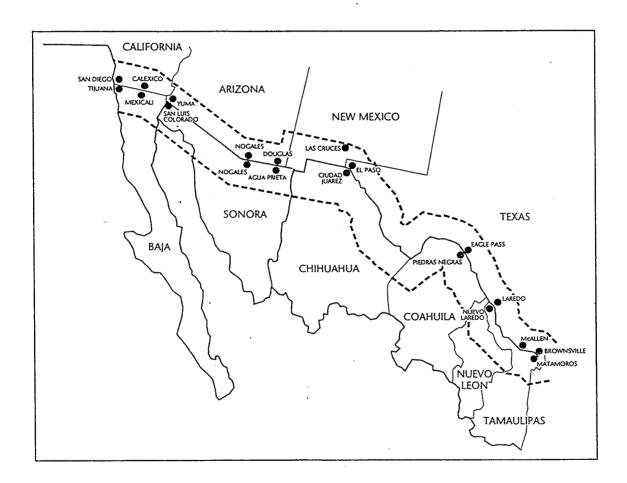


BORDER XXI

This document incorporates comments received by EPA from domestic meetings in the following U.S. border communities:

San Diego Calexico Yuma Nogales Douglas

Las Cruces El Paso Eagle Pass Laredo McAllen Brownsville



This document is the product of the combined efforts of EPA Region 6, EPA Region 9, El Paso Border Liaison Office, San Diego Border Liaison Office, with contractor support provided by PRC Environmental Management, Inc. Reviewed and assembled by Brent Maier of EPA San Diego Border Liaison Office.

U.S./Mexico Border XXI Program

Summary of Domestic Meetings

This report summarizes public comments and views of U.S./Mexico border area residents presented at a series of domestic public meetings about environmental concerns in the development of a binational program entitled Border XXI. The meetings were held in San Diego and Calexico, California; Yuma, Nogales, and Douglas, Arizona; Las Cruces, New Mexico, and in El Paso Eagle Pass, Laredo, McAllen and Brownsville, Texas. This program is aimed at defining a shared vision between governments and communities along the U.S./Mexico border; a vision of a future that is committed to environmental protection and sustainable development. The Border XXI Program is an effort to bring together the environmental expertise and resources of the two countries and increase public participation in the decision-making process. The Program will identify long-term goals specific to each region of the border, and guide the development of annual Border XXI initiatives developed by nine subject specific Border XXI Workgroups. The nine Workgroups are as follows: Hazardous and Solid Waste, Water, Air, Pollution Prevention, Emergency Response and Contingency Planning, Cooperative Enforcement, Environmental Information Resources, Environmental Health, and Natural Resources.

This document has been made available to the team responsible for creating the "Draft" <u>Border XXI Program Framework</u> document, which will be made available for public comment. The <u>Border XXI Program Framework</u> document will be based on both public participation and the environmental expertise of governmental agencies. For additional information on U.S./Mexico border program activities, please contact one of the below listed individuals or offices:

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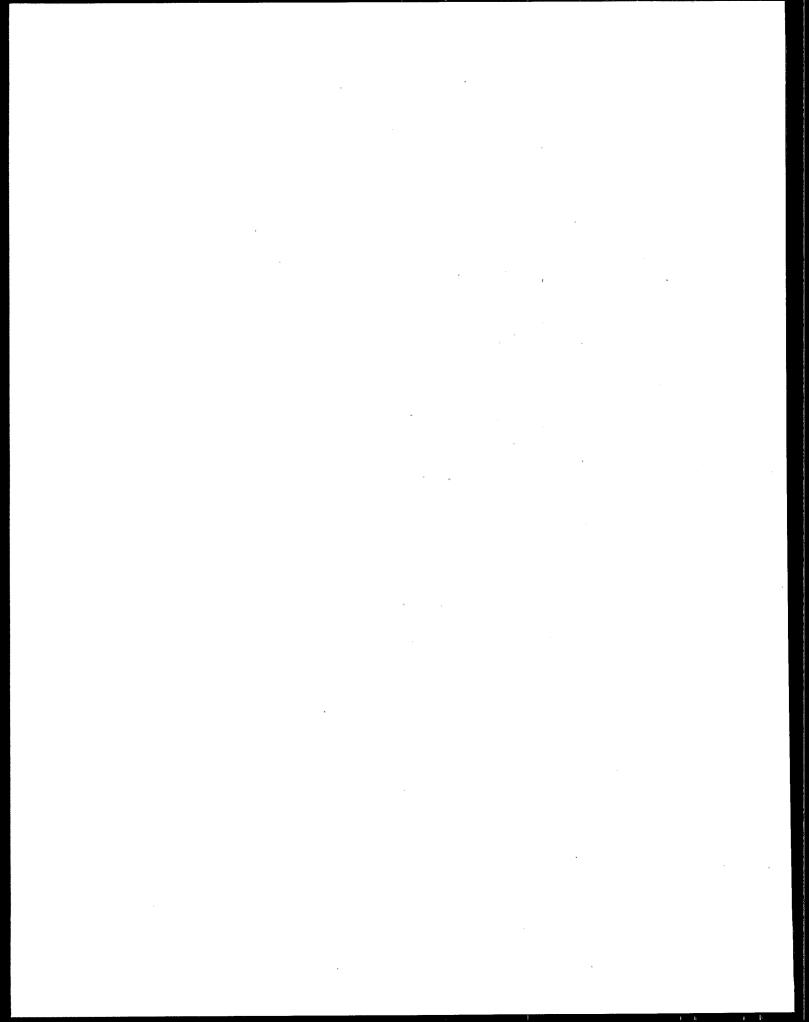
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In addition, an EPA "Toll-Free" telephone line has been established to assist in Border XXI outreach efforts. Call (800) 334-0741 to hear announcements, request documents available by mail, or speak to an EPA representative in either the San Diego or El Paso border office during normal business hours.



U.S./MEXICO BORDER XXI PROGRAM SUMMARY OF DOMESTIC MEETINGS

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1.0 INTRODUCTION

Border XXI is a binational program aimed at defining a shared vision between governments and communities in the United States-Mexico border area; a vision aimed at realizing sustainable development in the border region. The program seeks to bring together the environmental stewardship, expertise, and resources of the governments of the United States and Mexico, and increase the level of public participation in the environmental decision-making process. The Border XXI Program establishes a flexible cooperative framework designed to empower border communities to participate, along with governmental agencies from all levels, in the decisions which affect the binational environment. Specific components of the Border XXI Program include the Border XXI Framework document, annual Border XXI initiatives, and issue specific Border XXI Workgroups. The Border XXI Framework outlines long-term objectives for the border environment and will guide the development of annual Border XXI initiatives aimed at fulfilling those objectives. The annual Border XXI initiatives will be developed by subject-specific Border XXI Workgroups who will integrate geographically based approaches, public participation, decentralization of environmental decision making, institutional strengthening, and interagency cooperation into their annual planning efforts.

1.1 BACKGROUND

In 1983, the Mexican and United States governments signed the La Paz Agreement, which provides a framework for the environmental authorities of the two countries to work together to protect, improve, and conserve the environment in the U.S.-Mexico border area.

Under the agreement, six binational workgroups formed to deal with the following border environmental issues: air, hazardous waste, water, pollution prevention, contingency planning and emergency response, and cooperative enforcement. Under the Border XXI Program, these six workgroups will continue to function and three new workgroups will be established for information management, natural resources and environmental health. Together, these nine groups comprise the Border XXI Workgroups.

In February 1992, the two governments released the Integrated Border Environmental Plan for the Mexican-U.S. Border Area First Stage 1992-1994 (IBEP). This plan identified priority environmental issues in the border area and projects aimed at addressing those issues. The Border XXI Program is the second stage of bi-national environmental planning.

Following the development of the 1992-94 IBEP, the border public expressed concerns about failure on the part of both governments to effectively solicit public involvement from border residents concerning environmental issues. Furthermore, the fact that the IBEP addressed the entire border without distinguishing regional or geographic environmental concerns and issues was questioned. Additionally, communities questioned the IBEPs limited scope and it's failure to address natural resource and environmental health issues. By way of contrast, the Border XXI Program is a regionally based environmental planning effort which includes the participation of those government agencies responsible for natural resource and environmental health issues. In addition, the Border XXI Program is characterized by a commitment by both nations to improve public participation in future environmental planning for the border region. The United States Environmental Protection Agency's (EPA) public comment process for the Border XXI Program included a series of eleven domestic public meetings in geographically representative border communities along the U.S./Mexico border. This report summarizes and analyzes of these domestic public meetings, as well as written and telephonic comments submitted to EPA through November 1, 1995 on the development of the Border XXI Program.

2.0 DOMESTIC PUBLIC MEETINGS

As an initial step in the development of the Border XXI Program, the EPA San Diego Border Liaison Office held a series of public meetings during the week of October 16, 1995, in the U.S.-Mexico border communities of San Diego and Calexico, California; and Yuma, Nogales, and Douglas, Arizona. Concurrently, between October 11 and 24, 1995, the EPA El Paso Border Liaison Office held a series of domestic public meetings in the communities of Brownsville, McAllen, Laredo, Eagle Pass, and El Paso, Texas; and Las Cruces, New Mexico.

The California and Arizona meetings included breakout sessions that focused on specific topics and, under the guidance of a facilitator, sought input from the meeting participants. Each breakout group selected a representative, who reported back to the general meeting. In addition to the breakout sessions; each of the meetings included plenary sessions which allowed time for articulation of general problems and a question and answer session.

Although the Texas and New Mexico meetings did not have as many breakout sessions, they included extensive discussions aimed at defining environmental problems, and often culminated in a vote to prioritize the most important concerns. Each meeting opened with presentations by federal representatives on projects and policies relevant to the local areas. Representatives of state agencies were among the presenters and were called upon to discuss state projects and answer questions from the audience.

In order to ensure that this summary focuses on "public input," the presentations, statements, and opinions of officials for the organizing agency, EPA, as well as other federal agencies, are not

included in this report. State officials, however, are sometimes quoted. State officials were invited to fully participate in the relevant breakout sessions.

2.1 COMMUNITY RESPONSE TO THE DOMESTIC PUBLIC MEETINGS

The attendees were predominantly regulators, representatives from non-governmental agencies, environmental citizens' groups, local government officials, and interested citizens; a few representatives of Mexican non-governmental organizations and Mexican academic institutions also attended. Many citizens and members of non-governmental organizations stated that this was their "first opportunity" to discuss the issues with federal, state, and local representatives from the responsible agencies.

Overall, they wanted an opportunity to talk about and participate in the identification of problems and priorities, rather than formulate, or review, specific projects. A consensus emerged that most of the current federal, state and municipal projects and proposals were worthwhile and should be implemented quickly. Concerns did emerge, however, as to the proportion of funding that fell on the local tax base and the regional prioritization of funding.

There was extensive discussion as to the goals and objectives of the Border XXI Program. Themes which consistently emerged were the need for increased public access to environmental information and environmental education resources; the importance of local empowerment through grants to border communities and decentralization of environmental decision making; and increased interagency cooperation to decrease the burden that coordination with multiple entities places on border communities.

3.0 SUBJECT AREA SUMMARIES

This report is organized according to the subject areas that correspond with the nine Border XXI Workgroups. Detailed local comments by city are included in the appendices which follow this summary report.

3.1 HAZARDOUS AND SOLID WASTE

Each of the local communities had concerns about hazardous and solid waste issues. Similar concerns were repeated in all 11 meetings. Cross-border hazardous waste tracking was thought to need strengthening. EPA's Hazardous Waste Tracking System (HAZTRAKS) was repeatedly complemented, but the participants said it should be compulsory. Some meeting participants suggested that HAZTRAKS should track inputs and outputs into the maquiladora facilities located in the Mexican border zone, so that estimates of expected hazardous waste output could be modeled and compared to actual reported amounts. San Diego, Nogales and Brownsville

participants were most concerned with this issue. Nogales participants made some very specific proposals for improvement of HAZTRAKS. They suggested using a one dollar per truck charge to fund expansion of the system and requested a detailed capability to "figure out what should be coming back" by "going to companies to check inventories and to track southbound flow". Participating customs officials mentioned that they had largely stemmed the fraudulent movement of chemicals and "were interested in helping at the local level" to expand the system of waste monitoring.

A written statement by the Environmental Defense Fund (EDF) included the following analysis: "While well-intentioned, this rule (the requirement to return all hazardous materials which originate in the U.S.) now has the unintended consequence of discouraging some recycling and waste exchange between companies in Mexico. This rule may also increase both the total distance that the waste is transported and the risk of spills. Binational efforts to increase hazardous waste capacity in Mexico (handling, transport, storage, treatment, or disposal options) should become a priority to permit the timely elimination of the waste return rule of the maquiladora program." The EDF proposed strengthening initiatives such as the El Paso Foreign Trade Association's privately sponsored training program for industry personnel in handling, storing and managing solid wastes. The EDF also suggested a transborder deposit-refund system under which the user acquiring a hazardous substance leaves a deposit with the environmental authorities and is granted a refund after properly using and disposing of the substance. The EDF further suggested integrating such a deposit-refund system into the existing HAZTRAKs database.

Problems with illegal dumps related to the colonias were reported in all of the Texas meetings, and there was significant discussion regarding mechanisms of county incorporation that would allow, and oblige, formal domestic pick up in these areas. New Mexico reported concerns about the locations of municipal dumps and refuse generated by colonias. San Diego reported inadequate unlined solid waste facilities. Nogales, Arizona reported an acute lack of existing facilities. All domestic groups felt that the hazardous and solid waste facilities in their sister city were inadequate and that they were directly impacted by burning in Mexican dumps.

Considerable discussion in the Texas meetings focused on the proposed low-level radioactive waste site to be situated ninety miles east of El Paso and six miles east of Sierra Blanca. The El Paso participants, and in particular residents near the site, were especially concerned, but public comment on the issue was also made a considerable distance away in the Eagle Pass meeting.

Overall, the participants called for improved binational coordination and, in the case of controversial location of landfills in the border region, more national and international review of the decision making process.

3.2 WATER

The subject of water drew more comments from meeting participants than any other area of concern. Drinking water quality was mentioned as an issue in many groups and high instances of drinking bottled water in the border communities suggest a general lack of confidence in the quality of the public water supply. In more in depth discussions, however, a consensus usually emerged that domestic tap water was discolored or contained sediment (as in the case of Douglas), but was not dangerous. The exception was Calexico, where residents asserted that while tap water is safe at its source, it becomes contaminated while traveling through open canals and pesticide saturated fields on its route to the town's piped distribution system.

In Texas, domestic water supply is an issue. Participants called for basic service for the colonias. An El Paso meeting participant indicated a serious equity concern in terms of tap water in El Paso, and outlined the situation faced by school children who do not have access to bottled water during school hours. Discussion centered on the complexity of incorporating the colonias into an existing water district and the issue of uneconomic service delivery. There was a call to abolish, or loosen, the monopoly position of certain water corporations so as to allow alternative providers the opportunity to offer a service directly to the colonias. The city of Edinberg cited an example where the city was prevented from providing a water service to a colonia in its jurisdiction. Water supply was cited as a restriction to growth in Nogales and San Diego. Water distribution systems were felt to be antiquated and in need of replacement in Yuma and Douglas regions, especially in the smaller towns of those areas.

The EDF drew attention to the Colegio de la Frontera Norte (COLEF) initiative for a "proven passive and biological elements (process) to treat municipal wastewater," as well as other treatment processes such as "constructed wetlands on site intermittent sand filter systems; or hybrid systems." The Nogales water breakout participants also made a positive reference to COLEF's Tijuana and Nogales proposals.

While the relationship between septic tanks and groundwater contamination was frequently cited, no consensus emerged as to potential solutions. A detailed discussion on this subject occurred in Nogales and the trade-off between a large lot septic tank style of ex-urban development and tighter-clustered rural serviced lots (or simply city-style lots) was debated. Additional restrictions on septic tank based rural subdivisions was seen as a good idea for new development, but no consensus was reached as to whether the policy should be applied to existing subdivisions.

Many domestic groups commented on water quantity issues. The Calexico group stated they would rather export water to Mexicali than San Diego because they saw more economic benefit from Mexicali growth. Nogales, Arizona participants seemed intimately familiar with supply problems on the Mexican side and discussed a project proposed for BECC certification that

would recharge local aquifers. Douglas participants made detailed comments about the water treatment facility that is to be located in Mexico and stated that recharging the aquifer in the U.S. would attract more grant monies. A speaker at the Las Cruces meeting, stated: "This is a lot of water being taken from the Rio Grande now and if that keeps up it's going to dry up. So what we need to do is figure out some way to stop the ... excessive use of water for irrigation (farming)... Excessive irrigation water is being used right now, that's what's upsetting the ecology." Other speakers at Las Cruces commented on the need for more "sustainable" water use in relation to the Rio Grande.

Surface water contamination was universally considered a problem. Calexico residents stated that pesticides contaminated their local water supply because of the open canals that passed through agricultural areas on their way to the city's water distribution system. All Texas groups focused on the water quality in the Rio Grande and its tributaries. In addition, the Gulf of Mexico beaches near Brownsville, the Pacific Ocean beaches near San Diego and the Gulf of California were cited as areas of concern for surface water quality. All binational north-south or south-north flowing rivers were cited, such as the Tijuana River, the Colorado River, the Santa Cruz and Nogales Wash, and the Sulphur Springs River. Domestic concern was highest when the flow is northward, such as in the case of Nogales or Tijuana, but there was a general concern for water quality regardless of the local impacts.

Flooding concerns were mentioned in San Diego in relation to the Rodriguez Dam and in Texas in relation to colonias built on flood plains. In addition, minor flooding was reported in the Nogales Wash with impacts on the downtown area.

Overall, participants were concerned about drinking water quality, under-availability of groundwater, groundwater contamination and depletion, and the poor quality of surface water in the border region.

3.3 AIR

In terms of air quality, in all of the meetings there was a call for more binational air monitoring within the binational air basins of the sister cities. This was seen as an essential first step in identifying air quality problems and working toward specific solutions. Meeting participants suggested that much of the air quality information in Mexico was derived from modeled results rather than actual field samples. U.S. assistance in setting up monitoring in Mexico was seen as essential for understanding risk on both sides of the border.

Regional differences emerged with regard to air issues. The agricultural areas of Calexico, Las Cruces, and McAllen all cited extreme concern about the use of pesticides by local farms. It was felt that the existing regulations and enforcement did not guarantee public safety, even at some

considerable distance from the farms in question. Sugar cane burning was a concern in McAllen. Industrial contamination concerns were most prevalent in the heavily industrial sister cities of San Diego and El Paso. Lead emissions in relation to the American Smelting and Refining Company operation were a major concern in El Paso. Burning landfill sites in Mexico were raised as a concern in every domestic meeting held in a city adjacent to the border.

A number of solutions to air quality problems were put forward. Numerous presentations focused on state and municipal initiatives for binational air quality monitoring. These initiatives were supported by all participants, even if the initiatives involved the expenditure of U.S funds south of the border for training and technical assistance for Mexican counterparts. Increased automobile emissions testing was called for on both sides of the border, but especially targeted in Mexico and for Mexican vehicles crossing into the U.S. In a written submission, EDF suggested that remote sensing at crossing points might provide some of the benefits of inspection and maintenance programs with little or no inconvenience to automobile owners. San Diego participants called for some form of inspections of vehicles crossing the border to ensure compliance with U.S. standards. The relocation of the border crossing points such that less traffic passed through the populated areas of the sister cities was also recommended.

