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## The International Law of the Environment from the U.S. Perspective: A Case Study: The U.S. and Mexico

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**THE INTERNATIONAL LAW  
OF THE ENVIRONMENT  
FROM THE U.S. PERSPECTIVE**

**A CASE STUDY:  
THE U.S. AND MEXICO**

**Joint Venture  
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## I. Introduction

The subject of public international law is vast, rich and varied, thus offering the potential to explore many interrelated topics ranging from the lofty philosophical precepts of positivist and naturalist thought to the technical intricacies of international business transactions. Many of these topics are also historically relevant to the long and often inclement history of Mexican-U.S. relations. These include the law of war, peace and neutrality, self-determination, territory, recognition, and diplomatic and consular privileges and immunities. Regrettably, the allotment of time and space for the subject of public international law in the Joint Venture Program does not allow discourse on these topics, but instead demands a different, more efficient and more timely focus.

The direction of this paper is therefore aligned with some of the most critical issues of international law confronting Mexico and the United States in today's diplomatic context, which is marked by singularly positive and mutually supportive relations. These issues center on a relatively new concern to the international community, that is, the environment. The urgent preoccupation with environmental protection must inevitably be weighed against the frequently conflicting but equally vital need for economic development. This conflict is particularly acute at present because critical trade issues are now being vigorously debated during deliberations about the proposed trilateral North American Free Trade Agreement (NAFTA) between Mexico, the U.S. and Canada.

This paper examines the joint response by Mexico and the U.S.

to their common environmental dilemma and illustrates how international law, particularly from the U.S. perspective, functions as a reasonably effective problem solving mechanism in harmony with domestic law. As organized, this paper presents first, an overview of environmental problems in the border area and the Gulf of Mexico, and second, a summary of important international treaties and agreements which address these problems. Third, the paper summarizes U.S. federal and state environmental laws which reflect efforts at the international level.

The author wishes to acknowledge three invaluable uncopyrighted government sources upon which he relied extensively in the preparation of this document. In fact, this document is in large measure a paraphrased summary of those sources in pertinent part. These are: (1) A Review of U.S.-Mexico Environmental Issues, February 1992, prepared under the auspices of the U.S. Trade Representative; (2) The Integrated Environmental Plan for the Mexican-U.S. Border Area (first stage, 1992-1994), February 1992, published jointly by the U.S. Environmental Protection Agency (EPA) and Secretaria de Desarrollo Urbano y Ecologia; and, (3) Summary: Environmental Plan for the Mexican-U.S. Border Area (First Stage 1992-1994), February 1992, prepared by the U.S. Environmental Protection Agency. Those interested in further study should consult these informative publications.

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### III. Environmental Problems in the Border Area

The United States and Mexico are two co-equal, independent, sovereign nation states with unique histories, political systems, economies, cultures, climates, topographies and languages.<sup>1</sup> Despite this, the two nation states share a common boundary which extends approximately 2,000 miles from the Gulf of Mexico to the Pacific Ocean.<sup>2</sup> For approximately 1,000 miles, the border is formed by the Rio Grande and Colorado rivers while the remainder of the border largely consists of medium to high altitude deserts.<sup>3</sup>

It is within this border area, defined by international law as the territory 65 miles to either side of the inland and maritime political boundaries<sup>4</sup>, that the similarities between the two nations are most noticeable.<sup>5</sup> The dominant integrating force in the border area is the economy which in many ways is inextricably intertwined and unified. The border area environment can be similarly characterized because of its large shared rivers, vast transborder desert regions and common ground water aquifers, drainage basins and airsheds.<sup>6</sup>

While important political distinctions between Mexico and the U.S. still persist, the border region is nevertheless, in both the economic and environmental senses, a common area which requires a thoughtful, integrated and coordinated binational approach to resolving economic and environmental problems.<sup>7</sup>

Historically, mining and agriculture have been the primary economic activities in the border area.<sup>8</sup> Within the past 25 years

however, these activities have been in large measure replaced by various industries.<sup>9</sup> This change was precipitated by the border industrialization plan created by the Mexican government and implemented in 1965 to persuade foreign labor-intensive industries to relocate in Mexico.<sup>10</sup> This plan was designed through import duty exemptions to entice those foreign industries to export to Mexico large quantities of capital equipment and raw materials.<sup>11</sup> Thereafter, all assembly was to be completed by plants and industries within Mexico known as Maquiladoras.<sup>12</sup> All Maquiladora products were thereafter exported to foreign markets with duties based merely on value added from the manufacturing and assembly processes in Mexico.<sup>13</sup>

The explosion of the Maquiladora industry has resulted in the construction of approximately 2,000 plants which employ over 400,000 personnel.<sup>14</sup> With about 75% of the Maquiladora industry and its workforce operating in the border area,<sup>15</sup> the sharp rise in economic activity there has been paralleled by a terrifying assault on the environment. For instance, EPA data reveals that in 1989 nearly 150 U.S. industrial facilities in the border area discharged approximately 32.5 million tons of toxic substances into the environment.<sup>16</sup> Similar environmental degradation exists on the Mexican side of the border.<sup>17</sup>

The environmental issues of greatest concern in the border area may be categorized in several ways. Each category however, has as its seminal cause, rampant, unrestrained urban development, ineffectively regulated industry, and inadequate sanitation systems

and public health facilities.<sup>18</sup> These problems are most readily evident in the 14 sprawling pairs of "sister cities" located along the two-thousand mile U.S./Mexican border from Brownsville/Matamoros to San Diego/Tijuana.<sup>19</sup> More than 9.2 million people inhabit these cities, often existing under deplorable conditions.<sup>20</sup> It is therefore of critical importance to the environment in the border area that such difficult issues as wastewater treatment, hazardous waste and non-hazardous solid waste disposal, and air and water quality within these densely populated urban centers are appropriately resolved.<sup>21</sup>

#### IV. Environmental Problems in The Gulf of Mexico

Both the United States and Mexico also share a large common coastline that borders the Gulf of Mexico. The Gulf is a vast complex natural resource consisting of oceans, beaches, bays, barrier islands, reefs, rivers, and estuaries.<sup>22</sup> Covering over 500,000 square miles, the Gulf of Mexico has bountiful natural but economically exploitable resources which include oil, gas, sulfur, fish, shellfish and water fowl.<sup>23</sup> Regrettably, substantial degradation of the Gulf of Mexico's environment has occurred and proceeds apace. This is directly attributable to the relentless and environmentally destructive pursuit of economic interests there. Some examples are illustrative.

Lucrative U.S. energy production opportunities abound in the Gulf. In the recent past, the Gulf has provided in excess of 70% of offshore petroleum and more than 95% of offshore natural gas production.<sup>24</sup> Studies by the U.S. Department of the Interior indicate that the Gulf produces nearly 80% of the U.S. offshore petroleum and gas reserves.<sup>25</sup> Additionally, approximately 1,000 new oil and gas wells are drilled annually by approximately 200 mobile offshore exploration rigs.<sup>26</sup> As a result, petrochemical industries dominate the Gulf coast economy while simultaneously causing significant environmental degradation there as a result of devastating amounts of toxic waste which they produce and discharge.<sup>27</sup>

Other critical factors contributing to the environmental degradation of the Gulf coast include shipping, industry and

agriculture.<sup>28</sup> For instance, shipping lanes in the Gulf of Mexico accommodate almost 50% of all U.S. import and export traffic through U.S. ports.<sup>29</sup> Such concentrated shipping activity, often petroleum related, inevitably produces harmful wastes.<sup>30</sup>

Significant ecological degradation has occurred as a result of rapid, uncontrolled littoral urban development. For example, six Mexican states discharge into the Gulf nearly 700 million gallons of residential wastewater per day.<sup>31</sup> Within those states, some 20 municipalities including Matamoros, Tamaulipas are designated as the most prolific sources of untreated wastewater which contaminate the Gulf.<sup>32</sup>

Environmental degradation manifests itself in other ways including the adverse impact on the Gulf's living resources such as fish and shellfish, water fowl and aquatic vegetation.<sup>33</sup> For example, the continued viability of the Gulf's commercial fishery stocks is threatened due to rapidly diminishing wetlands and seagrass habitats, thus degrading the Gulf's estuarine environment upon which over 90% of the Gulf's commercial fish are dependent.<sup>34</sup> Likewise threatened due to widespread marine pollution are shellfish habitats.<sup>35</sup> To date, escalating marine pollution has been responsible for multiple usage restrictions on nearly 8.5 million acres, or 57% of the commercial shellfish habitats in the Gulf.<sup>36</sup>

Along the U.S. Gulf coast alone, approximately two million water fowl and 100,000 marine mammals perish annually due to marine debris in which they are unwittingly ensnared, or, which they mistakenly ingest.<sup>37</sup> Judging from the millions of pounds of marine

debris and trash which litter beaches along the Gulf of Mexico, it is clear that the prodigious volume of marine debris, much of which is plastic, poses a significant, lasting and ever-increasing threat to the ecosystem of the Gulf of Mexico.<sup>38</sup>

Finally, aquatic vegetation, which in its own way is essential to the marine environment, is likewise threatened due to increased shipping, marine dredging and construction projects.<sup>39</sup> The problem is particularly acute in coastal urban industrialized areas.<sup>40</sup>

## **V. The International Response to Environmental Issues**

The binational response to border area and marine environmental issues provides an excellent example of the manner in which complex and elusive international and domestic environmental issues common to two diverse and distinctive nation states can be resolved by a combination of international law, international cooperation and complementary domestic legal programs.

