



## Hazardous & Solid Waste Workgroup

The Border XXI Program (Border XXI) is an innovative binational effort between the United States and Mexico to protect the natural resources and environment of the border region. The mission of Border XXI is to achieve a clean environment, protect public health and natural resources, and encourage sustainable development along the U.S.-Mexico border. In 1992, the United States and Mexico released the Integrated Environmental Plan for the Mexican-U.S. Border Area (IBEP). The agreement was widely criticized for not going far enough to protect the environment of the border region. The Border XXI Program, established in 1994, builds on the efforts of the IBEP and expands the scope to include environmental health and natural resource issues.

Border XXI is implemented through nine binational workgroups. The nine workgroups under the Border XXI Program are *1 water, 2 air, 3 hazardous and solid waste, 4 pollution prevention, 5 contingency planning and emergency response, 6 cooperative enforcement and compliance, 7 environmental information resources, 8 natural resources, and 9 environmental health.*

This fact sheet provides information about the Hazardous and Solid Waste Workgroup.



### The Border XXI Program

Border XXI uses the following strategies to accomplish its mission:

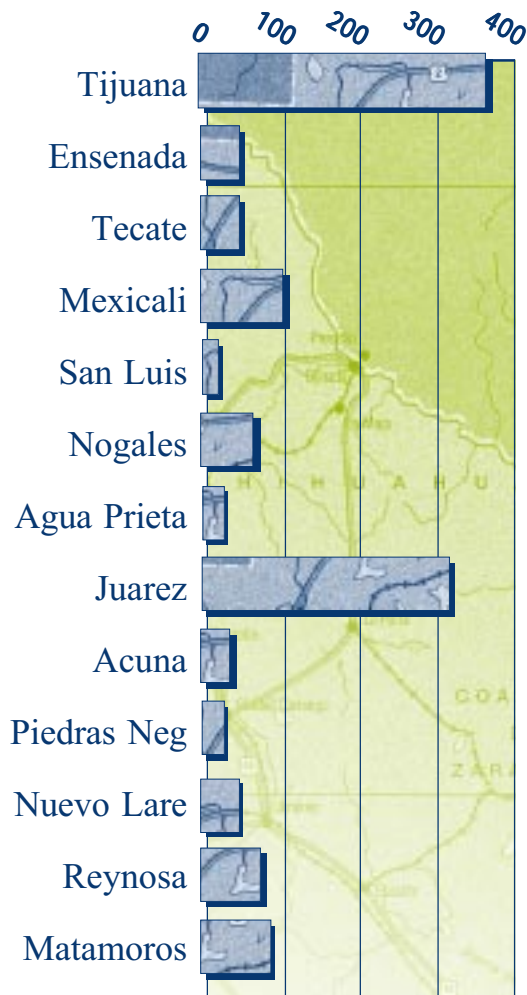
-  Ensure public involvement in the development and implementation of Border XXI
-  Build capacity and decentralize environmental management to augment the participation of federal, state and local institutions in implementing Border XXI
-  Ensure interagency cooperation to maximize available resources and avoid duplicate efforts on the part of government and other organizations, while reducing the burden that coordination with multiple entities places on border communities

Border XXI involves numerous federal and local government entities from the United States and Mexico. The U.S. Environmental Protection Agency (EPA) and Mexico's Secretariat for Environment, Natural Resources, and Fisheries (SEMARNAP) are the two key participants in Border XXI.

# Hazardous and Solid Waste Workgroup

Rapid industrialization, increased population growth, and the use of unsustainable practices have created the need for improved hazardous and solid waste management practices and infrastructure in the border region. Of particular concern is the maquila industry. According to figures by Mexico's National Institute for Ecology (INE) and SEMARNAP, about 2,000 maquiladoras are located along the northern border of Mexico, with another 1,000 throughout the country. A maquiladora is a foreign owned operation in Mexico that is established for the purpose of manufacturing products for exportation. The number of maquiladoras in major cities along the border can be seen in Figure 1. It has been estimated that about half of the maquiladoras generate hazardous waste.

## Maquiladora Industry by City



Source: 1997 Twin Plant

These figures do not include temporary Maquilas- those in business 6 months or less.