Rail transport of goods was favored over road transport as a means of reducing air emissions. In addition to being perceived as less damaging to air quality, rail shipment of freight was also seen as less dangerous in relation to the movement of hazardous materials.

A Laredo participant suggested relocating customs check points for vehicles transporting heavy goods so that inspections occur away from population centers. Requests were made for new crossings located so as to divert vehicles transporting heavy goods from passing through city centers. The Santa Teresa initiative (a new binationally designed truck crossing facility to the west of El Paso, Texas) was complemented. Enforcement of heavy vehicle routes was mentioned as a partial solution.

While the air breakout sessions did not tend to focus on industrial sources, additional air monitoring to fully understand the extent of the contribution of industry to air emissions within the bi-national air basin was requested.

Air quality was seen as having important health implications in the border region and was perceived to be generally below U.S. standards. In addition to health concerns, the potential for tourism in the region was discussed. One San Diego participant stated "brown air does not attract tourists."

3.4 POLLUTION PREVENTION

Pollution prevention was cited as a high priority concern by many meeting participants. As stated by one participant, "we need to start changing the mentality of the industries and start focusing on prevention instead of treating it". Examples of some of the pollution prevention programs in place at some of the maquiladoras presented include reuse and recycle programs targeted at industrial managers.

A written submission by the Environmental Defense Fund (EDF) outlined several initiatives to provide targeted pollution prevention site assistance visits for maquiladoras. The EDF drew attention to the July 1995 agreement between the Mexican government agencies that deal with environmental and industrial issues and the National Industrial Trade Group to promote environmental protection and industrial competitiveness. There was a general desire to amplify a program of technological exchange and transfer to aid the work of Mexican government officials responsible for air quality monitoring, hazardous and solid waste transport and storage, water quality and industrial monitoring. State and municipal initiatives that are already in place were described and meeting participants called for further support for these programs. The "eco-industrial park" in Brownsville was mentioned as a model which includes recycling between the participating industries as well as the use of waste material for energy generation.

The prevention of noise pollution was mentioned in connection with the New Mexico White Sands Missile range and testing that occurs there.

3.5 EMERGENCY RESPONSE AND PLANNING

A general perception emerged that the placement of emergency response teams does not meet the needs of the border region. As specialized units, emergency response teams are often located in the largest population centers in each state rather than within the border zone. The large movements of hazardous waste concentrated in the border zone result in a disproportionate level

of risk in relation to population for the border communities, and deployment of emergency teams from areas outside the border region is often inadequate.

Tracking of hazardous materials was identified as essential for effective emergency response and the inclusion of hazardous materials in the HAZTRAKS system was seen as necessary.

Several cities reported considerable binational cooperation in regard to emergency response. A landfill fire in Nogales, Sonora was put forth as an example of U.S. response team assisting Mexican counterparts.

Improvements were called for in training and city emergency plans. A need for training for U.S. Customs emergency staff was identified. A written submission suggested development of a binational poison control team for the U.S.-Mexico border region and development of a response team for emergency consultation. Flooding was mentioned as a potential concern in California due to the seismic activity and dams. In El Paso, Texas concern was expressed regarding the proposed low-level radioactive waste facility and the lack of emergency plans in case of a leak.

A need for interagency coordination between emergency response personnel was identified. Overall, emergency response capability for the border region was considered to be incomplete, especially considering the special needs and binational character of the border region.

3.6 ENFORCEMENT

A call for binational standards and enforcement of all air, water, and solid waste concerns within the binational air basins and watersheds was put forth along the border. Enforcement in Mexico was widely perceived to be less stringent than in the U.S. The North American Free Trade Agreement (NAFTA) and the La Paz Agreement were identified as initial steps toward the development of some sort of system of binational standards and enforcement. Binational inspection and enforcement of laws and regulations of hazardous and solid waste generated from the maquiladoras were requested.

A binational toxic release study underway in Texas-Tamaulipas was seen as an essential step in assisting enforcement of point source contamination from maquiladoras. Enforcement of ocean dumping restrictions was perceived as lax on both sides of the border. Enforcement of heavy vehicle routes on the U.S. side of the border in Laredo was identified as inadequate.

A lack of information was considered to hamper enforcement efforts. Colonia representatives in Las Cruces, New Mexico wanted existing regulations "translated" into layman's terms so the local citizens could assist in enforcing landfill regulations. At present they feel they lack the ability to determine whether a violation has taken place, and local police forces were felt to be insufficiently informed and trained to be helpful in this regard. Generally, it was felt that the existing institutional structure needed further development in order to deal with pressing enforcement concerns in the border area.

3.7 INFORMATION MANAGEMENT

Overall, meeting participants felt that information management is in its infancy in the border area. Not only is the binational collection and distribution of information incomplete, but interagency fragmentation is seen as hindering public access to and comprehension of environmental information. Up to 20 domestic agencies participate in water issues, and a specific example of

an environmental health issue involving 40 governmental and non-government entities, was cited as exemplifying the problem of ensuring public access to information. Participants pointed out that such complexity may be daunting even to a full time professional working in the environmental field, and can be perceived by the average citizen as plainly disenfranchising. There were many calls for simplification of access to information and for a lead agency to take responsibility for multi-agency data dissemination, regardless of the original source of data. This could take the form of a binational information service and data bank for environmental concerns. The International Boundary Water Commission (IBWC), EPA, and Border Environmental Cooperation Commission (BECC) were mentioned as candidates for this coordinating role; as were the four state governments. Some participants felt the job of coordination clearly requires a federal agency lead; others saw potential in a more decentralized binational state led initiative.

Insufficient collection and inefficient dissemination of border environmental information was raised as a significant issue. Improved binational information collection and dissemination was a near universal request. Concerns were raised that current information is often available in an inaccessible format and needs to be "put in layman's terms" in order to be useful. There was a call for some type of binational clearing-house of environmental information. Requests were made that this clearing-house be accessible through the Internet and other methods convenient to citizens of the border region.

State representatives reported progress on an environmental health database that will have binational coverage along the border. Concerns were raised that databases containing water and air data information appeared to be less complete (on a binational multi-state basis) and lacked, in particular, field testing results and reports on a consistent binational basis. Standardization of methodologies and technical lexicon was called for to facilitate binational integration of information. With regard to standardization of hazardous and solid waste information, the use of the same classification system on each side of the border was put forth as an obvious first step. There was a call for the use of ISO (International Standards Organization) 14000 standards.

There were requests for more frequent meetings and for better information dissemination publicized through more channels, such as local non-governmental organizations and local governmental entities. The 1994 initiative by EPA to bring together environmental health groups in Las Cruces, New Mexico, resulted in monthly state led coordination meetings. Both the initial EPA program and subsequent state follow-up were complimented. Given the nature of interrelated environmental concerns, meetings were felt to be more productive on a binational sister city basis. Repetition of the meeting format where all domestic meetings on both sides of the border were targeted singularly and then the binational element was concentrated into two very large meetings for the whole border zone was not recommended. In spite of the complete absence of publicity in Mexico regarding the U.S. domestic meetings, many Mexican citizens

from the sister cities did attend the U.S. domestic meetings and were warmly received.

Education formed an important part of the respondents' strategy for improving information management and dissemination. The Clean Coahuila program which implemented an environmental awareness content in the high school curriculum in Mexico was complimented and

put forth as having potential for some form of domestic implementation. Outreach offices in the colonias were strongly endorsed and empowerment through a human based information system was seen as particularly relevant for low income groups. Libraries were mentioned as a good place to distribute environmental information. Staff exchanges were seen as productive and the Texas Natural Resource Conservation Commission (TNRCC) - State of Coahuila staff exchange was commended by meeting participants.

3.8 ENVIRONMENTAL HEALTH

Water-borne disease, such as tuberculosis, in the Texas and New Mexico colonias are linked to a lack of sewer service. Mosquito borne diseases such as Dengue and encephalitis were a major concern in New Mexico and Texas. The close proximity of many colonias to solid waste disposal sites was a health concern. In Brownsville, neurological defects linked to air contamination were mentioned. Some anecdotal evidence was presented in several communities in relation to the risk of drinking tap water and the high percentage of border residents using bottled water. Private wells were considered a greater potential health problem than more closely regulated municipal water supplies.

Participants expressed widespread concern about groundwater quality. Pesticide use was identified as posing a clear health hazard, although it was also suggested that major new regulatory initiatives would hurt jobs and would, thus, need to be implemented selectively. Residents who live near the proposed low-level radioactive waste facility 90 miles to the east of El Paso felt that the facility posed a potential health hazard and cited a finding that four out of six of the existing facilities of this type had leaked. They called for a medical liability fund in the event the proposed facility became operational.

There appears to exist an advanced network of governments and non-governmental binational links in the environmental health field as reported by meeting participants and representatives of local government agencies. Meeting participants expressed support for the expansion of environmental health initiatives. A binational information data bank on environmental health concerns was identified as an essential need.

3.9 NATURAL RESOURCES

Domestic meeting participants who commented on natural resource issues tended to have a broad geographic area of reference. Often, their focus was on renewable and natural resources on the Mexican side of the border. The emphasis placed on the surface water quality of the Gulf of California, Sea of Cortez, the Colorado Delta, and the Rio Grande was often based on interest in species diversity and recreational opportunities. Concerns were voiced about the environmental impact of shrimp farming in the Gulf of Mexico and the Laguna Madre. Mining, off-road vehicles, hunting, and fishing on the Mexican side were raised as issues. Meeting participants stated that marine animals were killed due to the lack of environmental regulations over mining on the Mexican side. Participants commented on a lack of sufficient opens spaces in Mexican border towns. Discussion of Mexican natural resources did not exclude discussion about natural resource issues in the U.S.. A Brownsville participant suggested converting unused salt mines into spas for tourism. Overgrazing of federal land was mentioned as a concern in Las Cruces. Sand mining in the Tijuana River was cited as a concern, as was river bank erosion along the Rio Grande.

Various area-wide management plans were called for to protect habitats. For example, it was suggested that the four Colorado Delta states, two in Mexico and two in the U.S., develop a binational natural resource management plan. Brownsville and Laredo participants detailed the advances of the bi-national Rio Grande Alliance, and the work of the Clean River Committee. The Rio Grande was generally perceived as subject to neglect. Geographical mapping systems were called for to document wildlife habitats, especially along the Rio Grande, so as to avoid habitat fragmentation. Las Cruces participants called for land use planning to limit urban sprawl and habitat destruction. A lack of urban parks was mentioned in Brownsville.

Overall, participants appeared to regard the border zone as an area of natural beauty that retains marine and wildlife habitats in need of protection.

4.0 AREA SPECIFIC SUMMARIES

The following eleven appendices highlight the issues and concerns raised during the domestic public meetings. In addition, sustainable development is included as a separately analyzed topic. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent. Some subject areas did not generate comments in some meetings. In such cases, the

subject area is not mentioned in the summary for a particular meeting. However, where the issue fit into more than one subject area, the issue may be listed more than once under appropriate subject areas.

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Appendix A

SAN DIEGO

San Diego, California, was the largest of the cities within EPA Region IX consulted during the Border XXI domestic public meetings. It lies approximately 20 miles to the north of the border, on the pacific coast. Its sister city to the south, Tijuana, is also the largest of the Mexican sister cities. There is a continuous band of urban development between San Diego and the border and many participants were drawn from the communities within this area. Tijuana is very industrialized and many of the problems mentioned by the participants were related to urbanization and industrialization.

There were approximately 55 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste
Water
Air
Pollution Prevention
Emergency Response and Planning
Enforcement A-8
Information Management
Environmental Health
Natural Resources
Sustainable Development

Workgroup Topic Area: Hazardous and Solid Waste

Hazardous Waste Tracking

- a. Issue: The group stated that hazardous waste transported from Mexico to the United States is tracked using the EPA Hazardous Waste Tracking system (HAZTRAKS), however, the quantity of raw chemical materials that are being transported into Mexico for the Maquiladora industry is unknown. There is not reliable data; any reporting is strictly voluntary. Some group participants also stated that there are different definitions of hazardous waste between the US and Mexico and even between the US and California.
- **b. Proposed Solution:** The group strongly wants to see the current hazardous materials tracking system tracking raw hazardous materials being transported north or south through the border. Some of the group also felt that definitions of chemicals should be standardized. An example was given to use ISO 14000 (i.e., the ASTM proposed international standards) as a model to promote a unified product identification.

Hazardous and Solid Waste Disposal Facilities

- a. Issue: The group stated that there is a lack of adequate facilities to dispose of hazardous and solid waste in Tijuana and San Diego. In the San Diego area, there are five county solid waste facilities and one city of San Diego solid waste facility, and 10 transfer stations. There is also a hazardous waste facility. There are insufficient existing facilities, and they are not currently state of the art: they are typically unlined. For Tijuana, the group stated there is one regulated municipal solid waste landfill. There is a proposed solid waste facility in Baja, the Eco-Park 2000. There are no hazardous waste disposal facilities south of the border.
- **b.** Proposed Solution: Some members of the group proposed that it was important to focus efforts on those environmental problems for which there are not market incentives for industry to solve. Economic benefits can be obtained by solving the problem of hazardous and solid waste generation through waste minimization, pollution prevention, and recycling. Emphasis was placed on promoting pollution prevention.

Public Participation and Education

a. Issue: The group felt that more education was needed on the benefits of the quality of life. Border XXI was considered to be to broad to invoke much public interest. The group felt that more interest would be generated if there were more specific topics on issues that would more directly impact the public. Some participants felt that there was insufficient publicity for the San Diego domestic public meeting.

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b. Proposed Solution: Some members of the group emphasized the need to establish a community right-to-know program in Mexico and put more public resources into education. One member of the group felt it was very important to fund local groups to conduct educational workshops. Another group participant felt that the burden of public involvement is on the local agencies. Most members of the group felt that public meetings such as the San Diego domestic public meeting and the existing EPA San Diego Border Liaison Office, were positive steps to improve communication. Some participants suggested a clearing-house for border information, another felt that the clearing-house should be "on-line," although he recognized that "on-line" access would only be good for the United States and not Mexico.

Communication Within Government

- **a.** Issue: The group felt strongly that bureaucracy in Mexico was frustrating, and that communication between Mexico and the U.S. is difficult. The group also felt that more intra-governmental involvement was important. There were not enough opportunities to meet for the different intra-governmental or non-governmental representatives. The group felt that intra-governmental communication within the San Diego community and between Mexico has improved.
- **b. Proposed Solution:** The group felt that the San Diego domestic public meeting, the EPA San Diego Border Liaison Office, and a U.S.-Mexico information clearing-house were considered important to improve knowledge and coordination. The group also wanted to have EPA facilitate communication between the U.S. and Mexico and identify shared objectives.

Emergency Response Planning

- **a.** Issue: Some of the group participants stated that along with needing to know what crosses the border for purposes of accounting for how much waste would be generated from industry bound for disposal, it was also important in regard to emergency response planning.
- **b. Proposed Solution:** Hazardous materials tracking information should be available for emergency response planning purposes.

Workgroup Topic Area: Water

International Water Management

- a. Issue: The most important priority addressed by the group was that of international water management. In order to be effective in this area it was pointed out that there needs to be an agency that can take the lead with authority and the necessary resources. The fact that the EPA has to go through 20 different government agencies to administer a project was pointed to as an example of how the system is not able to effectively address international water management.
- **b.** Proposed Solution: Those in attendance felt that the International Boundary Water Commission (IBWC) was the ideal candidate because of it's treaty authority and that it works successfully with many agencies. In other ways it was pointed out, however, that there would have to be a significant increase in their budget in order for IBWC to effectively take on the lead role. Internationally, it was stated that the priorities of the two nations would have to be combined.

Sustainable Water Supply

a. Issue: It was felt by the group that the development of a sustainable water supply was a very high priority, having received forecasts that by the year 2,000 there will be serious water shortages in the region. It was pointed out that dams were unnecessarily releasing large amounts of water, when reservoir levels were high, due to a lack of planning.

Balance of Spending

- **a. Issue:** A more appropriate balance of spending was considered to be an important priority. Historically, funding has been heavy on the side of wastewater management with less resources allocated to areas such as ground water protection and flood control.
- **b.** Proposed Solution: The solution for this problem was considered to be a political one which requires that elected officials be convinced of the need to adjust funding practices. New projects should be targeted at ground water protection and flood control more than presently.

Emergency Planning and Response

- **a. Issue:** Emergency planning and response were considered a very high priority by the group, they cited recent occurrences in which flooding caused by failures at Fulsom Dam had caused 400,000 acre feet of water to be released over the course of years, which in this water management system would have had serious impacts.
- **b. Proposed Solution:** This problem was seen as a lack of coordination between agencies. The solution could be to greatly improve cooperation by creating an inter-basin water management authority.

Water Pollution Originating in Mexico

- **a.** Issue: Pollution of the ground water system and of the ocean environment by sources in Mexico were discussed by the group as serious problems which required priority status. Industries and sewage from Tijuana are seriously impacting these water systems. Although great strides in the awareness and interest in these issues were acknowledged to be happening on the Mexican side of the border, little has been done in actuality to amend these conditions.
- **b. Proposed Solution:** A partial solution to this problem is the new International Wastewater Treatment Plant that is about to go online. This will greatly help to control the sewage problem now affecting the marine system.

Workgroup Topic Area: Air

Air Quality Monitoring

- a. Issue: At this time, Tijuana air quality condition reports are based on speculation only. San Diego County Air Pollution Control District (APCD) receives calls from U.S. citizens angry about Mexican citizens driving on the U.S. side without any emissions controls on their vehicles. Air quality is bad, but Mexican scientists cannot tell Tijuana citizens how bad until data is collected and interpreted. Air data must be publicly available along with the emissions inventory.
- **b. Proposed Solutions**: The group recommended that Border XXI work with the La Paz Workgroups to establish air quality monitoring stations in Mexico. The group further noted the need for an emissions inventory in Mexico.

Other recommended solutions were: APCD outreach to Tijuana citizens and auto mechanics (Ciudad Juarez was mentioned as an example of a successful program);

provision of international air emission credits system for the Tijuana/San Diego air basin; and public awareness efforts through billboards, newspaper, and radio.

Information Management Needs to Take Cultural Differences into Account

- a. Issue: The group reported that the Mexican government has told U.S. officials that it is not acceptable for the U.S. to talk about Mexican air quality. Changes in Mexican government every six years have hampered environmental program coordination efforts.
- **b.** Proposed Solution: Once Tijuana air monitoring stations are in place, Border XXI could emphasize that there must be a free exchange of the data and a dialogue regarding standardization of air pollution indexes.

Index of Air Pollution Standards Different in Mexico

- a. Issue: Even if the indexes were the same, they might be interpreted differently in terms of different public health and environmental consequences to each group that receives the data.
- **b.** Proposed Solution: Border XXI could be used to streamline the flow of EPA money to California Air Resources Board (ARB) and APCD.

Emergency Planning and Response

- **a. Issue:** APCD uses public notifications beginning with an advisory, then Stage 1 Alert, Stage 2 Alert, and finally a Stage 3 Alert.
- **b. Proposed Solution:** Try to always let the public know who to contact about emergencies. Border XXI might be able to identify non-governmental organizations who could support ongoing public outreach.