### **A. A Summary of the U.S. Perspective of International Obligations with Respect to the Environment of Other States and Common Areas**

The United States perspective of international law concerning the protection of the environment of other nation states and common areas comports with the prevailing view which is based essentially on customary international law.<sup>41</sup> The prevailing view imposes on any nation state a responsibility to regulate persons, places and events within its jurisdiction in a manner that will prevent environmental injury to another nation state.<sup>42</sup> Also, as a corollary, a nation state must likewise prevent environmental injury to persons and their property within the territory of another nation state.<sup>43</sup> Stated differently, every nation state has an obligation to knowingly prevent its territory from being used in an environmentally unsafe manner which would adversely affect or injure another nation state, its territory, its nationals, or their interests.<sup>44</sup> This principle also applies to the "common environment", or common areas, such as the high seas, which lie beyond the jurisdictional reach of all nation states.<sup>45</sup>

The notion that international law requires each nation state to regulate the use of its territory so as to prevent injury to other states or their inhabitants finds expression in the Latin maxim: sic utere tuo ut alienum non laedas.<sup>46</sup> This mandate requires individuals to use their property in a manner that does not damage the property of others.<sup>47</sup> Such a norm is also applicable to nation states and has been categorized as a General Principle of Law incorporated into international law under Article 38.1 of the Statute of the International Court of Justice.<sup>48</sup>

It is significant that this general principle has been consistently applied in the context of international rivers.<sup>49</sup> For example, throughout this century, the law required that international rivers, i.e. those that serve as the international boundary between two nation states, such as the Rio Grande, must be regulated in a responsible manner by each state so as to minimize interference with the other state's right of use.<sup>50</sup> The official U.S. view coincides with this approach.<sup>51</sup>

For discussion purposes, the U.S. perspective of state obligations regarding the environment of other states and common areas should be divided into two categories: "transfrontier" pollution and marine pollution.<sup>52</sup>

#### **1. "Transfrontier" Pollution**

Transfrontier pollution is defined as substantial, injurious activity within and under the jurisdiction of one state which causes environmental damage in a second, usually contiguous,



state.<sup>53</sup> Such damage or injury adversely affects the aggrieved state's internal water, air, land or some element of its ecosystem.<sup>54</sup>

While transfrontier pollution has traditionally been addressed through bilateral pacts, current trends indicate that regional arrangements to prevent such pollution by international agreement have become more prevalent. Presently, Mexico and the United States are equally committed to any positive action, bilateral or multilateral. Besides numbers of ratifying parties, multilateral treaties differ from bilateral treaties in this particular context because they typically employ some form of trade restriction to protect the environment or ecosystem.<sup>55</sup> This inevitably places environmental and economic priorities at odds.

## **2. Marine Pollution**

"Pollution of the marine environment is defined as the unlawful application of substances or energy which harm marine ecology or human health, impede the use of the marine environment, or degrade its quality."<sup>56</sup>

The U.S. perception of a nation state's international legal responsibility to avert marine pollution can be defined as a nation state's obligation to regulate persons, places and events within its jurisdiction in order to "prevent, reduce and control any significant pollution of the marine environment of another state or areas common to all states."<sup>57</sup> Regulations and controls to protect the marine environment must be at least as stringent as those that

are applicable to the international community "generally."<sup>58</sup>

A nation state, either individually or in concert with other states, is obligated to employ "necessary measures" to the "extent practicable under the circumstances" in an effort to "prevent, reduce and control" pollution which causes or could possibly cause "significant injury to the marine environment."<sup>59</sup> The employment of "necessary measures" to neutralize or prevent marine pollution entails many different countermeasures to combat many varied sources, which can be natural or artificial, land-based, ocean-going or airborne.<sup>60</sup>

Also, state responsibility for marine pollution occurs in a variety of jurisdictionally distinct areas which constitute the marine environment of coastal states.<sup>61</sup> These include internal waters, the coast, territorial waters, contiguous zones, and exclusive economic zones.<sup>62</sup> State responsibility for marine pollution also extends to common areas, such as the high seas, which lie beyond the jurisdiction of any nation state.<sup>63</sup>

## **B. International Treaties and Cooperative Programs**

### **1. Multilateral Treaties**

#### **a. The Seminal Influence of the Stockholm Conference on the Human Environment and Principle 21**

Of seminal importance to this discussion is the 1972 multilateral Stockholm Conference on the Human Environment.<sup>64</sup> In particular, Principle 21, as established by the Conference, and applicable to both the U.S. and Mexico as a matter of customary if not treaty-based international law, reinforces the notion of a

nation state's sovereign right to control its own resources.<sup>65</sup> This sovereign right is however, not absolute and must be balanced against the duty imposed by Principle 21 to exercise the right of sovereignty over resources in an environmentally responsible manner.<sup>66</sup> Principle 21 envisions international compliance by the nation state as coexistent with the restrictions imposed by its own domestic environmental law, and with the fundamental duty sanctioned by customary international environmental law which prohibits the interference with, or damage to the environment of another nation state or any area beyond its jurisdictional reach.<sup>67</sup>

#### **b. Environmental/Trade-Restrictive Treaties**

Thereafter, in the global context, the United States and Mexico have either signed or ratified a number of important multilateral treaties by which they accepted obligations regarding environmental conservation and protection.<sup>68</sup> Interestingly, some of these multilateral agreements impose duties on the United States and Mexico to control or prohibit trade in certain products or substances in order to promote the environmental goals and objectives set forth in those agreements.<sup>69</sup> Other multilateral treaties address important marine pollution issues.

##### **1. Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer**

Both the United States and Mexico have ratified two multilateral agreements which seek to preserve and protect the ozone layer and thereby affect the border area by placing relevant

restrictions on the manufacturing and trade of certain problematic agents.<sup>70</sup> These are the 1985 Vienna Convention for the Protection of the Ozone Layer<sup>71</sup>, and the 1989 Montreal Protocol on Substances that Deplete the Ozone Layer.<sup>72</sup> Of more critical operative significance is the Montreal Protocol which establishes guidelines and measures to control and minimize emissions which deplete the ozone layer.<sup>73</sup> This is accomplished by restricting the quantities of ozone-depleting, or "controlled" substances, which a ratifying state may trade, produce or consume.<sup>74</sup> Other restrictions on ratifying parties are designed to create incentives for non-parties to ratify the Protocol, or at the very least, to reduce the trade, production and consumption of "controlled" substances.<sup>75</sup>

## **2. Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal**

Under consideration for ratification by the United States is the 1989 Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal which is based on the sovereign prerogative of each nation state to protect itself against unwanted hazardous waste from a foreign territory.<sup>76</sup> The Convention makes mandatory notification and consent requirements for exporting states which must be met prior to all transboundary shipments of hazardous waste which otherwise meet the Convention's standards.<sup>77</sup> The Convention also imposes responsibility upon exporting states to monitor or prohibit the exportation of hazardous waste under various circumstances including those instances in which the exporting state is reasonably certain that exported waste will not be processed and

disposed of in an environmentally responsible manner.<sup>78</sup> State parties may execute bilateral agreements with non-parties regarding the transboundary shipment of hazardous waste provided the agreement affords at least as much protection as that required by the Basel Convention.<sup>79</sup>

### **3. Convention to Regulate International Trade in Endangered Species of Wild Fauna and Flora (CITES)**

The 1973 Convention to Regulate International Trade in Endangered Species of Wild Fauna and Flora (CITES) as ratified by the United States is designed to regulate and restrict the trade or exploitation of selected species of plants and animals which are designated in the three Appendices to the Convention.<sup>80</sup> The Convention's three Appendices respectively designate imminently extinct species, imminently endangered species, and finally, those species currently regulated which, although neither imminently extinct or endangered, nevertheless require international protection through the restriction of international trade.<sup>81</sup> Such restriction is usually effected by various types of import and export permits issued by importing and exporting countries.<sup>82</sup>

