# State of the Border Region 2016 Interim Update:

*Indicator Metadata and Data Tables*

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## The U.S.-Mexico Border Region

| Indicator | **Border Region Population and Forecast Population Growth: 2005-2030** |
|---|---|
| **Description** | Actual 2005 and 2010 population data for U.S. and Mexico border region compared to 2005–2030 population projections |
| **Sources** | U.S. Data (2005): U.S. Census, County Population Estimates: Annual Estimates of the Resident Population for Counties [of CA, AZ, NM, TX] http://www.census.gov/popest/counties/CO-EST2008-01.html U.S. Data (2010): U.S. Census, County Population Estimates: Annual Estimates of the Resident Population for Counties [of CA, AZ, NM, TX] http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2015_PEPANNRES&src=pt<br><br>Mexico Data (2005):  INEGI: Indicadores demográficos - por municipio – 2005: http://www.inegi.org.mx/lib/Entidades.aspx?vecet=00,&s=est&tema=Indicadores%20demogr%C3%A1ficos%20-%20por%20municipio%20-%202005%20-%20en%20la%20entidad&urldato=/est/contenidos/espanol/rutinas/ept.asp%3ft%3dmpob103%26c%3d3850 Mexico Data (2010):  INEGI: Indicadores demográficos - por municipio – 2010: http://www.inegi.org.mx/sistemas/consulta_resultados/iter2010.aspx<br><br>Population Projections (2005-2030):  *Data Tables for the State of the Border Region Indicators Report, 2005*: http://www.epa.gov/Border2012/docs/bitf_table.pdf; data for the 2005 report were derived from J. Peach and J. Williams. 2003. "Population Dynamics of the U.S.-Mexican Border Region." Unpublished, forthcoming SCERP Monograph. San Diego: SCERP/SDSU Press |
| **Time Period** | 2005–2030 |
| **Units** | Population |
| **Notes** | Population projections from 2006–2009 and 2011–2014 are linear estimates based on 2005 and 2010 projections<br><br>2005 and 2010 population data from the U.S. Census (by U.S. county) and INEGI (by Mexico municipality) correspond to the counties and municipalities used in the 2003 Peach and Williams study as reported in *State of the Border Region, 2005*. |

| | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 |
|---|---|---|---|---|---|---|
| Census Population Data (U.S. and Mexico; 2005) | 13,003,165 | 14,060,075 | | | | |

| | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 |
|---|---|---|---|---|---|---|
| Projection: Low Scenario (U.S. and Mexico) | 12,584,937 | 13,312,630 | 14,021,368 | 14,691,553 | 15,317,581 | 15,902,460 |
| Projection: Medium Scenario (U.S. and Mexico) | 13,107,883 | 14,288,252 | 15,522,489 | 16,794,655 | 18,117,365 | 19,493,083 |
| Projection: High Scenario (U.S. and Mexico) | 13,282,191 | 14,907,140 | 16,710,412 | 18,681,857 | 20,880,608 | 23,354,106 |

| Indicator | **Census and Projected Border Region Population (U.S.): 2005-2010** |
|---|---|
| Description | Trend in U.S. Census data for 2005–2008 compared to 2005–2010 population projections |
| Sources | U.S. Data (2005–2015): U.S. Census, County Population Estimates: Annual Estimates of the Resident Population for U.S. Border Counties (CA, AZ, NM, and TX) http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2015_PEPANNRES&src=pt<br><br>Population Projections (2005–2030; U.S. only): *Data Tables for the State of the Border Region Indicators Report, 2005*: http://www.epa.gov/Border2012/docs/bitf_table.pdf; data for the 2005 report were derived from J. Peach and J. Williams. 2003. "Population Dynamics of the U.S.-Mexican Border Region." Unpublished, forthcoming SCERP Monograph. San Diego: SCERP/SDSU Press |
| Time Period | 2005-2015 |
| Units | Population |
| Notes | For comparison purposes, 2005–2015 population data from the U.S. Census (by U.S. county) correspond to the counties used in the 2003 Peach and Williams study as reported in *State of the Border Region, 2005*.<br><br>Population projections from 2006–2009 and 2011–2014 are linear estimates based on 2005 and 2010 projections. |