Importation of Air Pollution

- **a.** Issue: The group indicated that in reality, 50% of the smog occurring in the San Diego/Tijuana Air basin is imported from the Los Angeles area.
- **b.** Proposed Solution: Border XXI might support South Coast and State ARB efforts to reduce emissions in Los Angeles even though it is not a border city.

Air Pollution Prevention

- **a.** Issue: Air pollution prevention measures should be implemented on both sides of the border.
- **b.** Proposed Solutions: Border XXI could support auto emissions testing for vehicles in the metropolitan Tijuana area. In addition, Border XXI could ensure that Mexican funds are allocated to educate Tijuana industry about source reduction of air emissions once the data from the monitoring and inventory are collected and interpreted.

Workgroup Topic Area: Pollution Prevention

Hazardous and Solid Waste Disposal Facilities

- a. Issue: The group stated that there is a lack of adequate facilities to dispose of hazardous and solid waste in Tijuana and San Diego. In the San Diego community, there are five county solid waste facilities and one city of San Diego solid waste facility, and 10 transfer stations. There is also a Laidlaw hazardous waste facility. There are insufficient existing facilities, and they are not currently state of the art: they are typically unlined. For Tijuana, the group stated there is one regulated municipal solid waste landfill. There is a proposed solid waste facility in Baja, the Eco-Park 2000. There are no hazardous waste disposal facilities south of the border.
- b. Proposed Solution: Some members of the group proposed that it was important to focus efforts on those environmental problems for which there are not market incentives for industry to solve. Economic benefits can be obtained by solving the problem of hazardous and solid waste generation through waste minimization, pollution prevention, and recycling. Emphasis was placed on promoting pollution prevention.

Pollution Prevention

- **a.** Issue: Pollution prevention measures should be implemented on both sides of the border.
- **b.** Proposed Solutions: Border XXI could support auto emissions testing for vehicles in the metropolitan Tijuana area. In addition, Border XXI could ensure that Mexican funds are allocated to educate Tijuana industry about source reduction of air emissions once the data from the monitoring and inventory are collected and interpreted.

Workgroup Topic Area: Emergency Response and Planning

Emergency Response Planning

- **a.** Issue: Some of the group participants stated that along with needing to know what crosses the border for purposes of accounting for how much waste would be generated from industry bound for disposal, it was also important in regard to emergency response planning.
- **b.** Proposed Solution: Hazardous materials tracking information is important to assist in emergency response planning.
- a. Issue: Emergency planning and response were considered a very high priority by the group, they cited recent occurrences in which flooding due to failures at Rodriguez Dam had caused 400,000 acre feet of water to be released over the course of years, which in this water management system would have had serious impacts.
- **b. Proposed Solution:** This problem was seen as a lack of coordination between agencies. The solution could be to greatly improve cooperation by creating an inter-basin water management authority.

Workgroup Topic Area: Enforcement

Hazardous Waste Tracking

- a. Issue: The group stated that hazardous waste transported from Mexico to the United States is tracked using the EPA Hazardous Waste Tracking system (HAZTRAKS), however, the quantity of raw chemical materials that are being transported into Mexico for the Maquiladora industry is unknown. There is not reliable data; any reporting is strictly voluntary. Some group participants also stated that there are different definitions of hazardous waste between the US and Mexico and even between the US and California.
- **b. Proposed Solution:** The group strongly wants to see the current hazardous materials tracking system tracking raw hazardous materials being transported north or south through the border. Some of the group also felt that definitions of chemicals should be standardized. An example was given to use ISO 14000 (i.e., the ASTM proposed international standards) as a model to promote a unified product identification.

Water Pollution Originating in Mexico

- a. Issue: Pollution of the ground water system and of the ocean environment by sources in Mexico were discussed by the group as serious problems which required priority status. Industries and sewage from Tijuana are seriously impacting these water systems. Although great strides in the awareness and interest in these issues were acknowledged to be happening on the Mexican side of the border, little has been done in actuality to amend these conditions.
- **b.** Proposed Solution: A partial solution to this problem is the new international wastewater treatment plant that is about to go online. This will greatly help to control the sewage problem now affecting the marine system.

Mining in the Tijuana River

- **a. Issue:** The group expressed concern regarding the practice of mining sand from, and then dumping fill into the Tijuana River Valley, without clarification about why this happens, nor about why this happens at night.
- **b. Proposed Solution:** The group recommended increased control and enforcement of existing regulations for mining.

Workgroup Topic Area: Information Management

Public Participation and Education

- **a.** Issue: The group felt that more education was needed. Border XXI was considered to be too broad to invoke much public interest. The group felt that more interest would be generated if there were more specific topics on issues that would more directly impact the public. Some participants felt that there was insufficient publicity for the San Diego domestic public meeting.
- b. Proposed Solution: Some members of the group emphasized the need to establish a community right-to-know program in Mexico and put more public resources into education. One member of the group felt it was very important to fund local groups to conduct education such as non-governmental organizations. Another group participant felt that the burden of public involvement is on the local agencies. Most members of the group felt that public meetings such as the San Diego domestic public meeting and the existing EPA San Diego Border Liaison Office, were positive steps to improve communication. Some participants suggested a clearing-house for border information, another felt that the clearing-house should be "on-line," although he recognized that "on-

line" access would only be good for the United States and not Mexico.

Communication Within Government

- a. Issue: The group felt strongly that bureaucracy in Mexico was frustrating, and that communication between Mexico and the U.S. is difficult. The group also felt that more intra-governmental involvement was important. There were not enough opportunities to meet for the different intra-governmental or non-governmental representatives. The group felt that intra-governmental communication within the San Diego community and between Mexico has improved.
- **b.** Proposed Solution: The group felt that the San Diego domestic public meeting, the EPA San Diego Border Liaison Office, and a U.S.-Mexico information clearing-house were considered important to improve knowledge and coordination. The group also wanted to have EPA facilitate communication between the U.S. and Mexico and identify shared objectives.

Information Management

- a. Issue: The group identified the need to improve communications among the different ongoing projects in data management and GIS, as one of the highest priorities.
- **b.** Proposed Solution: It was recommended by the group that existing GIS could be enlarged and promoted allowing integration among different parties (Academia, government, NGOs), on both sides of the border.

Workgroup Topic Area: Environmental Health

Collaboration and Education

- **a.** Issue: The group felt that the voice of the border community is weak and not unified. This makes it hard to rally enough pressure to justify funding.
- **b.** Proposed Solution: The issues cut across borders and that, the group felt, will unite people in their efforts to raise a strong, unified voice.

Education and Public Outreach

- a. Issue: The group stated that the San Diego regional area does not believe an environmental problem exists. One participant quoted a recent poll performed by a national NGO involved in land protection as showing that only 7 percent of the regional population feel environmental problems exist. They were concerned with public complacency and lack of awareness. They also expressed a need to find a way to raise public awareness without framing issues in the context of a "crisis."
- b. Proposed Solution: Focus on education of young people from the elementary to college level. Use a diverse set of methods and tools such as computers, plays, etc. to access young people. The group also suggested getting to older citizens that have settled down in the area because of the climate and natural beauty. They suggested providing for much more face-to-face discussion like these workshops. The group also suggested that using the concepts of sustainable development and livability is the way to teach local residents about the quality of the environment as it pertains to their children's and grandchildren's health now and in the future.

Workgroup Topic Area: Natural Resources

Information Management

- a. Issue: The group identified the need to improve communications among the different ongoing projects in data management and GIS, as one of the highest priorities.
- **b.** Proposed Solution: It was recommended by the group that existing GIS could be enlarged and promoted allowing integration among different parties (Academia, government, NGOs), on both sides of the border.

Public Participation

- **a. Issue:** The group felt that environmental projects and priorities are identified by too few people, and those few that do participate represent particular interests.
- **b. Proposed Solution:** The group solution was to promote a more equal representation of concerns.

Sensitivity Analysis

a. Issue: The group was concerned about how Mexico determines what "sensitive resources" are.

San Diego Domestic Meeting October 16, 1995

b. 'Proposed Solution: It was proposed by the group that clearer concepts related to "sensitive resources" be developed by Mexico.

Workgroup Topic Area: Sustainable Development

Sustainable Water Supply

a. Issue: It was felt by the group that the development of a sustainable water supply was a very high priority, having received forecasts that by the year 2,000 there will be serious water shortages in the region. It was pointed out that dams were unnecessarily releasing large amounts of water, when reservoir levels were high, due to a lack of planning.

Appendix B

CALEXICO

Calexico, California is sister city to the much larger industrial, university and administrative city of Mexicali, Baja California to the south. There was a clear orientation of the Calexico population economically and environmentally toward their sister city. To the north of Calexico lies the productive Imperial Valley and many participants voiced agricultural concerns. The interrelationship of urban and rural was brought into sharp focus by the perceived contamination of urban water supplies by crop spraying.

There were approximately 30 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste B-2
Water B-4
Air
Emergency Response and Planning
Enforcement B-6
Information Management
Environmental Health
Natural Resources B-9
Sustainable Development B-11

Workgroup Topic Area: Hazardous and Solid Waste

Economic Barriers to Enforcement

- a. Issue: The group stated that Mexico does not have the capacity or incentive to force industries to comply with environmental regulations. It is an economic factor. One participant stated if they give the maquiladora industry any problems, the industries will simply move to some other country. Some industries have already moved from California to Texas. The group felt disappointed that more environmental controls were not in place prior to passage of the North American Free Trade Agreement.
- b. Proposed Solution: The group felt that for California's economy to improve, there needs to be a more level playing field in terms of the economics of doing business. When economics makes it more feasible to make adjustments in the process, then the problems can be minimized. The group recognized that Mexico has formidable environmental regulations. However, the group wants to see more equal regulation of industrial process operations which generate hazardous and solid waste on both sides of the border, as well as better enforcement.

Mexican Trucking Vehicle Requirements

- **a. Issue:** The group stated that the US Department of Transportation will be changing its requirements in allowing Mexican trucking vehicles into the United States. The group was concerned about allowing trucks that mechanically would not meet US DOT standards. Trucks that are poorly equipped would be a greater road hazard when transporting hazardous and solid waste.
- **b. Proposed Solution:** The group would like to see Mexican-owned vehicles operate under the same standards of safety as those required of US-owned vehicles.

Emergency Spill Response Staff Needs

- a. Issue: One group participant stated that U.S. Customs emergency spill response staff are limited; there are only two trained staff in Calexico and none on the Mexican side. He stated that Imperial County has an excellent emergency spill response team. The emergency response teams have coordinated with the Mexican side because it is a matter of immediate life threatening issues.
- **b.** Proposed Solution: The group wants to see more local resources in emergency spill response training.

Coordination Between Local, State, and Federal Governments

- a. Issue: The group felt that local governments at times have actually made progress in communicating with their counterparts on the Mexican side; however, there are still perceived barriers to communication by local governments with Mexican government representatives. One group participant recognized that sometimes the local government representatives have taken the initiative to coordinate their own meetings. The U.S. federal government is preparing all the plans, but local communities have the best knowledge. The federal government controls the money and sets policy and then the local communities try to deal with the issues.
- **b.** Proposed Solution: The group wants to see more coordination among all levels of government on both sides of the border. Some felt that they wanted to see more citizens attend meetings such as the domestic public meeting held by EPA. Another group felt it was important to have more local agency participation in future meetings.

Coordination of Existing Environmental Protection Efforts

- **a. Issue:** The group was concerned about EPA "reinventing the wheel," that is, doing things that may already be underway locally. They do not want the Border XXI Program impeding progress which is already being made.
- **b. Proposed Solution:** The group wants EPA to be aware of existing documents which already have proposed solutions. They also want EPA to use more local manpower in solving border problems. Specifically two reports were cited for consideration by EPA: the Border Environmental Indicators Conference and the Mesquite Regional Landfill Plan.

Community Education

- **a. Issue:** The group stated that a lot of people do not know what hazardous and solid wastes are. For example, hazardous waste can be simply a can of paint. The group felt that environmental problems are long-range problems.
- **b. Proposed Solution:** The group wanted to see more education at the household level to raise awareness about hazardous and solid waste.

Workgroup Topic Area: Water

Water Availability/Water Export

- a. Issue: One of the highest priority issues identified by the group, if not the highest priority, was the issue of water availability and the related issue of water exports from the region around Calexico to San Diego and the subsequent loss of local jobs that go with the transfers.
- b. Proposed Solutions: There were several solutions suggested in the course of discussion. Firstly, a simple ban on exporting water to regions that had no economic benefit to the local Calexico area was suggested. It was felt that transfers of this type only benefitted land speculators "from San Diego" who were buying up local water rights. Secondly, it was suggested, and strongly supported by the group, that it was much better to export water to Mexicali for domestic and industrial consumption, than to other U.S. cities because of the secondary economic benefits of growth in Mexicali for the local Calexico community. Rural water conservation was also mentioned as a partial solution, but not much optimism was expressed that this would solve the problem. It was discussed, after prompting, that sustainable development was a potential solution and that organic farming could make a contribution to water conservation and the overuse of pesticides, as well.

Domestic Water Quality

- a. Issue: Another of the highest priorities expressed by the group was domestic water quality. It was noted that the local population had little confidence in the safety of the supply. It was expressed by the group that perhaps the water was safe at the well but was contaminated while passing through the pesticide-contaminated air that passes over the open canals that carry the domestic water supply to the town. It was noted that there were a "lot of cases" of gastrointestinal problems "according to a number of local doctors."
- **b.** Proposed Solutions: There were two main categories of solutions to this problem. Firstly, various ways of covering the canals were discussed. Secondly, various controls on pesticide use were suggested. There was a feeling that the farmers were using stronger pesticides than in past years and that this needed more controls both in the type and quantity of pesticides used and the manner in which they are applied in the fields.

Information Exchange/Dissemination

- a. Issue: The lack of information on pollution and contamination was expressed as an important issue. Additionally it was felt that the Mexicali area was intimately connected to the water supply and discharge problems of Calexico and that the lack of information on the Mexican side was a problem, not only for Mexican nationals living on the Mexican side of the border, but for the U.S. residents in the Calexico area as well.
- b. Proposed Solution: This was broadly discussed and several specific suggestions were made. Firstly, it was requested that the amount of chemicals in the New River, which originates in Mexicali needs to be analyzed, although it was also noted that research should not be done in place of actions that put people first, such as domestic supply projects. It was suggested that sometimes meetings, such as the Border XXI public meeting they were participating in, were the only way the general public, and even representatives of the non-governmental organizations (and especially those from the Mexican side), can get information. It was noted that many doctors are "afraid to come forward" in reporting pesticide related problems due to their financial ties to pesticide users (the local farmers) and that better reporting procedures were needed. Grants to grassroots organizations to assist in information gathering and dissemination was another solution suggested.

Economic Growth and Environmental Regulation

- a. Issue: There was concern expressed over the tradeoff between local economic growth and the issues of regulations over pesticide use and water consumption. Also, after prompting, sustainable development issues were discussed as concerns. It was felt that high pesticide use and high water use were not sustainable development but it was also noted that the Calexico region, pesticides and all, made a significant and positive contribution to lessen the global food "shortage."
- b. Proposed Solution: One of the solutions suggested was economic diversification from uses that were very intensive of water per job to uses, such as light industry, that were not. It was felt that light industry would be successful in the region. Another solution suggested was organic farming, it was noted that some organic growers were leaving to get away from high areas of pesticide use and some found it easier to operate in Mexicali.

Workgroup Topic Area: Air

Pesticides

- a. Issue: The group was concerned about the impact of pesticide use on the local air quality.
- **b.** Proposed Solution: The group suggested improved regulations to control use.

Workgroup Topic Area: Emergency Response and Planning

Emergency Spill Response Staff Needs

- a. Issue: One group participant stated that U.S. Customs emergency spill response staff are limited; there are only two trained staff in Calexico and none on the Mexican side. He stated that Imperial County has an excellent emergency spill response team. They emergency response teams have coordinated with the Mexican side because it is a matter of immediate life threatening issues.
- **b.** Proposed Solution: The group wants to see more local resources in emergency spill response training.

Workgroup Topic Area: Enforcement

Economic Barriers to Enforcement

- a. Issue: The group stated that Mexico does not have the capacity or incentive to force industries to comply with environmental regulations. It is an economic factor. One participant stated if they give the maquiladora industry any problems, the industries will simply move to some other country. Some industries have already moved from California to Texas. The group felt disappointed that more environmental controls were not in place prior to passage of the North American Free Trade Agreement.
- b. Proposed Solution: The group felt that for California's economy to improve, there needs to be a more level playing field in terms of the economics of doing business. When economics makes it more feasible to make adjustments in the process, then the problems can be minimized. The group recognized that Mexico has formidable environmental regulations. However, the group wants to see more equal regulation of industrial process operations which generate hazardous and solid waste on both sides of the border, as well as better enforcement.

Information, Enforcement, and Regulation

- a. Issue: The group stated that they lacked information regarding what is crossing the border. The group felt that there was also a lack of enforcement and lack of standardized regulations.
- **b. Proposed Solution:** The group felt that compared to the other issues they raised for their community, the need to standardize regulations was considered a more long-term need.

Enforcement of Environmental Issues in Mexico

a. Issue: The group felt that Mexico needs to find a balance between natural resources, industry, and recreational uses of its land. Currently, there are many problems with mining, off-road vehicles, and hunting/fishing that are directly affecting the natural resources and the conservation of the land. For instance, the group noted that many marine mammals have been killed due to contamination from mining, and it is believed that no enforcement action has been taken against the guilty parties.

Workgroup Topic Area: Information Management

Information Exchange/Dissemination

- a. Issue: The lack of information on pollution and contamination was expressed as an important issue. Additionally it was felt that the Mexicali area was intimately connected to the water supply and discharge problems of Calexico and that the lack of information on the Mexican side was a problem, not only for Mexican nationals living on the Mexican side of the border, but also for the U.S. residents in the Calexico area.
- b. Proposed Solutions: This was broadly discussed and several specific suggestions were made. Firstly, it was requested that the amount of chemicals in the New River, which originates in Mexicali needs to be analyzed, although it was also noted that research should not be done in place of actions that put people first, such as domestic supply projects. It was suggested that sometimes meetings, such as the Border XXI public meeting they were participating in, were the only way the general public, and even representatives of the non-governmental organizations (and especially those from the Mexican side), can get information. It was noted that many doctors are "afraid to come forward" in reporting pesticide related problems due to their financial ties to pesticide users (the local farmers) and that better reporting procedures were needed. Grants to grassroots organizations to assist in information gathering and dissemination was another solution suggested.

Resource Assessment

- **a. Issue:** The group expressed a need to identify the existing natural resources as well as beneficial ways of utilizing them.
- **b. Proposed Solutions:** The group proposed that the protection of natural resources be facilitated through:
 - (1) Information systems
 - (2) Technology for managing databases
 - (3) Involvement of NGOs.

Pesticide Management

- a. Issue: The group's perception was that migrant agricultural workers do not have the capability to adequately manage pesticides and that creates health risks, both for themselves and for the quality of the agricultural products which they help produce. They also felt that the level of dependency on pesticides should be decreased.
- **b. Proposed Solution:** As a group, they proposed disseminating information regarding appropriate ways to handle pesticides, as well as educating the public about pesticides. They further recommended more research on alternatives to pesticide use.