### **4. General Agreement on Tariffs and Trade (GATT)**

Finally, environmental priorities have been acknowledged and promoted through one international multilateral trade agreement of signal importance to which the U.S., Mexico and Canada are parties.<sup>83</sup> This agreement, the General Agreement on Tariffs and Trade (GATT), establishes a global trading regime.<sup>84</sup> This regime mandates non-

discriminatory measures which equalize trading opportunities and restrictions among member nation states.<sup>85</sup>

Article XX is the environmentally significant provision of the GATT; it establishes important environmentally protective restrictions on trade.<sup>86</sup> Specifically, this Article imparts authority to member states to deviate from GATT principles when it becomes necessary to protect the earth's ecosystem.<sup>87</sup> Also authorized are measures which, although inconsistent with GATT, are nevertheless important to "the conservation of exhaustible natural resources."<sup>88</sup> Such restrictive measures must be consistent with domestic restrictions imposed by the member nation states.<sup>89</sup> The differences between the often divergent goals of preserving the global environment and enhancing the international trade system are balanced by criteria for Article XX exemptions which require that environmental measures contrary to GATT must not constitute "a means of arbitrary or unjustified discrimination between countries...or a disguised restriction on international trade".<sup>90</sup>

### **c. Marine Pollution Treaties**

#### **1. Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartegena Convention) with Protocols**

With regard to the marine environment, both Mexico and the United States have ratified the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the Cartagena Convention) which became effective in 1986.<sup>91</sup> Several protocols to this convention are relevant. First, a 1983 protocol

to the Cartagena Convention, which addresses oil pollution resulting from massive oil spills, mandates preparedness for ratifying nation states by requiring them to produce effective contingency plans.<sup>92</sup> Second, the Protocol on Specially Protected Areas in Wildlife (SPA) was signed in 1990 by both Mexico and the United States, but as yet has not been ratified.<sup>93</sup> This Protocol is designed to preserve selected endangered species and ecosystems.<sup>94</sup> Efforts to draft a third protocol addressing the issue of marine pollution stemming from land-based sources are now in progress.<sup>95</sup> It seems most likely that Mexico and the United States would support both protocols because they would have a direct, positive effect upon the marine ecosystem in the Gulf.

## **2. International Convention for the Prevention of Pollution from Ships with the MARPOL 73/78 Protocol**

International regulations requiring ratifying nation states such as the United States to operate, construct and design ocean-going vessels in an environmentally responsible manner are established under the 1973 International Convention for the Prevention of Pollution From Ships,<sup>96</sup> and the 1978 Protocol which implements that Convention (MARPOL 73/78).<sup>97</sup> Under this regime, ships are prohibited from discharging oil, substances and mixtures containing oil, or refuse, so long as port facilities within the region are equipped to receive such waste.<sup>98</sup> Of special significance is the designation of the Wider Caribbean, including the Gulf of Mexico, as a "special area" entitled to the protection just described; this occurred in 1991 under the auspices of MARPOL 73/78

and deliberations of the Maritime Environment Protection Committee (MEPC) of the International Maritime Organization.<sup>99</sup>

**3. Convention on the Prevention of Marine Pollution  
by Dumping of Wastes and Other Matter  
(London Ocean Dumping Convention)**

Yet another important multilateral marine environmental treaty ratified by Mexico and the United States is the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, popularly known as the London Ocean Dumping Convention.<sup>100</sup> This Convention prohibits the dumping of wastes, contaminants or any other matter which could harm marine ecology or natural living resources, threaten human or marine life or health, or in any way obstruct or interfere with lawful and proper use and enjoyment of the seas.<sup>101</sup>

**4. U.N. Convention on the Law of the Sea and  
the Geneva Marine Conventions**

Of considerable potential import is the United Nations Convention on the Law of the Sea (UNCLOS).<sup>102</sup> UNCLOS is a very broad legislative treaty which was intended to establish a comprehensive legal regime governing the use and preservation of the ocean.<sup>103</sup> This treaty deals with numerous critical issues concerning jurisdiction such as the delineation of maritime jurisdictional zones including maritime boundaries, inland waters and ports, the territorial sea, the exclusive economic zone, the continental shelf, and the high seas.<sup>104</sup> Also included are Parts dealing with the exploitation of the mineral resources of the deep sea bed and, of particular



relevance here, the protection and preservation of the marine ecosystem and environment.<sup>105</sup>

UNCLOS has been ratified by Mexico but not by the United States.<sup>106</sup> Despite this, the United States is nevertheless bound by much of the substantive law contained in numerous provisions of UNCLOS because this treaty is in large measure a reflection of preexisting customary international law to which the United States has already consented.<sup>107</sup>

Also governing on many of these issues, including jurisdiction, conservation and resources, are the predecessors of the 1982 UNCLOS, namely, the series of four 1958 Geneva Marine Conventions which both nation states have ratified.<sup>108</sup>

## **2. Bilateral Treaties and Cooperative Programs**

### **a. International Boundary Convention and Treaty on the Utilization of Waters of the Colorado and Tijuana Rivers, and the Rio Grande**

Two groups of bilateral agreements between the United States and Mexico provide a substantial legal framework within which ecological and environmental degradation in the border area can be prevented, reduced or eliminated.<sup>109</sup> Of these two groups, the first addresses a variety of water issues under the auspices of the International Boundary and Water Commission (IBWC), while the second deals with the entire spectrum of environmental issues.

The first group of bilateral treaties is comprised of two agreements which initially confronted issues pertaining to the demarcation of the international river boundary between Mexico and

the United States, and ultimately addressed a variety of water related, environmental issues in the Border area.<sup>110</sup> The first of two conventions in this group is the 1889 International Boundary Convention which was ratified in an effort to facilitate a clearer delineation of the international water boundary formed by the Rio Grande and Colorado Rivers.<sup>111</sup> To accomplish this purpose, the Convention established the International Boundary Commission (IBC).<sup>112</sup>

By 1944, a more comprehensive and sophisticated perception of water-related issues in the border area led to the ratification of the Treaty on the Utilization of Waters of the Colorado and Tijuana Rivers, and the Rio Grande.<sup>113</sup> This agreement expanded the IBC and renamed it the International Boundary and Water Commission (IBWC).<sup>114</sup> As modified, the Commission was empowered to address not only demarcation issues as before, but also a broad range of water resource issues such as domestic, municipal, agricultural, power, industrial, navigational and recreational usage.<sup>115</sup> Also included were flood control and dam construction with special preference for sanitation projects.<sup>116</sup>

These issues are usually resolved through bilateral agreements; such agreements are usually reflected in the minutes of IBWC meetings, and if approved by Mexico and the United States, thereafter serve as legally enforceable international pacts.<sup>117</sup> Under these circumstances, the IBWC is usually granted the authority necessary to design, construct, implement, manage and maintain binational water projects which are jointly funded.<sup>118</sup>

With regard to sanitation issues, the IBWC has coordinated at

least five critical, large-scale wastewater treatment projects implemented in some of the border area "sister cities".<sup>119</sup> These projects involve wastewater facilities to accommodate Tijuana/San Diego, Mexicali/Calexico, Nogales/Nogales, Nuevo Laredo/Laredo and Naco/Naco.<sup>120</sup>

The Nuevo Laredo/Laredo project serves as an excellent example of the contribution the IBWC makes to improving the environment of the border area. The IBWC currently assists in coordinating the construction of an international wastewater treatment plant in Nuevo Laredo which will process the more than 27 million gallons per day of untreated wastewater which the city of Nuevo Laredo discharges into the Rio Grande.<sup>121</sup> For this project, the U.S. is providing approximately 24 million dollars to offset construction costs while the government of Mexico is renovating Nuevo Laredo's sanitation system to divert wastewater to the new treatment plant which is scheduled for completion in 1994.<sup>122</sup>

**b. Agreement Between the United States and the  
United Mexican States on Cooperation for the  
Protection and Improvement of the Environment and the  
Border Area (Border Environmental Agreement), plus Annexes I-V**

A series of cooperative arrangements between the Environmental Protection Agency and Mexican environmental, health and public assistance authorities to exchange information throughout the 1970's ultimately led to the 1983 Agreement between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment and the Border Area.<sup>123</sup> The 1983 Border Environmental Agreement, as it is known, provides

a general but comprehensive commitment to resolve a virtually infinite assortment of border-related environmental issues designed "to prevent, reduce, and eliminate sources of air, water, and land pollution".<sup>124</sup>

Responsibility for the implementation of the Agreement has been lodged in the U.S. Environmental Protection Agency and its Mexican counterpart, Secretaria de Desarrollo Urbano y Ecología (SEDUE),<sup>125</sup> now dissolved, and apparently replaced by the National Ecology Commission.<sup>126</sup> These administrative agencies have created five "work groups" composed of "technical experts."<sup>127</sup> Each of these five work groups is assigned responsibility for one of the following environmental issues: "water pollution, environmental accidents, hazardous waste, air pollution, and enforcement."<sup>128</sup> To date, these work groups have developed five separate amendments or "Annexes" to the basic Agreement which address some of the most critical environmental problems confronting the border area.<sup>129</sup> These Annexes in large measure reflect the mission and purpose of each work group.

