

AIR QUALITY AT THE U.S- MEXICO BORDER

STAPPA/ALAPCO

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U.S. Environmental Protection Agency

Region 9



U.S.-Mexico Border



Outline

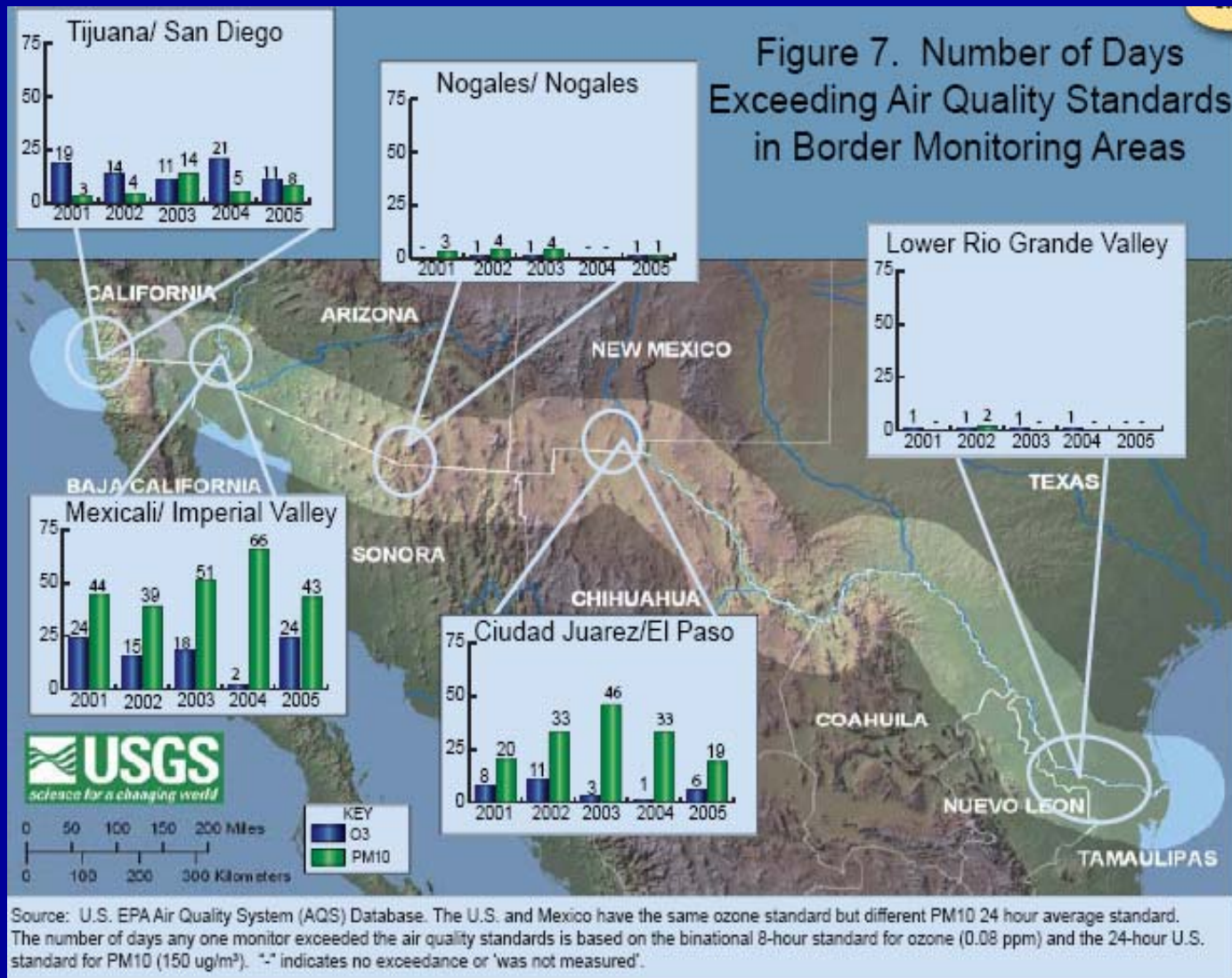
- Current Air Quality Status on the Border
- Border Air History
- Border Priorities

