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## Industrialization in the Borderlands and the NAFTA Treaty.

Phillip D. Hardberger

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## INDUSTRIALIZATION IN THE BORDERLANDS AND THE NAFTA TREATY

PHILLIP D. HARDBERGER\*

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### I. BACKGROUND

One of the longest borders in the world stands between Mexico and the United States, extending almost 2,000 miles from the Gulf of Mexico to the Pacific Ocean. While Mexico and the United States maintain cultural, governmental, and economic differences, these distinctions become somewhat blurred as we approach that region known as the "border area."<sup>1</sup>

Each year, over 200 million people cross the Mexico-United States border, making it the most frequently-traveled border in the world. Therefore, it is not surprising that many people on both sides of the

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The author expresses appreciation to Bryan Kost for his assistance in the research of this article.

1. The "border area" refers to the land situated 100 kilometers (65 miles) on either side of the inland and maritime boundaries between the United States and Mexico. *See Agreement Between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area*, Aug. 14, 1983, U.S.-Mex., art. 1, reprinted in 19 WKLY. COMP. PRES. DOC. 1137 (1983 Border Environmental Agreement); Mark A. Sinclair, *The Environmental Cooperation Agreement Between Mexico and The United States: A Response to the Pollution Problems of the Borderlands*, 19 CORNELL INT'L L.J. 87, 88 (1986) (discussing border agreement signed in La Paz, Baja California).

border speak both Spanish and English. In addition, many of the local economies are intertwined and interdependent.

While there is a distinct boundary line existing between the two countries, there is no such line from an environmental perspective. For almost one-half of the distance along our border, we share the Rio Grande and Colorado rivers as well as several smaller rivers which flow along and across the boundary. We also share groundwater resources, drainage basins, and a common airshed. Because we share common environmental resources, it is important that our two countries work together to protect the environment and the health of the people living in this region.

## II. BORDER SANITATION PROBLEMS

Today, over 9.5 million people live in the 250,000-square-mile area known as the borderlands.<sup>2</sup> Approximately 72% of these individuals live in the 14 sister cities located along the border.<sup>3</sup> The present border population demonstrates an increase of over 60% in the past 10 years.<sup>4</sup> Although Mexico has made efforts to compensate for increasing urban growth on its side of the border, many of its border residents presently find themselves living without sufficient basic services such as electricity, public transportation, wastewater treatment plants, and systems for disposing of solid wastes.

On the United States side of the border, many of these same conditions exist in the *colonias*, which evolved as American workers moved to the border area seeking jobs in the Mexican factories. In Texas and New Mexico alone it is predicted that there are some 200,000 workers

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2. See U.S. ENVTL. PROTECTION AGENCY, SUMMARY: ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA, FIRST STAGE (1992-1994) 7 (Feb. 1992) (discussing population density in the border area) (copies may be obtained by writing: The Office of International Activities (A-106), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460).

3. *Id.* The fourteen pairs of sister cities are: Matamoros, Tamaulipas, and Brownsville, Texas; Reynosa, Tamaulipas, and McAllen, Texas; Nuevo Laredo, Tamaulipas, and Laredo, Texas; Piedras Negras, Coahuila, and Eagle Pass, Texas; Ciudad Acuna, Coahuila, and Del Rio, Texas; Ojinaga, Chihuahua, and Presidio, Texas; Ciudad Juarez, Chihuahua, and Columbus, New Mexico; Agua Prieta, Sonora, and Douglas, Arizona; Naco, Sonora, and Naco, Arizona; Nogales, Sonora, and Nogales Arizona; San Luis Rio Colorado, Sonora, and Yuma, Arizona; Mexicali, Baja California, and Calexico, California; and Tijuana, Baja California, and San Diego, California. *Id.*

4. See U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) II-6 (Feb. 1992) (discussing population growth in the borderlands).

and their families living in substandard housing with inadequate services.<sup>5</sup> Estimates show that fewer than 1% of the *colonias* in Texas and only about 7% in New Mexico have access to wastewater treatment systems.<sup>6</sup> Without such wastewater treatment facilities, much of the waste flows directly into the border rivers and other aquatic ecosystems. In the Nuevo Laredo-Laredo area, some twenty-seven million gallons of untreated wastewater are discharged into the Rio Grande each day.<sup>7</sup> Recently, the United States Environmental Protection Agency (EPA) announced that it will conduct a \$352,000 study to determine whether industrial pollution is causing an outbreak of rare brain and spinal birth defects in the lower Rio Grande Valley.<sup>8</sup>

### III. INDUSTRIALIZATION IN THE BORDER AREA

In 1965, Mexico initiated a border industrialization program in an effort to persuade labor-intensive manufacturers to locate inside Mexico.<sup>9</sup> Without import duties, foreign manufacturers are encouraged to bring capital equipment and raw materials into Mexico. Products assembled in these Mexican-based factories (*maquiladoras*) are then allowed to be exported virtually duty-free.<sup>10</sup> Of the estimated 2,000 *maquiladoras* presently operating in Mexico, about 1,700 of them are located in the border region.<sup>11</sup> Of the 1,700 *maquiladoras* located along the border, approximately 56% are located in the border cities of Tijuana and Ciudad Juarez.<sup>12</sup>

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5. See *id.* at 11 (exposing underlying problems on both sides of the border).

6. *Id.*

7. *Id.* at 12.