#### **Annex I**

With regard to water pollution, Annex I, enacted in 1985, provides for the construction, management, operation and maintenance of wastewater treatment facilities to service the Tijuana/San Diego portion of the border area.<sup>130</sup> Annex I, requires this binational work group to operate under the guidance of the IBWC, EPA and SEDUE as it addresses the sanitation issues of the Tijuana/San Diego area.<sup>131</sup>

## **Annex II**

With regard to environmental accidents, Annex II of the 1983 Border Environmental Agreement became effective in 1985 and addresses the involuntary discharge of oil and hazardous substances which pollute the border area.<sup>132</sup> Cooperative efforts in accordance with Annex II have resulted in the development of the Joint Contingency Plan for Accidental Releases of Hazardous Substances along the Border which was promulgated in 1988.<sup>133</sup> This plan establishes the inland Joint Response Team (JRT) which consists of both U.S. and Mexican experts who coordinate all efforts to ensure appropriate emergency preparedness and rapid response to the accidental discharge of hazardous substances or oil.<sup>134</sup> These efforts to some extent complement the 1980 Marine Oil Spill Agreement, which, as its name indicates, focuses on accidental oil spillage in the marine environment.<sup>135</sup> Thus far, the implementation of this Annex has resulted in two educational conferences and two binational emergency preparedness exercises.<sup>136</sup>

## **Annex III**

The issue of "transboundary shipment of hazardous wastes and hazardous substances between Mexico and the U.S." is addressed by Annex III to the 1983 Border Environmental Agreement, which became effective in 1986.<sup>137</sup> This Annex, which complements the Basel Convention discussed above, requires consent and notification prior to any transboundary shipment of hazardous materials.<sup>138</sup> Additional notification requirements encompass domestic regulatory or

restrictive practices with regard to chemicals.<sup>139</sup> Also, by this Annex, both Mexico and the United States pledge to readmit any exported shipment of hazardous waste which is returned regardless of cause by the other state.<sup>140</sup>

The binational group charged with implementing Annex III is also involved in a continuing effort to identify border area hazardous waste sites.<sup>141</sup> In addition, the group performs an educational function which includes various types of training programs for U.S. and Mexican federal environmental administrative authorities as well as U.S. state and local shipment inspectors.<sup>142</sup>

#### **Annex IV**

Border region air pollution problems are addressed by Annex IV to the 1983 Agreement which became effective in 1987.<sup>143</sup> Border air pollution problems are primarily caused by the copper smelting industry.<sup>144</sup> Standards limiting sulfur dioxide emissions from this industry have been established by Annex IV, and owner-operators in the copper smelter border industry must monitor emissions and report those that do not meet standards.<sup>145</sup>

#### **Annex V**

Additional concern for the air pollution problems of the border area is reflected in Annex V to the 1983 Agreement, which became effective in 1989.<sup>146</sup>

Annex V mandates a process by which border area air quality can be quantitatively analyzed and assessed to identify the sources of air pollution there, especially in the "sister cities".<sup>147</sup> The work

group identifies specific industrial sources, determines their compliance with air pollution standards, and analyzes the effectiveness of their air pollution equipment and their industrial management procedures.<sup>148</sup> Other non-industrial sources are examined as well.<sup>149</sup> The work group is also tasked to suggest solutions which reduce injurious emissions and preserve critical airsheds.<sup>150</sup>

"Sister cities" currently under investigation are El Paso/Ciudad Juarez, San Diego/Tijuana and Mexicali/Imperial County.<sup>151</sup> Both Mexican and U.S. federal administrative environmental authorities, i.e. EPA and SEDUE, or its successor, are lending their services in the cooperative effort to bring such studies to a successful conclusion.<sup>152</sup>

#### **Assessment of the Border Environmental Agreement**

In summary, the 1983 Border Environmental Agreement has not only established a common philosophical basis for cooperation between the parties for the protection and conservation of the environment, but has also provided an effective legal framework within which necessary measures to prevent and control pollution can be developed and applied.<sup>153</sup> This is evidenced by the vigorous and progressive creation and implementation of Annexes I-V of the 1983 Border Environmental Agreement.

Despite the positive accomplishments resulting from the Agreement and its Annexes, criticism has nevertheless been directed at the fact that the Agreement contains no concrete procedures for enforcement, thus undermining its value as a viable mechanism to

deter ongoing environmental pollution in the border area.<sup>154</sup>

**c. The Integrated Environmental Plan for the Mexican-U.S.  
Border Area (Border Environmental Plan)**

An extensive joint plan was promulgated in February 1992 to further the objectives of the 1983 Border Environmental Agreement and its five Annexes.<sup>155</sup> This document is entitled the Integrated Environmental Plan for the Mexican-U.S. Border Area, commonly known as the Border Environmental Plan.<sup>156</sup> This Plan represents the most extensive manifestation of cooperation between Mexico and the United States in their mutual commitment to protect and conserve the border's environment.

In accordance with the joint communique issued by the Presidents of Mexico and the United States on November 27, 1990, regulatory authorities responsible for environmental protection within Mexico and the U.S. were requested to develop a comprehensive plan to reinforce and enhance cooperation in the resolution of border environmental issues.<sup>157</sup> Instructions in the communique called for the Border Environmental Plan to be "comprehensive" in nature, and to implement broad-based participatory problem solving by involving international, federal, state and local governmental agencies as well as private sector industries and non-governmental organizations.<sup>158</sup> The Plan is envisioned as a dynamic multifaceted instrument which will be modified as necessary to assimilate additional pertinent information regarding environmental problems and their solutions.<sup>159</sup> It is also very important to note that the Plan is intended to complement and not impede economic development.<sup>160</sup>



The first stage of the Plan is designed to achieve four major goals during the 1992-1994 timeframe through systematic "data collection and information and technology transfer".<sup>161</sup> The Plan's four major goals include: "the improvement of monitoring and pollution control activities in the border area", "the strengthening of environmental regulatory activities", "the mobilization of additional resources for pollution prevention and control", and "the supplementation of current pollution control programs through pollution prevention and voluntary action programs".<sup>162</sup>

The achievement of these four major goals will necessarily include an examination of all relevant issues and objectives. These include: enforcement of existing laws, control of industrial pollution sources, water quality, including water supply and wastewater treatment, air quality, "contingency planning and emergency response", hazardous waste management, including transboundary shipment and the regulation of illegal dump sites, solid non-hazardous waste management, "pollution prevention", and "environmental education".<sup>163</sup> While the principal geographical focus of the plan is on the largest of the "sister cities", this merely reflects immediate priorities and does not disqualify other locations from receiving attention as needed.<sup>164</sup>

#### **Objective #1**

With regard to the first objective, which is the cooperative enforcement of existing international and domestic laws to protect and conserve the environment, primary responsibility is assigned to

the SEDUE-EPA Cooperative Enforcement Strategy Work Group.<sup>165</sup> In addition to SEDUE and EPA representatives, the U.S. Department of State and the Department of Justice, as well as the Mexican Secretary for External Relations (SRE) and other appropriate Mexican governmental agencies, are included within the enhanced enforcement effort.<sup>166</sup>

The cooperative enforcement strategy necessary to promote and ensure compliance with international and domestic environmental law is not to be achieved at the expense of sovereign prerogatives as recognized under international law.<sup>167</sup> The Plan specifically recognizes and respects both the right and the duty of Mexico and the U.S. to enforce applicable domestic and international law within their respective jurisdictions and territories.<sup>168</sup> Hence, efforts of the Cooperative Enforcement Strategy Work Group will promote supportive and complementary, but not interventionary efforts which include: "targeting violations", "preventive solutions", and improved communications.<sup>169</sup> Interestingly, one of the most challenging enforcement issues will be the effective regulation of the environmental conduct of transnational corporations.<sup>170</sup>

## **Objective #2**

The Plan's second objective is to improve control of industrial sources by reducing the unlawful discharge of hazardous substances which in turn reduces the threat to public health and environmental resources.<sup>171</sup> Specific steps include the identification of the industrial sources responsible for pollution, the assessment of the

risk posed by those sources, and the monitoring of those sources with periodic inspections to determine their compliance with environmental regulations.<sup>172</sup> The private sector is to be encouraged to assist in this endeavor by voluntary technology transfer and voluntary pollution reduction and control.<sup>173</sup>