Number of Maquilas in major cities along the border in 1997\*

Both Mexican law and the La Paz Agreement (1983) require that hazardous wastes generated from raw materials imported into Mexico under the maquiladora program must be returned to the country of origin for proper disposal. Because over 90 percent of the maquiladoras are U.S.-based, the bulk of hazardous waste generated under the maquiladora program is required to be transported from Mexico back to the United States. The amount of waste returned to California and the United States can be seen in Figure 2. Important waste issues arising from these practices include improper management of hazardous waste, lack of publicly available data on wastes generated by maquiladoras, illegal transborder shipment of hazardous waste, health and environmental risks posed by inactive and abandoned disposal sites, and the need for development of new disposal sites. The Hazardous and Solid Waste Workgroup was created to address these and other waste issues related to industry operation in the border region. ▶

# Tijuana

Tijuana's economy is based on tourism, manufacturing, and commerce. It has a population of about 2 million, and at any given moment about 300,000 people are in transit through the city. The city's economy grew by 12 percent in 1996, and employment increased 12.3 percent following 2 years of more than 6 percent growth. There is only about a 1 percent vacancy rate in Tijuana for industrial space, and employee turnover slowed to about 8 percent a month in 1997.

With more than 600 maquiladoras, Tijuana houses more maquiladoras than any other border city. Only Ciudad Juarez employs more maquiladoras workers. According to Twin Plant News, the maquiladora industry represented a \$7.7 billion industry in 1996, up 35 percent from the previous year. The maquiladora industry here primarily consists of electronics and textiles.

# Ciudad Juarez

The Juarez Region has about 320 maquiladoras that employ more than 183,000 Mexican workers. According to Twin Plant News, over 70 of these maquiladoras are owned and operated by Fortune 500 companies from the United States.

The maquiladora industry constitutes a significant portion of all U.S.-Mexico trade. The University of Texas reports that the maquiladora industry currently represents 39 percent of global production sharing by U.S. companies. U.S. companies supply more than 80 percent of total materials used in production in the maquiladoras. The maquiladora industry's effect on the local economy is staggering, pumping an estimated \$1 billion into the El Paso economy alone, a figure that is growing steadily.

The Juarez facilities are primarily engaged in high technology manufacturing. As a trade area, the El Paso/Juarez community ranks as the 16th largest Metropolitan Statistical Area in the United States.

## RCRA Waste returned to the U.S. and CA from Mexico\*

### RCRA WASTE IN TONS

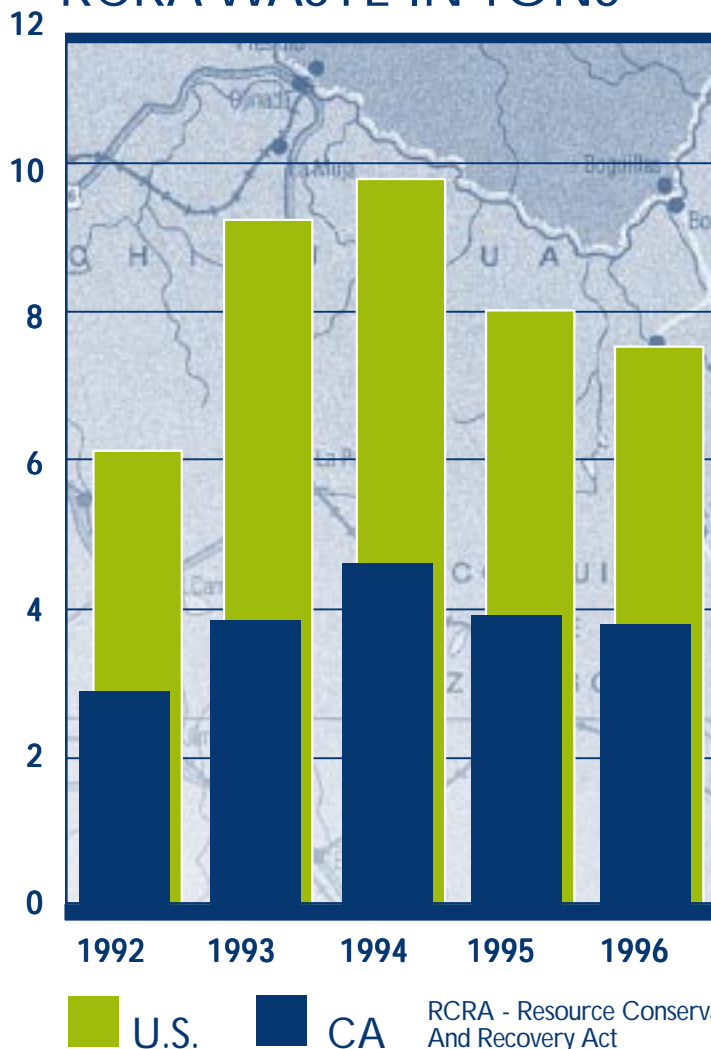


Figure 2

U.S.
  CA
 RCRA - Resource Conservation And Recovery Act



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