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|
| U.S. Census data | 6,777,636 | 6,870,077 | 6,971,462 | 7,090,380 | 7,124,299 | 7,313,750 |
| Projection: Low Scenario (U.S. only) | 6,511,751 | 6,553,389 | 6,595,027 | 6,636,666 | 6,678,304 | 6,719,943 |
| Projection: Medium Scenario (U.S. only) | 6,740,217 | 6,819,892 | 6,899,567 | 6,979,243 | 7,058,918 | 7,138,594 |

|  | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|
| Projection: High Scenario (US only) | 6,816,370 | 6,934,020 | 7,051,670 | 7,169,320 | 7,286,970 | 7,404,621 |

| *Contd.* | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| U.S. Census data | 7,437,121 | 7,517,284 | 7,576,798 | 7,647,286 | 7,703,931 |
| Projection: Low Scenario (U.S. only) | 6,760,057 | 6,800,171 | 6,840,286 | 6,880,400 | 6,920,514 |
| Projection: Medium Scenario (U.S. only) | 7,220,585 | 7,302,576 | 7,384,568 | 7,466,559 | 7,548,550 |
| Projection: High Scenario (U.S. only) | 7,531,673 | 7,658,725 | 7,785,777 | 7,912,829 | 8,039,881 |

| Indicator | **Comparison of Population Projections (Mexico): 2005–2030** |
|---|---|
| Description | Comparison of current official Mexican population projections and 2005–2030 population projections used in the State of the Border Region 2005 report |
| Sources | Mexico data: Consejo Nacional de Población (CONAPO): "Población total de los municipios a mitad de año, 2005-2030": http://www.conapo.gob.mx/index.php?option=com_content&view=article&id=36&Itemid=234<br><br>Population Projections (2005–2030; Mexico only): *Data Tables for the State of the Border Region Indicators Report, 2005*: http://www.epa.gov/Border2012/docs/bitf_table.pdf; data for the 2005 report were derived from J. Peach and J. Williams. 2003. "Population Dynamics of the U.S.-Mexican Border Region." Unpublished, forthcoming SCERP Monograph. San Diego: SCERP/SDSU Press |
| Time Period | 2005–2030 |
| Units | Population |
| Notes | For comparison purposes, population data from CONAPO (by Mexico municipality) correspond to the municipalities used in the 2003 Peach and Williams study as reported in *State of the Border Region, 2005*. |

| | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 |
|---|---|---|---|---|---|---|
| CONAPO Population Projections | 6,222,757 | 6,934,007 | 7,624,387 | 8,299,322 | 8,950,276 | 9,558,069 |
| Projection: Low Scenario (Mexico only) | 6,073,186 | 6,592,687 | 7,100,854 | 7,583,145 | 8,041,775 | 8,493,641 |
| Projection: Medium Scenario (Mexico only) | 6,367,666 | 7,149,658 | 7,973,939 | 8,832,999 | 9,737,879 | 10,702,834 |
| Projection: High Scenario (Mexico only) | 6,465,821 | 7,502,519 | 8,670,531 | 9,979,160 | 11,471,957 | 13,194,562 |

## Air

| Indicator | **Number of Days Exceeding Air Quality Standards in Border Monitoring Areas** |
|---|---|
| **Description** | 2006–2014 trend in days exceeding $PM_{10}$, $PM_{2.5}$ and ozone standards at monitoring locations in five sister cities. |
| **Sources** | EPA Air Quality System (AQS) for sister-city air monitoring stations in U.S. and Mexico; provided by EPA Office of Air, Region 6 and Region 9 |
| **Time Period** | 2006–2014 |
| **Units** | Number of days exceeding PM10, PM 2.5 or ozone standard |
| **Notes** | Ozone standard used: 0.075 ppm (8-hour average). Note that the 2015 ozone NAAQS is not being used; it became effective December 28, 2015.<br><br>$PM_{10}$ standard used: 150 µg/m3 (2008 24-hour average).<br><br>$PM_{2.5}$ standard used: 35 µg/m3 (24-hour average).<br><br>The differences between data reported in the 2010 Report and the data presented in this update are:<ul><li>Data for the 2010 report included monitors within 100 kilometers of the border while current data includes all SLAMS monitors within U.S. border counties and Ciudad Juarez;</li><li>A previous NAAQS standard for ozone (0.08 ppm, 8-hours) was used in the 2010 report to determine exceedance days;</li><li>This report includes data for $PM_{2.5}$. The 2010 report did not.</li></ul>The exceedances were calculated by totaling the number of days above the standard on any site within each monitoring area; exceptional events were included in the calculation, and multiple exceedances on the same day within each monitoring area were counted as one.<br><br>Tijuana/San Diego, Mexicali/Imperial Valley, and Ciudad Juarez/El Paso monitoring areas have monitors in the U.S. and Mexico.  However, the monitoring data from all cities in Mexico except Ciudad Juarez were not included in this report because they do not meet the quality assurance standards generally used for determining compliance with air quality standards in the U.S.  The Secretaria de Protección al Ambiente in Baja California and Instituto Nacional de Ecología are actively working to address the issues identified. |