### **Objective #3**

The Plan's third objective is the "protection of water quality" and the "conservation of water resources" both surface and ground.<sup>174</sup> With regard to surface water sources, the Plan calls for their identification and mandates efforts to sustain or improve the water quality of these sources because many in the border area include rivers, lakes and reservoirs which now provide drinking water for local Mexican and U.S. inhabitants.<sup>175</sup>

As to the bilateral protection of border area ground water supplies, there is, except for the Water Treaty of 1944, no existing bilateral treaty precisely on point.<sup>176</sup> As a result, both nation states rely upon the International Boundary and Water Commission as the vehicle to foster cooperative efforts to protect and preserve transboundary ground waters.<sup>177</sup> This reliance is complicated by additional jurisdictional issues, since in the United States, the EPA has concurrent jurisdiction with the four U.S. border states over questions of transboundary ground water protection.<sup>178</sup>

The Plan calls for the identification and inventory of border ground water aquifers which either have been contaminated, or are in imminent danger of being contaminated.<sup>179</sup> Cooperative efforts to

combat this situation include: ground water monitoring, the development of plans for remedial action, including enforcement of existing domestic environmental law with due regard for jurisdictional priorities, and finally, international construction projects as may be appropriate.<sup>180</sup>

#### **Objective #4**

The fourth objective concerns "border wastewater control" and instructs the International Boundary and Water Commission in cooperation with SEDUE and EPA to analyze and assess both present and future risks to public health and the environment as caused by unregulated residential and industrial wastewater disposal.<sup>181</sup> Special care will be taken to respect jurisdictional limitations in this cooperative effort as the wastewater treatment issue is assessed and resolved by a series of projected domestic and international wastewater treatment projects.<sup>182</sup> These wastewater treatment projects target eight geographical areas or "sister cities"; these are: Tijuana/San Diego, Mexicali/Imperial County, San Luis Rio Colorado/Yuma, Nogales/Nogales, Ciudad Juarez/El Paso, Piedras Negras/Eagle Pass, Nuevo Laredo/Laredo, Baja Rio Bravo/lower Rio Grande, including Reynosa/McAllen, Matamoros/Brownsville.<sup>183</sup>

#### **Objective #5**

The Plan's fifth objective, "air quality", focuses on the need to cooperatively develop a cost-effective emissions control plan based on scientific analysis.<sup>184</sup> Currently, three geographical areas have been targeted: These include: Ciudad Juarez/El Paso and Sunland

Park, Mexicali/Imperial County, and Tijuana/San Diego.<sup>185</sup>

#### **Objective #6**

The Plan's sixth objective involves the management of hazardous substances and includes the "transboundary movement of hazardous wastes" and "abandoned and illegal dump sites".<sup>186</sup> Concerning the transboundary movement of hazardous waste, steps are to be taken under the Plan to promote "waste tracking", "surveillance and enforcement", education and transportation.<sup>187</sup> In the case of abandoned and illegal dump sites, emphasis is placed on the identification of hazardous waste sites and the education of both the regulated industrial community and governmental officials.<sup>188</sup>

#### **Objective #7**

The seventh objective confronts the problem of municipal solid waste by establishing an initial assessment study, promoting public awareness, improving waste collection techniques, and constructing adequate sanitary landfills.<sup>189</sup>

#### **Objective #8**

The eighth objective involves the cooperative effort to regulate and minimize the adverse environmental impact of pesticides.<sup>190</sup> Ameliorative steps will include tracking and monitoring programs, technical cooperation to ensure safer use of pesticides, education and information exchange, plus U.S. assistance in "product and residue analysis".<sup>191</sup>

#### **Objective #9**

The ninth objective addresses "contingency planning and emergency response" in order to ensure "chemical emergency preparedness and response" throughout the border area, and particularly in the fourteen pairs of "sister cities".<sup>192</sup> More specifically, this objective will promote: effective contingency planning over a three-year period; improved compliance with applicable environmental laws and regulations; a more efficient bilateral notification system for accidental chemical releases; improved transboundary movement of emergency response equipment and personnel; and accident prevention programs including training and technical assistance for Joint Response Teams.<sup>193</sup>

#### **Objective #10**

The tenth objective addresses improved regulation of all activity with potential adverse environmental impact.<sup>194</sup> This aspect of the Plan calls for the implementation of SEDUE's, or its successor's evolving environmental and ecological policies to serve as a standard for the assessment of the potential risk to and impact on the environment of many new commercial enterprises contemplated for the border area.<sup>195</sup> These include industries which are potentially harmful to the environment, such as the petroleum, chemical, plastic, cement and fertilizer industries.<sup>196</sup>

#### **Objective #11**

The eleventh objective addresses the prevention of pollution through a series of jointly developed pollution reduction

initiatives similar to the EPA's present 33/50 program.<sup>197</sup> This program encourages incrementally reduced industrial emissions of designated hazardous substances through 1995.<sup>198</sup> Also envisioned as part of a joint pollution prevention program is the joint effort between SEDUE, or its successor, and EPA to provide technical assistance to the private sector which includes, among other things, technology transfer and training.<sup>199</sup>

#### **Objective #12**

The twelfth objective involves education about the environment and the efforts to preserve it.<sup>200</sup> Both SEDUE, or its successor, and the EPA will target public and private educational institutions as well as the private industrial sector.<sup>201</sup>

#### **Objective #13**

The thirteenth objective addresses the continuing need for the conservation of natural resources.<sup>202</sup> Mexico and the United States have enjoyed a long mutually supportive relationship on issues of conservation.<sup>203</sup> Cooperative efforts to protect wildlife began as early as 1936 with the ratification of a Convention between the United States of America and the United Mexican States for the Protection of Migratory Birds and Game Mammals.<sup>204</sup> This treaty was followed by the Convention on Nature Protection and Wildlife Preservation in the Western hemisphere which was ratified by Mexico and the U.S. in 1942.<sup>205</sup>

During the 1980's, conservation efforts were particularly fruitful. As the result of a 1984 understanding between SEDUE and

the U.S. Forest and Wildlife Service, a Joint Committee on Wildlife Conservation was created to protect threatened or endangered species in the border area ecosystem.<sup>206</sup> This was followed in 1988 by the establishment of a Trilateral Committee of Mexico, the U.S. and Canada for the Conservation of Migratory Birds and their Habitats which was charged primarily with preserving wetlands which are critical to the conservation of aquatic and migratory birds.<sup>207</sup> Also in 1988, the U.S. and Mexico created the Joint Committee for the Management and Protection of National Parks and Other Protected Natural and Cultural Sites.<sup>208</sup>

Under the Environmental Border Plan, the conservation of natural resources therefore involves continued effort on projects initiated through the three Committees<sup>209</sup> established for the purposes described above.

#### **Objective #14**

The fourteenth and final significant objective under the Environmental Border Plan is that of urban development.<sup>210</sup> This involves various initiatives by the Mexican government designed to resolve the problematic issues of wastewater treatment, solid waste disposal, road construction and land reserves for housing.<sup>211</sup>

### **3. International Environmental and Trade Issues: Some Thoughts on the Environmental Impact of the Proposed North American Free Trade Agreement (NAFTA)**

On June 12, 1991, trilateral negotiations between Mexico, the U.S. and Canada began on the subject of the North American Free Trade Agreement (NAFTA) which would create a non-restrictive trading



market for all three countries by a host of measures, including the reduction or elimination of tariff and non-tariff barriers to trade.<sup>211</sup> The three countries have 360 million consumers and a combined GNP which is estimated at over six trillion dollars.<sup>212</sup>

With regard to potential conflicts between provisions of the NAFTA and the Environmental Border Plan, the negotiators decided that each should be considered separately.<sup>213</sup> Thus, the Plan will be implemented in accordance with the Border Environmental Agreement whether or not a trilateral North American Free Trade Agreement is ever ratified.<sup>214</sup> Also, negotiators will consider the adverse environmental impact of NAFTA provisions as they draft the agreement.<sup>215</sup>

At present, negotiators have not released a draft of the proposed North American Free Trade Agreement. Therefore, because NAFTA is evolving, precise predictions as to substance, particularly as it might conflict with environmental priorities are not possible. Nevertheless, deriving some general sense of direction is possible through an examination of the broad issues formulated by the parties and assigned to the Negotiating Groups.<sup>216</sup>

The Negotiating Groups and the issues under consideration are:

"(1) Market Access Group: (tariffs/non-tariff barriers, rules of origin, government procurement, agriculture, automobiles, wine and distilled spirits, energy, textiles, steel, cement, chemicals, electronic equipment, pharmaceuticals, and Maquiladoras); (2) Trade Rules and Standards Group: (safeguards, subsidies, and trade

remedies); (3) Services: (financial, insurance, land transportation, telecommunications, and other services); (4) Investment: (principles and restrictions); (5) Intellectual Property; and, (6) Dispute Resolution".<sup>217</sup>

With regard to the negotiation of these issues, the U.S. Executive branch has made the following commitments.<sup>218</sup> First, the U.S. is committed to protecting "import-sensitive" U.S. industries by gradually reducing and ultimately eliminating protective tariffs and non-tariff barriers to effect a safe and reasonable transition.<sup>219</sup> Transition periods for the reduction and eventual elimination of tariffs and trade barriers could extend more than ten years, if necessary, and safeguard procedures for the temporary reinstatement of duties and other restrictions will be available, if required, to ensure an effective transition.<sup>220</sup> Second, stringent rules of origin will be incorporated into NAFTA to ensure that NAFTA's benefits inure only to NAFTA parties.<sup>221</sup> Third, the U.S. will preserve its right to enforce domestic health and safety standards in the trade process thereby excluding problematic agricultural and manufactured products as necessary.<sup>222</sup> Fourth, the U.S. will preserve its right to invoke strict health, safety and environmental standards as necessary to exclude hazardous substances and toxic wastes, and to promote energy conservation.<sup>223</sup> Fifth, the U.S. will honor and observe pre-existing international treaty obligations which mandate restrictive trade practices with regard to certain goods and products.<sup>224</sup>

Furthermore, Canada, Mexico and the United States preliminarily

agreed that NAFTA will include the following provisions.<sup>225</sup> First, as reflective of the U.S. commitment, transition periods for the reduction and elimination of duties will exceed ten years.<sup>226</sup> Second, "fair and non-discriminatory treatment" will be guaranteed for all Canadian, Mexican or U.S. investors who chose to invest in one of the NAFTA member countries.<sup>227</sup> Third, "liberalized conditions of entry" and "non-discriminatory treatment" will be guaranteed for service entities.<sup>228</sup> Fourth, intellectual property will be afforded "minimum standards of treatment".<sup>229</sup> Fifth, emphasis will be placed on the development of effective methods of dispute resolution.<sup>230</sup> And finally, with very limited exceptions, NAFTA will not address immigration standards.<sup>231</sup>

As is readily evident, the U.S. negotiators are confronted with an excellent opportunity to place significant emphasis on the preservation and continued observance of health, safety and environmental standards.<sup>232</sup> Also, NAFTA negotiations will afford a convenient vehicle to reinforce and foster continued and improved cooperation between the United States and Mexico in areas of environmental protection and enforcement.<sup>233</sup>

If ratified, the NAFTA would impact the environment of the border area and Mexico in two different ways.<sup>234</sup> Both scenarios presume two mutually beneficial results: (1) improved investment and economic growth in Mexico which could provide additional funding to support new Mexican domestic environmental legal mandates and programs<sup>235</sup> and, (2) the satisfaction of GATT Article XX regarding international environmental concerns as discussed above.

The first scenario envisions that existing regional concentrations of manufacturing and production facilities throughout Mexico would remain unaltered.<sup>236</sup> Thus, facilities in the border area which presently produce between 35% and 45% of the products exported from Mexico to the United States, would increase production at the rate of between 1% and 2% a year.<sup>237</sup> This growth would exacerbate existing environmental concerns such as "air and water quality, water supply, the disposal of solid and hazardous wastes, noise pollution, risk of accidental chemical discharge, and wildlife and habitat conservation".<sup>238</sup>

This first scenario is predicated upon several conditions including the continuance of restrictions imposed by Mexican domestic law which prevent Maquiladoras from selling their products in the domestic market.<sup>239</sup> These restrictions are complimented by Mexican and U.S. tariffs which are adjusted to provide incentives for the exclusive use of imported U.S. materials in the Maquiladora manufacturing process.<sup>240</sup> Another contributing factor is a strong concentration of U.S. and foreign investment in the border area of Mexico to support its expanding Maquiladora program, which is primarily geared to export to the United States.<sup>241</sup> These conditions, including the close proximity to the U.S., make the border area both the ideal and necessary location for the Maquiladora industries.<sup>242</sup>

The second scenario is more probable because NAFTA liberalization of U.S. and foreign investment opportunities will create incentives to diversify investments throughout Mexico.<sup>243</sup> Liberalization is inevitable because NAFTA would mandate a "national

treatment standard" for U.S. corporations operating in Mexico thereby creating favorable investment and foreign trade opportunities plus unrestricted access to the Mexican market.<sup>244</sup>

These changes would be reinforced by an increased tendency in the Maquiladora industry to relocate to the interior of Mexico where the labor force is more stable and urban congestion is not as severe.<sup>245</sup>

Another incentive to invest in and relocate industry to the interior of Mexico is the large receptive market in Mexico City.<sup>246</sup> The influence of these economically inspired changes on the environment is simply that industry's adverse ecological impact would be geographically diversified throughout Mexico<sup>247</sup> while at the same time stabilized or reduced in the border area.<sup>248</sup>

Finally, in considering the effect of NAFTA in the border area, it is important to assess, as a strong counterbalancing factor, Mexico's 1988 comprehensive environmental statute, the "Ley General del Equilibrio Ecológico y Protección del Ambiente"<sup>249</sup>, which, in many respects, is patterned after the U.S. approach. This omnibus statute is designed to protect soil, water, air and living resources as well as to regulate hazardous wastes and materials, noise, vibration and other generic forms of pollution.<sup>250</sup> This statute and its supportive regulatory mandates could be more successful with the ratification of NAFTA because of increased economic growth, and thus, increased financial resources which are essential to effective implementation.<sup>251</sup>

## **VI. U.S. Domestic Response to Environmental Issues**

### **A. Linkage: Federal and International Law**

A detailed description of all of the federal and state environmental laws of the United States and Mexico is beyond the scope of this paper and will probably be addressed later in the Joint Venture Program during a session which is devoted exclusively to this subject. However, some general comments describing the U.S. domestic system of environmental law should suffice to illustrate an important fundamental principle of public international law which ensures uniformity between international and municipal laws and regulations designed to protect the environment.

This principle defines the relationship between international and municipal law as observed by a single nation state. In essence, as a general rule of international law, each nation state shall create, interpret, implement and apply the rules of municipal law in a manner consistent with its obligations under international law.<sup>252</sup> As an important corollary, no nation state may invoke the inconsistency of a domestic legal principle with public international law as a defense to its compliance with an obligation in international law; such an act would constitute a breach of public international law.<sup>253</sup>

### **B. U.S. Federal Environmental Law**

A significant number of environmental laws have been enacted at the federal and state levels throughout the United States. U.S. Federal environmental law treats many of the same issues addressed

by the treaties which obligate Mexico and the United States in environmental matters. These issues include air and water quality, chemical and pesticide control, hazardous waste and non-hazardous solid waste control, marine pollution control, conservation of natural resources and remedial measures. There are more than twenty major U.S. Federal environmental statutes implemented through numerous federal regulations which are promulgated by a variety of federal administrative agencies. These statutes, regulations and agency actions are subject to administrative and judicial review.<sup>254</sup>

For the purposes of this discussion, federal environmental statutes fall into one or more of five generic categories which include general policy statutes, specific pollution control statutes, marine pollution control statutes, conservation statutes and remedial statutes. This comprehensive and sophisticated network of federal statutes with supplementary administrative regulations has been in effect for the most part since the late 1960's and early 1970's and constitutes a formidable and well established body of law to promote environmental protection and conservation.

### **1. General Policy Statute**

One of the seminal acts in the U.S. federal environmental effort is the National Environmental Policy Act of 1969 (NEPA) which requires federal agencies to analyze and explain thoroughly all environmentally significant consequences of their actions.<sup>255</sup> Under the Act, each federal agency must submit to EPA for approval an Environmental Impact Statement (EIS) prior to the commencement of

any significant agency program which might adversely impact the environment.<sup>256</sup>

## **2. Specific Pollution Control Statutes (air, water, toxic substances, chemicals, etc.)**

A significant number of federal statutes addresses specific pollution control issues such as air and water quality. For instance, the Clean Air Act (CAA) establishes standards for the control of designated air pollutants, including mobile sources such as motor vehicles.<sup>257</sup> The 1990 Amendments to the Clean Air Act which control ozone-depleting substances comport with international regulations under the 1987 Montreal Protocol which is ratified by the U.S..<sup>258</sup> The Clean Water Act (CWA) protects U.S. surface waters by regulating pollutant discharges through a permit system, establishing effluent limitations and setting water quality standards.<sup>259</sup> The Safe Drinking Water Act (SDWA) protects drinking water from virtually all public water systems by establishing stringent purity standards.<sup>260</sup>

Pollution control for chemicals and hazardous waste is governed by several acts. First, the Toxic Substances Control Act (TOSCA) establishes a "cradle to grave" regulation scheme for a broad range of chemical substances.<sup>261</sup> "Cradle to grave" regulation includes the development, production, purchase and sale, distribution, use, storage and disposal of chemical substances. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) also imposes "cradle to grave" regulation of pesticides to ensure that each will not cause "unreasonable adverse affects on the environment".<sup>262</sup> The



Resource Conservation and Recovery Act (RCRA) establishes a comprehensive "cradle to grave" program to ensure environmentally sound, "management, monitoring and disposal" of a wide variety of hazardous wastes.<sup>263</sup>

These statutes complement or reinforce the mandates of such treaties as the Vienna Convention and Montreal Protocol for the protection of the ozone layer, the Border Environmental Agreement, Annexes I-V, and the Border Environmental Plan, Objectives #3, 4, 5, 6, and 8 as described in Part V.