Current Air Quality in Border Communities

- Exceedances
- Ozone and PM
- Non-Attainment Status in Border Counties

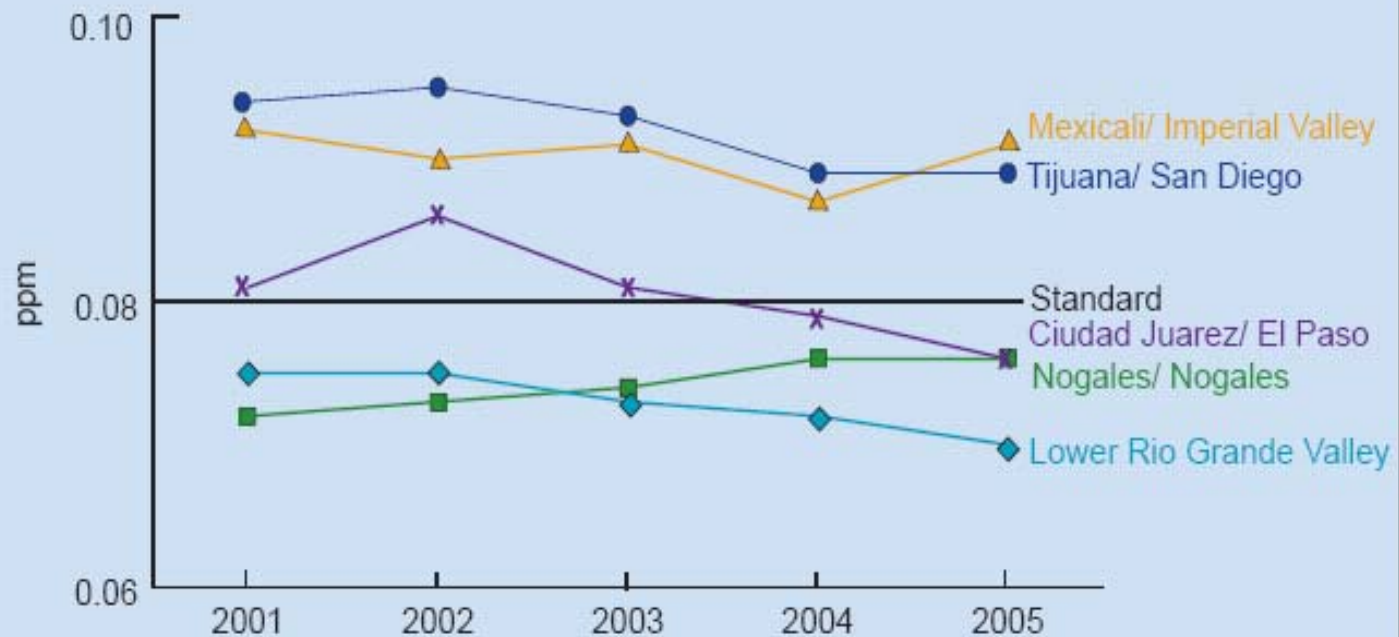


Exceedances in Border Cities



Ozone Concentrations in Border Region

