

**BINATIONAL PREVENTION
AND EMERGENCY RESPONSE PLAN
BETWEEN
DOUGLAS, ARIZONA AND AGUA PRIETA, SONORA**

November 9, 2001

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Richard Ross	Chief, Fire Department, Douglas, Arizona
Miguel Campillo	Director, Civil Protection, Agua Prieta, Sonora, Mexico
Mike Foster	Emergency Response Specialist, Arizona Department of Environmental Quality (ADEQ)
Saul Torres	Legal Director, Civil Protection, Sonora, Mexico
Jose Federico Cota Felix	Assistant Administrator, Mexican Customs
Charles A. Stemple	Area Port Director, U.S. Immigration and Naturalization Service
Juan Amador Zozaya Durazo	Local Assistant Director, Mexican Immigration
Lauren Volpini	U.S.-Mexico Border Liaison, U.S. EPA Region IX PROFEPA, Sonora, Mexico U.S. Customs Service, Douglas, AZ

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James Y. Tong	Port Director, U.S. Customs Service, Douglas Port of Entry
Adalberto F. Acuña	Supervisory Customs Inspector, U.S. Customs Service, Douglas, AZ
Stephen T. Rich	Supervisory Customs Inspector, U.S. Customs Service, Douglas, AZ
Jack Boyington	Senior Inspector, U.S. Customs Service, Douglas, AZ
Mark Springer	Senior Inspector, U.S. Customs Service, Douglas, AZ
Carlos Kitazawa	Chief, Civil Protection, Sonora, Mexico

Otto Guillermo Claussen Iberry	Director, PROFEPA, Sonora, Mexico
Gilberto Celaya Reyna	Deputy Director, PROFEPA, Sonora, Mexico
Frank Garcia	HazMat Director, Douglas Fire Department
Johnny Pedrego	Captain, Douglas Fire Department
Carmen Noriega	English/Spanish Translator
Rosa Maria Boadella	Interpreter
Micah Perlin	Project Manager, Science Applications International Corporation
	City of Douglas City Council

**BINATIONAL PREVENTION AND EMERGENCY RESPONSE PLAN
FOR THE REGIONAL MUNICIPALITIES OF
DOUGLAS, ARIZONA, UNITED STATES OF AMERICA
AND AGUA PRIETA, SONORA, MEXICO**

FORWARD

In 1999, the United States of America and Mexico signed a Joint Contingency Plan (JCP) that established a foundation for cooperative efforts regarding preparedness, mitigation, response and prevention of hazardous substance releases in the border area, that area situated 62.2 miles (100 km) on either side of the inland international boundary. The JCP serves as an umbrella plan which sets forth a broad framework for planning efforts for the 14 Sister City pairs on the U.S.- Mexico border from California through Texas. The federal governments of the United States of America and Mexico acknowledge the need for Sister City Planning. They recognize the benefits of cross border response and cooperative sharing of resources and manpower in times of national disasters. So too, the municipalities of Douglas, Arizona, and Agua Prieta, Sonora recognize their need to cooperate with each other in times of local disasters and to take measures to reduce risks and mitigate incidents.

This binational plan calls for increased communication, coordination and cooperation in response to a hazardous substance release in the border area. Its goals and objectives are to more effectively and efficiently utilize resources on both sides of the border to prevent and respond to emergency situations to protect public health, safety, and environment in the border area.

It is not the intent of this plan to supersede any existing local, state, regional, or federal authorities or plan when a disaster or emergency has been declared in the border area. Rather, the purpose is to complement existing local, state, regional, or federal plans and to better serve the local community by creating an infrastructure for responding to emergencies.

**MEMORANDUM OF UNDERSTANDING ON CROSS BORDER COMMUNICATIONS
AND EMERGENCY RESPONSE STRATEGIES FOR POLLUTING INCIDENTS FOR
THE MUNICIPALITIES OF DOUGLAS, ARIZONA, UNITED STATES AND
AGUA PRIETA, SONORA, MEXICO**

The cities of Douglas, Arizona and Agua Prieta, Sonora have agreed to provide mutual cooperation to effectively reduce the risk of and respond to threats to the public health, safety and welfare of the communities caused by explosions, fires, spills, or releases of hazardous substances into the environment. This understanding is to reinforce the cooperation between the cities to be able to prevent and respond more efficiently to these emergencies.

The following statements of principles are intended to serve as a guide to emergency response authorities in both cities.

1. Nothing in this understanding shall revoke or diminish the application of United States law in the United States or Mexican law in Mexico. However, the authorities of either country may request the assistance of the other country in order to mitigate the situation, if the normal application of law in either country might lead to delay or difficulty in the rapid execution of necessary emergency response measures.
2. The agencies of both municipalities charged with emergency responsibilities will seek to ensure that in areas of common concern, plans of the two municipalities for the emergency use of manpower, material resources, supplies, systems, and services shall, where feasible and practicable, be compatible and involve mutual training. To this end, a Binational Emergency Planning Committee (BEPC) will be established and will meet at least once every two years. The BEPC will address planning and preparedness activities and conduct an annual binational exercise to evaluate and improve the coordination of this Sister City plan.
3. It is mutually agreed that this understanding does not relieve any of the mentioned parties of the obligation to provide protection against fires or other emergencies, according to their respective jurisdictions, and to use reasonable diligence in maintaining all equipment in adequate condition according to industry standards. The decision to render aid to the Sister City rests ultimately with the City Manager of Douglas, Arizona, when requested by the Douglas Fire Chief, and with the Mayor of Agua Prieta, Sonora, when requested by the Director of Civil Protection in Agua Prieta. Each Sister City may decide not to render aid, depending on each incident, if its resources are not capable of meeting obligations in its own jurisdiction.
4. The city providing the assistance will supervise their necessary personnel and assigned equipment. The group receiving aid will have authorized persons to provide general directions related to the work. The responsible party for the spill receiving the assistance will be responsible for providing the responders the necessary materials, food, shelter,

temporary housing, gasoline and lubricants for the equipment and any other such items needed to respond adequately.

