of binational seminars

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
Bi-National Exercises (Test notification of sister-city plans, tabletop or full-scale exercise)		In-kind	Lilia Aide Gonzalez Bermudez <u>lilia.gonzalez@profepa.gob</u> <u>.mx</u>	PROFEPA Bi-National     notification to test notification	Continue exercises in person for July 2023	Deliverable Achieved
Binational Emergency Response Exercise, Ciudad Juárez, Electrolux	Federal Attorney of Environmental Protection (PROFEPA)	In-kind		PROFEPA binational emergency response field exercise drill	<ul> <li>In July 2022 conducted 2 notifications, one in Ciudad Juárez, one in Ojinaga.</li> <li>On July 8, 2022, a field drill exercise was conducted in Ciudad Juárez, Electrolux to stimulate the spill of cyclopentane leading to a fire.</li> </ul>	Deliverable Achieved

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
_	ree annual seminars, wo and emergency manage	•	linated courses should be c	onducted between the two countrie	s on topics including chemical su	bstances, risk and
				ed during the year 2021 and implent petency of emergency responders.	nented throughout the Border 202	25 program. The
				oment of in-person or online train support material to help inform the		
national Emergency esponse Table-top kercise, Presidio, TX.	Texas Department of Emergency Management (TDEM) City and County of Presidio	In-kind	Al Talavera al.talavera@tdem.texas.go <u>v</u>	Binational emergency response table-top exercise for the simulation of diesel fuel spill  Three planning meetings were held for the table-top exercise on April 5, May 5, and July 7, 2022.	<ul> <li>Approximately 150         participants played a role in         the planning and execution         of the exercise.</li> <li>Table-top exercise was         conducted September 13, 2022.</li> <li>Participating agencies:         <ul> <li>Environmental Protection                 Agency (EPA)</li> <li>Customs and Border                 Protection</li> <li>Texas Parks and Wildlife</li> <li>Texas Commission on                 Environmental Quality                 (TCEQ)</li> <li>International Boundary and                 Water Commission (IBWC)</li> <li>Ojinaga Volunteer Fire                  Department</li> </ul> </li> </ul>	Deliverable Achieved

GOAL 4: IN	IPROVE JOINT P	REPAREDNESS		SE TO HAZARDOUS ENV	RONMENTAL EMERGEN	ICIES
	Emergency Response Task Force in El Paso/ Cd. Juárez/ Sunland Park/Ysleta del Sur Pueblo		Princida Duarto	Build capability, strengthen relationships, and establish mutual aid agreements among emergency responders in the Paso del Norte Region for the mitigation of uncontrolled chemical leaks from transportation vessels through training and equipment purchase.		Deliverable Achieved
OSHA HAZWOPER 24-HR – virtual	U.S. and Mexican Emergency Responders  Customs and Border Protection  Federal Attorney of Environmental Protection (PROFEPA)	\$60,000  Environmental Protection Agency (EPA) Region 6 Superfund	Pratietha Adame	To increase knowledge on HAZWOPER, Hazardous Waste Operations and Emergency Response standard protocols.	<ul> <li>English training held October 19-20, 2021 (40 participants)</li> <li>Two Spanish trainings were offered on Sept. 28-30, 2021, and Oct. 26-28, 2021, each with approximately 140 and 120 participants, respectively.</li> </ul>	Deliverable Achieved
OSHA HAZWOPER 16-HR – field	,	\$35,000  Environmental Protection Agency (EPA) Region 6 Superfund	adams.pratistha@epa.gov	To increase knowledge in hands- on HAZWOPER, Hazardous Waste Operations and Emergency Response standard protocols and equipment uses.	Two trainings were conducted in 2022:  • Santa Teresa, New Mexico (March 7 – 8) with 10 emergency responders from Ciudad Juárez  • Presidio, Texas (March 10 –	Deliverable Achieved

GOAL 4: IN	GOAL 4: IMPROVE JOINT PREPAREDNESS FOR AND RESPONSE TO HAZARDOUS ENVIRONMENTAL EMERGENCIES									
					11) with seven responders from Presidio and 12 emergency responders from Ojinaga					
Radiological Incidents and Terrorism – online Spanish course		Environmental Protection Agency (EPA) Region 6 children's health program  Southwest Center for Pediatric Environmental Health – El Paso	Ginny Vietti <u>vietti.virginia@epa.gov</u>	Increase first responders' knowledge on radiological incidents and terrorism	On January 12, 2022, approximately 33 Mexican responders attended training on Radiological Incidents and Terrorism.	Deliverable Achieved				

**Objective 3c:** In order to complement the training opportunities, audiovisual material and online courses focused on prevention and response to chemical emergencies should be made available at the border.

