

# U.S. – Mexico Border Air Quality Cooperation

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# U.S.-Mexico Border



# Border Demographics

- U.S. – Mexico border stretches from Gulf to Pacific, about 2,000 miles
- The border region encompasses 100 km or 62.5 miles to either side of the border
- Includes ten states, 26 U.S. federally recognized Native American tribes, and 15 paired sister cities
  - Close to 13 million people, expected to grow to 19.4 million by 2020.
  - 90% of the border population resides in the 15 sister cities.



# Impacts on Air Quality

- Increasing population →
- Increasing trade →
- Increasing vehicles, power plants, industrial facilities, agricultural operations, road dust, open burning →
- Leads to increased air pollution, the most pervasive being
  - PM
  - Ozone
  - SO<sub>2</sub>
  - NO<sub>x</sub>



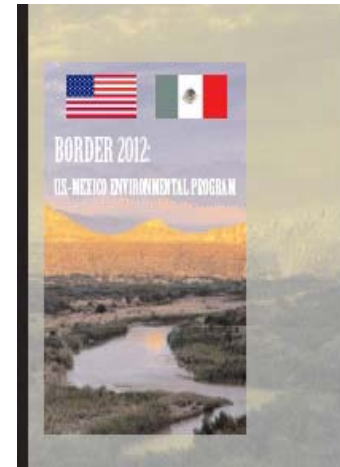
# Border Coordination

- La Paz Agreement signed in 1983
  - Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area.
  - Provided legal foundation for cooperative work on the border
- The first implementing mechanism was the Integrated Border Environmental Plan for U.S.-Mexico Border Area (IBEP)
- Border XXI – followed in 1996
- Border 2012 put into place in 2002, as a 10-year multi-stakeholder program



# Border 2012

- Established by:
  - U.S. EPA
  - SEMARNAT
  - U.S. HHS
  - Mexico Secretary of Health
  - Ten border states
  - 26 U.S. tribes
- It also builds upon historic and current agreements of the International Boundary and Water Commission (IBWC), and on the work of NAFTA institutions such as:
  - the North American Commission for Environmental Cooperation (CEC),
  - the Border Environment Cooperation Commission (BECC), and
  - the North American Development Bank (NADB).



# Border 2012 Workgroups and Forums

- Three Border-wide Workgroups
  - Environmental Health
  - Emergency Preparedness and Response
  - Cooperative Enforcement and Compliance
- Four Regional Multi-Media Workgroups
  - California-Baja
  - Arizona-Sonora
  - New Mexico-Texas-Chihuahua
  - Texas-Coahuila-Nuevo León-Tamaulipas
- Three Policy Forums
  - Air
  - Water
  - Waste



# Border 2012 Air Policy Forum

- Year-long stakeholder process resulted in four air quality priorities:
  - Improved information exchange and outreach to address lack of:
    - real-time, high-quality air monitoring and
    - health surveillance data availability and compatibility
  - Support for cross-border approaches to addressing air quality management in transboundary airsheds in border region





# APF Air Quality Priorities

- Reductions in PM emissions via diesel source reduction programs and increase in availability of low-sulfur diesel.
  - Workshops and training for capacity building:
    - Emissions inventories
    - I&M programs
    - Financial and market-based mechanisms
      - Revolving loan funds
      - Clean air investment funds
      - Leveraging NADBank
    - Best management practices
      - Energy efficiency and conservation
      - Agricultural practices, including open burning
      - Other open burning
      - Road dust
- Supplemental environmental projects  
Emissions trading



# Intersection of EPA AQ Priorities and Air Policy Forum Priorities

## National AQ Priorities Applicable to Border Region:

- Improve air quality through NAAQS regulatory, market-based and voluntary approaches
  - Develop emission inventories
  - Operate and maintain air monitoring networks
  - Perform air quality modeling
  - Assist states and tribes in development of control strategies