Figure 8. Ozone Concentrations* in the Border Region

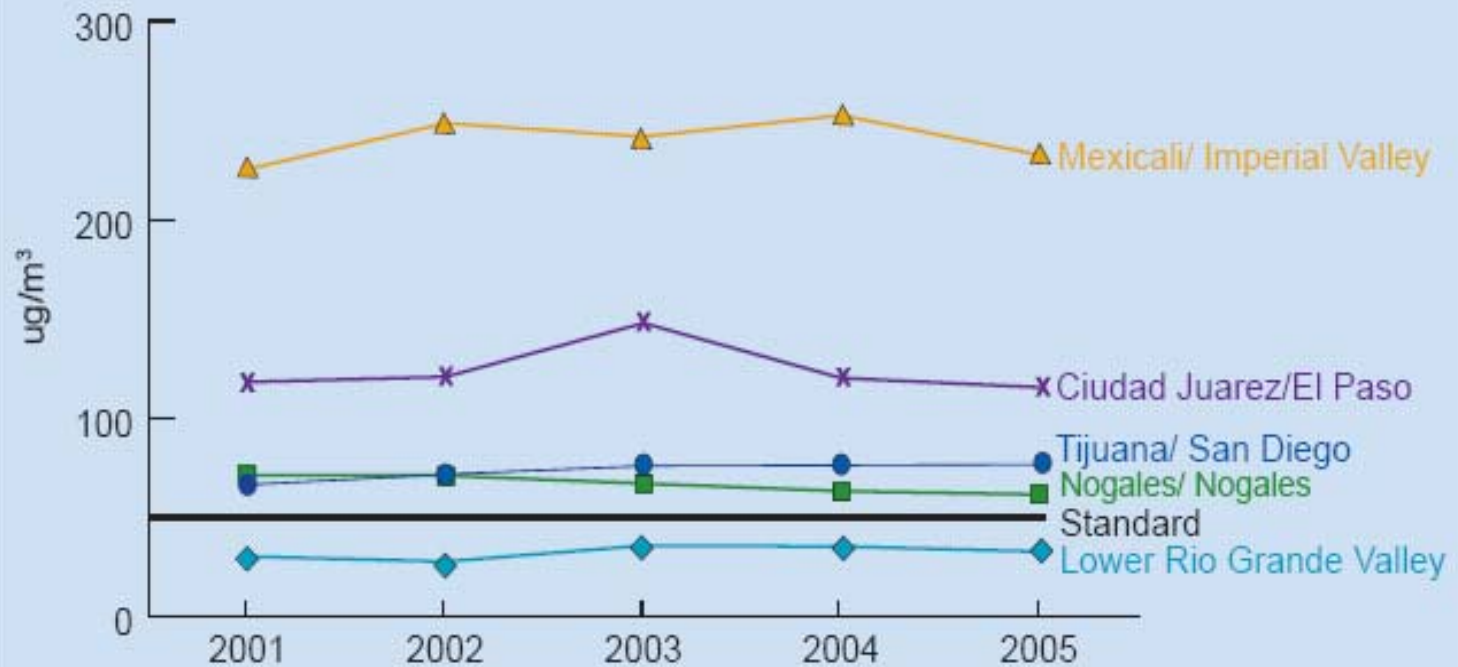


*Average of 4th highest value over three years

Source: Data from EPA Air Quality Systems (AQS) Database. www.epa.gov/ttn/airs/airsaqs/sysoverview.htm.

