

Successes in Controlling Air Pollution in the Arizona-Sonora Border Region



Gerardo Monroy
Office of Border Environmental Affairs
Arizona Department of Environmental Quality
Air Quality Trends in the Southwest Forum
June 22, 2006 - Westward Look Resort, Tucson, Arizona

Background

- Three major Binational Air Quality Studies:
Ambos Nogales; Douglas-Agua Prieta;
and Yuma-San Luis Río Colorado.
 - Air Quality Monitoring
 - Emissions Inventories
 - Health Risk Assessment
 - Plan of Action for Improving Air Quality

Ambos Nogales Region

- Nogales, Sonora Landfill
 - Opened in 1995; new cell under construction



Ambos Nogales Region (cont.)

- Traffic Flow Improvements
 - Urban traffic (construction of 4 overpasses, road paving – 300,000 m²)
 - Cross-border traffic (Corredor Fiscal, SENTRI and FAST lanes)



Ambos Nogales Region (cont.)

- Revegetation/Reforestation Efforts
 - Ambos Nogales Revegetation Partnership (ARAN). Stabilize soils, reduce air pollution, re-establish communities of native vegetation.
 - Nogales, Sonora's City Hall and Mexico's National Forestry Commission. 4,000 trees to be planted on June 30.



Ambos Nogales Region (cont.)

- Rio Rico School Bus Biodiesel Retrofit Project
 - 31 buses retrofitted.
 - 10,000 gal. biodiesel storage tank under construction.
 - Goal: Reduce exposure of children to diesel emissions while promoting use of cleaner fuels.



Ambos Nogales Region (cont.)

- Recycling Programs
 - Nogales, Sonora promoting recycling efforts to reduce garbage burning.
 - School-based recycling programs.



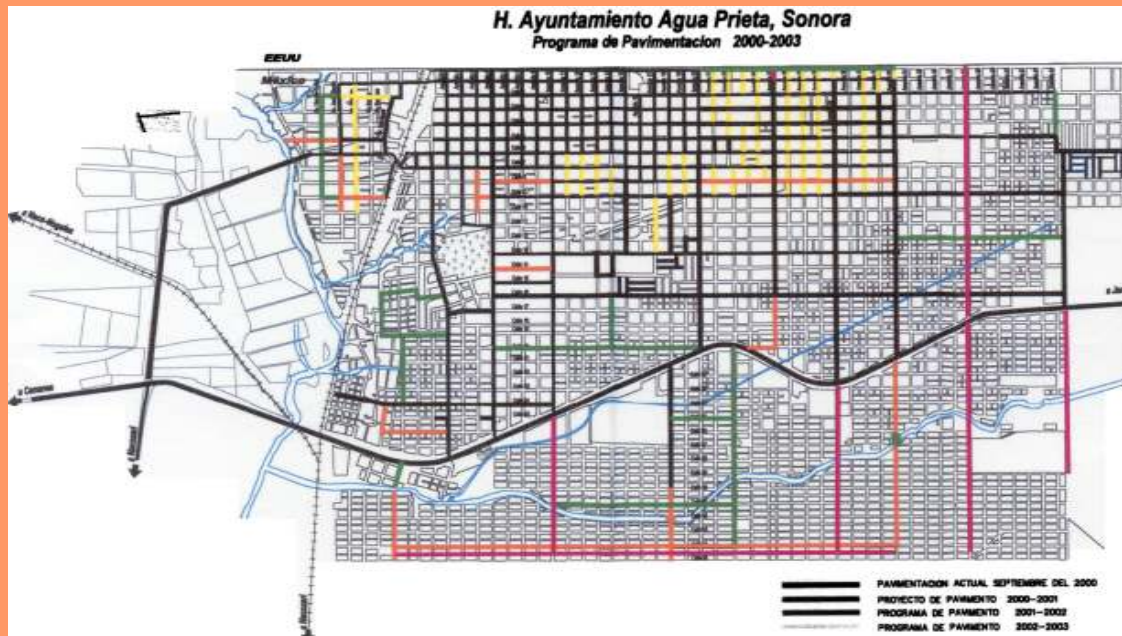
Douglas-Agua Prieta Region

- Agua Prieta, Sonora Landfill
 - Opened in 2000 on SE end of the city.
 - City of Tucson currently donates garbage bins no longer in use to City of Agua Prieta.



Douglas-Agua Prieta Region (cont.)

- Road Paving
 - First BECC/NADB certified air quality improvement project (Dec. 17, 2002.)
 - City-wide road paving and improvement plan. 19.5 miles in original plan; many more to date.



Naco Region

- Naco, Sonora, Landfill
 - 30,000 m³ cell opened Sep. 2006. Located 7 kms. south of the border.
 - Two new garbage collection trucks.



Yuma-San Luis Río Colorado Region

- Brick Kiln Emissions Study
 - Main goal: document health hazards associated with current brick making methods, emphasizing risk to children's health.
 - Findings: PM10 concentrations on the order of 2000 $\mu\text{g}/\text{m}^3$ (70% as PM2.5) emitted near ground level during active burning and smoldering phases of brick making. Pb present.
 - Phase 2: Indoor PM10 monitoring; education & outreach.





Thank You!

Gerardo Monroy

Arizona Department of Environmental Quality

Office of Border Environmental Affairs

400 West Congress Street, Suite #433

Tucson, AZ 85701

Phone: (520) 628-6732

Email: gjm@azdeq.gov