5. The municipalities involved in this understanding will not be required to pay compensation to the other for services rendered.
6. Each government will use its best efforts to facilitate the movement of evacuees, refugees, emergency response personnel, equipment or other resources into its territory or across its territory from one area of the country to another when such movement is desired to facilitate emergency response operations in either country. To this end:
 - a. To the maximum extent permitted by law and regulation, the Government of the United States and the Government of Mexico, during the period of an emergency, will use their best efforts to minimize any delays, which might otherwise be caused by border crossing requirements. Both governments will also use their best efforts to ensure that emergency response equipment, facilities, and supplies may be used effectively and to mutual advantage in joint efforts, tests, preparations and exercises.
 - b. The emergency response agencies of both governments will consult together to identify and remove any serious potential impediments to cross border assistance, emergency operations and the cross border flow of commodities for emergency response. Unresolved problems should be communicated to the Joint Response Team for appropriate action.
7. For the purpose of emergency relief, health and welfare services, each government will use its best efforts to ensure that the affected persons receive the best treatment available.
8. The parties agree to hold each other harmless from any act or omission of any party's personnel during such time that said personnel are serving in the jurisdiction of any party for assistance pursuant to the terms of this understanding.
9. Each government will use its discretionary powers as far as possible to avoid a levy of any national tax on the services, equipment and supplies of the other country when the latter are engaged in emergency response activities on the territory of the other, and will use their best efforts to encourage state, provincial, and local authorities to do likewise.
10. Each government will include provisions for adequate security and care for the personnel, equipment, and resources of the other country in authorized emergency response activities. Such provisions will also ensure access to supplies necessary for their return.
11. Each government will call to the attention of its federal, state, local or other authorities in areas adjacent to the international border the desirability of achieving compatibility in emergency response planning between the United States and Mexico. For the purpose of achieving the most effective emergency response planning cooperation possible between the

United States and Mexico, each government will, in a manner consistent with national plans and policies, also encourage and facilitate cooperative emergency arrangements between adjacent jurisdictions on matters falling within the competence of such jurisdictions.

12. Every two years, the parties will examine the present understanding in light of its application in order to decide whether it must be modified. In addition, at any time the parties may examine this understanding and propose changes to the other party by personal service or certified mail. Changes will be considered effective starting on the date of the amendment's signing by all parties.
13. Any party to this understanding may withdraw at any time giving thirty calendar days prior written notice to all the parties.

Any party may change its service address by five calendar days written notice to each of the other parties.

Notice of withdrawal and change of address shall be served by personal service or by the respective party's Postal Service certified mail addressed to:

Office of the Mayor
City of Douglas
425 10th St.
Douglas, Arizona 85607

Presidencia Municipal
H. Ayuntamiento de Agua Prieta
Calle 6 y Avenida 17
Agua Prieta, Sonora

In witness, whereof, this understanding has been executed on the 9th day of November, 2001.

//original signed by//
Ray Borane
Mayor
Douglas, Arizona

//original signed by//
C. Irma Villalobos de Teran
Presidenta Municipal
Agua Prieta, Sonora

//original signed by//
Michael Ortega
City Administrator
Douglas, Arizona

//original signed by//
C.P. Martin F. Villa Hernandez
Secretario del H. Ayuntamiento
Agua Prieta, Sonora

24-HOUR EMERGENCY NOTIFICATION

Any substantial threat to the public health, safety, or the environment due to an accidental spill or release of an oil or hazardous material into the air, surface water, groundwater, or onto the ground, should be reported to:

UNITED STATES	MEXICO
First Response 911 (from U.S.) 001-520-364-8422 (from Mexico)	First Response 060 (from Mexico) 011-526-536-2125 (from U.S.) 011-526-534-3282 (from U.S.)
National Response Center 1-800-424-8802 (from U.S.) 001-202-267-2675 (from Mexico) U.S. EPA Region IX Spill Phone 1-415-947-4400 (from U.S.) 001-415-947-4400 (from Mexico)	National Communications Center: CENACOM (Federal) Civil Protection Agency 01-800-004-1300 (from Mexico) 01-5-550-4885 (from Mexico) 011-525-550-4885 (from U.S.)
State of Arizona: ADEQ Department of Environmental Quality (Releases from fixed facilities) (State On-Scene Coordinator) 1-602-390-7894 (from U.S.) 001-602-390-7894 (from Mexico) (For Spill Reporting) 1-800-234-5677 x2330 (from U.S.) 001-602-207-2330 (from Mexico) State of Arizona: DPS Department of Public Safety (Releases during transportation) 1-602-223-2163 (from U.S.) 001-602-223-2163 (from Mexico)	State Communications Center Civil Protection Agency, Sonora 01-62-17-54-30 (from Mexico) 01-62-17-38-16 (from Mexico) 01-62-17-54-10 (from Mexico) 011-52-62-17-54-30 (from U.S.) 011-52-62-17-54-10 (from U.S.) 011-52-62-17-38-16 (from U.S.)
Douglas, Arizona Port of Entry (For Cross Border Air Support) U.S. Immigration and Nat. Service 1-520-364-2028 (from US) 1-520-364-5532 (from US) 001-520-364-2028 (from Mexico) 001-520-364-5532 (from Mexico) U.S. Customs 1-520-364-8486 (from US) 001-520-364-8486 (from Mexico)	Agua Prieta, Sonora Port of Entry Mexican Federal Fiscal Police 011-52-63-38-02-84 (from US) 01-63-38-02-84 (from Mexico) Mexican Customs 011-52-63-38-00-84 (from US) 011-52-63-38-30-33 (from US) 01-63-38-00-84 (from Mexico) 01-63-38-30-33 (from Mexico)