8. See *Mexico: SEDUE Official Requests Aid From Private Industry*, SAN ANTONIO LIGHT, May 22, 1992 at C3, col. 2 (reporting request of aid from private industry to clean up pollution). The Environmental Protection Agency (EPA) agreed to the study when researchers noted that babies in Matamoros and adjacent Brownsville were experiencing unusually high rates of anencephaly (babies born with underdeveloped brains) and spina bifida (spinal deformity). Since the spring of 1991, investigators have documented 30 cases of babies suffering from anencephaly or spina bifida in Cameron County, Texas. Prior to 1989, and the number of incidents was 3.6% higher than the national average, since 1989 the number has increased to 14.8% higher than the national average. *Id.*

9. See U.S. ENVTL. PROTECTION AGENCY, SUMMARY: ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA, FIRST STAGE (1992-1994) 8 (Feb. 1992) (examining history of the *maquiladora* industry).

10. *Id.* However, export duties may be charged on value added to the product in Mexico. *Id.*

11. *Id.*

12. *Id.* These figures were based on data collected prior to November 1991. *Id.*

With this increased industrialization, there has been a corresponding increase in industrial waste and environmental pollution. Although many of these *maquiladoras* produce hazardous waste such as spent solvents, acids, caustic materials, and paint waste, little is known about the extent of this waste or its disposal. Under the terms of the 1983 Border Environmental Agreement signed by President Reagan and President de la Madrid in La Paz, Baja California,<sup>13</sup> waste materials generated from the *maquiladora* plants are to be transported back to the United States for disposal if they cannot be recycled and reused in Mexico.<sup>14</sup> However, because Mexico and the United States lack a comprehensive tracking system, it is uncertain how many of these waste products are actually disposed of legally. In 1991, of the 1,449 *maquiladoras* located in the border area, 800 were identified as generating hazardous waste. Of these 800 plants, Mexican officials determined that only 446 were in compliance with legal registration requirements.<sup>15</sup>

#### IV. ENVIRONMENTAL REGULATIONS NORTH OF THE BORDER

The majority of United States environmental laws were first enacted in the late 1960s and 1970s. Many of these laws allow the federal government to seek judicial injunctions against private polluters, and may allow the imposition of civil or criminal penalties.

Two of the most prominent acts that affect industries are the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund"). The RCRA was enacted to address issues related to solid waste management, treatment, and the environ-

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13. See *Agreement Between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area*, Aug. 14, 1983, U.S.-Mex., art. 1, reprinted in 19 WKLY. COMP. PRES. DOC. 1137 (1983 Border Environmental Agreement). The 1983 Border Environmental Agreement is often referred to as the "La Paz Agreement."

14. See *id.* Annex III (1986) (addressing procedures for transboundary shipments of hazardous wastes).

15. See U.S. GEN. ACCT. OFF., PUB. NO. GAO/RCED-92-102, REPORT TO THE CHAIRMAN, ENVIRONMENT, ENERGY, AND NATURAL RESOURCES SUBCOMMITTEE, COMMITTEE ON GOVERNMENT OPERATIONS, HOUSE OF REPRESENTATIVES, HAZARDOUS WASTE: MANAGEMENT OF MAQUILADORAS' WASTE HAMPERED BY LACK OF INFORMATION 7 (1992) (describing the lack of accurate information regarding *maquiladora* waste production).

mentally safe disposal of hazardous waste.<sup>16</sup> The CERCLA acts as companion legislation to the RCRA in that it provides for the cleanup of abandoned disposal sites and removal of hazardous substances from the environment.

The RCRA provides for federal technical and financial assistance to state and local governments to develop solid waste management plans. The RCRA prohibits open dumping and requires the conversion of open dumps into environmentally safe facilities. The RCRA also defines the term "waste," establishes industrial guidelines, and issues facility permits. All of the RCRA provisions are intended to reduce the need for corrective actions in the future.<sup>17</sup>

Where an individual or corporate entity is determined to have violated the provisions of the RCRA, the administrator of the EPA or a state can seek civil penalties ranging from a temporary or permanent injunction to fines of up to \$25,000 per day of noncompliance.<sup>18</sup> When assessing these penalties, the administrator will take into account the seriousness of the violation and the violator's efforts made to comply with the applicable requirements.<sup>19</sup>

Prior to 1990, criminal sanctions for environmental violations in the United States were applied rarely, and only in the most flagrant situations.<sup>20</sup> Between 1983 and 1988, only 30% of all jail time imposed on violators was actually served.<sup>21</sup> By 1991, however, violators found themselves serving almost 91% of the jail time imposed.<sup>22</sup>

In cases where an individual "knowingly transports, treats, stores, disposes of, or exports any hazardous waste" identified in the regulation, which "places another person in imminent danger of death or

16. See 42 U.S.C.A. § 6902 (West 1988 & Supp. 1992) (establishing U.S. environmental guidelines).

17. See *id.* § 6902(a) (providing "cradle-to-grave" management of hazardous waste).

18. See *id.* § 6928(c) (establishing civil penalties for noncompliance).

19. See *id.* § 6928(a)(3) (allowing flexibility in assessing the appropriate penalty).

20. See Eva M. Fromm, *Commanding Respect: Criminal Sanctions For Environmental Crimes*, 21 ST. MARY'S L.J. 821, 822 (1990) (discussing environmental crimes and the limited use of available criminal sanctions).

21. See Vicki A. O'Meara, *Litigation and Administrative Practice Handbook Series: Recent Accomplishments of the Environmental and Natural Resources Division*, 4 ENVTL. L. UPDATE 845, 847-48 (1992) (discussing recent enforcement of civil and criminal penalties for environmental crimes).