| Tijuana/ San Diego | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| $O_3$ | 38 | 27 | 35 | 24 | 14 | 10 | 10 | 7 | 12 |
| $PM_{10}$ | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| $PM_{2.5}$ | 3 | 17 | 3 | 3 | 0 | 0 | 2 | 2 | 1 |

| Mexicali/ Imperial Valley | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| $O_3$ | 33 | 27 | 13 | 19 | 15 | 15 | 18 | 15 | 8 |
| $PM_{10}$ | 3 | 2 | 0 | 5 | 0 | 1 | 3 | 4 | 5 |
| $PM_{2.5}$ | 5 | 3 | 1 | 4 | 2 | 3 | 2 | 1 | 9 |

| Nogales/ Nogales | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| $O_3$ | - | - | - | - | - | - | - | - | - |
| $PM_{10}$ | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| $PM_{2.5}$ | 3 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |

| Ciudad Juarez/ El Paso | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| $O_3$ | 12 | 15 | 13 | 6 | 5 | 4 | 4 | 14 | 1 |
| $PM_{10}$ | 63 | 24 | 37 | 13 | 14 | 45 | 30 | 22 | 14 |
| $PM_{2.5}$ | 1 | 7 | 12 | 3 | 6 | 5 | 4 | 8 | 3 |

| Lower Rio Grande Valley | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| $O_3$ | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| $PM_{10}$ | 4 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| $PM_{2.5}$ | - | - | - | - | - | - | - | - | - |

## Water

| Indicator | **Number of Unserved Homes Connected to Safe Drinking Water through the Border Water Infrastructure Program** |
|---|---|
| **Description** | Annual and cumulative number of homes in the U.S. and Mexico border region connected to safe drinking water since 2003 through U.S.-Mexico Border Water Infrastructure Program projects |
| **Sources** | EPA U.S.-Mexico Border Water Infrastructure Program<br>EPA, "Border 2012: U.S. Mexico Environmental Program" and "U.S.-Mexico Environmental Program: Border 2012 – A Mid-Course refinement (2008–2012)"<br>EPA U.S.-Mexico Border Program:  National Water Program Performance Measure Results Reported Annually under the EPA National Water Program Strategic Plans for 2003–2008, 2006-2011 and 2011-2015 and the FY2010 Guidance |
| **Time Period** | 2006–2015 |
| **Units** | Number of connections. Data are reported for fiscal years. |
| **Notes** | Data are for Border Water Infrastructure Projects only. |

**Connections to Safe Drinking Water: 2006–2010**

| Fiscal Years: | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| Annual Connections | 22,458 | 1,276 | 5,162 | 1,584 | 21,650 |
| Cumulative Connections | 22,458 | 23,734 | 28,896 | 30,480 | 52,130 |

**Connections to Safe Drinking Water: 2011–2015**

| Fiscal Years: | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Annual Connections | 2,604 | 5,185 | 3,400 | 1,468 | 878 |
| Cumulative Connections | 54,734 | 59,919 | 63,319 | 64,787 | 65,665 |

| Indicator | **Number of Unserved Homes Connected to Wastewater Collection and Treatment Services through the Border Water Infrastructure Program** |
|---|---|
| **Description** | Annual and cumulative number of homes in the U.S. and Mexico border region connected to wastewater collection and treatment services since 2003 through U.S.-Mexico Border Water Infrastructure Program projects |
| **Sources** | EPA U.S.-Mexico Border Water Infrastructure Program<br>EPA, "Border 2012: U.S. Mexico Environmental Program" and "U.S.-Mexico Environmental Program: Border 2012 – A Mid-Course refinement (2008–2012)"<br>EPA U.S.-Mexico Border Program:  National Water Program Performance Measure Results Reported Annually under the EPA National Water Program Strategic Plans for 2003–2008, 2006–2011 and 2011–2015 and the FY2010 Guidance |

| Indicator | **Number of Unserved Homes Connected to Wastewater Collection and Treatment Services through the Border Water Infrastructure Program** |
|---|---|
| Time Period | 2006–2015 |
| Units | Number of connections. Data are reported for fiscal years |
| Notes | Data are for Border Water Infrastructure Projects only |

**Connections to Wastewater Collection and Treatment: 2006–2010**

| Fiscal Years: | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| Annual Connections | 30,195 | 73,475 | 31,686 | 43,594 | 75,175 |
| Cumulative Connections | 30,195 | 103,670 | 135,356 | 178,950 | 254,125 |

**Connections to Wastewater Collection and Treatment: 2011–2015**

| Fiscal Years: | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Annual Connections | 258,916 | 31,092 | 25,695 | 12,756 | 44,047 |
| Cumulative Connections | 513,041 | 544,133 | 569,828 | 582,584 | 626,631 |