### **3. Marine Pollution Control Statutes**

As regards marine pollution, there is one federal statute which deserves mention. The Ocean Dumping Ban Act specifically implements U.S. international treaty obligations as imposed by the London Dumping Convention discussed in Part V, and hence is illustrative of the integration and unification of international and municipal legal obligations.<sup>264</sup> This Act prohibits the disposal of industrial, medical and radioactive wastes, sewage, munitions and dredged substances in the ocean.<sup>265</sup>

### **4. Conservation Statutes**

There are numerous federal statutes which promote conservation efforts. The Marine Mammal Protection Act creates a regulatory scheme to protect marine mammals by imposing a moratorium on the domestic harvesting of marine mammals and the importation of marine mammal products.<sup>266</sup> The Magnuson Fishery Conservation and Management Act delineates the U.S. Exclusive Economic Zone (EEZ) and

establishes jurisdiction over all piscine resources within it.<sup>267</sup> This Act also ensures that fishing within the EEZ is managed according to scientific principles in order to prevent irreparable depletion.<sup>268</sup>

The Pelly Amendment is an important addition to the conservation effort because it establishes a certification program for the designation of certain foreign countries as unlawfully interfering with international fishery conservation efforts mandated by agreements to which the United States is a party.<sup>269</sup> Depending upon the nature of the certification, the President may thereafter restrict the importation of wildlife or marine life products from a certified country.<sup>270</sup> This amendment may be implemented in connection with other statutory schemes such as that established by the Marine Mammal Protection Act.<sup>271</sup>

The Endangered Species Act establishes standards to ensure preservation of endangered species on the basis of scientific environmental analysis.<sup>272</sup> Sections of this statute coincide with and implement the Convention on International Trade and Endangered Species (CITES) discussed above in Part V.<sup>273</sup> Other federal statutes promoting conservation are: the Lacey Act which empowers the Federal government to enforce state fish and wildlife laws,<sup>274</sup> and the Dolphin Protection Consumer Information Act which, among other things, restricts the importation of tuna and other piscine products from countries whose nationals are engaged in high seas driftnet fishing.<sup>275</sup>

These Acts complement and/or reinforce international treaties

and programs such as the Cartagena Convention and the SPAW Protocol, UNCLOS and the Geneva Marine Conventions, and the Border Environmental Agreement and Plan, all of which were briefly described above in Part V.

### **5. Remedial Statutes (Clean-up)**

The most significant remedial or environmental cleanup statute is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).<sup>276</sup> This Act establishes the "Superfund" which is financed primarily through taxation on petroleum and chemical products.<sup>277</sup> This funding supports government sponsored clean-up of accidental, intentional or threatened releases of hazardous substances, and includes hazardous waste dumpsites.<sup>278</sup> The statute imposes liability on individuals who produce and transport toxic waste as well as on those who manage hazardous waste dumpsites even, in some instances, where prohibited acts occurred before the enactment of CERCLA.<sup>279</sup> Liability extends to both cleanup costs and damage to the environment.<sup>280</sup> The federal government is, under CERCLA, statutorily empowered to recover its costs from polluters.<sup>281</sup>

### **C. State Environmental Law**

#### **1. Linkage: State, Federal and International Law**

As discussed above, many U.S. federal environmental standards coincide with those established under international environmental cooperative programs and treaties to which the U.S. is a party. Environmental law at the state level in turn often complements, reflects or reinforces standards promulgated at the Federal level.

Generally, as regards the administration of environmental law, federal statutes and regulations establish standards for pollution control which the states thereafter implement subject to continued administrative oversight by federal authorities.<sup>282</sup> Such is the case with the Clean Air and Clean Water Acts discussed briefly above in Part V.<sup>283</sup> In some instances however, the administration of federal environmental law such as pesticide control legislation under the Federal Insecticide, Fungicide and Rodenticide Act rests primarily with the federal administrative authorities.<sup>284</sup>

Also, where not prohibited by federal law, states at times enact their own independent environmental laws and programs which are often more stringent than those established by federal law.<sup>285</sup> In all such instances, any standards promulgated at the state level must be at least as strict as those mandated by federal law.<sup>286</sup>

The border area states of California, Arizona, New Mexico and Texas have developed environmental programs which, as a general rule with few exceptions, implement preexisting federal law.<sup>287</sup> The environmental scheme in Texas serves as a good illustration of this phenomenon.

## **2. Environmental Programs in Texas**

Historically, environmental law in the state of Texas has been administered by a decentralized system with the responsibility scattered among a number of state administrative agencies due to the absence of an omnibus environmental department.<sup>288</sup>

### **a. Air Quality**

As discussed in Part V above, Annexes IV and V to the Border Environmental Agreement and Objective #5 of the Border Environmental Plan promote air quality programs. This is reinforced by the federal Clean Air Act, briefly described in Part VI, which requires states to produce their own state implementation plans (SIP's).<sup>289</sup> SIPs must be approved by EPA prior to implementation.<sup>290</sup> Since SIP's employ air quality standards dictated by the Clean Air Act, Texas must plan for, implement and enforce those federal standards subject to EPA's administrative oversight.<sup>291</sup>

As regards air quality enforcement in Texas, one agency, the Texas Air Control Board (TACB), has complete statutory authority to deal with all air quality issues including the enforcement of a federally mandated permit system.<sup>292</sup>

In an effort which has as its basis the common concerns and mandates to improve air quality at the national and international levels, the City of El Paso and the State of Texas have initiated cooperative efforts with Mexico to address air quality issues in the border area.<sup>293</sup> Such efforts, although modest, involve the sponsoring of informational meetings, the revision of training for U.S. and Mexican personnel working in the border area, and the provision of technical support to SEDUE/Ciudad Juarez.<sup>294</sup>

### **b. Water Quality**

Water quality is regulated in a manner similar to that of air quality. The Border Environmental Agreement, Annex I, and the

Border Environmental Plan, Objectives #3 and 4, address water quality issues which in turn are reinforced by federal statutes such as the Clean Water Act and the Safe Water Drinking Act discussed briefly in Part VI.

In Texas, the responsibility for water quality control is scattered among several administrative agencies. For instance, the Texas Water Development Board (TWDB) implements a construction grant program, a loan fund and plumbing loan program with guidance and funding from the Environmental Protection Agency.<sup>295</sup>

The Texas General Land Office (TGLO) coordinates the efforts for all state agencies on all issues pertaining to the Gulf of Mexico such as marine debris and habitat protection, which are the subject of such pertinent international agreements as the Cartagena Convention, the SPAW Protocol and other related protocols discussed above in Part V.<sup>296</sup>

Finally, the Texas Department of Health (TDH) administers and regulates all public water systems in Texas to ensure drinking water quality.<sup>297</sup> Also, the Texas Department of Health is responsible for defining and assessing health and environmental issues in the border area, and for proposing to the Texas legislature possible solutions to these problems.<sup>298</sup>

#### **c. Hazardous Waste and Non-hazardous Solid Wastes**

Again, at the international level, Annexes II and III of the Border Environmental Agreement, Objectives #6 and 7 of the Border Environmental Plan, and the Basel Convention on the Transboundary

Movement of Hazardous Wastes and their Disposal address hazardous waste and non-hazardous solid waste issues. Comparable regulation at the federal level occurs by such statutes as the Toxic Substances Control Act (TOSCA), the Resource Conservation and Recovery Act (RCRA) and the Ocean Dumping Ban Act (ODBA) which were described briefly in Part VI.