EMERGENCY NOTIFICATION FORM

When any party is notified of an actual or threatened spill, release, fire or explosion of a hazardous substance conforming to this plan, the following information should be provided. A larger version of this form is provided in Appendix J.

a. Reporting party (name of functionary or responder, telephone number, and address) / Informante (nombre del funcionario o de él que responde, número de teléfono y dirección):	b. Suspected responsible party (name, telephone number, and address) / Probable entidad responsable (nombre, número de teléfono y dirección):
c. Description of incident (how the release, spill, fire, or explosion occurred) / Descripción del incidente (cómo ocurrió la fuga, el derrame, el fuego o la explosión):	
d. Date and time of incident / Fecha y hora del incidente:	
e. Vehicle identification number / Número de identificación del vehículo:	
f. Location / Lugar:	
g. Type of container and capacity / Tipo de contenedor y capacidad:	
h. Specific identifiers (e.g., cross road, railroad milepost) / Identificadores específicos (e.g., intersección, kilómetro de la vía del ferrocarril):	
i. Hazardous substances involved / Sustancias peligrosas involucradas:	j. Quantity / Cantidad:
k. Spill or release to air, soil, or water: Where is it going? How much to water? / Derrame o escape al aire, suelo o agua: ¿hacia dónde va? ¿Qué cantidad va al agua? :	
l. Corrective actions taken / Acciones de corrección tomadas:	
m. Roads closed / Caminos cerrados:	
n. Number of deaths, injuries, or evacuations / Número de muertos, heridos o evacuaciones:	
o. Other notifications made / Otras notificaciones hechas:	
p. Additional comments / Comentarios adicionales:	

1.0 INTRODUCTION

In 1983, the United States of America and Mexico signed the La Paz Agreement. This landmark document sets forth binational cooperation for the protection, improvement and conservation of the environment in the border area. Annex II of the La Paz Agreement creates a Joint Response Team (JRT) whose major responsibility was to author a Joint Contingency Plan (JCP). In 1988, the U.S. and Mexico signed the *Joint United States of America - United Mexican States Contingency Plan for Accidental Releases of Hazardous Substance Along the Border*, revised in June 1999 as the *Joint United States - Mexico Contingency Plan for Preparedness for and Response to Environmental Emergencies Caused by Releases, Spills, Fires, or Explosions of Hazardous Substances in the Inland Border Area*.

The JCP specifically calls for the development of Sister City Plans for the 14 Sister City pairs along the U.S.-Mexico border from California through Texas. Sister City planning is a vehicle to lay out a binational framework of cross border cooperation and collaboration of resources and manpower during a polluting incident in the border area and a communications strategy to more effectively control an emergency situation.

This document is a binational emergency response and prevention plan for the Douglas, Arizona and the Agua Prieta, Sonora area. It consists of an overview of the plan area, a communication strategy ready for implementation during a polluting incident, and identification of hazards and vulnerable areas. This plan specifically addresses the requirement under the JCP to prepare Sister City plans. It is not intended to replace or supplant any plans in effect in the region, but is designed to aid in a binational response to a hazardous materials incident that may affect the border area.

This plan at no time usurps existing federal, state, county, regional, or municipal plans within the jurisdictional boundary addressed by this plan.

If the region affected declares an emergency under this plan to be in effect, the municipality affected will, subject to its own disaster plan, inform state and federal officials, as identified in their respective plans. The Binational Prevention and Emergency Response Plan is activated for the short term only and it will provide specifics for the coordination of resources and equipment.

The initial and prime responsibility for providing immediate assistance rests with the city, county or regional government affected. It is at this level that services such as fire, police, health, social services, public works, and public utilities are located. An emergency under the Binational Prevention and Emergency Response Plan may be declared when (1) a city, county or region so requests from the head of government, (2) the emergency, due to geography, may dictate evacuation into a neighboring region, (3) the municipality, county or region affected may request mutual aid support, supplying manpower, resources, social services, fire, public works, emergency health services, and other specialized expertise as deemed necessary by the affected municipality, or (4) the emergency may affect a neighboring municipality, county, or region.

A directory of essential planning and response contacts is located in Appendix A.

1.1 Douglas, Arizona - Agua Prieta, Sonora Plan Area

The City of Douglas is located in Cochise County in southeastern Arizona on the US-Mexico border. The City of Agua Prieta is located just south of Douglas in the northeastern region of the state of Sonora, Mexico. By highway, the Sister Cities are located approximately 120 miles (193 km) southeast of Tucson, Arizona and 233 miles (375 km) northeast of Hermosillo, Sonora. Maps and aerial images of Douglas and Agua Prieta are provided in the back of this plan.

Douglas, Arizona originally served as a staging area for cattle ranchers during their annual round-ups in the late 1800s. Douglas was incorporated in 1905 and developed as a smelter site for the copper mines in the area because of an abundant supply of water and its railroad service.