## Land

| Indicator | Per-capita Municipal Solid Waste in U.S. Border States and Counties |
|---|---|
| Description | 2007 to 2014 trend in per-capita solid waste disposal (for CA, AZ, and TX) or generation minus recycling and diversion (NM).  Data covers entire border states (CA, AZ, NM) or just border counties (TX). |
| Sources | **California:** (Per-capita waste): CalRecycle: "California's Statewide Per Resident, Per Employee, and Total Disposal Since 1989": http://www.calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/graphs/disposal.htm <br><br> **Arizona:** <br> Waste:   Arizona Department of Environmental Quality, Waste Programs Division: https://www.azdeq.gov/environ/waste/solid/ <br><br> Population: Arizona Office of Employment & Population Statistics: https://population.az.gov/population-estimates <br><br> **New Mexico:** <br> Waste:   New Mexico Environment Department, Solid Waste Bureau: https://www.env.nm.gov/swb/AnnualReportsandForms.htm <br><br> Population: University of New Mexico Bureau of Business & Economic Research: https://bber.unm.edu/demograp2.htm <br><br> **Texas:** (Per-capita waste): Texas Commission on Environmental Quality, "Municipal Solid Waste in Texas: A Year in Review": http://www.tceq.state.tx.us/permitting/waste_permits/waste_planning/wp_swasteplan.html |
| Time Period | 2007-2014 |
| Units | Kgs/person/day of municipal solid waste disposed (CA, AZ, TX) or generated minus recycling and diversion (NM) |
| Notes | 2016 interim report does not include data from 2010 report (nor the full time period covered in the 2010 report).  The interim report has significant changes to the type of data included in the 2010 report (e.g., disposal versus generation) and has much more complete data across states. <br><br> AZ and NM data converted to per-capita waste based on population data. |

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| California (statewide, disposal) | 2.59 | 2.31 | 2.04 | 2.04 | 2.00 | 1.95 | 2.00 | 2.04 |
| New Mexico (statewide, generated minus recycling and diversion) | 2.46 | 2.57 | 2.48 | 2.35 | 2.37 | 2.23 | 2.23 | 2.34 |
| Arizona (statewide, disposal) | 3.91 | 3.41 | 2.91 | 2.95 | 2.88 | 2.80 | 2.73 | 2.83 |
| Texas (Border counties, disposal) | 2.84 | 2.87 | 2.85 | 2.66 | 2.58 | 2.63 | 2.62 | 2.62 |

*Units: Kg/person/day*

| Indicator | **Per-Capita Municipal Solid Waste Generated in Mexican Border States** |
|---|---|
| **Description** | Comparison of 2005 and 2012 per-capita daily solid waste generation for Mexico border states |
| **Sources** | **2012 Data:**<br>Waste: INECC/SEMARNAT, "Diagnostico Básico para la Gestión Integral de los Residuos, 2012":<br>http://www.inecc.gob.mx/descargas/dgcenica/diagnostico_basico_extenso_2012.pdf<br><br>Population: CONAPO, "Población, 2006–2012":<br>http://www.conapo.gob.mx/es/CONAPO/Poblacion_2006–2012<br><br>**2005 Data:**<br>BECC, "Diagnóstico de Infraestructura Ambiental Básica para el estado de [estado]" and 2010 *State of the Border Region* report |
| **Time Period** | 2005 and 2012 |
| **Units** | Kg/person/day |
| **Notes** | Data are for border states, not the border region.  2005 data was included in 2010 border indicators report but not identified by year. |

| State | 2005 | 2012 |
|---|---|---|
| Tamaulipas | 0.91 | 0.69 |
| Nuevo Leon | 1.13 | 0.70 |
| Coahuila | 0.86 | 0.70 |
| Chihuahua | 0.99 | 0.68 |
| Sonora | 0.86 | 1.42 |

| State | 2005 | 2012 |
|---|---|---|
| Baja California | 1.8 | 1.26 |

*Units: kg/person/day*

| Indicator | **Number of electronics refurbishers and recyclers in the border region certified to R2 or e-Stewards$^{©}$** |
|---|---|
| Description | Count of number of certified refurbishers and recycles in the border region |
| Sources | U.S. EPA, Office of Resource Conservation and Recovery |
| Time Period | 2016 |
| Units | Number of facilities |