As to the regulation of hazardous waste in Texas, the Texas Water Commission (TWC) has jurisdiction to enforce applicable Texas state and federal regulations under the Resource Conservation and Recovery Act (RCRA).<sup>299</sup> Aspects of regulation include storage and disposal of hazardous waste.<sup>300</sup> Also, the Texas Water Commission assists in the effort to ensure environmentally safe transboundary shipment of hazardous waste.<sup>301</sup>

The responsibility for the control of solid, non-hazardous waste is lodged in the Bureau of Solid Waste Management under the Texas Department of Health.<sup>302</sup> The Bureau operates independently of federal administrative control and authority to create and implement regulations which regulate the process of non-hazardous solid waste management.<sup>303</sup>

#### **d. Contingency Planning and Emergency Response**

Finally, Annex II of the Border Environmental Agreement, Objective #9 of the Border Environmental Plan and interagency efforts at the federal level in the U.S. serve as a catalyst for the development of contingency planning and emergency response at the state level in Texas.

Decentralized emergency response and contingency planning efforts to counteract environmental disasters in the form of accidental discharges or spillage of hazardous substances is coordinated by the Texas State Emergency Response Commission (SERC).<sup>304</sup> The different agencies participating in the decentralized planning and removal effort include the Texas Water Commission (TWC) in the case of hazardous substances spillage, the Texas Air Control Board (TACB) in the case of hazardous emissions, the State Railroad Commission for land-based oil discharge and the General Land Office for marine oil discharge.<sup>305</sup> Also, the Texas State Emergency Response Commission receives occasional ad hoc funding from the Environmental Protection Agency to promote contingency planning and emergency response.<sup>306</sup>



## VII. Conclusion

Of the multitude of challenges confronting Mexico and the United States, the protection of their common environment looms large as one of the most complex and elusive. Furthermore, time is of the essence as their besieged environment is continuously subjected to vast, terrifying and often irreparable injury in the name of economic prosperity.

Besides a strong spirit of cooperation which currently permeates U.S.-Mexican relations, many laws of international, federal or state origin are in place to provide a sophisticated and intricate framework for the lawful resolution of environmental issues. In many respects, these mandates substantially complement one another thus reinforcing and unifying bilateral efforts to protect the environment. However, it must be remembered that significant impediments to these efforts take the form of jurisdictional differences between Mexico and the United States, and within those nation states, between federal, state and local environmental authorities.

What the United States and Mexico must now decide is whether the promotion of explosive economic growth, especially under the aegis of the North American Free Trade Agreement will unreasonably jeopardize environmental interests. While NAFTA proponents argue that NAFTA's implementation will generate additional revenue which could in part be directed to support environmental efforts, this highly desirable ideal is not guaranteed. Once again, all law to the contrary notwithstanding, the hard choice between environmental

protection and economic progress is too often made in favor of accelerated economic growth while important environmental issues are held at bay. Only time will tell whether those making critical decisions will place environmental issues in proper perspective.

## Endnotes

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3. Id.
4. Agreement Between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area, Aug. 14, 1983, U.S.-Mexico, T.I.A.S. No. 10827, 22 I.L.M. 1025 Art. 4 [hereinafter Border Environmental Agreement].
5. Summary at 6.
6. Id. at 6-7.
7. Id.
8. Id. at 8.
9. Id.
10. Id.
11. Id.
12. Id.
13. Id.
14. Id.; Other estimates are lower, e.g. 1,665 Maquiladora plants in Mexico as of 1989, U.S. Trade Representative, Review of U.S.-Mexico Environmental Issues 64 (February 1992) [hereinafter Review].
15. Summary at 8.
16. Id.
17. Id.
18. Id. at 11.
19. Id. at 7. The fourteen pairs of sister cities are: Tijuana, Baja California/San Diego, California; Mexicali, Baja California/Calexico, California; San

Luis Rio Colorado, Sonora/Yuma, Arizona; Nogales, Sonora/Nogales, Arizona; Agua Prieta, Sonora/Douglas, Arizona; Naco, Sonora/Naco, Arizona; Las Palomas, Chihuahua/Columbus, New Mexico; Ciudad Juarez, Chihuahua/El Paso, Texas; Ojinaga, Chihuahua/Presidio, Texas; Ciudad Acuna, Coahuila/Del Rio, Texas; Piedras Negras, Coahuila/Eagle Pass, Texas; Nuevo Laredo, Tamaulipas/Laredo, Texas; Reynosa, Tamaulipas/McAllen, Texas; Matamoros, Tamaulipas/Brownsville, Texas

20. Id.
21. Id. at 12.
22. U.S. Environmental Protection Agency and Secretaria de Desarrollo Urbano y Ecología, Integrated Environmental Plan for the Mexican-U.S. Border Area (First Stage, 1992-1994) III-10 [hereinafter Plan].
23. Id.
24. Id.
25. Id.
26. Id.
27. Id.; Nov./Dec. EPA Journal 9 (1990) [hereinafter EPA Journal].
28. Plan at III-10.
29. Id.
30. Id.
31. Id.
32. Id.
33. Id.
34. Id.; EPA Journal at 9.
35. Plan at III-10.
36. Id. at III-11; Some estimates run as high as 60% of Gulf shellfish habitants subject to permanent or periodic public health closure, EPA Journal at 9.
37. Plan at III-11.

38. Id.; EPA Journal at 9.
39. Plan at III-11; EPA Journal at 9.
40. Id.
41. Restatement (Third) of Foreign Relations Law Pt. VI, 100, intr. nt. (1987) [hereinafter Restatement].
42. Id.
43. Id.
44. Id. §601.
45. Id.
46. Id. at Pt. VI, 100, intr. nt., citing 1 L. Oppenheim, International Law 291 (8th ed. by Hersch Lauterpacht 1955).
47. 1 L. Oppenheim, International Law 346-347 (8th ed. 1955).
48. Id.
49. Restatement at Pt. VI, 100, intr. nt.
50. Id. citing 1 L. Oppenheim, International Law 475, (8th ed by Hersch Lauterpacht).
51. Id. at Pt. VI, 100-101.
52. Id. at Pt. VI, 99, intr. nt.
53. Id.
54. Id.
55. Review at 29.
56. Id. §603, rptrs. nts. 1, illus. 2, citing, The United Nations Convention on the Law of the Sea, (UNCLOS), Art. 1(1)(4).
57. Id. §603 (1)(a).
58. Id.
59. Id. §603 (2).
60. Id. §603, rptrs. nts., citing, The United Nations

Convention on the Law of the Sea, (UNCLOS), Art.  
1(1)(5).

61. Id. §603, cmt.
62. Id.
63. Id.
64. United Nations Conference on the Human Environment,  
June 16, 1972, 11 I.L.M. 1416 [hereinafter Stockholm  
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66. Id.
67. Id.
68. Review at 29; Plan at A-9,A-10.
69. Review at 29.
70. Review at 29; Plan at A-9.
71. Vienna Convention for the Protection of the Ozone  
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73. See id.; Review at 29.
74. Montreal Ozone Protocol Art. 2, Review at 29.
75. Montreal Ozone Protocol Art. 4, Review at 29.
76. Basel Convention on the Control of Transboundary  
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22, 1989, S. Treaty Doc. No. 102-5, 28 I.L.M. 649  
[hereinafter Basel Convention].
77. Basel Convention Art. 4(1); Review at 30; Plan at A-9.
78. Basel Convention Art. 4(10); Review at 30; Plan at A-9.
79. Basel Convention Art. 11; Review at 30; Plan at A-9.

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82. CITES Arts. III, IV, V; Review at 30.
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96. International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, S. Treaty Doc. No. 95-1, 12 I.L.M. 1319 (entered into force by virtue of the 1978 MARPOL Protocol Oct. 2, 1983); Plan A-9.
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137. Plan at A-7; Review at 12; Summary at 10.
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139. Plan at A-7; Review at 12.
140. Plan at A-7; Review at 12.
141. Plan at A-7; Review at 12.
142. Review at 12-13.
143. Review at 13.
144. Plan at A-7; Review at 13.
145. Plan at A-7; Review at 13; Summary at 10.
146. Plan at A-7; Review at 13; Summary at 10.
147. Plan at A-7; Review at 13.
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- 188. Id. at V-33.
- 189. Id. at V-34.
- 190. Id. at V-35 - V-36.
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- 195. Id. at V-39 - V-40.
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- 251. Review at 70.
- 252. International Law at 104.
- 253. Id.
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- 256. See id. The EPA administers many U.S. environmental laws and has broad regulatory and administrative responsibilities for air and water quality, pesticide, radiation and toxic chemical control, toxic and solid

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- 257. Clean Air Act, 42 U.S.C. §§7401 et seq. (1988); Review at 17.
- 258. See Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2694 (1990).
- 259. Federal Water Pollution Control Act, 33 U.S.C. §§1251 et seq. (1988); Review at 17-18.
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