PM10 Concentrations in Border Region

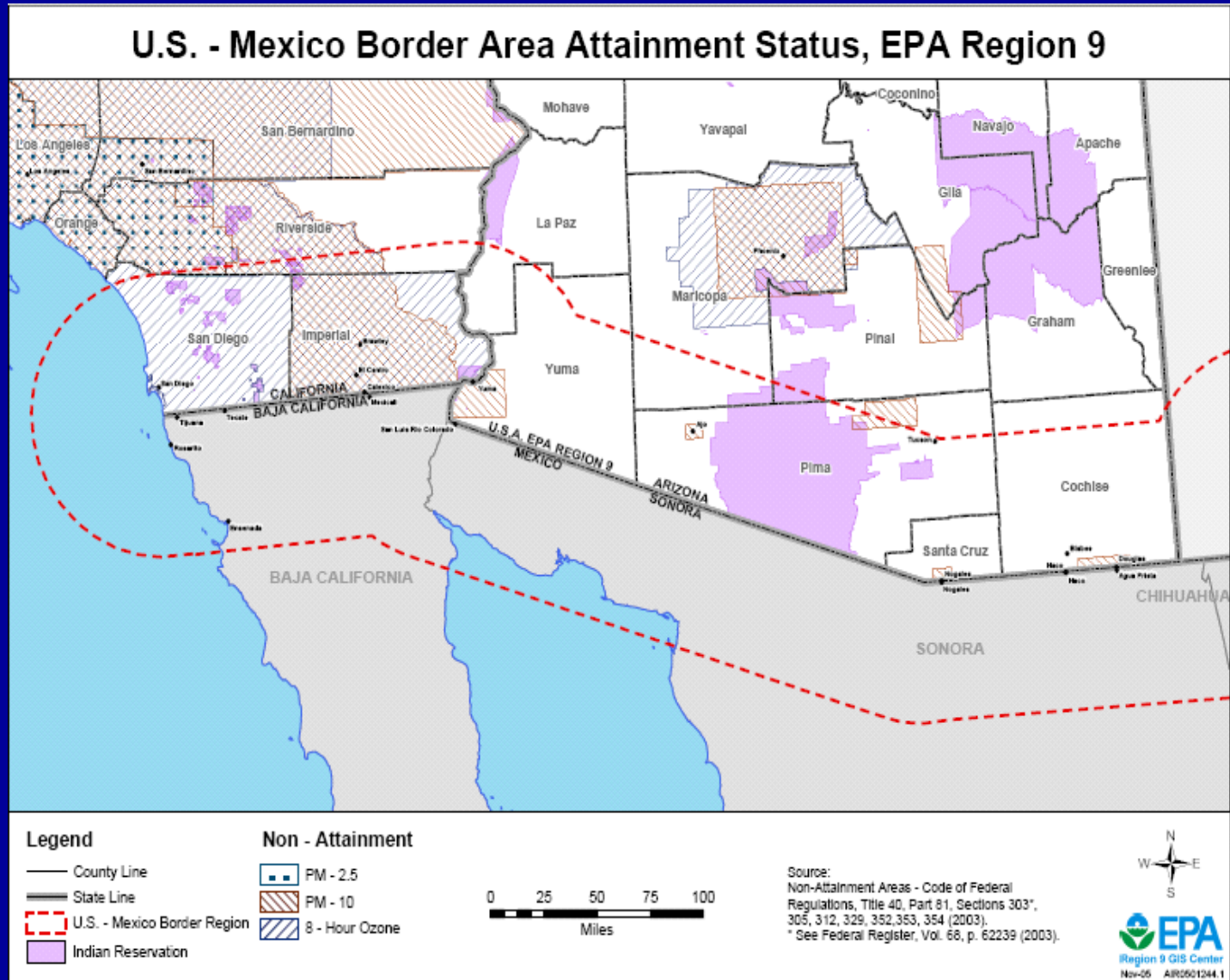
Figure 9. PM10 Concentrations* in the Border Region