22. *Id.* Violators served an average of one year in jail and a total of approximately 1.1 billion dollars was collected for cleanup, penalties, and restitution. *Id.* From 1983 to 1991 there were a total of 911 indictments with 686 cases ending in guilty pleas and convictions. Of these, 625 were against individuals and 286 were against corporations. *Id.*

serious bodily injury," he or she may be subject to fines up to \$250,000 and/or imprisonment for not more than 15 years.<sup>23</sup> In addition to the most serious penalties, the RCRA provides lesser penalties for crimes such as knowingly transporting without a manifest; knowingly omitting material information in required reports; knowingly storing hazardous waste improperly; knowingly exporting to another country without consent or in violation of an international agreement; and knowingly destroying or failing to keep records required under the Act.<sup>24</sup> Penalties for these violations range from 2 to 10 years in prison and can include up to a \$50,000 fine for each day the violation continues.<sup>25</sup>

Like the RCRA, the CERCLA also contains provisions for civil and criminal penalties.<sup>26</sup> With limited exceptions, an owner or operator of a facility can be held directly liable for cleanup of hazardous waste found on his or her property.<sup>27</sup> In addition, transporters of hazardous waste may be held liable for subsequent releases or threatened releases which cause the incurrence of response costs.<sup>28</sup> Civil penalties for failure to abide by administrative regulations can range from \$25,000 per day to \$75,000 per day on subsequent violations.<sup>29</sup>

The CERCLA also provides "bounty hunter" provisions, which allow the President to award up to \$10,000 to any individual providing

23. See 42 U.S.C.A. § 6928(e) (West 1988 & Supp. 1992) (providing for fines of up to \$1,000,000 if defendant is an organization). One of the most notable convictions obtained under this provision of the Resource Conservation and Recovery Act (RCRA) took place in *United States v. Protex Industries*, 874 F.2d 740 (10th Cir. 1989). In *Protex*, industry officials were found to have exposed three of their employees to toxic chemicals in a drum recycling facility after failing to institute sufficient protective measures. *Id.* at 742. Some of the employees later suffered solvent poisoning and exhibited signs of serious maladies. *Id.* *Protex Industries* was required to establish a \$950,000 trust fund for the affected individuals and ordered to pay \$440,000 in fines. *Id.* In addition, the company was ordered to pay site clean-up costs estimated at \$2,100,000. *Protex Industries*, 874 F.2d at 742. In *United States v. Greer*, 850 F.2d 1447 (11th Cir. 1988), the defendant was charged with "mislabeling hazardous chemicals, requiring employees to at the waste facilities to sniff waste drums to determine their contents, allowing hazardous waste to be spilled on the ground, falsifying identification test reports, failing to report hazardous waste spills, and endangering workers at disposal sites by exposing them to dangerous conditions. *Id.* at 1452-53. Upon being found guilty, Greer was assessed a 90-day sentence and a \$23,000 fine. *Id.*

24. See 42 U.S.C.A. § 6928 (1)-(7) (West 1988 & Supp. 1992) (establishing "knowing" violations which will support criminal penalties).

25. See *id.* § 6928(d) (establishing criminal penalties for "knowing" violations).

26. See *id.* § 9603 (establishing civil and criminal penalties respectively).

27. See *id.* § 9607 (establishing liability and limited defenses).

28. 42 U.S.C.A. § 9607 (West 1987 & Supp. 1992).

29. See *id.* § 9609 (establishing civil penalties and awards).

information leading to a criminal conviction under the code.<sup>30</sup> Criminal penalties may be imposed for an owner or operator who fails to notify authorities immediately upon acquiring knowledge of any impermissible releases of hazardous substances.<sup>31</sup> Failure to provide such notice, or providing false or misleading information, can result in imprisonment for 3 to 5 years in addition to fines of up to \$250,000 for an individual and \$500,000 for an organization.<sup>32</sup>

#### V. ENVIRONMENTAL REGULATIONS SOUTH OF THE BORDER

In 1988, Mexico enacted the General Law of Ecological Equilibrium and Environmental Protection (General Law) in a comprehensive effort to protect its air, water, and soil resources.<sup>33</sup> Today, Mexico's General Law contains regulations regarding air pollution, water pollution, hazardous-waste pollution, environmental-impact assessments, vehicle inspections, toxic-waste disposal, and pesticides.<sup>34</sup> Further, as of September, 1992, twenty-nine of thirty-one states in the Mexican Federation had enacted their own state ecology laws.<sup>35</sup> Prior to May 1, 1991, Mexico's Secretary of Urban Development and Ecology (SEDUE) was responsible for enforcing the General Law and its regulations. However, on May 1, 1992, Mexico's National Con-

30. *See id.* § 9609(d) (establishing awards for individuals who provide information leading to the arrest and conviction of CERCLA violators).

31. *See id.* § 9603 (setting forth the penalties for failure to notify). Imprisonment may be assessed where the person "in charge" of a vessel or facility fails to notify the National Response Center of a hazardous substance "release" in "reportable quantities." *Id.* The person "in charge" can be someone of relatively low rank if they are in a position to detect, prevent, or abate the release. *See United States v. Buckley*, 934 F.2d 84, 86 (6th Cir. 1991) (defining characteristics of person who is "in charge"). "Reportable quantities" can vary depending upon the particular hazardous waste involved. *See* 40 C.F.R. § 302.4 (1992) (listing over 700 hazardous wastes and corresponding "reportable quantities").

32. *See* 42 U.S.C.A. § 9603 (b)(3) (West 1987 & Supp. 1992) (setting forth criminal penalties); 18 U.S.C.A. § 3571 (1987 & Supp. 1992) (establishing guidelines for criminal fines).