Today, Douglas is experiencing a transition from a copper and ranching town to one specializing in manufacturing and tourism. Because of its location on the Mexican border, international commerce and the maquiladora industry have become important elements of the local economy. Much of the recent growth in Douglas can be attributed to the industrial development and rapid population growth that has occurred in Agua Prieta.

The town of Agua Prieta was founded in 1899. Two years later in response to the construction of a railroad in Douglas in 1901, Agua Prieta's population began to grow substantially. Agua Prieta became a municipality by decree in 1916, and then a city in 1942.

The proximity of Agua Prieta to the railroad, which facilitated the shipment of goods and supplies, along with the unexpected boom caused by the copper mines, greatly stimulated the economy of this growing city. Today Agua Prieta's economy is fueled by a burgeoning maquiladora industry and tourism.

1.1.1 Physical Environment

The Cities of Douglas and Agua Prieta are surrounded by mountain ranges. These are the Swisshelm and Perilla Mountains to the east, the Mule Mountains to the west on the U.S. side, and the Los Ajos, San Jose and Aniba Cachi mountain ranges on the Mexican side. The City of Douglas is located 3,990 feet (1,402 meters) above sea level, at 31° 20' 31.5" latitude and 109° 32' 14" longitude. Agua Prieta resides at 3,599 feet (1,096 meters) above sea level, at 31° 19' 32" latitude and 109° 32' 14" longitude.

The Whitewater Draw is the only significant surface water body in the area. It runs down the eastern border of Douglas and along the international border, where it becomes the Rio Agua Prieta, a perennial body of water. Throughout most of the area, the Whitewater Draw and its tributaries flow only after precipitation and seasonal snowmelt.

The local climate is characteristic of the dry desert. The average monthly maximum temperature is 79.2 °F (26.2 °C), with an average temperature of 93.1 °F (34 °C) from June to August. The average monthly minimum temperature is 44.4 °F (6.7 °C). Annual sunshine days average roughly 320 days

per year. Annual precipitation averages 13.05 inches (33.15 cm), with relative humidity of 30%. Most of the rain falls in the summer months, during the monsoon season. Prevailing winds in the area blow north-northeast during the day and south toward Mexico in the evening.

Table 1 shows monthly temperatures (daily maximums and minimums) and precipitation for the plan area.

Table 1 WEATHER Douglas, Arizona / Agua Prieta, Sonora			
Month	Daily Maximum (°F/°C)	Daily Minimum (°F/°C)	Average Total Precipitation (inches/millimeters)
January	62.3 / 16.8	28.9 / -1.7	0.87 / 2.21
February	66.7 / 19.3	31.6 / -0.2	0.63 / 1.60
March	71.9 / 22.2	36.0 / 2.2	0.5 / 1.27
April	79.2 / 26.2	41.4 / 5.2	0.28 / 0.71
May	86.4 / 30.2	49.2 / 9.5	0.32 / 0.81
June	95.3 / 35.2	57.8 / 14.3	0.54 / 1.37
July	93.9 / 34.4	64.2 / 17.9	3.93 / 9.98
August	91.4 / 33.0	62.6 / 17.0	3.2 / 8.13
September	88.6 / 31.4	56.8 / 13.8	1.54 / 3.91
October	80.8 / 27.1	45.3 / 7.4	1.03 / 2.62
November	70.1 / 21.2	34.3 / 1.3	0.62 / 1.57
December	62.7 / 17.1	28.7 / -1.8	1.13 / 2.87
Year	79.1 / 26.2	44.7 / 7.1	14.6 / 37.08

Source: Western Regional Climate Center, 2001.

1.1.2 Population

Based on 1998 figures from the U.S. and Mexican Census Bureaus, the estimated cumulative population of the plan area is 117,250 with 17,250 persons residing in Douglas, AZ and 100,000 in Agua Prieta, Sonora.

Douglas experienced slow but consistent growth in the 1990s. Between 1990 and 1998, the population grew 15.3 percent. Between 1997 and 1998, Douglas ranked 66th among 87 incorporated cities for population growth. Recently, the City of Douglas annexed two areas: the State prison and

the 23rd Street area increasing population totals by 2,500 persons. The State prison is 10 miles (16.1 km) from Douglas proper and is primarily a self-functioning entity.

The population of Douglas reflects the general maturation of the natural population. The population under the age of 25 fell 9.4 percent during 1980 and 1990, while those 25 and older increased 5.1 percent. The fastest growing age group of the population is 65 years and older.

In Agua Prieta, the population has increased 100 percent from approximately 56,000 in 1995 to roughly 115,000 in 2000. The sharp increase is attributed to the expansion of the maquiladora industry. The majority of Agua Prieta's population is under 30.

Table 2			
POPULATION			
	1990	1995	2000
Douglas	12,822	14,780	16,812
Agua Prieta	37,664	54,681	115,000
Cochise County	97,624	122,300	117,755

Source: U.S. Census Bureau, Arizona Department of Economic Security, and Douglas Fire Dept. (2001)

1.1.3 Economy

International commerce, manufacturing, retail and tourism are the primary sectors of the area economy. The geographic proximity of Douglas and Agua Prieta and the growth of the maquiladora sector, have resulted in an increased interdependence of the two cities' economies in recent years. In 1998, roughly 30 percent of the retail sales in Douglas were attributed to Mexican residents crossing the border to shop. The close economic ties are also evident in the 21 maquiladora manufacturing plants located in Agua Prieta, and the various brokering houses in Douglas. The majority of the maquiladoras in Agua Prieta are located in two industrial parks 2 miles (3.2 km) from the border. Douglas has one industrial park located 8 miles (12.9 km) from the border.