# National AQ Priorities Applicable to the Border Region

- Reduce emissions from mobile sources
- Reduce emissions from stationary sources
- Work with state, tribal, bilateral and multilateral partners to promote capacity building
- Address sources of internationally transported air pollution
- Reduce air toxics emissions
- Enhance science and research efforts



# Air Policy Forum Accomplishments

- Held half-day workshop to explore truck emissions reduction strategies
  - El Paso-Juarez emissions inventory project and SmartWay training in Mexico came out of this workshop.
- Trained Mexican officials in use of EPA's BenMAP: Benefits, Mapping and Analysis Program.
- Border-wide Emissions Baseline Report
  - Assembled by WGA from data compiled for development of the Mexico National Emissions Inventory (NEI).
- Letter of Intent to reduce emissions, signed by EPA and SEMARNAT:
  - Further encourage voluntary early diesel emission reductions,
  - Encourage pilot projects promoting cost-effective technologies to reduce emissions from diesel engines, and
  - Cooperate on transborder initiatives to improve air quality and public health, such as collaboratives.



# Air Quality Programs Transferred to Border



- **National Clean Diesel Campaign**

- EPA's National Clean Diesel Campaign (NCDC) has committed to reduce emissions from the over 11 million diesel engines in the existing fleet by 2014, including school buses, ports, construction, freight, and agriculture.
- The program provides technical and financial assistance to stakeholders interested in reducing their fleets' emissions effectively and efficiently.
- Several school bus grants awarded along the border.
- Retrofit demonstrations in border cities.
- Under the Partnership for Clean Fuels and Vehicles, EPA and its partners completed a very successful diesel retrofit project in Mexico City, where buses retrofitted with diesel particulate filters reduced fine particulates by 98%.
- Retrofit training for Mexican policymakers scheduled for November in Monterrey.



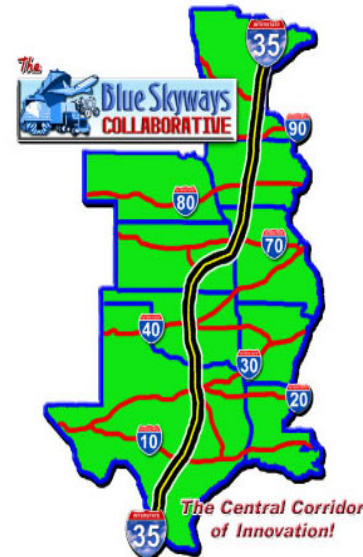
# Air Quality Programs Transferred to Border

- **Clean Diesel Collaboratives**

- The West Coast Diesel Emissions Reduction Collaborative and the Blue Skyways Diesel Collaborative are public-private collaborations aimed at reducing diesel emissions, in which Mexico is a player. Numerous other collaboratives are in place throughout the U.S., operating in much the same way.



- Working collaboratively with businesses, government and community organizations, industry, and others, to collectively leverage additional funds and take a local approach to diesel mitigation.



# Air Quality Programs Transferred to Border



- **SmartWay**

- The SmartWay Transport Partnership is a voluntary collaboration between U.S. EPA and the freight industry to increase energy efficiency, and significantly reduce greenhouse gases and air pollution.
- A SmartWay project is currently underway in Tijuana, assessing to determine which fleets can be efficiently upgraded and retrofitted, and explore potential incentives to buy back older trucks that cannot be upgraded.
- EPA worked with the Texas Transportation Institute (TTI) and the Border Environment Cooperation Commission (BECC) to implement a project to study emissions from medium- and heavy-duty vehicles waiting to cross the border in El Paso. Smartway training for Mexican policymakers scheduled for November in Monterrey.



# Mexico's Recent Diesel Standards - Impact on Border

- Mexico's HDD engine standards
  - Despite EPA and others' comments, Mexico finalizing a dual system of compliance: U.S. or Euro standards
- Mexico's final ULSD standards
  - 1/2007 15 ppm in border regions
  - 1/2009 15 ppm in major cities
  - 9/2009 15 ppm nationwide





# Contact Information

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