33. *See* U.S. GEN. ACCT. OFF., PUB. NO. GAO/NSIAD-91-227, REPORT TO THE CHAIRMAN, COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION, U.S. SENATE, U.S. MEXICO TRADE: INFORMATION ON ENVIRONMENTAL REGULATIONS AND ENFORCEMENT 5 (1991) (noting that there were three earlier, more limited, environmental laws enacted in 1971, 1982, and 1984).

34. *Id.*

35. *See* EMBASSY OF MEXICO, OFFICE FOR PRESS AND PUBLIC AFFAIRS, MEXICO ENVIRONMENTAL ISSUES: FACT SHEETS 9 (1992) (on file with *St. Mary's Law Journal*) (outlining goals and measures for enhancing the environment) (the fact sheets are distributed through the Mexican Embassy in Washington D.C., a copy of which may be obtained by writing the Embassy of Mexico, 1911 Pennsylvania Ave., N.W., Washington, D.C. 20006 or calling the Office for Press and Public Affairs at (202) 728-1600).



gress voted to dissolve SEDUE and create what has been described as the new "super" Ministry of Social Development (*Secretaria de Desarrollo Social* or SEDESOL).<sup>36</sup>

Because Mexico's General Law was only recently enacted, Mexico is still in the process of fine-tuning its regulations, enforcement standards, and administrative structures. While compliance is often lacking, Mexico's environmental law is in many respects as stringent as United States environmental law, if not more so.

Although the environmental laws of the United States and Mexico have been described as similar, differences exist particularly in enforcement procedures and administrative structures. When comparing Mexico and United States environmental laws and enforcement systems, it is important to recognize that the legal systems and administrative frameworks of the two countries are fundamentally distinct. While Mexico operates under a civil law tradition, the United States follows a common law tradition. Under the Mexican system, administrative bodies are responsible for enforcement of environmental laws and dispute resolution. These administrative proceedings are typically argued by affidavit with the only last-resort remedy being an *amparo* taken before the Ministry of Justice.<sup>37</sup> In the United States, it is primarily the judiciary that is responsible for interpreting the law and resolving disputes. In Mexico, an administrative plant-closing is often the first step towards a negotiated compliance plan whereby the corporate entity is given an opportunity to meet environmental regulations over time.<sup>38</sup> Another enforcement tool sometimes used by

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36. See David Clark Scott, *Mexico Shake-Up Rattles Environmentalist*, CHRISTIAN SCIENCE MONITOR, May 4, 1992, at 6, col. 1 (discussing the creation of SEDESOL). As part of the restructuring, four separate organizations now come under the umbrella of SEDESOL: the Ministry of Urban Development and Infrastructure; the Ministry of Housing and Real Estate; the Office of the Attorney General for Environmental Affairs; and, the Institute of National Ecology. Telephone interview with Antonio Ocaranza, Mexican Office for Press and Public Affairs (Jan. 4, 1993). Within this structure, the Attorney General is responsible for compliance and inspection and the Institute of National Ecology is responsible for the establishment of technical norms, regulations, and industry education. *Id.*

37. See THE WHITE HOUSE, U.S. EXECUTIVE, EXECUTIVE SUMMARY: REVIEW OF U.S.-MEXICO ENVIRONMENTAL ISSUES 39-40 (1992) (on file with *St. Mary's Law Journal*) (providing for *amparo* proceeding where disagreement with SEDUE requirements). This review was provided by the Bush Administration as part of its *Response of the Administration to Issues Raised in Connection with the Negotiation of a North American Free Trade Agreement*, provided to Congress on May 1, 1991. *Id.* at 1.

38. *Id.* at 41. Between 1988 and 1990 there were 3 permanent closings; 980 partial or temporary closings; 29 relocations; 1,032 negotiated agreements for compliance scheduling;

Mexican authorities is administrative detention. While this is not considered a criminal arrest, a corporate officer can be deprived of personal freedom for up to thirty-six hours while a compliance plan is negotiated.<sup>39</sup> In 1991 alone, Mexican authorities either temporarily or permanently closed nearly 706 plants for failure to comply with environmental laws.<sup>40</sup>

Unlike the United States, Mexico does not have a mandatory requirement to clean up abandoned hazardous-waste sites.<sup>41</sup> Cleanup is done on a voluntary basis with SEDESOL identifying the sites and owners or operators responsible for arranging and financing the cleanup.<sup>42</sup>

In addition to the procedural differences between United States and Mexican environmental laws, there are also various substantive differences. For example, unlike the United States, Mexico presently does

and 679 voluntary compliance agreements. *Id.*; see also HAZARDOUS WASTE MANAGEMENT AND MAQUILADORA INDUSTRY MANUAL: A JOINT U.S. EPA/SEDESOL PUBLICATION BY THE U.S./MEXICO HAZARDOUS WASTE WORKGROUP ESTABLISHED BY ANNEX III TO THE U.S./MEXICO ENVIRONMENTAL AGREEMENT 9 (1992) (on file with *St. Mary's Law Journal*) (describing Mexico's enforcement procedures).