The Arizona State Prison, which was recently annexed by Douglas, is the city's largest employer. The second largest employer is the Douglas Unified School District, followed by the Southeast Arizona Medical Center.

A listing of Douglas and Agua Prieta's industrial facilities and maquiladora plants can be found in Appendices B and C respectively.

1.1.4 Infrastructure

The City of Douglas is supplied electricity by the Arizona Public Service, which serves 690,000 customers statewide. Current generating capacity is 4,022 megawatts (MW) and the current peak overall power system is 4,420 MW. Natural gas is supplied by the Southwest Gas Corporation.

Water is supplied to the City of Douglas through 10 wells. The capacity is roughly 5.7 million gallons per day (MGD) (21.6 million liters per day (MLD)) in the summer. Average demand is 2.6 MGD (9.8 MLD) and peak demand is 3.8 MGD (14.4 MLD). The average pressure of the system is 65 lbs (29.5 kg).

The City of Douglas has its own wastewater treatment plant. The treatment process uses extended aeration activated sludge. Secondary treatment is done through filtration/disinfection. The capacity is 2.7 MGD (10.2 MLD) and average demand is 1.4 MGD (5.3 MLD). Peak demand is 2.2 MGD (8.3 MLD).

The City of Agua Prieta is supplied electricity by the Mexican Federal Electricity Commission (CFE). The construction of a new 339.3 megawatt combined-cycle electricity generation plant is scheduled for the beginning of 2002. The plant will generate electricity using natural gas as a primary fuel and diesel gas as a secondary fuel. The plant will be expanded over five phases, the final phase ending in 2008 with a total generating capacity of 1,275.3 MW. The plant will be located 8.7 miles (14 km) southwest of Agua Prieta on state highway 12 in El Fresnal.

Water is supplied to the City of Agua Prieta via 11 wells of potable water in the city. In addition, there are also 4 elevated tanks and 2 ground level tanks of potable water.

Wastewater generated by the population of the City of Agua Prieta is collected and routed via a drainage system to the exterior of the city for treatment. The treatment process consists of primary treatment ponds.

1.1.5 Cultural Significance

A common culture reinforces the close relationship between the two communities of Douglas and Agua Prieta. Mexican culture is central to the lives of residents on both sides of the border, as demonstrated in the food, customs, and social ties. Roughly 80 percent of the population of Douglas is bilingual, of which the majority is of Mexican decent.

1.2 Authority

This plan was developed in accordance with the following federal statutes and agreements for both countries.

1.2.1 Laws and Statutes

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. §§ 9601 *et seq.*

Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (Title III of Superfund Amendments and Reauthorization Act (SARA) of 1986), 42 U.S.C. §§ 11001 *et seq.*

The General Law of Ecological Balance and Environmental Protection (Published January 28, 1998).

Law No. 104 on Ecological Balance and Environmental Protection for the State of Sonora (Published December 3, 1991).

1.2.2 Regulations

40 Code of Federal Regulations, Part 300, National Oil and Hazardous Substances Pollution Contingency Plan (2000).

29 Code of Federal Regulations, Part 1910.120, Hazardous Waste Operations and Emergency Response (2000).

Bylaws of the Secretariat of the Environment and Natural Resources (Published July 4, 2001).

Bylaws of the General Law of Ecological Balance concerning Hazardous Waste (Published November 25, 1998).

1.2.3 Binational Agreements

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 (La Paz Agreement) (August 14, 1983).

Annex II to the Agreement (July 18, 1985, revised June 1999) is the foundation for the development of the Joint Contingency Plan.

1.3 Other Applicable Contingency Plans

Sections of the agreements and plans described below were adapted for use in various components of this plan.

1.3.1 Binational Contingency Plans

The United States-Mexico Joint Contingency Plan (JCP) for Preparedness for and Response to Environmental Emergencies Caused by Releases, Spills, Fires or Explosions of Hazardous Substances in the Inland Border Area (June 4, 1999).

Joint United States of America - United Mexican States Contingency Plan for Accidental Releases of Hazardous Substances along the Border (1988).

The Joint Response Team (JRT) is an entity authorized by Annex II of the La Paz Agreement to undertake emergency actions to respond to accidental oil and hazardous materials spills along the 62.2-mile (100-km) wide area on either side of the U.S.-Mexico border, and to coordinate international hazardous materials substance preparedness and response activities in this area. The JRT developed the JCP to respond to spills requiring international coordination between the United States and Mexico.

1.3.2 United States Contingency Plans

1.3.2.1 Local and Regional Plans and Mutual Aid Agreements

City of Douglas, Arizona Emergency Operations Plan (revised: February, 1998).

This plan covers emergency operation procedures with regard to major fires, flood warnings and evacuations, winter storms, hazardous materials, earthquakes and landslides, and war related sheltering and crisis evacuation. It contains sections covering: direction and control, law and order, fire services, emergency medical and health, evacuation, shelter, recovery, and mitigation, and emergency response vehicle resources. The plan is currently being revised.

Cochise County and State of Arizona Hazardous Materials Response and Recovery Plan

(revised: June, 1991). The purpose of this plan is to provide emergency responders, affected facilities, government agencies and the public with the necessary background data, operating procedures, and organizational responsibilities to more effectively plan, respond, and recover from hazardous material spills, fires, explosions, or other incidents.

1.3.2.2 State of Arizona Plans

The State of Arizona Emergency Response and Recovery Plan (February 1998) addresses the consequences of any emergency or disaster where there is a need for state response and recovery assistance. The plan describes the methods that the state will use to assist local jurisdictions, mobilize resources and conduct cost recovery activities.