Taking Responsibility for Environmental Problems

- a. Issue: The group expressed concern over continued attempts locally to blame environmental problems on Mexico. They all felt it is very important to find a way to stop playing the "blame game" with Mexico.
- **b.** Proposed Solution: Allow the public greater access to information and data about environmental health issues. Make it usable. Raise people's awareness. Create a well-publicized list of the top 20 regional environmental problems but do not identify the issue by nationality. Focus on it to start breaking down the "us and them" mentality.

Workgroup Topic Area: Environmental Health

Responsibility and Accountability of Decision-Makers

a. Issue: The greatest concern in the group was that the Border XXI program would fail like those that came before without responsibility and accountability of decision-makers and their ability to influence programs and funding.

b. Proposed Solution: The group felt that the responsibility for problems needed to be jointly or binationally shared in an agreement. Furthermore, the group felt that dedicated people in key positions should be hired and that they should be given decision-making authority. These people should be directly accountable for actions, funds, and time schedules. This accomplished, the group felt that it would then be time to communicate and educate.

Strengthening the Border Voice

- **a. Issue:** The voice of the border community (U.S., Mexico, and indigenous peoples) is weak. This makes it hard to rally enough political presence to justify sufficient funding for programs.
- **b.** Proposed Solution: Publicize events that cut across the borders that will help to create a unifying of people. Use other solutions previously mentioned.

Workgroup Topic Area: Natural Resources

Biodiversity

- **a. Issue:** The group feels that biodiversity is endangered because of urban development and agricultural practices.
- **b.** Proposed Solution: The group recommended an assessment of the region's biodiversity and conservation practices, taking into account the richness of the delta habitats.

Resource Assessment

- **a. Issue:** The group expressed a need to identify the existing resources as well as the beneficial ways of utilizing them.
- **b. Proposed Solutions:** The group proposed that the protection of natural resource be facilitated through:
 - (1) Information systems
 - (2) Technology for managing databases
 - (3) Involvement of NGOs.

Binational Natural Resources Management Plan

- a. Issue: The group understood that the protection of this region's habitats encompasses four different state administrations: two U.S. states and two Mexican states.
- **b.** Proposed Solution: The group recommended that the coordination among the four states around the Colorado Delta be improved, in order to share the responsibilities and benefits of the management of the area.

Pesticide Management

- a. Issue: The group's perception was that migrant agricultural workers do not have the capability to adequately manage pesticides and that creates health risks, both for themselves and for the quality of the agricultural products which they help produce. They also felt that the level of dependency on pesticides should be decreased.
- **b.** Proposed Solution: As a group, they proposed disseminating information regarding appropriate ways to handle pesticides, as well as educating the public about pesticides. They further recommended more research on alternatives to pesticide use.

Urban Parks

- **a.** Issue: The issue of the lack of open spaces in urban areas, primarily on the Mexican side of the border was brought forward by the group.
- b. Proposed Solution: They proposed leaving open spaces in urban areas to serve as parks. Parks would not be traditional, but would represent the regional landscape, utilizing native plants (i.e., cactus). Animals would utilize these parks as well as people. Parks need to be created to preserve natural resources, not only for urban purposes. Tucson urban parks could be used as an example of appropriate landscaping techniques.

Enforcement of Environmental Issues in Mexico

a. Issue: The group felt that Mexico needs to find a balance between natural resources, industry, and recreational uses of its land. Currently, there are many problems with mining, off-road vehicles, and hunting/fishing that are directly affecting the natural resources and the conservation of the land. For instance, the group noted that many marine mammals have been killed due to contamination from mining, and it is believed that no enforcement action has been taken against the guilty parties.

b. Proposed Solution: The group felt that stricter enforcement is a solution to this problem.

Workgroup Topic Area: Sustainable Development

Water Availability/Water Export

- a. Issue: One of the highest priority issues identified by the group, if not the highest priority, was the issue of water availability and the related issue of water exports from the region around Calexico to San Diego and the subsequent loss of local jobs that go with the transfers.
- b. Proposed Solutions: There were several solutions suggested in the course of discussion. Firstly, a simple ban on exporting water to regions that had no economic benefit to the local Calexico area was suggested. It was felt that transfers of this type only benefitted land speculators "from San Diego" who were buying up local water rights. Secondly, it was suggested, and strongly supported by the group, that it was much better to export water to Mexicali for domestic and industrial consumption, than to other U.S. cities because of the secondary economic benefits of growth in Mexicali for the local Calexico community. Rural water conservation was also mentioned as a partial solution, but not much optimism was expressed that this would solve the problem. It was discussed, after prompting, that sustainable development was a potential solution and that organic farming could make a contribution to water conservation and the overuse of pesticides, as well.

Economic Growth and Environmental Regulation

- a. Issue: There was concern expressed over the tradeoff between local economic growth and the issues of regulations over pesticide use and water consumption. Also, after prompting, sustainable development issues were discussed as concerns. It was felt that high pesticide use and high water use were not sustainable development but it was also noted that the Calexico region, pesticides and all, made a significant and positive contribution to lessen the global food "shortage."
- b. Proposed Solution: One of the solutions suggested was economic diversification from uses that were very intensive of water per job to uses, such as light industry, that were not. It was felt that light industry would be successful in the region. Another solution suggested was organic farming, it was noted that some organic growers were leaving to get away from high areas of pesticide use and some found it easier to operate in Mexicali.

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Appendix C

YUMA

Yuma, Arizona is the center of an agricultural region near the intersection of the four states of Baja California, Sonora, California and Arizona. It is also on the Colorado River. The sister city is San Luis Rio Colorado, some 20 miles to the South and therefore Yuma does not suffer the acute environmental problems associated with a large sister city that is adjacent. Participants were drawn from several agricultural towns and their concerns were often focussed on the difficulties of small towns to comply with the U.S. environmental standards. A small representation of native people participated and brought to the discussion a perspective that widened the area of concern to include the upper Gulf of California.

There were approximately 48 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Iazardous and Solid Waste C-2	2
Vater C-1	3
Air	5
Pollution Prevention	6
Emergency Response and Planning	6
Enforcement C-	
nformation Management	7
Natural Resources	7
Sustainable Development	9

Workgroup Topic Area: Hazardous and Solid Waste

Emergency Response Capabilities

- a. Issue: The group stated that among their greatest concerns were their poor emergency response capabilities in Yuma. They described their lack of equipment, reliance on volunteer staff that cannot always respond, and lack of proper training. The group also stated that there is currently an inability to respond to chemical emergencies in the industrial park of San Luis Rio Colorado, Sonora.
- **b.** Proposed Solution: The group felt that their highest priority was to obtain local funding to build a binational infrastructure for emergency response that would include a HAZMAT vehicle and a designated equipment storage and maintenance area.

Economics and Environmental Health

- a. Issue: The group stated that unemployment in San Luis is 75% for six months of the year, due to seasonal labor needs associated with the farming industry. It is difficult to balance the need to keep one's job against the need to minimize health hazards due to on-the-job exposure. The group emphasized that due to the economic situation in their community, those with the greatest risk of exposure have the greatest concern with "keeping food on the table."
- b. Proposed Solution: The group felt that despite the dilemma between needing to work and maintaining health, education was still felt to be important to raise an awareness regarding occupational safety, for example, pesticide exposure in the fields. The group felt strongly that they would like to see funds for public education. They identified education associated with various occupations, including maquiladora operations and farming. They felt that education should occur on both sides of the border. Education was needed to raise consciousness regarding health impacts of exposure while on the job, as well as to minimize exposure and on-the-job accidents. They also emphasized that education was needed to focus on specific sectors of the population, namely children and the elderly, since exposures to these populations were seen as having more acute health impacts.

Transport Routes of Hazardous Wastes

a. Issue: The group discussed that currently, the access and egress routes from the San Luis, Arizona border crossing, are limited to a single road. This causes delays at the border crossing, resulting in transport of hazardous materials and waste through residential neighborhoods, which is considered dangerous. Additionally, there is a lack of knowledge

regarding what is being transported across the border. This presents a problem whenever there is an emergency at the border crossing. They also generally felt that transportation of hazardous materials and waste should not be commingled with normal business traffic because of the potential for serious accidents.

b. Proposed Solutions: The group stated that they want to see alternative access and egress routes from San Luis, Arizona. They want to see the opening of a separate commercial port away from the city; however, they saw this more as a long-term goal. Additionally, they felt that future growth should be tied into current city plans.

Information, Enforcement, and Regulation

- **a. Issue:** The group stated that they lacked information regarding what is crossing the border. The group felt that there was also a lack of enforcement and lack of standardized regulations.
- **b. Proposed Solutions:** The group felt that compared to the other issues they raised for their community, the need to standardize regulations was considered a more long-term need.

Economic Diversity

- a. Issue: The group stated that their community is currently economically dependent on Mexico; lack of more economic diversity was felt to be a problem.
- **b. Proposed Solution:** The group stated that they would like to see an increase in wages, education, and stabilization of the Mexican currency.

Workgroup Topic Area: Water

Regional and Local Authority

- a. Issue: One of the highest priorities expressed by the group was the need to address problems on both a regional and local level. Because some problems originate elsewhere in the region, local entities are often unable to address these issues thus making the origin of water problems as important the ability to address them at the regional level.
- **b.** Proposed Solution: It was suggested that priorities should be set locally with advice from the state and other agencies.

Small Community Needs

- a. Issue: A high priority expressed by the group was local need, everything from technical assistance and regional awareness of local conditions to water lines and sewage treatment systems. Small communities often cannot afford technical assistance, meet federal standards; nor do they have the resources to attract agencies. Often their priorities are left out in regional plans and they are sometimes unaware of treaty agreements and other plans.
- b. Proposed Solution: Public meetings were considered a good first step, as many of the agencies that regulate or provide assistance to these communities seem distant or available mostly for the larger communities. Suggestions included: the federal government should take smaller river communities into consideration in the establishment of international water treaties and agreements. The EPA should create strategies, with priorities, to deal with problems, assist in linking communities to resources, with special emphasis on providing funding to bring water systems into compliance, and recognize local limitations. The Arizona Department of Environmental Quality (ADEQ) should provide technical assistance, meet with local communities to identify individual needs, work in a partnership arrangement with communities rather than use punitive enforcement, and make adjustments to sampling requirements. The group would like to see interest in local problems shown by the EPA.

Economic Effects on Water Contamination in Mexico

- a. Issue: While sustainable development was not specifically discussed by the group they did touch on issues of sustainability, such as the discharge of pollutants into the Gulf of California (Sea of Cortez). This was expressed as having an important impact on the fishing industry of small Mexican coastal communities which rely heavily on this source of income, as well as creating an environmental imbalance. This decline in the local fishing industry has lead to the disintegration of the communities in this area. People have simply had to migrate to more economically favorable communities.
- **b.** Proposed Solution: A couple of regional solutions were offered including the cleanup of the wastewater discharged from the Mexicali area and the quality of water in the Colorado River, especially the high salinity and possibility of pesticide contamination.

Workgroup Topic Area: Air

Quantity of Air Data

- a. Issue: The group expressed a concern that there is not enough air data for the region.
- **b. Proposed Solution:** Expand the number of permanent air monitoring stations in the region.

Public Awareness of Technical Issues

- **a.** Issue: The group was concerned that public awareness of technical air issues in the region is limited.
- b. Proposed Solution: More air experts need to be available to assist local communities on a regular basis. There needs to be a free-flow of data between scientists from all nations affected by Border XXI and this information needs to be available to the community at levels a layperson can understand. Standards, sampling methods, analysis methods, etc. need to be unified amongst all experts and non-experts so that information means the same thing to all persons. The group was additionally concerned that local communities get better outreach so that they can understand the comparisons of data versus standards and the ultimate relationships to health effects.

Land Use

- **a. Issue:** The group expressed a concern with the impact local land use plays on regional air quality.
- **b. Proposed Solution:** Communities need greater involvement in land use decisions . The public needs to obtain better education about the relationship of multiple land uses and the subsequent air quality.

Enforcement

- **a. Issue:** The group was very concerned with the enforcement capacities of Border XXI.
- **b. Proposed Solution:** The group wants Border XXI to help localize and strengthen environmental regulatory schemes. It additionally needs to provide more enforcement capabilities to the EPA, Mexico's Secretariat for Environment, Natural Resources and

Fisheries (SEMARNAP), and other related agencies. Overall they were generally concerned with the political clout of the program. They felt that without political support from applicable congressman, senators, and local politicians, the program will not work.

Public Participation in Mexico

- a. Issue: The group had general multi-border public participation and cultural diversity concerns.
- b. Proposed Solution: The group wants to see an increase in public participation in Mexico. They want assurance that it is real, open participation and not just "public relations" by the Mexican government. Otherwise, solutions will be U.S. and indigenous peoples sided only. They also were very concerned that the program is flexible to accommodate rural life and issues. It cannot be written for only urban environments.

Workgroup Topic Area: Pollution Prevention

Public comments did not address this topic area directly.

Workgroup Topic Area: Emergency Response and Planning

Emergency Response Capability

- a. Issue: The group stated that among their greatest concerns were their poor emergency response capabilities in Yuma. They described their lack of equipment, reliance on volunteer staff that cannot always respond, and lack of proper training. The group also stated that there is currently an inability to respond to chemical emergencies in the industrial park of San Luis Rio Colorado, Sonora.
- **b. Proposed Solution:** The group felt that their highest priority was to obtain local funding to build a binational infrastructure for emergency response that would include a HAZMAT vehicle and a designated equipment storage and maintenance area.

Information, Enforcement, and Regulation

- **a. Issue:** The group stated that they lacked information regarding what is crossing the border. The group felt that there was also a lack of enforcement and lack of standardized regulations.
- **b.** Proposed Solutions: They felt that compared to the other issues they raised for their community, the need to standardize regulations was considered more long-term.

Workgroup Topic Area: Enforcement

Enforcement

- **a.** Issue: The group was very concerned with the enforcement capacities of Border XXI.
- **b. Proposed Solution:** The group wants Border XXI to help localize and strengthen environmental regulatory schemes. It additionally needs to provide more enforcement capabilities to the EPA, SEMARNAP, and other related agencies. Overall they were generally concerned with the political clout of the program. They felt that without political support from applicable congressman, senators, and local politicians, the program will not work.

Workgroup Topic Area: Information Management

Public Awareness of Technical Issues

- **a.** Issue: The group was concerned that public awareness of technical air issues in the region is limited.
- b. Proposed Solution: More air experts need to be available to assist local communities on a regular basis. There needs to be a free-flow of data between scientists from all nations affected by Border XXI and this information needs to be available to the community at levels a layperson can understand. Standards, sampling methods, analysis methods, etc. need to be unified amongst all experts and non-experts so that information means the same thing to all persons. The group was additionally concerned that local communities get better outreach so that they can understand the comparisons of data versus standards and the ultimate relationships to health effects.

Workgroup Topic Area: Natural Resources

Colorado Delta Management

- **a. Issue:** The group's opinion was that the region's reserves are suffering from lack of a comprehensive environmental plan.
- **b.** Proposed Solution: The group felt that even though the Colorado Delta environmental issues should be considered in the whole basin spectrum, an in-depth analysis of the Delta as an ecosystem is recommended.

Environmental Education

- a. Issue: The concept of environmental issues and solutions being not the same for different people, in particular people from different countries (Mexico and the U.S.), was cited by the group as a serious problem. They felt that it is very difficult to change actual approaches and prejudices.
- **b.** Proposed Solution: The group recommended the development of a basic curriculum for environmental education, so that the next generations will develop a better understanding of regional environmental issues on both sides of the border.

Marine Resources and Endangered Species

- a. Issue: The group felt another serious problem is the number of species that are endangered in the Sea of Cortez.
- **b.** Proposed Solution: Their solution would consist of specifically monitoring the quality of Colorado River water and giving assistance to Mexico for monitoring water quality.

Interdisciplinary and Social Environmental Planning

- **a.** Issue: The interaction between natural, social, and economic factors was seen by the group as important to environmental planning.
- **b.** Proposed Solution: They recommended working in diverse, but integrated groups that may incorporate the views and concerns of different social, ethnic, and professional sectors.

Desalination Plant

- a. Issue: The group felt concerned about the environmental effects of the desalination plant in the area, especially its effects on different habitats.
- **b.** Proposed Solution: The group recommended that an evaluation of the desalination plant should be performed, which would assess the consequences of the plant in different habitats and other environmental factors as a priority issue. They recommended that the evaluation of the desalination plant consider the multiple, interrelated factors related to water management.

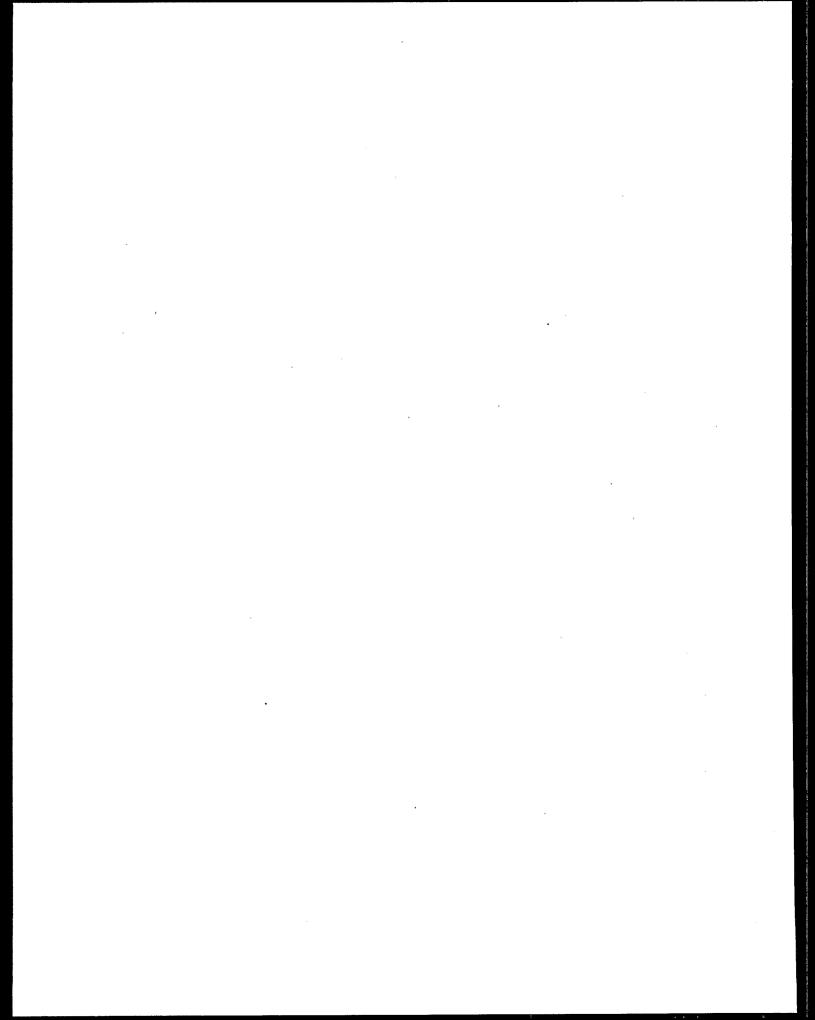
Workgroup Topic Area: Sustainable Development

Economic Effects on Water Contamination in Mexico

- a. Issue: While sustainable development was not specifically discussed by the group they did touch on issues of sustainability, such as the discharge of pollutants into the Gulf of California. This was expressed as having an important impact on the fishing industry of small Mexican coastal communities which rely heavily on this source of income, as well as creating an environmental imbalance. This decline in the local fishing industry has lead to the disintegration of the communities in this area. People have simply had to migrate to more economically favorable communities.
- **b. Proposed Solutions:** A couple of regional solutions were offered including the cleanup of the wastewater discharged from the Mexicali area and the quality of water in the Colorado River, especially the high salinity and possibility of pesticide contamination.