39. See *id.* at 37 (describing Mexico's enforcement procedures).

40. See U.S. GEN. ACCT. OFF., PUB. NO. GAO/RCED-92-102, REPORT TO THE CHAIRMAN, ENVIRONMENT, ENERGY, AND NATURAL RESOURCES SUBCOMMITTEE, COMMITTEE ON GOVERNMENT OPERATIONS, HOUSE OF REPRESENTATIVES, HAZARDOUS WASTE: MANAGEMENT OF MAQUILADORAS' WASTE HAMPERED BY LACK OF INFORMATION 6 (1992) (describing Mexico's enforcement of environmental laws) (copies of this document may be obtained through the U.S. Gen. Acct. Off., Washington, D.C. 20548). Of the 706 plants closed, 134 were *maquiladoras*. EMBASSY OF MEXICO, OFFICE FOR PRESS AND PUBLIC AFFAIRS, MEXICO ENVIRONMENTAL ISSUES: FACT SHEETS 4 (1992) (on file with *St. Mary's Law Journal*). Further, as of September 1992, the Salinas administration has increased the number of environmental inspectors from around 100 to 300; signed agreements with over 2,000 industries for installing pollution control equipment; inspected more than 7,600 industrial sites; temporarily or permanently suspended the operating licenses of almost 2,000 facilities; and, closed more than 100 polluting facilities in and around Mexico City alone. *Id.* at 3-4. Of the 300 environmental inspectors, 200 have been assigned to the border region. *Id.* at 4.

41. See U.S. GEN. ACCT. OFF., PUB. NO. GAO/NSIAD-91-227, REPORT TO THE CHAIRMAN, COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION, U.S. SENATE, U.S. MEXICO TRADE: INFORMATION ON ENVIRONMENTAL REGULATIONS AND ENFORCEMENT 6 (1991) (comparing United States and Mexico environmental laws).

42. See HAZARDOUS WASTE MANAGEMENT AND MAQUILADORA INDUSTRY MANUAL: A JOINT U.S. EPA/SEDESOL PUBLICATION BY THE U.S./MEXICO HAZARDOUS WASTE WORKGROUP ESTABLISHED BY ANNEX III TO THE U.S./MEXICO ENVIRONMENTAL AGREEMENT 41 (1992) (on file with *St. Mary's Law Journal*) (outlining United States and Mexican environmental law enforcement); U.S. GEN. ACCT. OFF., PUB. NO. GAO/NSIAD-91-227, REPORT TO THE CHAIRMAN, COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION, U.S. SENATE, U.S. MEXICO TRADE: INFORMATION ON ENVIRONMENTAL REGULATIONS AND ENFORCEMENT 6 (1991) (comparing United States and Mexican environmental laws).

not regulate or require registration of underground storage tanks.<sup>43</sup> Moreover, unlike the United States, Mexico presently allows for the disposal of untreated liquid hazardous waste in land-disposal facilities.<sup>44</sup> In other areas, however, Mexico has regulations that the United States does not. For example, Mexico regulates waste produced in mining operations and petroleum exploration, which is not currently subject to regulation in the United States.<sup>45</sup>

Another area where Mexican environmental law is more stringent than its United States counterpart is in the requirement for environmental-impact appraisals. Whereas the United States generally does not require impact statements for state, municipal, or private activities, Mexico's regulations require impact statements for both the public and private sector before operations are permitted.<sup>46</sup>

## VI. EPA-SEDUE BORDER PLAN

In an effort to address congressional and environmental concerns associated with the pending Free Trade Agreement (NAFTA), the EPA and SEDUE recently released an "Integrated Environmental Plan for the Mexican-United States Border Area: First Stage (1992-1994), (the Plan).<sup>47</sup> Under the Plan, officials from Mexican environ-

43. *Id.*

44. *Id.*

45. See U.S. GEN. ACCT OFF., PUB. NO. GAO/RCED-92-102, REPORT TO THE CHAIRMAN, ENVIRONMENT, ENERGY, AND NATURAL RESOURCES SUBCOMMITTEE, COMMITTEE ON GOVERNMENT OPERATIONS, HOUSE OF REPRESENTATIVES, HAZARDOUS WASTE: MANAGEMENT OF MAQUILADORAS' WASTE HAMPERED BY LACK OF INFORMATION 4 (1992) (describing differences between United States and Mexican environmental regulations).

46. See HAZARDOUS WASTE MANAGEMENT AND MAQUILADORA INDUSTRY MANUAL: A JOINT U.S. EPA/SEDESOL PUBLICATION BY THE U.S./MEXICO HAZARDOUS WASTE WORKGROUP ESTABLISHED BY ANNEX III TO THE U.S./MEXICO ENVIRONMENTAL AGREEMENT 31 (1992) (on file with *St. Mary's Law Journal*) (explaining the permit process). Article 28 of Mexico's General Law requires prior authorization for those projects which "cause ecological imbalance, or exceed the limits and conditions provided for in the ecological technical standards and regulations issued by the Federal Government to protect the environment." *Id.*

47. See U.S. ENVTL. PROTECTION AGENCY, SUMMARY: ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: FIRST STAGE (1992-1994) 22 (Feb. 1992) (outlining environmental goals and increased cooperation between Mexico and the U.S.). At the same time that the Integrated Border Plan was being developed, administrative officials from the U.S. Trade Representative office worked on a *Review of U.S.-Mexico Environmental Issues* (Feb. 25, 1992). This review was offered by administration officials when President Bush released his "Action Plan" on May 1, 1991. THE WHITE HOUSE, U.S. EXECUTIVE, EXECUTIVE SUMMARY: REVIEW OF U.S.-MEXICO ENVIRONMENTAL ISSUES 1 (1990) (on file with *St. Mary's Law Journal*). When administration officials agreed to conduct an environmental study, some environmental groups charge that this promise was given simply to secure necessary votes for

mental agencies and their United States counterparts will act together as a "Cooperative Enforcement Strategy Work Group" (Work Group), exchanging information, planning joint actions, and developing strategies to address pollution problems in the border area.<sup>48</sup> Because the border Plan is not a part of the NAFTA treaty, but is a separate and parallel agreement, its provisions will be implemented regardless of whether or not the NAFTA treaty is ultimately approved.<sup>49</sup> Recognizing the need to address potential environmental issues associated with the NAFTA treaty, the Plan is designed to establish a basic framework for dealing with present and "future environmental challenges."<sup>50</sup>