The State of Arizona Hazardous Materials Response and Recovery Plan is a component of the above plan. It provides emergency management for a state response to a hazardous materials incident. The plan was developed by the Arizona Division of Emergency Management and the Arizona

Emergency Response Commission and gives an overview of the roles and responsibilities of various state agencies.

1.3.2.3 Federal Plans

National Contingency Plan (revised 1997). The National Response Team (NRT) developed the National Contingency Plan (NCP) for responding to releases or spills involving oil or hazardous materials throughout the United States.

U.S. EPA Region IX - Mainland Regional Contingency Plan (revised 2000). The U.S. Environmental Protection Agency (U.S. EPA) Region IX Regional Response Team (RRT) has developed a Contingency Plan which outlines procedures in the event of a release or spill occurring in the States of Arizona, California, and Nevada.

1.3.3 Mexico Contingency Plans

1.3.3.1 Local and Regional Plans and Mutual Aid Agreements

Contingency Plan for the City of Agua Prieta (revised 2000). The Contingency Plan for the City of Agua Prieta was developed by Civil Protection for the Municipality of Agua Prieta, Sonora. The plan employs the participation of various agencies in responding to emergency situations, and provides the contact information of the responsible personnel in the municipality, state, and federal governments. It also includes the locations and contact information of businesses, schools, shelters, and hospitals in the area. The plan contains maps noting vital areas such as water sources, drainage and treatment facilities, transportation lines, and gas stations.

1.3.3.2 State of Sonora Plans

State of Sonora Civil Protection Plan (1998). This plan describes protocols for Civil Protection in the event of a natural disaster. Specific guidelines and procedures are established for hurricanes, fires, droughts, and frosts.

The State of Sonora, Mexico Catalogue of Hazards (1992) has been compiled by the State of Sonora and the State Unit of Civil Protection.

1.3.3.3 Federal Plans

Technical Guide for Developing Municipal Contingency Plans (Protección Civil): (Revised 1998). This guidebook was published by the General Directorate of Civil Protection of the Mexican Federal Government in 1993. It provides guidelines for implementing local emergency plans in Mexico, in response to natural or man-made disasters. These plans are based on the identification and evaluation of local hazards, availability of human and material resources, and preparation and capabilities of the local community. Hazards are classified as: geological, hydrological/meteorological, chemical, sanitary, or socio-organizational. Contingency plans are not yet

mandatory by law in Mexico; however, Civil Protection strongly recommends each state and municipality have one.

National Contingency Plan (Protección Civil). (2000). This Plan was developed by the General Directorate of Civil Protection of the Mexican Federal Government. It follows a model similar to that of Civil Protection plans at the state and local levels. This is Mexico's primary plan in the event of a disaster. This plan is updated annually.

National System for Civil Protection Plan. (2000). The Mexican Federal Government (Secretaria de Gobernación) developed the National System for Civil Protection for responding to all disasters including releases or spills involving oil or hazardous material throughout Mexico. The current plan outlines Civil Protection operations from 1995-2000. This plan is updated annually.

Plan DN III-E: Civilian Population Assistance. (2000). This plan, established by the Mexican Secretariat of National Defense, outlines the role of the Mexican Army and Air Force in the event of a catastrophic incident. This plan is updated annually.

Manual of Emergency Attention for Hydroecological Emergencies Related to Continental National Waters. (2000). Civil Protection would implement this plan in the event of a flood, hurricane or other severe storm. This plan is updated annually.

2.0 HAZARDS ANALYSIS AND RISK REDUCTION

Critical to emergency response and preparedness is an analysis of the hazards posed in the plan area and measures to reduce the risks from these hazards. This section identifies hazards and analyzes vulnerable human and environmental resources and associated risks. This section also addresses the jurisdictions' commitment to reduce the risks from these hazards.

2.1 Businesses Using, Handling, or Storing Hazardous Materials (Fixed Facilities)

A discussion of fixed facilities and their hazards is presented here. A listing of fixed facilities using, handling or storing hazardous materials in Douglas, Arizona is provided in Appendix B.

2.1.1 Douglas, Arizona

In the United States, under the Emergency Planning and Community Right-to-Know Act (EPCRA), most facilities that use large and/or toxic quantities of hazardous materials are required to file chemical inventory reports with their local and state emergency response agencies. EPCRA requires those facilities which have on-site, at any one time, 10,000 pounds (4,536 kg) or more of a "Hazardous Chemical" (as defined by OSHA Hazard Communication Regulations), or any amount over a "threshold" level of an "Extremely Hazardous Substance" (EHS) to file a chemical inventory report. OSHA defines a "Hazardous Chemical" as any chemical which is either a health hazard or a physical hazard. Material Safety Data Sheets must be prepared for such chemicals. Hazardous chemicals or EHSs present in quantities that do not exceed the reporting threshold may be required to be reported when the Local Emergency Planning Committee determines that the information is important for emergency response preparedness.

In Douglas, businesses submit their chemical inventory reports to the Arizona Emergency Response Commission (AERC), the Cochise County Local Emergency Planning Committee (CCLEPC), and the Douglas Fire Department. Twenty-six facilities have submitted their chemical inventory reports in Douglas. These reports are available to the public. A listing of these facilities and the chemicals reported can be found in Appendix B. Although some businesses may have hazardous substances on-site, they may not be required to provide chemical inventories under EPCRA. These businesses are also included in Appendix B.

There are 26 businesses and other industrial facilities in Douglas that submitted chemical inventory reports:

Five of these businesses provide import/export services. Chemicals commonly handled include isopropanol, slurran (explosive), sodium ferro cyanide, phenylenediamines (poison), methyl ethyl ketone, and paint/thinner.