| Certification Body | Facility | Address | City | State |
|---|---|---|---|---|
| R2, e-Stewards$^{©}$ | 3R Network | Avenida Lopez Portillo S/N Parque Industrial | San Luis Rio Colorado | Sonora |
| R2, e-Stewards$^{©}$ | 3R Network | Blvd. Lazaro Cardenas 4200 Int. No. A1 | Villas del Colorado | Baja California |
| R2 | AER Worldwide | 1790 Commerce Park, Suite E | El Paso | TX |
| R2 | Cali Resources, Inc | 2310 Michael Faraday Drive | San Diego | CA |
| R2 | ecoATM | 10121 Barnes Canyon Rd | San Diego | CA |
| R2 | Fortune Plastic & Metal | 1119 Pendale Road | El Paso | TX |
| R2 | Fortune Plastic & Metal | 9102 Seguin Drive | Pharr | TX |
| R2 | IMS Electronics Recycling Corporation | 12455 Kerran Street; Suite 300 | Poway | CA |
| R2 | Innovative Applications Corporation | 9565 Plaza Circle | El Paso | TX |
| R2 | iQor Global Services de Mexico S.A. de C.V. | Blvd. Montebello 737 Parque Industrial Colonial | Reynosa | Tamaulipas |
| R2 | Lexmark International SA de CV | Blvd. Independence 3550, Zona Industrial Lexmark | Juarez | Chihuahua |
| R2 | Simba Recycling | 2654 Vista Pacific Dr. | Oceanside | CA |
| R2 | Technology Solutions and Services, S.A. de C.V. | Ave. Rosa Maria Yanar Fuentes #7050 | Juarez | Chihuahua |

| Certification Body | Facility | Address | City | State |
|---|---|---|---|---|
| R2 | Technology Solutions and Services, S.A. de C.V. | Carretera Mexicali Aeropuerto Km 17 | Mexicali | Baja California |
| R2 | Tex Mex Recycling | 2801 Galveston | McAllen | TX |
| R2 | Valutech Out Sourcing, S.A. de C.V. | Blvd. Manuel Gomez Morin #569 | Mexicali | Baja California |
| R2 | Valutech Out Sourcing, S.A. de C.V. | Calzada Gustavo Vildosola Castro No. 1849 Colonia Ex Ejido Coahuila. Delegacion Gonzalez Ortega | Mexicali | Baja California |
| R2 | WSA Distributing | 7222 Opportunity Rd | San Diego | CA |
| R2 | ZRG, LLC | 5910 Sea Lion Place #140 | Carlsbad | CA |

## Enhance Joint Readiness for Environmental Response

| Indicator | **Number of Incident Notifications in the Border Region Received by the National Response Center (NRC)** |
|---|---|
| **Description** | 2003–2015 trend in incident notifications to NRC from U.S. border states and Mexico |
| **Sources** | 2003–2009: U.S. National Response Center data provided by EPA, OSWER (2010) <br><br> 2010: Presentation: Goal 4: Emergency Preparedness and Response, Tuesday, May 10 (08:40–09:10 hrs.), 3. Binational Incident Notification Process, Report on Notification of Emergencies & Exercises Completed by Mexico, Mexico Binational Notification (2010) <br><br> 2011–2015: Subprocuraduría de Inspección Industrial, Procuraduría Federal de Protección al Ambiente. Cd. de México, Méx. Junio, 2016 |
| **Time Period** | 2003–2015 |
| **Units** | Number of incident notifications |
| **Notes** | Data include all NRC notifications of incidents received from and delivered to the Joint Response Team components from 2003–2015.  Filtered for incidents only; data do not include drills. |

| State | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| California | 283 | 331 | 315 | 434 | 442 | 468 | 515 |
| Arizona | 45 | 32 | 58 | 57 | 55 | 42 | 45 |
| New Mexico | 8 | 11 | 9 | 7 | 7 | 13 | 5 |
| Texas | 91 | 151 | 186 | 154 | 150 | 145 | 122 |
| Total | 428 | 529 | 571 | 664 | 661 | 672 | 690 |

| State | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| California | 525 | 429 | 403 | 343 | 245 | 300 |
| Arizona | 38 | 45 | 26 | 23 | 43 | 32 |
| New Mexico | 4 | 12 | 9 | 15 | 6 | 4 |
| Texas | 93 | 157 | 111 | 108 | 111 | 105 |
| Total | 660 | 25 | 20 | 87 | 26 | 35 |

| Indicator | **Number of Incident Notifications in the Border Region Received by COATEA/ CENACOM** |
|---|---|
| Description | 2003–2015 trend in incident notifications to COATEA/CENACOM |
| Sources | 2003-2009: COATEA, 2010<br><br>2010: Presentation: Goal 4: Emergency Preparedness and Response, Tuesday, May 10 (08:40–09:10 hrs.), 3. Binational Incident Notification Process, Report on Notification of Emergencies & Exercises Completed by Mexico, Mexico Binational Notification (2010)"<br><br>2011–2012: Subprocuraduría de Inspección Industrial, Procuraduría Federal de Protección al Ambiente. Cd. de México, Méx. Junio, 2016<br><br>2013–2015: Dirección de Administración de Emergencias, Dirección General de Protección Civil de la Secretaría de Gobernación. Cd. de México, Méx. Junio, 2017 |
| Time Period | 2003–2015 |
| Units | Number of incident notifications |
| Notes | Data are for emergencies reported by Mexico border sister cities and aggregated by state |