*Three year average of annual mean concentrations at highest site

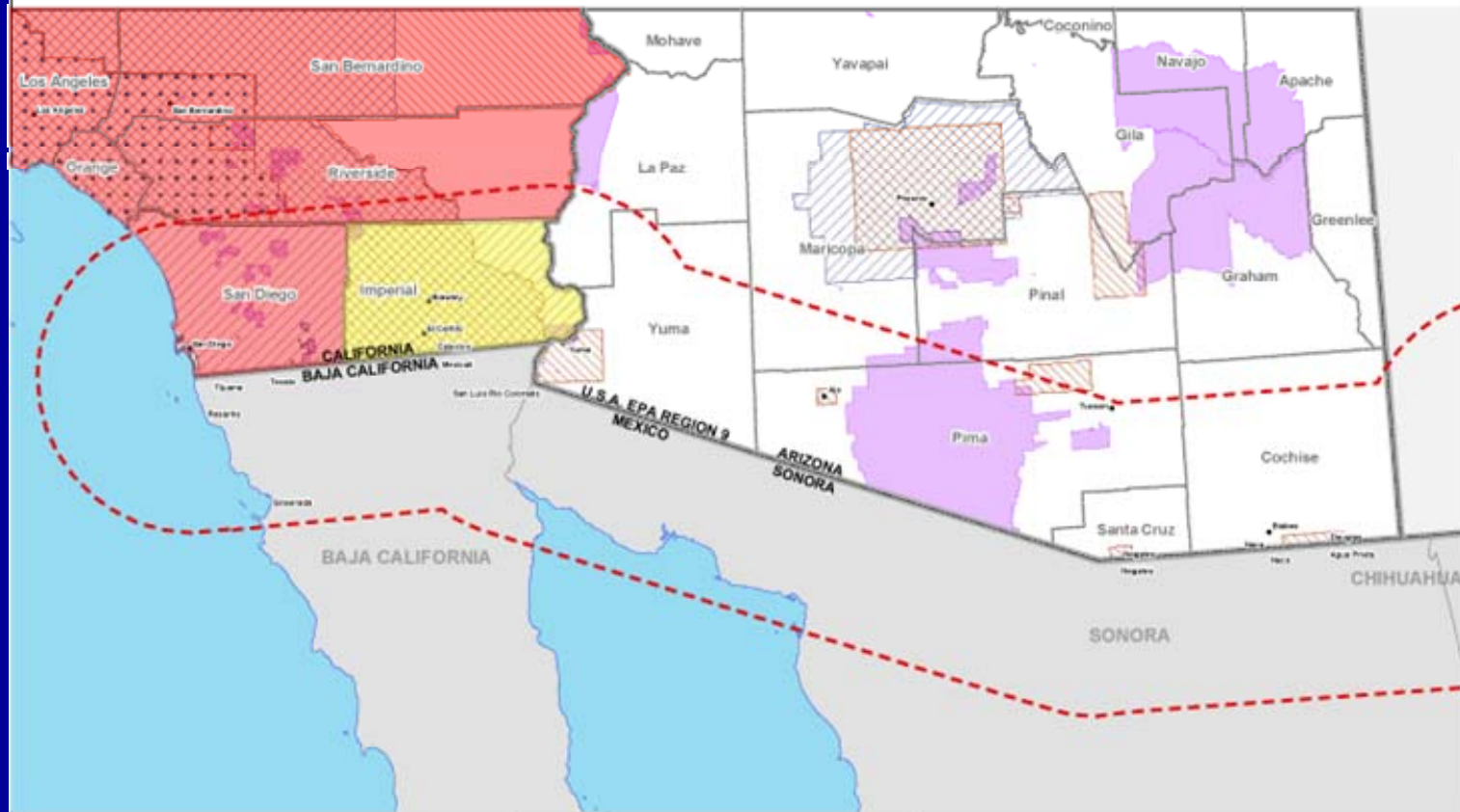
Source: Data from EPA Air Quality Systems (AQS) Database. www.epa.gov/ttn/airs/airsaqs/sysoverview.htm

Border Area Attainment Status—Region 9



PM 2.5 Attainment Status

U.S. - Mexico Border Area Attainment Status, EPA Region 9 (2006 & 2015)



Legend

- County Line
- State Line
- - - U.S. - Mexico Border Region
- Indian Reservation

Non - Attainment

- PM - 2.5
- PM - 10
- 8 - Hour Ozone

Counties Projected to Exceed PM2.5 NAAQS in 2015*#

- Both annual and 24-hour PM2.5 standards
- Only the 24-hour PM2.5 standard

*Based on EPA Modeling#

Sources:

Non-Attainment Areas - Code of Federal Regulations, Title 40, Part 81, Sections 303*, 305, 312, 329, 352, 353, 354 (2003).
 * See Federal Register, Vol. 68, p. 62239 (2003).

http://epa.gov/pm/pdfs/20060921_2015maps.pdf, accessed September 28, 2006.