There are three large retail companies that handle hazardous materials. These materials include paints, solvents, and fertilizers.

Two facilities sell wholesale oxygen, one of which also sells propane.

There is one principal chemical supply company located in Douglas. The chemicals sold in this facility include: calcium carbonate, petroleum core, bituminous coal, calcium oxide, lime kiln dust, magnesium chloride, ammonium nitrate, #2 diesel fuel, and sulfuric acid 93%.

There is one electronics manufacturing facility located in Douglas. The hazardous materials utilized at this facility include solder flux and isopropanol.

Thirteen service stations submitted chemical inventories. Chemicals used in these facilities include diesel fuel, insulating oil (electrical), unleaded gasoline, Mobil DTE - 797, motor oil, and other flammables.

The electric utility service station handles sulfuric acid, battery electrolyte, and diesel fuel.

2.1.2 Agua Prieta, Sonora

Maquiladoras are the main industry in Agua Prieta. Maquiladoras utilize competitively priced Mexican labor in assembly, processing and/or other manufacturing operations. Most component parts are temporarily imported from the United States or other countries. Mexican law also allows these operations to bring in most capital, equipment and machinery from abroad. Maquiladora operations are generally labor-intensive, with most productions geared for export from Mexico. Maquiladoras may be entirely foreign (U.S.) managed and 100% U.S. owned, unlike other multi-nationals operating in Mexico.

The Mexican government created the Maquiladora Program in 1966 to generate employment, to augment the Mexican trade balance and to promote technology transfer. This program evolved far beyond its original focus as a regional growth strategy, and is now Mexico's largest non-petroleum industry, producing more than half of all exports. In 1975, maquiladoras employed 67,214 workers in 454 plants, generating US\$1 billion worth of goods. By 2000, six years after the implementation of the North American Free Trade Agreement (NAFTA), the number of maquiladora plants operating in Mexico reached 3,500, employing 1.3 million workers and generating more than US\$57 billion in annual exports.

Approximately 21 maquiladoras and other industrial facilities currently operate in Agua Prieta, Sonora (Refer to Appendix C).

Four of the facilities identified in Agua Prieta, Sonora assemble or manufacture clothing or other textile products. Chemicals typically used in the manufacture and finishing of textiles include formaldehyde, metallic salts (such as zinc nitrate and magnesium chloride), glyoxal, organometallic compounds, zinc acetate with peroxide, and chlorine.

Seven of the facilities manufacture or assemble electronic and electric appliances or materials and supplies used in electronic equipment. Acids commonly used as etchants in these processes include:

hydrochloric, sulfuric, glacial acetic, nitric and hydrofluoric. Use of other solvents and resins is also common.

Three facilities manufacture brakes or other auto parts. Such facilities commonly use solvent-based paints and require the use of solvents to clean parts and equipment.

Seven facilities manufacture products such as furniture, plastic, and artesanias. Chemicals typically used include solvents, solvent-based inks, isopropyl acetate, methyl ethyl ketone, and chemicals associated with the use of paints. Chemicals typically used in the production of plastics include phthalates, solvents, acids, and compounds of antimony, barium, chromium, cobalt, lead, manganese, and nickel.

By law, hazardous wastes generated by U.S.-owned maquiladora operations must be returned to the United States for proper disposal. Almost no hazardous waste enters into the United States through the Douglas, AZ port of entry.

2.2 Transportation Systems

Knowledge of chemical transportation is helpful in preventing and preparing for potential hazardous materials accidents. This section provides an overview of hazardous materials traffic in the plan area, and identifies additional data that should be collected and analyzed, such as that obtained in a commodity flow study.

2.2.1 Douglas, Arizona

2.2.1.1 Roads

The major highway through Douglas, Arizona is Highway 80. Interstate 10 is 74 miles (119 km) from Douglas and extends from California to Florida. It is a major access route to southwestern markets in California, Nevada, Utah, Colorado, New Mexico and Texas.

In July 2000, a four-line intersection was completed in Douglas. The four-line intersection realigns Highway 80 with North Pan American Avenue and connects G Avenue with U.S. 191B Douglas.

2.2.1.2 Railroads

There are no railroads in Douglas.

2.2.1.3 Other Means of Transport

The Douglas Municipal Airport is located two miles (3.2 km) from the central business district in Douglas. This airport does not handle commercial traffic.

The Bisbee/Douglas International airport is located 8 miles (12.9 km) from Douglas. The State prison is also located at this site.

2.2.2 Agua Prieta, Sonora

2.2.2.1 Roads

The main highways that run through Agua Prieta are the Federal Highway No. 15 (Hermosillo-Nogales), Federal Highway No. 2 (Imuris-Agua Prieta-Janos, Chihuahua), and State Highway No. 2 (Agua Prieta-Nacozari). Highway 15 starts in Mexico City and runs through the states of Mexico, Michoacan, Jalisco, Nayarit, Sinaloa, passing through the southwestern and northern central regions of Sonora. Federal Highway 2 runs along the northern part of Sonora almost parallel to the border line, passing through San Luis Rio Colorado, Agua Prieta, and several communities in Chihuahua.

A series of minor and state roads come off these highways. The State highways include the Hermosillo-Agua Prieta highway, which passes through Ures, Moctezuma, Cumpas, Nacozari de Garcia and Fronteras, and the state highway that begins in Cananea, which goes through Bacoachi, Arizpe, Banamichi, Aconchi, Baviacora, eventually joining the Hermosillo-Agua Prieta state highway at Mazocahui.