| State (Border Region Cities only) | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| Baja California | 2 | 2 | 4 | 5 | 11 | 2 | 6 |
| Sonora | 1 | 7 | 6 | 4 | 12 | 7 | 3 |
| Chihuahua | 0 | 0 | 2 | 4 | 2 | 3 | 1 |
| Coahuila | 3 | 1 | 1 | 0 | 2 | 2 | 1 |
| Nuevo León | 1 | 1 | 1 | 0 | 0 | 3 | 0 |
| Tamaulipas | 25 | 20 | 5 | 15 | 16 | 25 | 17 |
| Total | 32 | 31 | 19 | 28 | 43 | 42 | 28 |

| State | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| Baja California | 7 | 8 | 6 | 16 | 6 | 5 |
| Sonora | 2 | 6 | 6 | 20 | 6 | 6 |
| Chihuahua | 3 | 1 | 3 | 14 | 5 | 2 |
| Coahuila | 0 | 3 | 0 | 7 | 0 | 1 |
| Nuevo León | 2 | 0 | 1 | 4 | 1 | 0 |
| Tamaulipas | 12 | 5 | 4 | 14 | 5 | 4 |
| Total | 26 | 12 | 11 | 40 | 13 | 15 |

| Indicator | Binational Capacity Building and Training Events |
|---|---|
| Description | 2001–2015 Trend in border region capacity building and training events |
| Source | U.S. EPA, SEMARNAT, Civil Protection. "U.S. Mexico Border 2020 Training Events, 2001–2015" (data file) supplemented with data file from PROFEPA |
| Time Period | 2001–2015 |
| Units | Number of capacity building and training activities in the border region |
| Notes | 2010 report included only exercises (i.e., table top full scale; 2016 Interim Report also includes other capacity building and training (e.g., courses, workshops, etc.) Some activities include multiple sister cities; these are counted as one exercise. |

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|
| Events Reported by U.S. | 4 | 6 | 5 | 9 | 3 | 2 | 0 | 7 |
| Events Reported by Mexico | 2 | 4 | 2 | 1 | 1 | 6 | 3 | 4 |
| Total: | 6 | 10 | 7 | 10 | 4 | 8 | 3 | 11 |

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Events Reported by U.S. | 12 | 14 | 16 | 17 | 21 | 4 | 10 |
| Events Reported by Mexico | 2 | 4 | 3 | 6 | 5 | 5 | 7 |
| Total: | 14 | 18 | 19 | 23 | 26 | 9 | 17 |

## Environmental Performance through Compliance, Enforcement, Pollution Prevention, and Promotion of Environmental Stewardship

| Indicator | **Total Number of Facilities Regulated Under Federal Programs: U.S. and Mexico Border Region** |
|---|---|
| **Description** | Total number of facilities in the border region regulated under federal U.S. and Mexico programs |
| **Sources** | Mexico (2008): PROFEPA, "Programa Ambiental México – Estados Unidos: Frontera 2012; Meta # 6: Mejorar el desempeño ambiental mediante la aplicación y el cumplimiento de la ley, la prevención de la contaminación y la promoción de la gestión ambiental responsable," Presented at 2009 Border 2012 NCM Meeting<br><br>Mexico (2016): PROFEPA<br><br>U.S.: ECHO database (2010 and 2016)<br>2016 Query parameters: Select DISTINCT REGISTRY_ID, FAC_NAME, FAC_STREET, FAC_CITY, FAC_STATE, FAC_EPA_REGION, ACTIVE_FLAG, FAC_US_MEX_BORDER_FLG, CAA, CWA, RCR, SDW, TRI, RMP, AIR_IDS, NPDES_IDS, RCRA_IDS, SDWA_IDS, TRI_IDS, RMP_IDS, GHG_IDS from ECHO_DFR.V_FACILITIES_SUMMARIES where FAC_US_MEX_BORDER_FLG='Y' -- and ACTIVE_FLAG='Y'; ORDER BY FAC_STATE, FAC_NAME |
| **Time Period** | Mexico data are for 2008 and 2016; U.S. data are for 2010 and 2016 |
| **Units** | Number of facilities in the border region regulated under federal programs |
| **Notes** | 2016 U.S. facilities are categorized as "active" rather than "linked" |