Costs/Benefits Analyses

- a. Issue: The group was concerned with the economic impacts that existing and potential land use plays on the viability of the region.
- **b.** Proposed Solution: The group felt that Border XXI should assist communities in environmental/economic cost benefit analyses. They need ability to compare present conditions to alternative land uses and energy/income resources such as solar energy, wind power, eco-tourism, etc.



Appendix D

NOGALES

Nogales, Arizona, twinned with its namesake to the south, has the largest concentration of industrial jobs in Sonora. It is an area preoccupied with the environmental problems that are often a byproduct of the proximity of a fast growing industrial sister city.

There were approximately 40 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste	D-	2
Water	D-	3
Emergency Response and Planning	D-	6
Enforcement	D-	6
Information Management	D-	7
Environmental Health		7
Sustainable Development	D-	8

Workgroup Topic Area: Hazardous and Solid Waste

Cradle to Grave Hazardous and Solid Waste Tracking

- a. Issue: Hazardous waste generated by the maquiladora industry must (per the La Paz Agreement) be returned to the United States. However, there is a concern about not knowing what, how much, when, and where raw hazardous materials are being transported through Nogales, Arizona to Nogales, Sonora. Because of this, there is no way of knowing what quantities of waste should be returning. The current U.S.-Mexico hazardous materials tracking system in operation does not track raw materials being shipped south into Mexico.
- **b. Proposed Solution:** The current hazardous materials tracking system should track raw hazardous materials being transported north or south through the border. A tax on heavy vehicles crossing the border was proposed to fund the new system.

Binational and Intra-governmental Communication

- **a. Issue:** There is a need to improve communication among the different local, county, state, and federal levels of government and especially between the two countries. The community feels that representatives from other government agencies should be personally invited to participate in public outreach opportunities such as these domestic meetings. In particular because of the many different federal government agencies having various jurisdictional authorities in these communities, these various federal agencies should be present at the domestic meetings.
- **b.** Proposed Solution: Invite other government agencies to attend and really participate in addressing issues and solutions.

Emergency Response Needs

- **a. Issue:** There are currently inadequate emergency response capabilities such as expertise and equipment on both sides of the border, but particularly on the Mexican side. The community gave as an example, the recent landfill fire in Mexico.
- b. Proposed Solution: Provide funds, training, and equipment.

Adequate Hazardous and Solid Waste Facilities

a. Issue: The community does not have adequate facilities to handle hazardous and solid waste being generated locally.

b. Proposed Solution: No real solution offered beyond just stating they are needed.

Community Education

- a. Issue: The local communities need to be educated regarding hazardous and solid waste and materials. Education was considered key so that people know what the health hazards are and gain an understanding as to about what they should be concerned. Education should result in greater public pressure on industry to be more responsible.
- **b. Proposed Solution:** Support local educational programs through grants. Educational media such as television should be considered. The communities most at risk are on the Mexican side, additionally, there is also a large percentage of Spanish speakers in U.S. border cities; therefore, bilingual education and Spanish language materials should be available.

Information about Border Environmental Activities

- **a. Issue:** The community felt there is insufficient information about environmental activities such as grants given to border communities and regional reports regarding the community. For example, they wondered what the La Paz work groups have been doing. One community member, who happened to be a federal government representative, indicated that he should know about what the La Paz work groups are doing, but in fact, does not.
- **b. Proposed Solution:** Provide a clearing-house for information dissemination about ongoing border projects and work groups.

Workgroup Topic Area: Water

Drinking Water Quality

a. Issue: Drinking water quality was identified as one of the highest priorities by the group. Concerns were expressed about the nitrate levels in the water giving people headaches; such that many people have resorted to drinking bottled water. In contrast, the Arizona Department of Environmental Quality (ADEQ) representative stated that the municipal water supply is not contaminated. City-owned wells do provide quality water. Private well water quality is not known. Currently, the Nogales Wash is being investigated by ADEQ. Agricultural uses with regards to water quality are not monitored. Wastewater is a problem that adversely affects the aquifer.

b. Proposed Solution: It was suggested by the group that the water quality/quantity issue be addressed as an entire watershed. Further, it was suggested that they need to think about the future and consider a diversified system that pretreats water coming into the area from other watersheds. More tests and studies of water quality were called for as well as more public information about drinking water quality. The group was divided on the advisability of limiting septic tank-based new subdivisions. One section felt strongly that large lot size septic tank-based subdivisions drove up lot prices beyond the means of the average residents. While cluster housing solved the environmental issue of communal sewage facilities, it did not address the issue of the effects on affordability of large lots. There was a consensus that fewer new subdivisions should be approved based on septic tanks and more on communal systems, but no consensus regarding subdividing existing septic tank-based subdivisions to create viable lot sizes for communal systems. Alternative technologies developed on the Mexican side that address the issue of the high cost of small communal wastewater systems were discussed and supported in principle.

Wastewater Technology

- a. Issue: Also expressed as a high priority by the group was the need for low-cost wastewater technology. Because of the economic disparity between the sister cities, Nogales, Sonora does not service a large number of the residents and businesses, resulting in contaminants or pollutants flowing northward across the international boundary. Industrial toxins such as mercury, petroleum products, and cyanide have been detected in the wastewater from Nogales, Sonora. Unusually high rates of lupus and leukemia occur in Nogales, Arizona. A recent study by the University of Arizona was done to look at the possibility of a connection between these facts.
- **b. Proposed Solution:** It was suggested by the group that by designing small decentralized treatment plants for the colonias that this problem could be alleviated. An example of a system for 2,000 people was referred to as a working model that would be appropriate for this city. The effluent from these decentralized plants would then be used to recharge the aquifer.

Water Quantity

a. Issue: Water quantity is another issue of high priority identified by this group. Currently Nogales, Sonora is pumping water from outside its local watershed. This is closely connected to Nogales, Arizona because the volume of water flowing transferred from the Los Alisos watershed is so large that it directly affects the volume of sewage flowing into Nogales, Arizona. The capacity of the binational sewage system is inadequate for the volumes of sewage at peak times and flooding of raw sewage onto the main streets has occurred on both sides of the border.

b. Proposed Solution: The solution that was proposed included new systems on both sides of the border. On the Mexican side, innovative, decentralized, closed systems that use biological processes would be used. On the U.S. side it was noted that a new binational facility is better located on the U.S. side due to the structure of the funding and the credit given for reuse of the water that cannot be counted if the same facility recharges the same aquifer but is located on the Mexican side. Better separation of sewer and stormwater flows were part of the Nogales, Sonora system proposed, although this was not discussed in detail.

Septic System Dependence

- **a. Issue:** A high priority issue was expressed by the group as an overdependence on septic systems. These systems have been used extensively in the Rio Rico area north of Nogales and are polluting the ground water.
- **b.** Proposed Solution: One solution offered by the group was to train homeowners how to use their septic system until they can be connected to an alternate system.

Dissemination of Information to the Public

- a. Issue: Concerns were expressed about the lack of information.
- **b. Proposed Solution:** More information was requested from all sources. The Arizona Department of Environmental Quality was singled out as a potential source of improved public information and awareness. More tests and studies in ground water and surface water quality were felt to be necessary.

Sustainable Development

- **a. Issue:** Although not discussed specifically under the heading "sustainable development," the issue was raised in a number of places and the group was clearly concerned.
- b. Proposed Solution: A variety of sustainable development solutions were discussed in detail. The alternative technology of a decentralized closed biological system developed on the Mexican side was proposed as an alternative to the large-lot septic tank subdivisions currently being approved on the U.S. side. Water conservation was discussed in detail, including recharging the aquifers. Limits to growth on the U.S. side were thought to be a concept that needed more study. Better separation of storm and sewage flows on the Sonoran side of the sister cities was proposed as a way of allowing more reuse. It was noted that Nogales, Sonora had an application before the Border

Environmental Cooperation Commission (BECC) for an environmental friendly water supply and treatment project that concentrated on recharging the aquifer and decentralized treatment of effluent.

Workgroup Topic Area: Emergency Response and Planning

Emergency Response Needs

- **a. Issue:** There are currently inadequate emergency response capabilities such as expertise and equipment on both sides of the border, but particularly on the Mexican side. The community gave as an example, the recent landfill fire in Mexico.
- b. Proposed Solution: Provide funds, training, and equipment.

Workgroup Topic Area: Enforcement

Cradle to Grave Hazardous and Solid Waste Tracking

- a. Issue: Hazardous waste generated by the maquiladora industry must (per the La Paz Agreement) be returned to the United States. However, there is a concern about not knowing what, how much, when, and where raw hazardous materials are being transported through Nogales, Arizona to Nogales, Sonora. Because of this, there is no way of knowing what quantities of waste should be returning. The current U.S.-Mexico hazardous materials tracking system in operation does not track raw materials being shipped south into Mexico.
- **b.** Proposed Solution: The current hazardous materials tracking system should track raw hazardous materials being transported north or south through the border.

Decision Making Authority

- **a. Issue:** The group was very concerned about who will actually have authority and who presently has authority for making decisions.
- **b.** Proposed Solution: The group wants more decision making authority to the regional and local level. The hierarchical process needs to be softened. The group is

not advocating a total absence of state and federal representatives, however; state and federal representatives are perceived as very necessary for input and enforcement.

Workgroup Topic Area: Information Management

Information about Border Environmental Activities

- a. Issue: The community felt there is insufficient information about environmental activities such as grants given to border communities and regional reports regarding the community. For example, they wondered what the La Paz work groups have been doing. One community member, who happened to be a federal government representative, indicated that he should know about what the La Paz work groups are doing, but in fact, does not.
- **b.** Proposed Solution: Provide a clearing-house for information dissemination about ongoing border projects and work groups.

Workgroup Topic Area: Environmental Health

Language and Cultural Concerns

- **a. Issue:** The group was concerned with accessing the bilingual community and identifying the issues on both sides of the border. They also expressed concern with different styles of management found on either side of the border.
- **b. Proposed Solution:** Bilingual materials and translators need to be made available at all public outreach functions. Meetings need to have representatives from Sonora and Arizona present to jointly hear the input from citizens. The entire program needs to have a way of identifying issues and final goals but accommodating different styles and schedules that each nation may take to achieve those goals.

Education and Public Outreach

- **a. Issue:** The group stated that it was very important to provide education and public outreach to citizens.
- **b. Proposed Solution:** Education needs to be provided at all levels, i.e., formal and informal and needs to be provided by multiple sources. Education support must use a wide portfolio of approaches to target as many sectors of society as possible. The program must avoid the syndrome of putting all the "education eggs in one basket." They felt very strongly that education leads to empowerment and action.

Decision Making Authority

- **a. Issue:** The group was very concerned about who will actually have authority and who presently has authority for making decisions.
- **b.** Proposed Solution: The group wants more decision making authority to the regional and local level. The hierarchical process needs to be softened. The group is not advocating a total absence of state and federal representatives, however; state and federal representatives are perceived as very necessary for input and enforcement of schedule and financial accountability.

Workgroup Topic Area: Sustainable Development

Sustainable Development

- a. Issue: Although not discussed specifically under the heading "sustainable development," the issue was raised in a number of places and the group was clearly concerned.
- b. Proposed Solution: A variety of sustainable development solutions were discussed in detail. The alternative technology of a decentralized closed biological system developed on the Mexican side was proposed as an alternative to the large-lot septic tank subdivisions currently being approved on the U.S. side. Water conservation was discussed in detail, including recharging the aquifers. Limits to growth on the U.S. side were thought to be a concept that needed more study. Better separation of storm and sewage flows on the Sonoran side of the sister cities was proposed as a way of allowing more reuse. It was noted that Nogales, Sonora had an application before BECC for an environmental friendly water supply and treatment project that concentrated on recharging the aquifer and decentralized treatment of effluent.

Cradle to Grave Hazardous and Solid Waste Tracking

- **a.** Issue: Hazardous waste generated by the maquiladora industry must (per the La Paz Agreement) be returned to the United States. However, there is a concern about not knowing what, how much, when, and where raw hazardous materials are being transported through Nogales, Arizona to Nogales, Sonora. Because of this, there is no way of knowing what quantities of waste should be returning.
- **b. Proposed Solution:** The current hazardous materials tracking system should track raw hazardous materials being transported north or south through the border.

Appendix E

DOUGLAS

Douglas, Arizona, located on the eastern side of the Arizona-Sonora States and twinned with the industrial city of Agua Prieta, has many of the characteristics of an older city in relationship to infrastructure and environmental concerns. Many of the participants who attended came from Bisbee and Naco and in economic and environmental terms, the three towns were very interrelated.

There were approximately 25 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Water	• • • • • • •	·		E-2
Air				E-4
Enforcement	• • • • • • •	· ·,· · · · · · · · · · · · · ·		E-5
Information Management		• • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	E-5

Workgroup Topic Area: Water

Water and Sewer Distribution Systems

- a. Issue: The highest priority issue appeared to be the antiquated sewer and water distribution systems in several area communities. It was stated that in Bisbee, one-third of the residents buy bottled drinking water. The prison in Naco was said to be discharging raw sewage and the community of Naco, Sonora was said to be discharging sewage to Greenback Draw, where the wells servicing Naco and Bisbee, Arizona are located. Mine tailings were thought to contaminate areas of ground water, although documented cases of a health hazard did not surface in the discussion. Anecdotal evidence, however, was presented of a drinking water related death in Douglas. It was felt that the old pipes contaminated the drinking water, and caused heavy sedimentation. It was also felt that the cost of replacement was beyond local means.
- **b. Proposed Solution:** There were many solutions proposed. The construction of additional ponds in Naco was proposed to alleviate the sewage spill problem. The reconstruction of the distribution system was proposed and a local city manager stated that their community would be willing to see a modest increase in the local water rate to help fund it. Monitoring and clean up was proposed for the problem of ground water contamination.

Availability of Information to the Public

- **a. Issue:** The lack of information on the problems and solutions including general environmental awareness was considered an impediment to improving public participation and raising environmental quality.
- b. Proposed Solutions: There were various solutions suggested. Firstly, it was stated that information was useless unless people knew how to use it. Education was necessary in addition to availability. The Border Environmental Cooperation Commission (BECC) was mentioned as an ideal candidate to be an international clearing-house for binational information access. The North American Development Bank (NADBank) and the International Boundary Water Commission (IBWC) were also mentioned. The group was asked why they did not consider the State level as an implementation vehicle for a binational clearing-house for information and it was stated that a binational committee did exist on the environment between Baja California and California, but it was felt that this would need to be strengthened to be more visible. It was noted that the Transboundary Resources Inventory Project was already gathering information and this type of effort needed more support. Electronic information was considered an important element to supplement the traditional dissemination methodologies.

Surface Water Quantity and Quality

- a. Issue: Surface water quantity and quality was considered an important issue. The San Pedro River was thought to be in danger of over-pumping for drinking water needs in Douglas and the riparian corridor was thought to be at risk. There was a concern about the water quality of the effluent from the Douglas treatment plant. Lead levels were thought to be high in the effluent. There were concerns expressed regarding the surface water quality in the Sulphur Springs Valley.
- b. Proposed Solutions: Many solutions were proposed that touched on issues of sustainable development. There was the suggestion from a participant that there might need to be some limits to growth, although this was received by the whole group without enthusiasm. Recharging the aquifer was considered a better option and it was noted that the existing project for waste water treatment for Douglas would let the treated effluent flow south to Mexico where it would be mixed with untreated sewage and need retreatment. It was felt that the treated effluent could be better used to recharge the binational watershed, or be used for greywater for washing the streets or watering of parks and green areas. The appropriate technology forum run at BECC meetings was mentioned as a very good initiative.

Ground Water Contamination

- **a. Issue:** Ground water contamination from the area mines, discussed on the U.S. side and active on the Mexican side was considered an issue, although it was noted that current data does not indicate a health hazard. The mine at Cananea and St. David were mentioned.
- **b. Proposed Solution:** Increased monitoring and information was requested. It was noted that Nogales seemed to have more studies and information available than Douglas and this was felt to require urgent correction. More testing of the ground water was desired and more published results.

Wastewater Treatment Facility

- **a. Issue:** The cost of new wastewater treatment facilities was considered beyond the means of the local taxpayers. The project for Naco was stated to cost between four to six million dollars for a town with only some 6,500 residents, or nearly \$10,000 per resident.
- **b.** Proposed Solution: More grants, rather than loans, were requested from the national and international agencies. Selling treated water was considered a means to

recover part of the costs. Local residents were expected to shoulder some, but not all, of the burden. It was considered necessary to fully explore alternate or appropriate technologies in case there were cost savings for a project such as a treatment facility.

Workgroup Topic Area: Air

Air Quality Monitoring

- **a.** Issue: Two members of the group felt that air quality in the area is insufficiently monitored.
- b. Proposed Solution: A Douglas/Aqua Prieta air study should be complete to determine potential contaminants from old smelter dust, sewage sludge dust, burning tires, burning refuse, and other local particulate matter. One of the two participants also felt that local car emissions in the town of Douglas need to be studied and better controlled because they are causing unhealthy air quality conditions. Two other members of the group felt that there are no air quality problems on the U.S. side of the border and that all the problems exist in Mexico. They were very opposed to additional money being spent in Douglas or across the border on environmental issues.

Health Risks and Public Outreach

- a. Issue: Two participants felt that more public outreach needs to occur concerning air related health issues.
- b. Proposed Solution: Douglas/Aqua Prieta/Bisbee needs a concentrated program to determine if impacted health clusters (i.e., cancer, lupus, etc.) exist. They also felt that air data needs to be made more accessible to the public in a format that the layperson can understand. They were also concerned that local and state agencies need to coordinate and focus on collection of anecdotal health information from the communities. Two other participants were very opposed to additional research of local health issues. They felt that if a problem really existed, it would have already been discovered. They felt that any long range study should only be done on residents of Douglas who have lived there all their life. Otherwise, the study will not get a true account of health issues related to Douglas and will instead include data from people that have recently moved to the area.

Cost of Environmental Programs

a. Issue: While the majority of the meeting participants favor continued environmental efforts in the border region, two participants were very opposed to the entire Border XXI program proposal.

b. Proposed Solution: These participants do not feel that any money should be spent on environmental issues. They were adamantly opposed to providing Mexico with any additional loans or funds since they already owe the U.S. so much money. They feel that this program will be a waste of U.S. dollars and that it is being pursed so that the EPA can keep itself and its contractors in business. They wondered how the U.S. can afford programs like these when the country is already in debt.