The Plan is scheduled to be implemented in two stages; the first stage is to take place in 1992-94 and the second stage from 1995-2000.<sup>51</sup> During the 3-year first stage, the Mexican government has committed to spend \$460 million dollars developing urban infrastructure along the border and, in 1992, an additional \$6.3 million dollars funding its operational budget in the border area.<sup>52</sup> In turn, the United States has committed \$379 million dollars for 1992 and

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continued "fast track" status. Mary E. Kelly, Executive Director, Texas Center for Policy Studies, remarks at the Trade Policy Staff Committee U.S. Trade Representative (Houston, Tex., Aug. 26, 1991) (copies may be obtained through the Austin, Texas Center for Policy Studies). Further, the administration is using this study to avoid filing an environmental impact study. *Id.* Recently, Public Citizen, the Sierra Club, and Friends of the Earth filed a lawsuit to force the Office of U.S. Trade Representative into preparing an environmental impact statement (EIS). See *Public Citizen v. Office of U.S. Trade Representative*, 782 F. Supp. 139, 144 (D.D.C. 1992) (ruling plaintiffs lacked required standing to sue under the National Environmental Policy Act (NEPA)). Public Citizen, argued that the NEPA requires an EIS for "legislation and for other major federal actions significantly affecting the quality of the human environment." *Id.* at 140, 143. Further, that the free trade agreement is such an action which would be covered by the statute. Without discussing the merits of the case, the District Court ruled that the environmental groups did not have standing and dismissed the case. *Id.* at 144. An appeal was taken before the United States Court of Appeals For the District of Columbia Circuit and the parties are now awaiting the decision. Telephone interview with Patti A. Goldman, Lead Attorney for Public Citizen (May 21, 1992).

48. See U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLOGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: FIRST STAGE (1992-1994) V-5 (1992) (explaining the need for environmental issues to be addressed in a separate agreement).

49. *Id.* at I-5.

50. *Id.* at I-6.

51. See *id.* at 3 (summarizing implementation of the Border Plan). It is expected that the plan will need to be revised and expanded as information is developed through implementation of the first stage. This information will determine much of the substance and form of the second stage (1995-2000) which has not been drafted at this time. *Id.*

52. See U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y

1993.<sup>53</sup>

Enforcement actions under the Plan are delegated to each respective jurisdiction with some joint initiatives being taken by the International Boundary and Water Commission (IBWC).<sup>54</sup> Initial enforcement actions will target (1) industries with poor compliance records, (2) specific pollutants, and (3) geographic areas of mutual concern.<sup>55</sup> Further, work groups will meet to discuss pollution-prevention solutions and avenues to enhance communications between the respective countries.<sup>56</sup>

Initially, the Plan will focus on the four sister cities of Ciudad Juarez-El Paso and Tijuana-San Diego and will expand to other sister cities later.<sup>57</sup> The first step will be to identify facilities producing air, water, or hazardous waste pollution and develop a list of these facilities by owner, location, and the particular discharge produced.<sup>58</sup> In addition, monitoring systems will be established to determine the impact of industrial sources, and data will be collected for producing future comparative risk studies.<sup>59</sup> Later, as the monitoring and collection systems are completed, the data collected will be placed into a

ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: FIRST STAGE, 1992-1994) V-52 (1992) (providing a list of Mexico's funding commitments).

53. *Id.* at V-54.

54. *Id.* at V-4. The IBWC was created by the Convention of 1889 (not printed in Stat.) and indefinitely extended by the Treaty Between the United States of America and Mexico Respecting Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande [1944 Water Treaty], Feb. 3, 1944, U.S.-Mex., 59 Stat. 1219, T.S. 994 (effective Nov. 8, 1945). See THE INTERNATIONAL BOUNDARY AND WATER COMMISSION UNITED STATES AND MEXICO 1987 3 (on file with *St. Mary's Law Journal*) (explaining the purpose of the treaty). The directive of the IBWC is "to apply the rights and obligations which the Governments of the United States and Mexico assumed under numerous boundary and water treaties and related agreements." Statement of purpose and history published by the IBWC (Revised June 20, 1987) (copies may be obtained through the IBWC offices at The Commons, Building C, Suite 310, 4171 Mesa Street, El Paso, Texas 79902 or by calling (915) 534-6700). The IBWC is composed of engineers and legal advisors from both the United States and Mexico. Under the 1944 Water Treaty, the IBWC was directed to give preferential attention to the solution of all border sanitation problems. *Id.*

55. See U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: FIRST STAGE (1992-1994) V-5 (Feb. 1992).

56. *Id.*

57. *Id.* at V-8.