| State/Region | Mexico Border States: 2008 | Mexico Border States: 2016 | U.S. Border Region: 2010 | U.S. Border Region 2016 |
|---|---|---|---|---|
| Baja California | 2,678 | 5,930 | | |
| Sonora | 467 | 1,611 | | |
| Chihuahua | 715 | 4,174 | | |
| Coahuila | 512 | 934 | | |
| Nuevo Leon | 434 | 256 | | |
| Tamaulipas | 1,407 | 3,364 | | |
| California | | | 3,750 | 4,328 |
| Arizona | | | 400 | 660 |
| New Mexico | | | 250 | 306 |
| Texas | | | 995 | 1,214 |

| Indicator | **Number of State and Federal Inspections for Federal Programs in the U.S. Border Region** |
|---|---|
| Description | 2002–2015 trend in inspections under federal programs for border region facilities, by U.S. State |
| Sources | 2002–2009 data: EPA, OECA (2010)<br>2010–2011 data: EPA, ECHO (2015)—queried August 2015<br>2012–2015 data: EPA, ECHO (2016)—queried May 2016 |
| Time Period | 2002-2015 (calendar year) |
| Units | Number of inspections |
| Notes | 2010 data from ECHO (2015) is incomplete.<br>2010–2015 data (ECHO 2015 and 2016) includes local inspections for CA and AZ (under delegated programs) as well as state and federal.<br><br>**ECHO (2016):**<br>Includes CAA, CWA, EPCRA, FIFRA, RCRA, SDWA, TSCA<br>Query parameters: Select DISTINCT f.REGISTRY_ID, f.FAC_NAME, f.FAC_STREET, f.FAC_CITY, f.FAC_STATE, f. ACTIVE_FLAG, i.STATUTE, i.INSPECTION_TYPE_DESC, i.INSPECTION_TYPE_CODE, i.LEAD_AGENCY, i.INSPECTION_DATE from ECHO_DFR.V_FACILITIES_SUMMARIES f, ECHO_DFR.COMPLIANCE_MONITOR_HISTORIES I where f.REGISTRY_ID=i.REGISTRY_ID and f.FAC_US_MEX_BORDER_FLG='Y' and i.INSPECTION_DATE is not null ORDER BY i.INSPECTION_DATE;<br><br>**ECHO (2015):**<br>Includes CAA, CWA, EPCRA, FIFRA, RCRA, SDWA, TSCA<br>Query paramaters: Select DISTINCT f.REGISTRY_ID, f.FAC_NAME, f.FAC_STREET, f.FAC_CITY, f.FAC_STATE, f. ACTIVE_FLAG, i.STATUTE, i.INSPECTION_TYPE_DESC, i.INSPECTION_TYPE_CODE, i.LEAD_AGENCY, i.INSPECTION_DATE from ECHO_DFR.V_FACILITIES_SUMMARIES f, ECHO_DFR.COMPLIANCE_MONITOR_HISTORIES i where f.REGISTRY_ID=i.REGISTRY_ID and f.FAC_US_MEX_BORDER_FLG='Y' and i.INSPECTION_DATE is not null ORDER BY i.INSPECTION_DATE<br><br>2002–2009 data: Facility records qualify for inclusion based on:<ul><li>The FRS US Mexico Border Flag = "Y", and</li><li>CAA:has a link to an AFS ID number; or</li><li>CWA-PCS: has a link to PCS State code = AZ; or</li><li>CWA-ICP: has a link to ICIS-NPDES facility interest state code = CA, NM, TX; or</li><li>RCRA: has a link to a RCRAInfo handler which is a TSDF, LQG, SQG, CESQG, and/or transporter; or</li><li>Other: has a link to an ICIS inspection activity not related to the CAA, CWA-NPDES, or RCRA programs.</li><li>Obvious duplicate records between AFS, PCS, ICP, RCR and ICI were deleted; others will result in double counting the action(s).</li></ul> |

| State Border Region | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|---|
| CA | 39 | 341 | 446 | 201 | 193 | 288 | 213 | 99 |
| AZ | 11 | 49 | 117 | 63 | 79 | 66 | 61 | 48 |
| NM | 10 | 36 | 54 | 64 | 55 | 66 | 28 | 29 |
| TX | 42 | 240 | 273 | 187 | 174 | 223 | 223 | 220 |

| State Border Region | 2010* | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| CA | 203 | 315 | 244 | 271 | 322 | 298 |
| AZ | 105 | 143 | 154 | 133 | 138 | 125 |
| NM | 42 | 60 | 71 | 63 | 52 | 52 |
| TX | 187 | 336 | 370 | 268 | 334 | 176 |