Workgroup Topic Area: Enforcement

Surface Water Quantity and Quality

- **a. Issue:** Surface water quantity and quality was considered an important issue. The San Pedro River was thought to be in danger of over-pumping for drinking water needs in Douglas and the riparian corridor was thought to be at risk. There was a concern about the water quality of the effluent from the Douglas treatment plant. Lead levels were thought to be high in the effluent. There were concerns expressed regarding the surface water quality in the Sulphur Springs Valley.
- b. Proposed Solutions: Many solutions were proposed that touched on issues of sustainable development. There was the suggestion from a participant that there might need to be some limits to growth, although this was received by the whole group without enthusiasm. Recharging the aquifer was considered a better option and it was noted that the existing project for waste water treatment for Douglas would let the treated effluent flow south to Mexico where it would be mixed with untreated sewage and be in need of retreatment. It was felt that the treated effluent could be better used to recharge the binational watershed, or be used for greywater for washing the streets or watering of parks and green areas. The appropriate technology forum run at BECC meetings was mentioned as a very

Workgroup Topic Area: Information Management

Availability of Information to the Public

- **a. Issue:** The lack of information on the problems and solutions including general environmental awareness was considered an impediment to improving public participation and raising environmental quality.
- **b.** Proposed Solutions: There were various solutions suggested. Firstly, it was stated that information was useless unless people knew how to use it. Education was necessary in addition to availability. BECC was mentioned as an ideal candidate to be an international clearing-house for binational information access. NADBank and the

IBWC were also mentioned. The group was asked why they did not consider the State level as an implementation vehicle for a binational clearing-house for information and it was stated that a binational committee did exist on the environment between Baja California and California and Arizona and Sonora, but it was felt that this would need to be strengthened to be more visible. It was noted that the Transboundary Resources Inventory Project was already gathering information and this type of effort needed more support. Electronic information was considered an important element to supplement the traditional dissemination methodologies.

Ground Water Contamination

- a. Issue: Ground water contamination from the area mines, discussed on the U.S. side and active on the Mexican side was considered an issue, although it was noted that current data does not indicate a health hazard. The mine at Cananea and St. David were mentioned.
- **b.** Proposed Solution: Increased monitoring and information was requested. It was noted that Nogales seemed to have more studies and information available than Douglas and this was felt to require urgent correction. More testing of the ground water was desired and more published results.

E-6

Appendix F

LAS CRUCES

Las Cruces, located in the middle of the border region in New Mexico, shares some physical characteristics with eastern and western halves of the border region. Las Cruces has no sister city to the south. It does cover the general area of Sunland Park, Santa Theresa border crossing. The closest Mexican city is Ciudad Juarez, which abuts El Paso, Texas. Las Cruces appeared to be outside the El Paso-Ciudad Juarez air shed and the air concerns expressed were rural concerns, such as pesticide use, rather than binational industrial contamination as was expressed in El Paso. Las Cruces is upstream of the Texan and Mexican border towns and is not directly affected by fellow American or by Mexican actions involving discharge in the Rio Grande. Nevertheless, concerns were still expressed regarding the downstream effects. The existence of two large colonias in the area, and meeting attendance of some representatives who were residents of them, resulted in much useful discussion regarding colonia needs and perceptions. Meeting participants focused discussion on small community needs in applying for and financing environmental improvements.

There were approximately 70 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste	F-2
Water	F-3
Air	F-4
Pollution Prevention	F-4
Emergency Response and Planning	F-5
Enforcement	F-5
Information Management	F-6
Environmental Health	F-6
Natural Resources	F-7
Sustainable Development	F-7

Workgroup Topic Area: Hazardous and Solid Waste

Landfill Near Colonia Sunland Park

- a. Issue: Sunland Park Colonia residents felt "particularly alone" in relation to concerns over "what is being dumped" in the local landfill site. They also expressed concern about the landfill being located so close to their residential area.
- b. Proposed Solution: A resident suggested "put regulations in layman's terms in order for us and the community to be that watchful eye and take into their own hands enforcement if they see violations" Also called for was more information regarding what is going into the dump. It was suggested that EPA should do more studies on the impact. It was also suggested to call the state police if the residents had a strong suspicion of illegal dumping. The fire marshal's office was suggested as a good collaborator. Clarification of the chain of command was called for. Not renewing the local landfill contract when it comes up in 5 years was mentioned as a possible solution.

Landfill Location

- **a.** Issue: Concern was expressed about a landfill site located in the southern part of New Mexico which would contaminate the Rio Grande in the Texas and Chihuahua portions if runoff and seepage occurred.
- **b. Proposed Solution:** It was proposed to use a law against the movement of waste across the borderline to block a dump site that might discharge, by surface runoff and subsurface seepage, waste downstream across a state or international boundary. Greater interstate collaboration was also proposed.

Radioactive Material on the White Sands Missile Range

- **a.** Issue: Concern was expressed by residents living close to the White Sands Missile Range and Fort Bliss regarding "highly radioactive material" storage and the noise and air contamination from the testing itself. It was stated that "our houses are cracked from the testing that goes on".
- b. Proposed Solution: No solution was specifically stated.

Workgroup Topic Area: Water

Drinking Water Quality

- a. Issue: A Columbus resident mentioned the community concern about excessive fluoride in the local drinking water and the belief that the whole aquifer has excessive fluoride levels. A concern was also expressed about pesticides filtering into the ground water. Water quality in Sunland Park was reported as a high concern. The water was considered too chlorinated for comfort. Concern was expressed that school children do not have access to bottled water during the day.
- **b.** Proposed Solution: More independent testing was called for.

Drinking Water and Sewer Service Availability

- **a.** Issue: Desert Aire residents reported 1,000 persons have no drinking water. It was reported that water is trucked in from outside and heated on stovetops for bathing. Concerns were expressed that if they got running water they would be inundated with sewage and the two services needed to be introduced together.
- **b.** Proposed Solution: Grants were requested; as well as the desire for an integrated water delivery and sewer plan for the community.

Grant Monies for Water Services for Colonias

- **a. Issue:** Concern was expressed about the large number of colonias that have contaminated water supplies (23 colonias in Dona Ana County alone were mentioned) and the slowness of the grant process.
- b. Proposed Solution: It was felt that "we have money sitting somewhere in the State of New Mexico or out in Washington, whatever, it has not been used" and that involvement of the stakeholders and better interagency coordination was needed. There was a feeling that planning and disseminating information fragmented by several agencies involved was "where all the money was going" instead of actions in the community. It was suggested that all the agencies should "get together and do the same mission".

Water Quantity in the Rio Grande

a. Issue: Concern was expressed that too much water was being taken from the Rio Grande and that this was affecting wildlife habitats along the river.

b. Proposed Solution: An integrated water basin plan was called for which gives more weight to habitat protection instead of irrigation requests.

Water Quality in the Rio Grande and Area Ground Water

- **a.** Issues: Concerns about pesticide contamination of the Rio Grande and ground water were expressed. Also expressed were concerns about leaching and runoff from dumps into the ground water and river.
- b. Proposed Solution: Landfill sites were felt to need special review if located in such a way that potential runoff would affect the river. The "National Water Quality Assessment Program that been conducted from the head waters of the Colorado to El Paso sponsored by the United States Geological Survey (USGS) out of Albuquerque was mentioned as a start. Studies by the IBWC and EPA from El Paso to Brownsville of the Rio Grande was mentioned. This work seemed strongly supported by the group and copies were requested.

Workgroup Topic Area: Air

Pollens, Allergies, and Pesticides

- a. Issue: Concern was expressed regarding the link between allergies and pesticide use in the area. Also the link between what is being planted such as Mulberries and pollens in the air.
- **b.** Proposed Solution: Greater control over pesticide use was called for. No specific solutions were suggested for pollens except that, perhaps, that pollination impacts on local air quality need to be considered in some sort of permissions system for crop selection.

Workgroup Topic Area: Pollution Prevention

Education

- a. Issue: Concern was expressed that the ordinary public was not participating enough in the prevention of pollution
- **b.** Proposed Solution: Putting the regulations in layman's terms and disseminating information in a clearing-house, libraries, schools and outreach offices were suggested

Workgroup Topic Area: Emergency Response and Planning

Response Capabilities

- a. Issue: Concern was expressed that the state-wide coverage of trained personnel was incomplete. An example of an overturned truck carrying 50 gallon bags of pesticide with the driver pinned was given and the closest response capability was in Albuquerque. Mining emergency staff from Playas were pressed into service on that occasion, but the concern remained about capability.
- **b.** Proposed Solution: It was reported that a system of regional response centers were needed and that the Fire Department of Las Cruces had been requested to be such a center. However, the willingness of the municipally funded fire department to subsidize a regional center was limited and full funding from the state was called for as the beneficiaries were many municipalities.

Training

- **a. Issue:** Concern was expressed regarding the lack of training for local fire departments, police and other agencies regarding hazardous materials being transported along the hazardous materials routes through the state.
- **b. Proposed Solution:** The fire academy was mentioned as responsible and available for awareness training. Local emergency plans were suggested as a vehicle to use to integrate different agencies and to disseminate training and awareness in a consistent manner.

Workgroup Topic Area: Enforcement

Sunland Park and Landfill Regulation Enforcement

a. Issue: Sunland residents called for more enforcement of the landfill regulations of their neighboring site.

Pesticides

- a. Issue: Concern was expressed over regulation of binational pesticide use.
- **b.** Proposed Solution: A role for EPA in monitoring pesticide levels in imported produce was called for as well as more regulations over use on the U.S. side.

Workgroup Topic Area: Information Management

Information Clearing-House

- a. Issue: An information clearing-house was called for that would include all environmental information for southern New Mexico.
- b. Proposed Solution: Much progress was reported and strongly supported by the participants who wanted the initiative expanded. A May 1994 initiative by EPA to bring together all relevant agencies resulted in state-led monthly coordination meetings in the environmental health area. In addition, a New Mexico database designed to be compatible with disease surveillance databases in California, Texas, and Arizona linking the environmental conditions information from all areas to the health status of the communities. Binational training was also mentioned.

Information Dissemination

- a. Issue: Information dissemination to non experts and stakeholders was desired.
- **b. Proposed Solution:** Information should be sent to libraries and schools. Outreach offices in the colonias was warmly supported.

Workgroup Topic Area: Environmental Health

Colonias

- a. Issue: Concerns were expressed by colonia residents regarding the public health impacts of the lack of sewer and water supply services as well as the proximity to landfill site.
- **b. Proposed Solution:** Basic services were requested as well as careful review of landfill locations to consider the informal settlement pattern. More surveillance was called for. Working with community groups on public health consultation and disease control was suggested.

Pollens, Allergies and Pesticides

a. Issue: Concern was expressed regarding the link between allergies and pesticide use in the area. Also the link between what is being planted such as Mulberries and pollens in the air.

b. Proposed Solution: Greater control over pesticide use was called for. No specific solutions were suggested for pollens except that, perhaps, that pollination impacts on the local air quality need to be considered in some sort of permissions system for crop selection.

Workgroup Topic Area: Natural Resources

Maintain Existing Environment

- **a. Issue:** Concern was expressed regarding maintaining the existing environment and integrity of wildlife and ecosystems "we have left" in southern New Mexico.
- **b. Proposed Solution:** Objection to the proposal for "lining the Rio Grande south of Caballo" was made as well as calls for more consultation over proposals that have a potentially negative impact on natural habitats. Habitat fragmentation was suggested as a criteria to be used by NADBANK during review of projects.

Overgrazing

- **a.** Issue: Overgrazing on public and private lands without consideration of the habitat impacts was considered a problem.
- **b.** Proposed Solution: No specific solution was mentioned, except for the implication that more controls and monitoring were needed.

Workgroup Topic Area: Sustainable Development

Loss of Farm Land

- **a. Issue:** Depletion of highly productive farm land for urban development in Dona Ana county and elsewhere was mentioned as a concern.
- **b.** Proposed Solution: No solution was mentioned but it was implied that consideration should be given during the development planning process to farmland loss.

Overgrazing

- **a. Issue:** Overgrazing on public and private lands without consideration of the habitat impacts was considered a problem.
- b. Proposed Solution: No specific solution was mentioned, except for the

implication that more controls and monitoring were needed.

Habitat Fragmentation

- a. Issue: Concern was expressed about the impact of habitat fragmentation on species diversity.
- **b.** Proposed Solution: It was suggested that grant and loan giving agencies such as NADBANK adopt a habitat protection criteria during their project selection process. Preservation of coastal wetlands, resacas, brushland, and riparian vegetation and water quality were cited as necessary to support the diversity.

Appendix G

EL PASO

El Paso is located in the western edge of the State of Texas and is twinned with the Mexican sister industrial city of Ciudad Juarez to the south separated only by the Rio Grande. In addition to the substantial number of industries on the Mexican side, El Paso has a large concentration of industrial developments of its own which were the subject of many participants concerns and comments.

A proposal to locate a low-level radioactive waste disposal facility 6 miles east of Sierra Blanca in Hudspeth County by the Texas Low-Level Radioactive Waste Disposal Authority generated considerable controversy and several groups protesting the proposal were represented at the meeting. The International Environmental Alliance of the Bravo, the Sierra Club, the Save Sierra Blanca, the NAACP-Environmental Justice Program and local citizens form the Hudspeth County area all made representations regarding the disposal site.

There were approximately 75 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste	G	i-2
Water		-3
Air	G	-5
Pollution Prevention	G	-6
Emergency Response and Planning	G	-7
Enforcement	G	-7
Information Management	G	-7
Environmental Health	G	-8
Natural Resources	G	-8
Sustainable Development	G	-8

Workgroup Topic Area: Hazardous and Solid Waste

Low-Level Radioactive Nuclear Disposal Site in Hudspeth County

- a. Issue: Concern was expressed in relation to the low-level radioactive nuclear disposal facility by local residents from El Paso. It was felt that the location 16 miles from the Rio Grande was in violation of the La Paz agreement and that the disposal site would be a danger to the local residents and the wider ecosystem, including the Rio Grande. Seismic activity was reported to be high in the site area and there were fears of ground water contamination and the possibility of eventual contamination of the Rio Grande. It was stated that 4 out of the 6 existing sites have already leaked radiation "in a very short number of years".
- b. Proposed Solution: Although no alternative disposal location was suggested other solutions were put forward. First, it was felt that any controversial waste generating facility or environmental hazard located within the 100 mile border zone should go through some sort of special binational and federal approval process. Secondly storage of the waste at the site from which it was generated was suggested. Thirdly a medical liability fund was called for.

Superfund Management

- **a.** Issue: Concern was expressed about the "unnamed plating site" in El Paso which is a state Superfund site because of its toxic subsoil characteristics.
- **b.** Proposed Solution: It was proposed to remove the contamination instead of just pave it over. It was suggested that the Superfund should clean the sites and not just do remedial actions which were the cheapest options. It was suggested that the EPA budget needed restoration to previous levels and that environmental laws needed strengthening.

Binational Information and Enforcement

- a. Issue: Concern was expressed regarding the lack of information about toxic releases from maquiladoras on the Mexican side of the border as well as the waste disposal sites on both sides.
- b. Proposed Solution: It was suggested that the EPA work with Mexico to conduct a binational toxic release study. Public accessibility and involvement was suggested. The La Paz work group on solid waste was referred to as a good initiative that needed strengthening. The Texas General Land Office outlined a data information system (including GIS) which was binational and included all U.S. border states which will be

Internet accessible and will include a natural resources inventory, public health concerns, and toxic release.

Chevron Pipeline Across Rio Grande

- a. Issue: Concern was expressed over the proposed Chevron gasoline pipeline at Lakeside that crosses the Rio Grande to Juarez. It was felt that in case of an accident aquifers will be damaged.
- **b. Proposed Solution:** Further checking of the "water near the refinery" and surrounding grounds was suggested. It was suggested that the EPA should be more involved and that the political influence of Chevron was inhibiting EPA and TNRCC who needed to be more assertive.

Road Versus Rail Transport

- a. Issue: The increased truck traffic due to NAFTA was felt to be harming the environment, including the increased movement of hazardous and solid waste by road.
- **b.** Proposed Solution: Movement by rail was suggested as well as the construction of new border crossings, such as Santa Teresa, which segregate truck traffic from established population centers.

Workgroup Topic Area: Water

Water Supply to Colonias

- **a. Issue:** Water supply to the colonias was mentioned as a concern.
- **b.** Proposed Solution: No specific solutions were suggested except that potential water sheds needed to be protected such as Sierra Blanca.

Lack Of Treatment in Ciudad Juarez

- a. Issue: The lack of wastewater treatment in Ciudad Juarez was a concern.
- **b. Proposed Solution:** It appeared to be an assumption that a treatment plant in Cd Juarez should be built.

Sierra Blanca Watershed

- a. Issue: The Sierra Blanca watershed was thought to be at risk due the proposed low-level radioactive waste dump in the region and that El Paso may need the water in the future.
- **b.** Proposed Solution: It was proposed to cancel the proposal to locate the waste facility.

Water Conservation

- a. Issue: Water Conservation was mentioned as a concern
- b. Proposed Solution: No solution was suggested.

Industrial Sewage in El Paso

- a. Issue: Sewage discharge from industry in El Paso was mentioned as a concern
- **b.** Proposed Solution: It was suggested that all industry that contaminates, pollutes ground water or air should be moved out of the metropolitan area of El Paso within the next 5 years and that any improvements or additions (of contaminating industry) not be allowed within the metropolitan area to avoid deterioration of the environment of El Paso.

Industrial Sewage in Cd. Juarez

- a. Issue: It was expressed as a concern that maquiladoras in Ciudad Juarez had not been inspected for over 3 years and some were dumping raw sewage directly into the Rio Grande.
- **b. Proposed Solution:** Some form of binational inspections and enforcement under the NAFTA agreement or through the La Paz process was called for. More citizen participation in enforcement through public education and information dessemination was desired.

Flooding

- **a. Issue:** In a written submission a participant expressed concern regarding building on the flood plain.
- **b.** Proposed Solution: Laws and guidance from developers and residential projects was called for.

Workgroup Topic Area: Air

El Paso Air Quality

- a. Issue: Air pollution in El Paso was mentioned as a concern
- **b.** Proposed Solution: It was suggested that all industry that contaminates, pollutes ground water, or air should be moved out of the metropolitan area of El Paso within the next 5 years and that any improvements or additions (of contaminating industry) not be allowed within the metropolitan area to avoid deterioration of the environment of El Paso. Binational air quality monitoring was also suggested

Second Hand Cigarette Smoke

- **a. Issue:** Air pollution inside buildings from second hand smoke (from cigarettes) was mentioned as a concern.
- **b.** Proposed Solution: Improved city ordinances were called for.

American Smelting and Refining Company

- a. Issue: Concern was expressed that the smelter continues to contaminate El Paso with lead emissions even though the project seems to have eliminated a lot of particulate matter and sulfur dioxide. Concern was expressed about the high lead levels in zip codes 02 and 05 (Kern Place Mission Hills and the area around Chevron and Phelps Dodge) as well as the wider El Paso/Cuidad Juarez area. A report was prepared by the City of El Paso indicated that testing had taken place and that unusual levels were not found but the concern remained and it was felt that the accumulative effect on people was the correct way to measure the problem rather than only background levels in the air.
- **b.** Proposed Solution: Improvement of "the so called bag house" was called for as well as the participation of EPA in monitoring and enforcement.

Air Quality

- **a. Issue:** Concern was made regarding the deterioration of air quality and its effects on the Big Bend National Park area. Asthma was mentioned as a result. Presidio was mentioned as a major trouble spot.
- **b. Proposed Solution:** No additional solutions were mentioned.