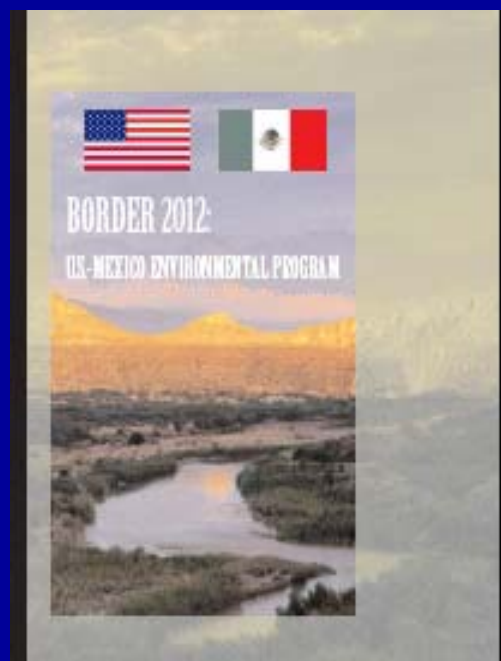


Border Air History

- La Paz Agreement (1983)
 - Annex IV
 - Annex V
- Carbon I and II
- Border XXI

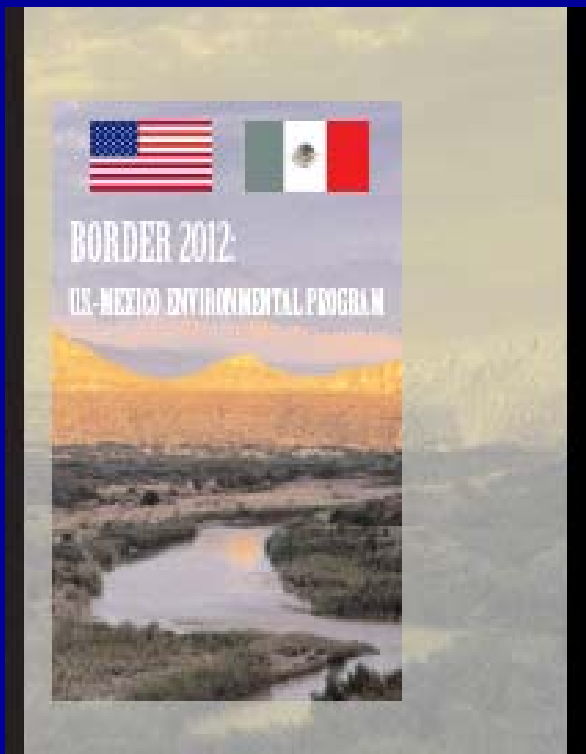
Border 2012 Partners

- **EPA**
 - OIA, OAR,OTAQ, Regions 6 and 9
- **Mexico**
 - SEMARNAT
 - INE
- **Border States**
 - CARB, ADEQ, NMED, TCEQ
 - Mexican Border States
- **Local Air Districts**



Border 2012

- **Borderwide Policy Forum**
 - Letter of Intent
- **Regional Workgroups**
- **Local Task Forces**
 - Arizona-Sonora
 - Imperial Valley-Mexicali
 - San Diego-Tijuana



Priorities

- Reducing Air Emissions
- Public Education and Outreach
- Ambient Air Monitoring and Science-based Initiatives

Reducing Air Emissions Diesel-related

- Diesel Retrofit Projects
 - Tijuana
 - Mexicali
 - Nogales
- Diesel School Bus Retrofit-Rio Rico and Nogales, Arizona
- Partner of West Coast Collaborative



Reducing Air Emissions (Diesel-Related)