58. *Id.*

59. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: FIRST STAGE, 1992-1994) V-9 (Feb. 1992).

shared computer system.<sup>60</sup>

Specific actions address eleven designated issues: Protection of Water Quality—Conservation of Water Resources; Border Waste Water Control; Air Quality; Hazardous Materials and Hazardous Waste; Municipal Solid Waste; Pesticides; Contingency Planning—Emergency Response; Regulation of Activities Having Impact upon the Environment; Pollution Prevention; Environmental Education; and Conservation of Natural Resources.<sup>61</sup>

## VII. HIGHLIGHTS OF THE EPA-SEDUE PLAN

Water quality plans look to identify and monitor groundwater sources and supplies, and focus on treatment of existing drinking water supplies.<sup>62</sup> In a joint effort between Mexican, United States, and IBWC officials, aquifers that are threatened by contamination will be identified and criteria for remediation will be developed during 1993.<sup>63</sup> In addition, existing and future water-treatment and water-distribution systems will be identified on a priority basis for each of the sister cities.<sup>64</sup> Plans will be developed to provide basic water and plumbing services to the *colonias* and other urban areas on both sides of the border that are without these facilities.<sup>65</sup>

Under the Plan, the IBWC, in cooperation with government agencies on both sides of the border, will evaluate existing and future health threats associated with municipal and industrial disposal procedures.<sup>66</sup> The IBWC will create projections for the next ten, twenty, and thirty years, and will evaluate infrastructure needs and develop preliminary project budgets.<sup>67</sup> Part of the Plan envisions the completion of existing IBWC wastewater treatment and pre-treatment projects.<sup>68</sup>

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60. *Id.* at V-8.

61. *Id.* at V-11 to V-45.

62. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-12 (Feb. 1992).

63. *Id.* at V-12.

64. *Id.* at V-13.

65. *Id.*

66. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-14 (Feb. 1992).

67. *Id.* at 14.

68. *Id.* at V-14 to V-23.

The air quality aspect of the Plan initially considers three pairs of sister cities; Ciudad Juarez-El Paso, Texas; Mexicali-Imperial County; and Tijuana-San Diego.<sup>69</sup> In each of these areas, particular attention will be placed on enhancing air quality by determining the particulate matter sources and by reducing pollution emissions.<sup>70</sup> These programs will be implemented in conjunction with existing federal laws and state statutory requirements like the California Clean Air Act.<sup>71</sup> In addition, studies and monitoring will be performed on both sides of the border with the information being made available to public and governmental agencies.<sup>72</sup>

The hazardous-waste aspect of the Plan is designed to improve tracking, surveillance, transportation, and regulation of waste materials along and across the border.<sup>73</sup> In particular, the Plan envisions higher visibility for deterrent actions, increased reporting and notification requirements, greater interception of illegally transported waste, and joint legal actions against *maquiladoras* and their parent companies, when appropriate.<sup>74</sup> Moreover, the Plan seeks to increase public awareness, thereby encouraging the public to report illegal dumping.<sup>75</sup> Under the Plan, information on waste generation will be collected and shared in a "central bi-national computerized waste tracking system."<sup>76</sup> While efforts will be made to locate abandoned and illegal hazardous-waste sites, the Plan does not outline specific actions for treating the sites that are discovered.<sup>77</sup>

The part of the Plan that addresses municipal solid waste calls for an assessment of locations, numbers, and types of landfills required to support growth in the border area. This assessment is to be combined with public involvement in an effort to prevent improper disposal of

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69. *Id.* at V-23 to V-29.

70. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-5 (Feb. 1992).

71. *Id.* at V-26.

72. *Id.* at V-5, V-25.

73. *Id.* at V-29.

74. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-5 (Feb. 1992).

75. *Id.* at V-29.

76. *Id.* at V-30 to V-31.

77. *Id.* at V-29.

waste.<sup>78</sup> Along with the improvement of collection systems, the Plan calls for the development of new collection systems in seven Mexican border cities.<sup>79</sup>

The pesticide aspect of the Plan calls for record-keeping systems that will identify the types and amounts of various pesticides being used along the border.<sup>80</sup> Further, the Plan calls for public training and informational exchanges regarding health and environmental risks associated with improper pesticide use.<sup>81</sup>

For contingency planning and emergency response, the Plan calls for a clarification of legal authority, as well as the creation of a formal notification system to ensure timely responses.<sup>82</sup> Moreover, emergency response programs are to be developed, focusing on preparedness and cooperative actions.<sup>83</sup> In each of the fourteen pairs of sister cities, separate contingency plans are to be developed in conjunction with informational seminars concerning hazardous waste and its proper disposal.<sup>84</sup> Further, a twenty-four-hour notification system and testing program is to be developed in each of the sister cities.<sup>85</sup>

The Plan also calls for regulation of activities impacting the environment and the development of an ecological policy designed specifically for the border area.<sup>86</sup> Mexican environmental agencies will require environmental-impact assessments prior to any new industrial development falling under Article 29 of the General Law. The agencies will also formulate criteria for evaluating environmental risks created by the maquiladora industry.<sup>87</sup> Most importantly, Mexican authorities will develop a program for enforcing their environmental policy by delegating some authority to the local level and vesting the

78. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-34 (Feb. 1992).

79. *Id.* at V-35.

80. *Id.*

81. *Id.* at V-35 to V-36.

82. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-36 (Feb. 1992).

83. *Id.* at V-37.

84. *Id.* at V-37 to V-39.

85. *Id.* at V-38.

86. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLÓGICA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-39 (Feb. 1992).

87. *Id.* at V-40.



remaining authority in the federal government.<sup>88</sup>

Recognizing that pollution-prevention is less expensive than pollution treatment and disposal, the Plan envisions the encouragement of voluntary programs initiated by privately-owned businesses.<sup>89</sup> Pollution-prevention work groups will be organized to encourage facilities on both sides of the border to follow the EPA's 33/50 Project.<sup>90</sup>

Because environmental education has been recognized as an important component of the EPA-SEDUE Plan, agencies on both sides of the border will stress public participation in an effort to improve public understanding and awareness.<sup>91</sup> A media program will be developed to encourage water conservation, reductions in household waste, and basic home sanitation.<sup>92</sup>

In the area of resource conservation, the Plan contemplates continued work by three existing organizations to design, evaluate, and implement priority programs.<sup>93</sup> In addition, Mexican and United States officials will coordinate projects regarding wildlife and habitat preservation.<sup>94</sup>

### VIII. CRITICISM OF THE EPA-SEDUE PLAN

The strongest criticism of the Plan comes from environmental interest groups who believe that the Plan is long on informal cooperation and short on substantive binding agreements.<sup>95</sup> Moreover, some

88. *Id.*

89. *Id.* at V-41.

90. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLOGÍA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-42 (Feb. 1992). Under the 33/50 program, private industries are encouraged to reduce emissions of 17 hazardous substances by 33% in the year ending 1992 and by 50% in the year ending 1995. As of January 1991, more than 700 U.S. companies had committed to reducing their emissions by almost 300 million pounds by the year 1995. *Id.*

91. *Id.* at V-43.

92. *Id.* at V-44.

93. *Id.* at V-45. The three organizations involved are: the Joint Committee for the Conservation of Wildlife; the Triparte Committee of Mexico, the U.S. and Canada for the Conservation of Migratory Birds and their Habitats; and the Joint Committee for the Management and Protection of National Parks and Other Protected Natural and Cultural Sites. *Id.*

94. U.S. ENVTL. PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLOGÍA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICAN-U.S. BORDER AREA: (FIRST STAGE, 1992-1994) V-5 (Feb. 1992).

95. See TEXAS CENTER FOR POLICY STUDIES, A RESPONSE TO THE EPA-SEDUE INTEGRATED BORDER ENVIRONMENTAL PLAN 1-2 (1992) (providing a numerical analysis of the EPA-SEDUE Plan) (copies may be obtained through the Austin, Texas Center for Policy Studies). The Texas Center for Policy Studies (TCPS) examined the Plan in detail, finding 87

critics charge that the Plan is simply a smoke screen to relieve some of the pressure placed on free-trade negotiators to deal with environmental issues. These critics contend that after the negotiations are complete, environmental priorities will fade and the Plan will be forced to compete with other projects in the yearly budget battle.<sup>96</sup>

Specifically, critics charge that the Plan fails to establish mechanisms to ensure that industries will take measures to reduce pollution, conserve resources, and minimize waste products.<sup>97</sup> Further, the critics complain that the Plan relies heavily on voluntary compliance and not mandatory enforcement procedures.<sup>98</sup> Moreover, while the Plan calls for monitoring and data-collection systems, there is nothing in the Plan which assures that such systems will collect accurate information.<sup>99</sup> The critics charge that the funding is inadequate, deadlines are lacking, and methods of enforcement are not specifically outlined.<sup>100</sup> Also, critics point out that the Plan places administrative burdens on agencies that are presently overextended and understaffed.<sup>101</sup> They argue that the Plan is wrongly premised on the idea that free trade will help the environment simply by making additional tax dollars available.<sup>102</sup> This is seen as a departure from a longstanding United States policy of requiring the polluters to pay, instead of re-

“identifiable commitments” (defined as stated actions that were not “expressly constrained by resource availability” and that were proposed to be accomplished within a definite time period) *Id.* Of these, over 1/2 (53%) qualified as “information exchange, meeting, training, and plant visits;” 10% amounted to promises to enforce existing laws; and 17% involved developing a plan or study. *Id.*

96. Sal Drum, *The Final Plan: A Blueprint for Border Environmental Improvement*, MAQUILA MAG., Apr. 1992 at 13-15 (responding to critics of the border plan).

97. See MICHAEL GREGORY, ENVIRONMENT, SUSTAINABLE DEVELOPMENT, PUBLIC PARTICIPATION AND THE NAFTA: A RETROSPECTIVE 8 (Ariz. Toxics Information, Inc. 1992) (comparing integration with parallel enforcement of environmental goals) (copies may be obtained by writing Arizona Toxics Information, P.O. Box 1896, Bisbee, Arizona 85603 or calling Arizona Toxics Information at (602) 432-7340).

98. See *Mexican Border Plan Free Trade Agreement Contradict ‘Polluter Pays’ Policy*, Group Says, 22 ENV’T REP. 2573, 2573-74 (BNA 1990) (presenting the opinions of Jake Caldwell, research associate on trade and environment with the Environmental Defense Fund).

99. See MICHAEL GREGORY, *Environment, Sustainable Development, Public Participation and the NAFTA: A Retrospective* 52 (Ariz. Toxics Information, Inc. 1992) (discussing the need enforcement mechanisms in the Border Plan).

100. *Mexican Border Plan Free Trade Agreement Contradict ‘Polluter Pays’ Policy*, Group Says, 22 ENV’T REP. 2573, 2573-74 (BNA 1992) (criticizing funding for and enforcement under the Border Plan).

101. *Id.*

102. See *id.* (March 20, 1992) (citing the comments of Craig Merrilees, Director of the Free Trade Campaign).

quiring taxpayers to foot the bill.<sup>103</sup>

#### IX. SUMMARY

Mexico and the United States have experienced a long and diverse history of economic growth and cultural cooperation in the border area. However, as the *colonias* and the substandard housing on both sides of the border demonstrate, short-sighted economic growth can lead to long-term environmental disaster. The EPA-SEDUE Plan seems to be a step in the right direction, if for no other reason than that the Plan demonstrates a willingness to address border issues on a bilateral basis. Because the environment knows no boundaries, pollution on any side inevitably affects people on both sides of the border. Regardless of whether the North American Free Trade Agreement is ultimately ratified and successfully implemented, we must continue to work together to create a healthy and safe environment for the border area and citizens of both our countries.

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103. *Id.* at 2574.