Rail Versus Road

- a. Issue: The increased truck traffic due to NAFTA was felt to be harming the environment, including the increased air contamination of the sister cities. Also the traffic idling at crossing points was felt to harm air quality in the downtown area.
- **b.** Proposed Solution: Movement by rail was suggested as well as the construction of new border crossings, such as Santa Teresa, which segregate truck traffic from established population centers.

Workgroup Topic Area: Pollution Prevention

Low-Level Radioactive Nuclear Waste Disposal Site in Hudspeth County

- a. Issue: Probably the number one pollution prevention concern expressed by local residents and by many interested citizens was in relation to the proposed low-level radioactive nuclear waste disposal site.
- **b.** Proposed Solution: Some pollution prevention solutions were put forward. Firstly it was felt that any controversial waste generating facility or environmental hazard located within the 100 mile border zone should go through some sort of special binational and federal approval process. Secondly it was implied that the generation of the waste itself needs to be more carefully considered and alternatives found.

Chevron Pipeline Across Rio Grande

- a. Issue: Concern was expressed over the proposed Chevron gasoline pipeline at Lakeside that crosses the Rio Grande to Juarez and its potential to pollute.
- **b.** Proposed Solution: Alternatives to the piped movement of gasoline was implied as desirable.

Road Versus Rail Transport

a. Issue: The increased truck traffic due to NAFTA was felt to be harming the environment, including the increased movement of hazardous and solid waste by road as well as air pollution.

Maquiladoras

a. Issue: Concern was expressed regarding the contamination by maquiladoras in Ciudad Juarez.

b. Proposed Solution: A TNRCC official outlined a pollution prevention program which included assisting companies doing industrial activities, development of a public education campaign and technical training and voluntary pollution reduction programs. This appeared to be warmly received by the participants.

Workgroup Topic Area: Emergency Response and Planning

No specific comments were expressed during the meeting although hazardous and solid waste movement was a concern from a potential spills perspective and the potential for radioactive contamination from the proposed low-level radioactive dump was also a general concern. Access to information about hazardous materials crossing the border was felt to inhibit emergency response. In a written submission a writer suggested the establishment of a binational Poison Control Center for the U.S. Mexican Border Region with access to local consultants and municipal, state, and federal agencies.

Workgroup Topic Area: Enforcement

Binational Information and Enforcement

- **a. Issue:** Concern was expressed regarding the lack of information about toxic release from maquiladoras on the Mexican side of the border.
- **b. Proposed Solution:** Some form of binational inspections and enforcement under the NAFTA agreement or through the La Paz Agreement/Work Groups process was called for. More citizen participation in enforcement through public education and information dissemination was desired.

Workgroup Topic Area: Information Management

Education

- **a. Issue:** There was a call to generally raise the awareness of the community about the environment.
- **b.** Proposed Solution: A more community oriented approach to public meetings and education was suggested although specifically how was not outlined at the meeting. In a written submission a participant called for a public hearing approach and "not a conference, educational session, brainstorm, or consensus building session."

Workgroup Topic Area: Environmental Health

Water-Based Infectious Diseases

- a. Issue: Concern was expressed about the water-borne diseases that were possible from the low quality of surface water in the Rio Grande. Diarrhea, infectious diseases, and cholera were mentioned.
- **b.** Proposed Solution: It was desired that a cleanup of the Rio Grande be implemented.

Workgroup Topic Area: Natural Resources

No specific concerns were raised under this topic heading but concerns were expressed over water quality in the Rio Grande, resacas and river tributaries

Workgroup Topic Area: Sustainable Development

Sustainable development was not directly mentioned but concerns were raised regarding protecting and improving the water quality of the Rio Grande as well as a general feeling that the natural environment was in need of remedial actions.

Appendix H

EAGLE PASS

Eagle Pass, is located in the central portion of the border between Texas and Mexico. It is paired with the Mexican city of Piedras Negras, Coahuila. The participants cited concerns in the areas of environmental health, water supply, water quality, hazardous/solid waste, colonias problems, binational agreements, enforcement, river dumping, air pollution, temporary versus long-term solutions, education (including interagency cross-training), and recycling. The binational effort at designing and implementing a wastewater facility for the sister cities was highlighted.

There were approximately 35 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste	H-2
Water	Н-:
Air	H-:
Pollution Prevention	H
Emergency Response and Planning	Н
Enforcement	H-
Information Management	
Environmental Health	Н-
Natural Resources	Н-
Sustainable Development	H-

Workgroup Topic Area: Hazardous and Solid Waste

Illegal Dumping

- a. Issue: Comments made indicate a general concern regarding illegal dumping by the colonias of solid waste being disposed directly into the Rio Grande.
- b. Proposed Solution: Suggestions included using the local community to assist in reporting illegal activities. There were suggestions to incorporate the areas of the region that have no access to solid landfills, such as the colonias. The border patrol, which is currently monitoring the Rio Grande for illegal immigrant crossings, was suggested as candidates to receive cross-training to report illegal dumping of waste into the river. A Mexican representative from the Department of Ecology of the State government of Coahuila commented on initiatives to establish more legal dumps in an attempt to decrease the tendency towards illegal dumping, which was well received by the group.

Binational Standards

- a. Issue: Lack of consistent binational standards and enforcement was a strong concern expressed.
- **b.** Proposed Solution: Aside from the obvious desire to see binational standards, the participants made a number of suggestions for realizing that goal. First, they made several references to the existing binational coordination efforts going on at the federal, state and municipal levels. The inference was that these should be expanded to include enforcement responsibilities. In addition, the participants talked about binational environmental education efforts.

Radioactive and other Regional Waste Disposal Sites

- a. Issue: There was a concern expressed that the border region was being used as a site for waste generated throughout the state.
- **b. Proposed Solution:** The group suggested minimizing waste generated through recycling, as well as taking into account the highly populated, fast-growing nature of the binational border region when selecting dump sites.

Education

- a. Issue: A lack of education for the public and regulated community was cited.
- **b.** Proposed Solution: Educational outreach was cited as a solution, including some part of the program oriented to the layman through schools and libraries. A State of Coahuila representative outlined a detailed education outreach program called "Clean Coahuila" in the schools that appeared to be well received as a model for the U.S. side.

Workgroup Topic Area: Water

Water Treatment in Maverick County

- a. Issue: Various colonias in Maverick County were cited as lacking basic sewer systems. One comment seemed to sum up the general mood "there are so may colonias without sewer systems, we want something done now."
- **b.** Proposed Solution: The group urged incorporation of the colonias in order to make them eligible for funding. There was a suggestion that Maverick County take the lead in obtaining the Certificate of Convenience and Necessity on behalf of the colonias, and in reaching an agreement with Eagle Pass to treat the sewage.

Binational Rules and Regulations

- **a. Issue:** The lack of binational rules and regulations was cited as a problem by many participants. One participant stated: "the river needs to be operated under the same rules on both sides in order for this river to survive and have something down the line for generations to come".
- **b. Proposed Solution:** It was suggested that the EPA should take the lead from the state to "get some type of agreement" with Mexico. The initiative of the municipality of Eagle Pass to coordinate directly with the State of Coahuila was strongly supported.

Workgroup Topic Area: Air

Binational Rules and Regulations

a. Issue: The lack of binational rules and regulations was cited as a problem, both in general and specifically in relation to industries located on the Mexican side of the border.

b. Proposed Solution: Carbon 1 and Carbon 2 emissions from the Mexican side were specifically cited as needing attention as well as the emissions from Big Bend Park. Automobile regulations were cited as needing binational standards and enforcement.

Pesticides

- a. Issue: Enforcement of regulations regarding pesticide use was thought to be lax and pesticide use was thought to affect air quality in the area.
- **b.** Proposed Solution: No specific solutions were raised apart from a concern than not enough was being done.

Public Education

- a. Issue: There was thought to be a lack of education on air contamination.
- **b.** Proposed Solution: No specific solutions were mentioned.

Workgroup Topic Area: Pollution Prevention

Education and Monitoring

- **a.** Issue: The group expressed a concern regarding the lack of education of industries and the community in pollution prevention and awareness.
- b. Proposed Solution: Meeting participants suggested more industry monitoring and identifying the point sources of contamination so that remedial regulatory and educational efforts could be carried out. Minimizing usage of water through educational and regulatory conservation efforts was mentioned as a strategy in minimizing the amount of effluent. Recycling was mentioned. The Clean Coahuila program in Mexico was mentioned as a model of environmental education.

Workgroup Topic Area: Emergency Response and Planning

No comments were made directly under this topic area but concerns were expressed regarding the transport and storage of hazardous waste and materials.

Workgroup Topic Area: Enforcement

Binational

- a. Issue: Fears were expressed about different standards of enforcement within the same water- or air shed on either side of the border.
- **b.** Proposed Solution: Binational enforcement was suggested to establish a "level playing field."

Workgroup Topic Area: Information Management

Information Exchange/Dissemination

- a. Issue: Information was felt to be lacking, and the forms of information dissemination were felt to be inadequate.
- **b.** Proposed Solution: Public education in the schools was mentioned, including the State of Coahuila's program to create environmental clubs at the school level. Increased binational consultation and team working was mentioned at the municipal, state and federal levels.

Workgroup Topic Area: Environmental Health

Pesticides

- **a.** Issue: Pesticide use was thought to affect environmental health in the rural areas of the region.
- b. Proposed Solution: No specific solutions were mentioned.

Workgroup Topic Area: Natural Resources

No comments were made directly under this category although the concern often expressed for the water quality of the Rio Grande indicated a public desire to have the river and associated tributaries as a natural resource for aesthetic and recreational use.

Workgroup Topic Area: Sustainable Development

Recycling

- a. Issue: Recycling was felt to be lacking in the community.
- b. Proposed Solution: A schools based program was suggested.

Appendix I

LAREDO

Laredo, Texas, is situated on the Rio Grande in the crossing point of highways 3 and 85 which connect Monterrey, Nuevo Laredo to San Antonio and Dallas-Fort Worth. As such, it is the largest road and rail border crossing of the Eastern Region of the border zone. The sister city of Nuevo Laredo is an industrial city with maquiladoras. Laredo is the center of a agricultural region and many of the participants were drawn from smaller communities in the area. Hazardous and solid waste was a very high concern, not only local storage and disposal but the transport and handling of hazardous materials across the border. Rural and small community concerns were mentioned such as pesticide use and services to small and unincorporated communities. Colonia concerns were expressed. Noise pollution was a concern likely connected to the large traffic volumes due to the border crossings.

There were approximately 22 individuals at this public meeting. Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste I-2
Water
Air
Pollution Prevention
Emergency Response and Planning
Enforcement I-4
nformation Management
Environmental Health
Sustainable Development

Workgroup Topic Area: Hazardous and Solid Waste

Warehouses Storing Hazardous Materials

a. Issue: Concern was raised regarding current locations of hazardous materials storage facilities such as warehouses. Participants implied that some of these warehouse facilities posed a risk to surface water bodies such as creeks because of potential or actual drainage, perhaps associated with inappropriate storage or handling practices.

Illegal Disposal into the Rio Grande River

a. Issue: The issue of enforcement, relative to the safe disposal of hazardous waste was raised, again with the concern that disposal is currently occurring into the river, presumably the Rio Grande. The participants felt that the problem is border-wide. Whatever is dumped, eventually may end up in the river.

Tracking of Hazardous Wastes Across the Border

- a. Issue: Participants were concerned that they are not aware of what hazardous waste is crossing their borders and through their city. They also wanted to differentiate between raw material chemicals that are toxic or hazardous and hazardous waste which is generated in a manufacturing process.
- **b.** Proposed Solution: In part, the solution proposed was to have movements of hazardous waste and materials tracked through international mechanisms.

Sitings of New Bridge Border Crossings

a. Issue: A participant was concerned about the proposed sitings of new bridges in the community. In addition to hazardous waste and chemical safety concerns, two other issues related to siting were mentioned, noise pollution and deterioration of roads, both due to the heavy truck traffic.

Lack of or Insufficient Solid Waste Facilities

a. Issue: Participants raised the concern for the lack of solid waste disposal facilities in their community. Specifically lack of landfills and lack of other resources to properly operate a community garbage disposal program. An example was cited for two colonial communities, El Canes and Rio Bravo, have not had their garbage picked up for over six months. A dump truck was inoperative, yet parked with trash in the dumpster. They stated that the area represents a population of 10,000. This was attributed to a lack of

funds, but probably more significance was placed on the lack of municipal requirements for garbage collection.

b. Proposed Solution: It was stated that the state of Texas does not require counties to provide for garbage pick-up at rural road sites. However, it was felt that if the state did require that this service be provided to rural communities, then it would go a long way to resolving the problem of illegal dumping in Texas. It was felt that the state agencies and many municipalities spend a lot of money curbing or fighting illegal dumping. However, requiring that service be provided was felt to be a better solution, than going after illegal dumpers. It was stated that other states provide dumpsters to be located in rural areas.

Workgroup Topic Area: Water

Surface Water Quality

- a. Issue: Amongst the most important priority raised in the meeting was the concern for water quality, specifically in regard to supporting wildlife biodiversity, and a healthy, sustainable environment. Concern was raised for the difference between regulations for siting landfills, operating landfills, and safety training for landfill operators, both privately and municipally-owned. It was felt that the regulations were more stringent on the US side. The difference in practices was felt to potentially contribute to water pollution border wide. While there appeared to be concern in general for the problem occurring on both sides of the border, it also appeared that it was considered more in terms of a Texas problem.
- **b.** Proposed Solution: One person mentioned the need for an appropriate level of sewage treatment.

Drinking Water Availability

- a. Issue: Concern was expressed about the availability of drinking water
- b. Proposed Solution: No specific solutions were offered.

Impacts of Erosion on Water Quality

a. Issue: Concern was raised that increased erosion adversely impacts water quality. One participant wanted to emphasize the relationships between river bank erosion and natural resources and wildlife.

b. Proposed Solution: Participants want to see more control of erosion along the river banks and of pesticide laden agricultural runoff.

Workgroup Topic Area: Air

Reduced Air Quality Attributed to Increased Truck Traffic

- a. Issue: One participant indicated that over the last 15 years they have seen quality deteriorate: a brown haze over the city is common. It was felt that border crossing didn't have to be strictly at the border along the banks of the river. Trucks were said to be sitting at the bridge crossings idling for hours. Existing air quality was felt to only include particulate monitoring
- b. Proposed Solution: A solution was to conduct "some real good air quality monitoring" presumably to begin to define the problem. It was proposed that customs should be placed a few miles away from the actual border, on the US and Mexican sides. It was felt this would, in part, minimize local contamination resulting from idling trucks and that the cleared trucks would pass through town quickly. Enforcement of truck routes was also proposed.

Workgroup Topic Area: Pollution Prevention

Sitings of New Bridge Border Crossings

a. Issue: A participant was concerned about the proposed sitings of new bridges in the community. In addition to hazardous waste and chemical safety concerns, two other issues related to sitting were mentioned, noise pollution and deterioration of roads, both due to the heavy truck traffic.

Workgroup Topic Area: Emergency Response and Planning

Spill or Accidents

a. Issue: Concern was raised about potential hazardous to the community due to spills or accidents with actual or future sitings of hazardous material storage or handling facilities.

Workgroup Topic Area: Enforcement

a. Issue: Participants raised the concern that trucks use the appropriate routes. This comment was raised in the context of several other concerns including relocation of

border crossing a few miles away from the actual borders to minimize deterioration of primary transportation routes and minimize air pollution within the confines of the city. It was felt that there is an increased amount of traffic associated with heavy, overweight, trucks.

b. Proposed Solution: A solution was offered for more enforcement of designated truck routes.

Workgroup Topic Area: Information Management

Information Availability

- a. Issue: One participant indicated she was involved in the preparation of an environmental management plan, but has had difficulty accessing information about wildlife habitat areas along the river.
- **b.** Proposed Solution: No specific solutions were proposed expect for the implication that more information should be publically available and accessible.

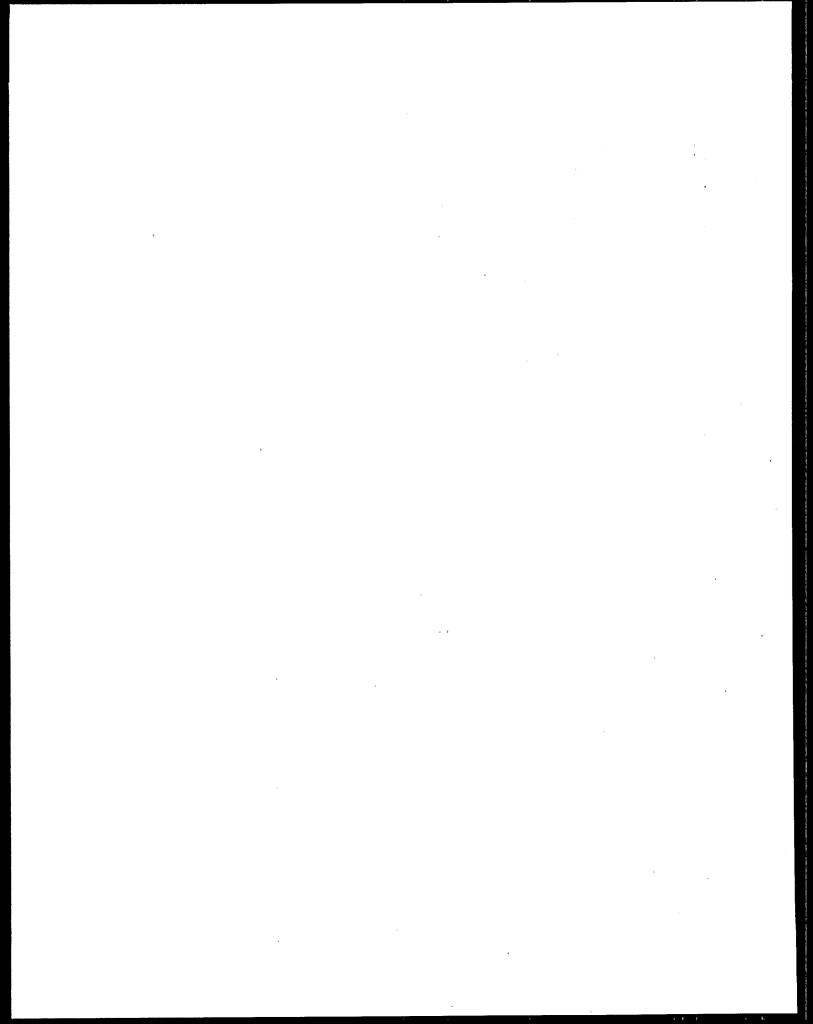
Workgroup Topic Area: Environmental Health

Infectious Diseases

- **a. Issue:** Concern was raised that the border communities on the Texas side are exposed to more contagious diseases; reference was made to tuberculosis and bubonic plague. The border environmental health conditions were described as being third world conditions.
- **b. Proposed Solution:** The group felt that there is a lack of health facilities that could be a resource for environmental health education. They want to see facilities that can educate awareness of health hazardous and preventive measures related to health. Another participant indicated that they felt that there were programs to provide education, however, there usually was not funding for outreach to let the community know that these programs are available.