- Smartway Initiative in Tijuana
- Mexican Engine and Fuel Standards
- Biodiesel Demonstration Project in Rio Rico, Arizona



Reducing Air Emissions

- Environmental Brick Kiln Construction
- Road Paving—NADBank Funded
- Energy
 - Audits
 - WGA Website
 - Mexicali Power Plants

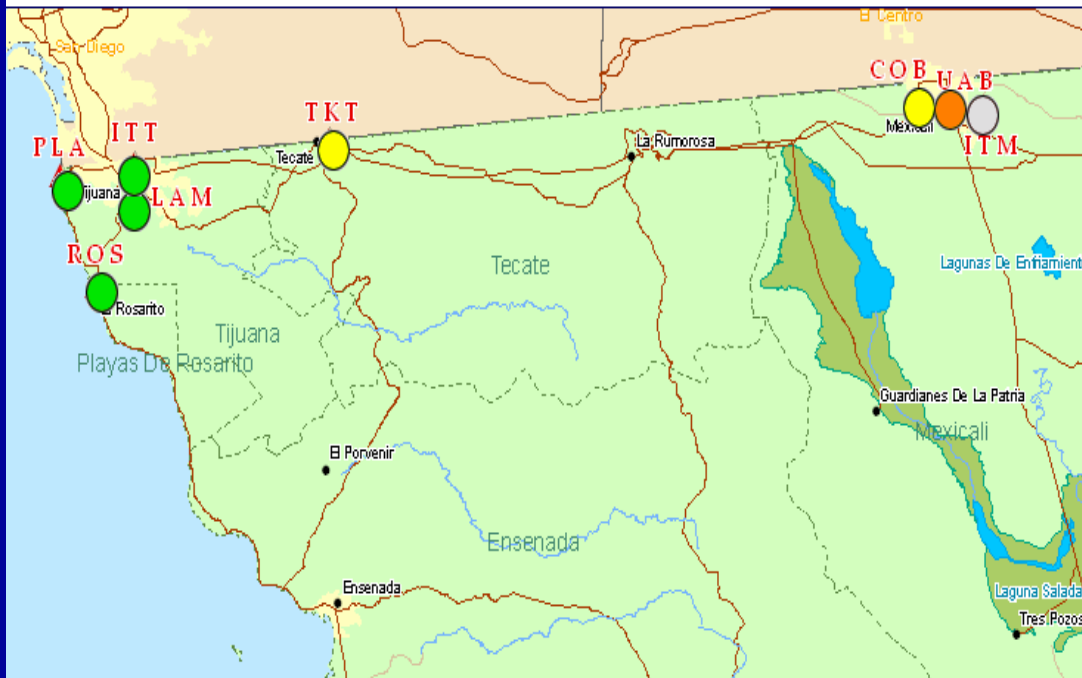
Public Education and Outreach

- Baja Real Time Website
- Imperial Valley Real Time Website
- Annual Air Quality Calendars in Ambos Nogales and Yuma/San Luis