*data is incomplete

| Indicator | **Number of Federal Inspections in the Mexico Border Region** |
|---|---|
| Description | 2003–2015 trend in inspections for federally regulated facilities in the border region, by Mexican State |
| Sources | 2010-2015 data:  Subprocuraduría de Inspección Industrial, Procuraduría Federal de Protección al Ambiente. Cd. de México, Méx.<br><br>2009 data and review of 2003–2008 data:  PROFEPA (2010)<br><br>2003–2008 data: PROFEPA, "Programa Ambiental México – Estados Unidos: Frontera 2012; Meta # 6: Mejorar el desempeño ambiental mediante la aplicación y el cumplimiento de la ley, la prevención de la contaminación y la promoción de la gestión ambiental responsable," Presented at 2009 Border 2012 NCM Meeting |
| Time Period | 2003–2015 |
| Units | Visits per year |
| Notes | Data are for border region (franja fronteriza). |

| State Border Region | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| Baja California | 231 | 210 | 254 | 233 | 242 | 322 | 209 |
| Sonora | 41 | 56 | 76 | 69 | 88 | 76 | 93 |
| Chihuahua | 115 | 123 | 94 | 97 | 113 | 252 | 139 |
| Coahuila | 63 | 41 | 39 | 52 | 76 | 100 | 71 |
| Nuevo Leon | 104 | 68 | 65 | 83 | 64 | 25 | 81 |
| Tamaulipas | 193 | 222 | 205 | 179 | 206 | 249 | 200 |
| Grand Total | 747 | 720 | 733 | 713 | 789 | 1024 | 793 |

| State Border Region | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| Baja California | 268 | 294 | 204 | 222 | 282 | 305 |
| Sonora | 99 | 39 | 47 | 38 | 54 | 43 |
| Chihuahua | 241 | 100 | 130 | 130 | 163 | 104 |
| Coahuila | 55 | 47 | 29 | 39 | 30 | 47 |
| Nuevo Leon | 15 | 9 | 5 | 4 | 9 | 7 |
| Tamaulipas | 184 | 128 | 117 | 121 | 140 | 80 |
| Grand Total | 862 | 617 | 532 | 554 | 678 | 586 |

| Indicator | **Pollution Reduction from Federal Enforcement Actions in the U.S. Border Region** |
|---|---|
| Description | 2004–2014 trend in pollution reductions from enforcement actions under federal programs, by U.S. State |
| Sources | EPA, ECHO (2016)—queried May 2016 |
| Time Period | 2004–2015 (calendar year) |
| Units | Pounds of pollution (in millions) |
| Notes | • Data are from ECHO data - copy of ICIS FE&C Environmental Impacts for enforcement conclusions linked to Mexico Border facilities<br>• Data were updated from ICIS on May 7, 2016<br>• SQL logic was revised over prior year data retrievals due to ECHO_DFR table data being incomplete.<br>• Deleted columns linking to facilities (kept FAC_STATE) to remove duplicates due to a single settlement addressing multiple facilities<br>• Deleted columns not needed to summarize pollutant reduction quantities<br>• Added (calendar) YEAR column based on SETTLEMENT ENTERED DATE<br>• Added STD UNITS column based on POLLUTANT UNIT CODE to normalize codes (subjectively applied)<br>• Added SORT KEY to separate less meaningful/less used units (value = 1 or 2; subjectively applied; did not perform unit conversions, e.g., kg to pounds, or drum to gallons)<br>• Pivot table is based on AVERAGE ANNUAL VALUEs where SORT KEY = 1<br><br>Conversions used:<br>• 1 gallon = 7 pounds (average for oils) |

|       | 2004      | 2005       | 2006      | 2007      | 2008  | 2009      |
|-------|-----------|------------|-----------|-----------|-------|-----------|
| CA    | 280,000   | 25,829     | 23,034    | 140,000   | 0     | 1,135,120 |
| AZ    | 0         | 5,000      | 1,977,850 | 0         | 0     | 0         |
| NM    | 118       | 3,732,012  | 4,395,453 | 3,973,929 | 9,564 | 54,000    |
| TX    | 1,005,671 | 80,336,566 | 105,000   | 0         | 0     | 0         |
| Total | 1,285,789 | 84,099,407 | 6,501,337 | 4,113,929 | 9,564 | 1,189,120 |

*Annual pounds (includes gallons converted to pounds)*

|       | 2010       | 2011      | 2012      | 2013      | 2014      | 2015      |
|-------|------------|-----------|-----------|-----------|-----------|-----------|
| CA    | 22,912,974 | 0         | 753,360   | 0         | 0         | 76,888    |
| AZ    | 0          | 0         | 0         | 2,125,536 | 2,596     | 311,920   |
| NM    | 0          | 1,260     | 160,000   | 20        | 142,000   | 0         |
| TX    | 4,149,061  | 1,897,000 | 8,885,087 | 67,705    | 9,529,352 | 4,607,834 |
| Total | 27,062,035 | 1,898,260 | 9,798,447 | 2,193,261 | 9,673,948 | 4,996,642 |

*Annual pounds (includes gallons converted to pounds)*