Workgroup Topic Area: Sustainable Development

a. Issue: Habitat protection was a concern mentioned as well as improved surface water quality as a means of coexisting with the environment in a more brotherhood way.



Appendix J

McALLEN

The environmental issues raised in McAllen, Texas, were often associated with colonias. Similar to other border communities, there was concern over impacts due to heavy traffic. Much emphasis was placed at the beginning of the meeting by Texas agencies to describe efforts being made to address the colonias. It was stated that Hidalgo county has more colonias and more population of colonia residents than any part of the country. Much discussion was raised by the meeting participants regarding the status of House Bill (HB) 1001 which would address colonias environmental problems.

Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous Materials and Solid Waste	J-2
Water	
Air	
Pollution Prevention	J-4
Emergency Response and Planning	J-5
Enforcement	J-5
Information Management	J-6
Environmental Health	J-6
Sustainable Development	1-8

Workgroup Topic Area: Hazardous Materials and Solid Waste

Tire Disposal

- a. Issue: One of the problems mentioned by a meeting attendee is the lack of frequent tire disposal amnesty days.
- b. Proposed Solution: No specific solution was offered.

Workgroup Topic Area: Water

Binational Water Basin Plan

- a. Issue: A participant wanted to know what was being done to develop a binational water basin plan and a natural resource management plan. He indicated that he was aware of an air shed initiative in El Paso and Juarez area, but felt that something with similar scope should be defined for water.
- end of the pipeline, a reference to the upstream discharges reaching McAllen downstream. The concern was for both water quality and quantity, the later being a reference to water shortages due to droughts. Furthermore, with the water table declining due to droughts and excessive water supply demands, water treatment is more costly, presumably because of the increased concentration of contaminants. Consequently, this scenario was defined as water quality becoming a water supply problem.

The same participant indicated he heard a lot of talk about the Nuevo Laredo, Mexico wastewater treatment plant and that it had been going on too long. He also expressed concern that of all the projects recently approved by the Border Environmental Cooperative Commission (BECC), not one was approved for the Texas border, as far as he was aware.

Water Quality Monitors

- a. Issue: Without the water quality monitors, it was stated, it is not possible to attribute or properly evaluate potential sources. One apparent situation was the accusation going on about the potential impacts of the shrimp farms; it was now not possible to assess the validity of the concerns.
- **b.** Proposed Solution: Concern was raised that the water quality monitors at the mouth of the Arroyo Colorado had been taken out about two or three weeks prior from

the date of the public meeting. Coincidentally or not, it was noted that there was a fishkill that same weekend. Additionally, a week prior, there had been a red tide bloom. One official remarked that there were still four water quality monitors in the Arroyo Colorado and six in the Bay, a reference to the Gulf of Mexico.

Infrastructure Services in the Colonias

- **a. Issue:** Interagency coordination of basic municipal services in the colonias was considered to be grossly inadequate.
- b. Proposed Solution: Coordination was discussed relative to infrastructure needs. Organizations such as the Water Development Board are working with the EDAP Program and the CWTAP to coordinate access of water and wastewater needs. Additionally, issues such as utilities, paving, and drainage are also being coordinated. What apparently is an issue is that first the EDAP project is constructed, then paving and drainage is provided. Finally, water and wastewater connections are provided, however, that means the paved roads are broken to install the connections. This situation puts an additional burden on the community leaders. There is a desire to allow for more flexibility associated with these types of infrastructure issues, since it would be more efficient and advantageous to the colonia residents.

Rio Grande Water Quality

a. Issue: One participant expressed concern with meeting federal and state standards, particularly when the water comes from the Rio Grande. The water supply is even more limited during drought periods such that it is even more difficult to meet the standards. Using more chemicals for treatment is not the solution, because there are also limits on them. Consequently, the water supply providers have difficulty meeting the standards. Additionally, concern was expressed for meeting National Pollution Discharge Elimination Standards (NPDES) in the future as the communities population continues to increase. The question was raised, is there going to be some sort of bi-national standards for communities such as McAllen and Brownsville, and secondly, how will the infrastructure requirements be handled. The presence of colonias was identified as a unique problem associated with addressing water quality problems.

Industry Treated Wastewater

a. Issue: Currently, Piedras Negras has proposed that the Carbon I and II industry use treated wastewater. The question was raised as to whether Piedras Negras was in fact really using surface water, and not just ground water. This was all considered a significant political problem associated with water right defined in the 1908 treaty

between Mexico and the United States.

b. Proposed Solution: The group offered an example of ground water use in Piedras Negras. Apparently the situation there is that the coal industry, Carbon I and II, was throwing out the water after it could not be assured that Piedras Negras would be able to keep its water supply up. Mexican cities currently rely heavily on ground water.

Workgroup Topic Area: Air

Sugar Cane Burning

- a. Issue: Air contamination resulting from local sugar cane was a concern. Another person stated that the sugar cane industry is an important part of the farmer's livelihood in the region, therefore, the communities need to identify means of co-existing. That is addressing environmental protection and ensure a economic growth for this industry.
- **b. Proposed Solution:** The group did not suggest restrictions or additional regulations due to concerns over job losses. Still another person stated that the industry is really mechanized and as such does not really provide as many jobs for the community. Instead it was considered to generate far greater burden of public health than economic benefits. Furthermore, the industry was considered seasonal. For nine months the crops are grown and harvested mechanically; workers migrate north to find work for the greater part of the year.

El Paso/Juarez Air Initiative

- a. Issue: A participant was interested in the status of the El Paso/Juarez air shed initiative.
- **b.** Proposed Solution: No suggestion or other remarks were made regarding this request.

Workgroup Topic Area: Pollution Prevention

Accountability of Environmental Problems

a. Issue: Reference was made in the context of making developers accountable for preventing environmental problems. A Texas Department of Health official mentioned that they are working with the Attorney General's Office to correct a situation dealing with water hauling.

Vehicle Dust

- a. Issue: Concern was raised regarding how dust problems could be solved. A situation was cited by a City of Progreso representative who described how dust migrates into the sewers, turns to mud, then the mud clogs the drainage pipes. Dust is generated from all the unpaved roads in the community. The question was posed of how can Texas compete with Mexico for available infrastructure funds.
- b. Proposed Solution: It was felt that other financial solutions were needed to account for the inadequate local tax base. An example was raised, specifically, in reference to the neighboring city of Nuevo Progreso. The community does not have the tax base to apply for infrastructure loans that may be available from institutes initiated from NAFTA or other loan vehicles. It was stated that if the US is truly to compete with Mexico economically, then there should also be emphasis placed on solving funding issues associated with colonias on the U.S. side.

Used Tire Disposal

- **a.** Issue: A participant indicated that the annual recycling effort is an important community service.
- **b. Proposed Solution:** It was proposed that the recycling program designate what precincts of the community would be included in this effort.

Workgroup Topic Area: Emergency Response and Planning

No specific comments were raised regarding this topic.

Workgroup Topic Area: Enforcement

Flood Plains

- **a. Issue:** It was stated that some colonias are built on flood plains and are definitely in non-compliance with county building codes.
- **b. Proposed Solution:** No specific solution was offered.

Workgroup Topic Area: Information Management

Community Education

- a. Issue: The economic improvement of a community was linked to the health of the community. If people do not know what the problems are and how they impact their health and the economy, then people do not realize how harmful certain situations can be.
- **b. Proposed Solution:** A participant stated that only with education can the community begin to appreciate the issues related to the environment. Specific reference was made to link the benefits of environmental management with water to that of health and the economy, for example.

Colonia Outreach

- a. Issue: It was felt that colonia residents were not adequately informed regarding subdivision regulations.
- b. Proposed Solution: An official stated in reference to House Bill (HB) 1001 colonia issues, specifically, efforts to establish lot records and subsequent deeds of trust for families, that more education was needed. It was felt that it was helpful to continue dialogue to address the problems and perhaps in some circumstances exceptions could be made by grandfathering a colonia to meet the standards of a subdivision and at the same time allow for improvements to go in as if it were under HB1001.

Workgroup Topic Area: Environmental Health

Mosquito Related Diseases

- a. Issue: A participant was concerned about health problems associated with mosquitos, disease, and encephalitis. The mosquito problem stems in part from ponded water in tire dumps in various cities. Apparently due to regulatory requirements on tire disposal, disposal only occurs once a year when the State of Texas provides an exemption from the tire disposal requirements.
- **b.** Proposed Solution: The representative from the Texas Department of Health offered an explanation of the efforts being made by his agency to curb the problem. This included education to encourage people to practice source reduction by emptying containers that can hold water where the mosquito larvae live. They have provided literature and public service announcements. In addition, the agency has used insecticides

to destroy the larvae and adult phase of the mosquito. Another participant who was a home health nurse practitioner, stated that the educational materials are good, but she would recommend having them available in both Spanish and English to the more than 65 home health agencies existing in the Texas valley region. Her experience in the schools was that children receive the pamphlet to share with their parents, but some parents do not read English.

Health Testing

a. Issue: A participant felt that there should be greater tuberculosis testing of children in the school districts. The current policy is that children who are entering the school system must be tested. However, it was not considered to be sufficient, because every summer children from the Mexican border who are in the school district go back to Mexico. Thus since they are exposed annually, it was felt they should be tested annually. Also testing should be for all employees, anyone in contact with the kids, including the teachers. There was also a desire to see information as to why the districts are not requiring more updated chest x-rays of the children.

Colonia Lot Sizes

- a. Issue: A concern was raised that colonias with lot sizes that are fifty by a hundred feet are getting assistance to put in septic tanks and still there is no law saying that you cannot put in septic tanks if it is under half an acre. Since these colonias are already there, they need septic tanks or something. The concern was expanded to include scenarios where a house was situated with other small housing units, such that it could not qualify based on the footage per septic tank system. So the question was asked of how to address these problems.
- b. Proposed Solution: An engineering solution was posed by one of the meeting participants. He stated that there are turnkey systems, and several variations to the traditional septic tank system design. Instead of designing for a drain field, design a collection system with similarly situated houses draining into a collection line that then goes to a secondary treatment system. Another person stated that the Texas Water Development Board has a lot of information on technologies to address concerns associated with size requirements for septic tanks. Furthermore, it was stated that the use of innovative technologies are given preference for funding. However, the same participant who posed the question felt that this solution would not be realistic because there would not be anyone to carry this out because of lack of funding.

Workgroup Topic Area: Sustainable Development

Sugar Cane Burning

- a. Issue: The group felt that sugar cane burning was an important local livelihood that should be protected. Still another felt that the industry is really mechanized and as such does not really provide as many jobs for the community. Instead it was considered to generate far greater burden of public health than the economic benefits.
- b. Proposed Solution: No specific solution was identified.

Appendix K

BROWNSVILLE

Brownsville, Texas, is located close to the Gulf of Mexico and is paired with the larger Mexican city of Matamoros, Tamaulipas to the south. The most frequently cited concerns were environmental health, water supply, water quality, air quality, hazardous and solid waste and the problems generated by the colonias. Environmental health was mentioned many times as a high concern. Dengue fever was reported to be present in Hidalgo County. Encephalitis was also cited as a problem. A self-help program, that decreased the lead times and cost of introducing sewage treatment for a colonia in Cameron County, was mentioned as an example of helping disease prevention efforts.

Issues and concerns presented during the meeting are organized by workgroup topic area if discussed by the community participants. Specific issues are presented as problem-solution pairs, unless solutions were not offered or apparent.

Workgroup Topic Areas

Hazardous and Solid Waste
Water
Air
Pollution Prevention
Emergency Response and Planning
Enforcement K-6
Information Management K-6
Environmental Health
Natural Resources
Sustainable Development

Workgroup Topic Area: Hazardous and Solid Waste

Movement of Hazardous Material

- **a. Issue:** Concern was expressed over the movement of dangerous materials across the border and near the border.
- **b.** Proposed Solution: More local hazardous solid waste facilities were suggested to reduce the need for movement. The HAZTRACKS data base and tracking system was mentioned by an official and this seemed to meet with the approval of the group in terms of being a good initiative that perhaps needed strengthening.

Mexican Solid Waste Facilities

- a. Issue: Concern was expressed regarding the disposal practices of Mexican municipal and industrial solid waste facilities. It was felt that burning municipal and industrial waste was impacting the binational air shed.
- **b.** Proposed Solution: Monitoring and financing of Mexican solid waste disposal facilities was suggested. It was suggested to do the monitoring at a time that airborne pollution carried by the prevailing wind most affected Brownsville.

Illegal Dumping on Mexican Side of Solid Waste

- **a.** Issue: Concern was expressed over the Mexican side illegal dumping of waste in water bodies that affected the Rio Grande.
- **b.** Proposed Solution: More enforcement resources as well as binational enforcement was called for.

Industrial Hazardous Waste

- **a. Issue:** A general concern was expressed about the reduction of hazardous and solid waste by industry and commercial facilities such as paint shops.
- b. Proposed Solution: No solutions were specifically enumerated.

Colonias

- a. Issue: Concern was expressed regarding the lack of a municipal or county garbage pick up and disposal service for the colonias. Lack of landfill sites near the colonias was mentioned.
- b. Proposed Solution: Provision of a pick up and disposal service was desired.

Solid Waste Facility Location

- a. Issue: It was felt that the geology of the topography on the Mexican side was more favorable for siting of binational solid waste facilities and that the political border was preventing the logical location of regional facilities.
- b. Proposed Solution: Binational collaboration and operation was called for.

Recycling

- a. Issue: Curbside recycling was felt to be incomplete in Brownsville. Canadian bottle deposits were held up as a model. Small business recycling of repair and paint shops were thought to need inclusion.
- b. Proposed Solution: A curbside program was desired. A bottle deposit was suggested. Taxing bottles, cans and repackaging was requested to discourage disposal.

Workgroup Topic Area: Water

Ocean Dumping

- a. Issue: Ocean dumping was mentioned as a problem affecting the fishing industry and destroying the beaches.
- b. Proposed Solution: Controls and monitoring were implied as solutions.

Water Quality in the Rio Grande and Its Effects on Local Drinking Water Supplies

a. Issue: Concern was expressed regarding the dumping of Mexican point sources into the Rio Grande or its tributaries in relation to its impact on the safety of drinking water on the American side. Monterrey, Mexico, was mentioned as a large point source of contamination.

b. Proposed Solution: More monitoring was called for.

Water Availability

- a. Issue: Concern was expressed regarding future water supply for Brownsville.
- b. Proposed Solution: No specific solutions were suggested.

Resacas and Small Lake Protection

- a. Issue: Concern was expressed about the resacas and small lakes along the Rio Grande. As the Rio Grande is the water supply for those surface water bodies, all contamination of the Rio Grande affects those bodies. Solid waste such as tires were also reported to be tossed into these surface water bodies.
- **b.** Proposed Solution: Cleaning up the resacas was called for. A City of Brownsville resaca coordinator was introduced to the group and his appointment seemed to be warmly received, "wonderful" was the expression used by a participant.

Workgroup Topic Area: Air

Implementation of Air Programs

- **a. Issue:** Concern was expressed about how the concerns expressed about air contamination would be carried through into policy changes and projects.
- **b.** Proposed Solution: No specific solutions were proposed by the participants although a report by a representative of the TNRCC which outlined a State to State initiative between Texas and Tamaulipas on air quality monitoring was warmly received.

Air Impacts of Mexican Solid Waste Facilities

- **a. Issue:** It was felt that burning municipal waste in Mexican solid waste facilities was impacting the binational air shed.
- **b.** Proposed Solution: Monitoring and financing of Mexican solid waste disposal facilities was suggested. It was requested to conduct the monitoring at a time that the airborne contaminants carried by prevailing wind most affected Brownsville.

Workgroup Topic Area: Pollution Prevention

Minimize Generation

- a. Issue: Pollution prevention was cited as a high priority concern. It was stated that "we need to start changing the mentality of the industries and start focusing on prevention instead of treating it"
- b. Proposed Solution: A TNRCC representative outlined a pollution prevention program that was binational and included the Tecnologico de Monterrey to provide technical assistance to the maquiladoras in Reynosa and Matamoros. The Rio Grande Alliance was also mentioned by. These State led initiatives were warmly received. The Brownsville Industrial Park was mentioned where there exists an education program to reuse and recycle targeted at industrial managers. The reuse and recycling even goes on between themselves. They are also beginning to reuse waste energy.

Recycling

- **a.** Issue: Curbside recycling was felt to be incomplete in Brownsville. Canadian bottle deposits were held up as a model. Small business recycling of repair and paint shops were thought to need inclusion.
- **b.** Proposed Solution: A curbside program was desired. A bottle deposit was suggested. Taxing bottles, cans and repackaging was requested to discourage disposal.

Workgroup Topic Area: Emergency Response and Planning

City Plans

- a. Issue: The lack of city plans for emergency response was cited as an area of improvement needed.
- **b. Proposed Solution:** Binational planning and work was reported to be underway with the Federal Emergency Management Agency, Texas Department of Public Safety and the EPA participating. This work was complemented. However, the lack of staffing and funding was felt to be in need of correction.

Workgroup Topic Area: Enforcement

Ocean Dumping

- a. Issue: Ocean dumping was mentioned as a problem affecting the fishing industry and destroying the beach
- b. Proposed Solution: Controls and monitoring was implied as a solution.

Illegal Dumping on Mexican Side of Solid Waste

- a. Issue: Concern was expressed over the Mexican side illegal dumping of waste in water bodies that affected the Rio Grande.
- **b.** Proposed Solution: More enforcement resources as well as binational enforcement was called for.

Workgroup Topic Area: Information Management

Information Dissemination

- a. Issue: More information dissemination on all issues was called for and it be available in simple terms "so people can understand".
- **b.** Proposed Solution: The Internet was mentioned, as was the public library, as a possible venue for facilitating more public access.

Workgroup Topic Area: Environmental Health

Air Pollution

- a. Issue: The effects of the air pollution on local neurological defects was mentioned
- **b.** Proposed Solution: A comparative study of the border region was requested in order to pool statistical clusters to reach conclusions of causal effects.

Encephalitis

a. Issue: Encephalitis and birth defects were reported as concerns in the region.

b. Proposed Solution: More information in a format for the layperson was requested.

Workgroup Topic Area: Natural Resources

Urban Park Land

- a. Issue: Concern was raised regarding the small amount of park land in Brownsville.
- b. Proposed Solution: Preservation of what parkland exists against urban encroachment was called for as well as funding an acquisition program.

Use of Area Salt Mines for Spas

- a. Issue: The atmosphere within area salt mines was reported to have therapeutic value for asthma and other breathing problems and it was suggested to make use of this natural resource for tourism.
- **b.** Proposed Solution: Government-salt mine owner cooperation was called for to build the necessary hotel facilities connected to a abandoned mine.

Ecosystem Diversity

- a. Issue: Concern was expressed regarding the Brownsville Valley ecosystem with respect to habitat loss and urban encroachment leading to species loss. Road kills of eagles were referred to as an example.
- b. Proposed Solution: Wildlife education was suggested as a solution.

Workgroup Topic Area: Sustainable Development

a. Issue: Sustainable development was not directly mentioned but the concerns about preservation of the resacas, the urban encroachment of public parks, the strong concern about the water quality of the ocean and Rio Grande, the concerns about species diversity and the general concern regarding the introduction of basic sewer services to the colonias were all indicative of a concern about sustainability.

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