Air Now Website For Baja Network

<http://aire.bajacalifornia.gob.mx>

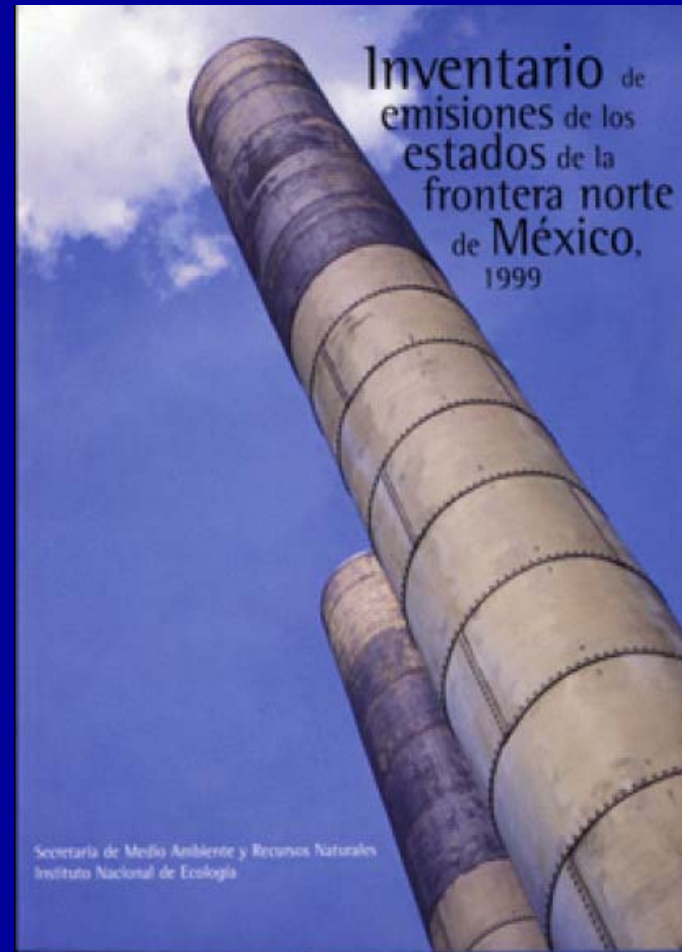
Baja California Calidad del Aire
Jueves 29 de Junio de 2006



Calidad del Aire	Índice de Calidad del Aire (AQI)	Proteja su Salud
Buena	0-50	No se anticipan impactos a la salud cuando la calidad del aire se encuentra en este intervalo.
Moderada	51-100	Las personas extraordinariamente sensitivas deben considerar limitación de los esfuerzos físicos excesivos y prolongados al aire libre.
Dafina a la Salud de los Grupos Sensitivos	101-150	Los niños y adultos activos, y personas con enfermedades respiratorias tales como el asma, deben evitar los esfuerzos físicos excesivos y prolongados al aire libre.
Dafina a la Salud	151-200	Los niños y adultos activos, y personas con enfermedades respiratorias tales como el asma, deben evitar los esfuerzos excesivos prolongados al aire libre; las demás personas, especialmente los niños, deben limitar los esfuerzos físicos excesivos y prolongados al aire libre.
Muy Dafina a la Salud	201-300	Los niños y adultos activos, y personas con enfermedades respiratorias tales como el asma, deben evitar todos los esfuerzos excesivos al aire libre; las demás personas, especialmente los niños, deben limitar los esfuerzos físicos excesivos al aire libre.
Peligroso	> 300	Advertencias de la salud con respecto a condiciones de la emergencia. La población entera es más probable ser afectada.
Datos no disponibles		No hay datos disponibles para el día actual.

Ambient Air Monitoring and Science-based Initiatives

- Mexican National Emissions Inventory and Border Region (US and Mexico) Emissions Inventory



Ambient Air Monitoring and Science-based Initiatives

- Northern Baja California Monitoring Network--transferring to State of Baja
- Arizona/Sonora Border Monitoring Network--operated by ADEQ
- Tropospheric Ozone Satellite Monitoring
- Vehicle Remote Sensing at Nogales

Emerging Issues

- Greenhouse Gas Emissions and Climate Change
 - California Legislation to reduce GHG to 1990 Levels
 - Arizona Executive Order
- Goods movement across the border-- study underway
- Need Unique Funding Mechanisms-- NADBank

Conclusions--US/Mexico Border Air Quality

- **Poor Air Quality in Urban Areas--Ozone, PM10 and PM2.5**
- **Key Emission Sources include Mobile, Area and Power Production**
- **International Partnership, at all levels of Government, is key**
- **Need continued investment in Public Outreach and Science/monitoring**
- **Need Unique Funding and Technology to Reduce Emissions**

INFORMATION

- EPA Border Website:
 - www.epa.gov/border2012