Objective 4: Design and implement the guidelines and protocols to ensure rapid, safe, and legal passage of personnel and materials across the Mexico – United States border in emergency response situations

**Objective 4a:** By 2021, an action plan should be developed to address respective liability coverage of each country to facilitate the movement of people and materials across the border during drills or emergency events.

**Objective 4b:** By 2022, each country should complete a report on the status of transboundary movement of human and material resources during emergencies, as well as the current and future actions that are being carried out.

Environmental Just	tice	GUIDING PF	RINCIPLES AND CRO	OSS CUTTING MEDIAS		
Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2022- 2023	Status
	Environmental Protection Agency (EPA)- El Paso Border Office & EPA Region 6 Environmental Justice Program	In-kind	Carlos Rincon, rincon.carlos@epa.gov	To meet with Colonia residents in Sunland Park, New Mexico and hold a listening session about their environmental concerns and priorities	First meeting was held on October 5, 2022, with approximately 30 community residents from Sunland Park and Anapra, New Mexico as well as El Paso and San Elizario, Texas.  Participating community organizations: Empowerment Congress of Sunland Park, New Mexico as well as A.Y.U.D.A. Inc. and Familias Triunfadoras of San Elizario, Texas.	Deliverable Achieved
Air quality and asth	nma actions				,	
Integrated pest mai	nagement and pesticion	de exposure actions				
Multi-topic environi	mental health actions	(IPM, IAQ, vector-bor	ne, asthma-related, child	ren's health, Healthy Homes, etc.	)	
Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
onthly Pediatric nvironmental Health rand Rounds	Southwest Center for Pediatric Environmental Health - El Paso	In-kind	Ginny Vietti vietti.virginia@epa.gov	Monthly virtual Grand Rounds training sessions on various children's environmental health topics.	In person or virtual workshops	Moderate Progress

				Target audience is all involved in pediatric health care, childcare, community health workers, etc.		
Outreach for Healthy Learning Environments in El Paso, TX	School of Public Health at El Paso Campus	\$200,000 Children's Environmental Health	Ginny Vietti <u>vietti.virginia@epa.gov</u>	1	In person or virtual technical support	Initial Progress

### Lead poisoning prevention actions

### Cross Media Efforts for Border 2025 Outreach

Description of Action	Collaborating Organizations	Cost and Source	Lead Points of Contact	Target Outputs	Expected Results in 2021- 2023	Status
Our Water, Our Future: Proyecto Transfronterizo del Cuidado del Agua	Patronato del Museo del Niño de Ciudad Juárez, A.C.	\$61,041 Border 2020 funded project	Karen Alamo <u>Karen.alamo@larodadora.</u> <u>org</u>	commitment to improve sanitation practices and water efficiency through virtual trainings.  • Identify and analyze main water usage in the agricultural, urban and industrial areas.	Approximately 85 public schools were targeted for educational workshops with a total participation of 547 students  The exhibit was visited in person by approximate ~50,000 people. All the information shared via social media outlets received over 2.5 million views.	Deliverable Achieved
Environmental Education local stakeholder roundtable	State of Chihuahua, Secretariat for Urban Development and Ecology (SDUE)	No Cost	Dra. Sarai Favela sarai.sdue.favela@gmail.c om	ongoing and upcoming activities in Ciudad Juárez.	In Fall 2022 during a second meeting will continue discussion of the initiative on Environmental Education for	Moderate Progress

C	liscussions in Ciudad	On July 14, 2022, an Ciudad Juárez.	
J	uárez	Environmental Education meeting	
		for local stakeholders was held to	
		discuss ongoing/upcoming	
		projects and hold roundtable	
		sessions.	