The completion of a new highway from Ciudad Obregon to Agua Prieta is tentatively scheduled for December 2001. The purposed Obregon-Agua Prieta highway would direct commercial traffic from Nogales to the Agua Prieta-Douglas area. A new port of entry to the west of Douglas would be required to address the increase in imports from the mining, lumber, and cattle industries.

2.2.2.2 Railroads

A major rail line stretches from Nogales to Cananea and Naco, and from Agua Prieta to Nacozari de Garcia. This rail line handles the transportation of sulfuric acid and minerals such as copper and graphite, which are extracted from the mines. In the event of a major spill on this line, mutual aid requests may be initiated for Ambos Nogales and Douglas-Agua Prieta.

2.2.2.3 Other Means of Transport

The natural gas transportation system for the private use of *Mexicana del Cobre* begins south of the US-Mexico border approximately 2.5 miles (4 km) west of the city of Agua Prieta ending at the foundry plant facility (*La Caridad*) and the lime plant. The system has three control/monitoring stations, 52 power shut-offs, and six sectional valves. In the case of a leak anywhere in the system, any of these sectional valves can be closed to stop gas from flowing to the location of the leak. The Municipal Airport of Agua Prieta offers connections to the International Airport Ignacio Pesqueira in Hermosillo, Sonora. This airport does not handle commercial traffic.

2.3 Ports of Entry

The Douglas, Arizona/Agua Prieta, Sonora Port of Entry is in operation 24 hours/day. Vehicles transporting hazardous materials may cross during the hours of 9AM and 2PM, and must provide notice to U.S. Customs 24 hours prior to crossing in either direction. Vehicles transporting hazardous waste in either direction are required to inform U.S. Customs 72 hours in advance.

Roughly 2,278 pedestrians and 6,250 private vehicles cross the border into the US each day. On average 97 loaded cargo trucks head north into the US daily. Similarly, 68 loaded cargo trucks cross south to Mexico per day. Approximately 95% of the hazardous materials that cross the border is exported to Mexico. Seventy-five percent of these materials is transported to Cananea and Nacozari for use in mining operations. Common materials include petroleum distillates, acids, and alcohols. The remaining 25% of hazardous materials, consisting primarily of solvents and a smokeless powder charge, is used locally by the maquiladora industry in Agua Prieta.

From west to east, there are six ports of entry along the Arizona-Sonora border:

San Luis, Arizona/San Luis Rio Colorado, Sonora;
Lukeville, Arizona/Sonora, Sonora;
Sasabe, Arizona/Sasabe, Sonora;
Nogales, Arizona/Nogales, Sonora (East and West Gate);
Naco, Arizona/Naco, Sonora; and
Douglas, Arizona/Agua Prieta, Sonora.

Douglas accounts for an estimated 14 percent of all commercial traffic entering Arizona from Mexico. Table 3 shows historical and projected commercial traffic volumes for the Arizona ports of entry.

Table 3 Arizona Border Ports of Entry - Northbound Commercial Loads (Total commercial trucks not including empty container trucks)				
Border Ports of Entry	1999	2000	2001 (estimated)	Projected % Share 2001
Douglas	20,775	21,368	21,644	7.6
Lukeville	4,084	3,546	3,644	1.3
Naco	6,046	5,169	7,069	2.5
Nogales	196,128	197,531	220,553	78
Sasabe	2,381	2,775	2,400	0.8
San Luis	31,099	30,702	27,625	9.8
Total	260,513	261,091	282,936	100

Source: U.S. Customs OMR Data Warehouse, 9/01

2.4 Sensitive Populations and Vulnerable Areas

As a part of a hazard analysis, the identification of sensitive populations and vulnerable areas is necessary. Available information is presented here.

2.4.1 Douglas, Arizona

2.4.1.1 Sensitive Populations

Parks and recreational facilities are interspersed throughout the City of Douglas. Though many are located in residential and non-commercial areas, some are located near or along main truck routes. Likewise, schools and religious centers can be found throughout the city. Other potential sensitive populations are the Southeast Arizona Medical Center, the prison, as well as the libraries and religious centers. Additional sensitive populations include the residential neighborhoods that border the main commercial traffic routes, and those near warehouses and brokerage houses.

Refer to Appendix D for a listing of Sensitive Populations and Vulnerable Areas.

2.4.1.2 Population Distribution

The commercial areas, industrial parks, light industry, and heavy industry are concentrated on the west side of F Avenue in the southwestern portion of Douglas. The residential areas are located principally on the east side of F Avenue and to the west of Highway 80 above Merritt Ave. Most commercial areas are not located within residential areas, with the exception of the following two general commercial zones: the first extends along A Avenue, and the second is located in the area between 8th and 13th Streets, and between Rose and San Antonio Avenues.

The industrial and general commercial areas are located along Pan American Avenue (State Route 191), heading north from the port of entry. The two industrial parks are located on Pan American Ave. The first is situated south of the Police Department, and the second to the northeast of the port of entry. The heavy industry in Douglas is located west of Pan American Ave. and south of West 9th Street. The light industry extends west from Pan American Ave. to the Slag Dumps, and is bordered to the north by Highway 80 and to the south by the US-Mexico border.

2.4.1.3 Sensitive Natural Resource Areas

Located 17 miles (27.4 km) to the east of Douglas on the U.S.-Mexico border, the San Bernardino National Wildlife Refuge was established for the protection of endangered and threatened native fishes of the Yaqui River Basin. Situated at 3,720 to 3,920 feet (1,134 to 1,195 meters) elevation in the bottom of a wide valley, the refuge encompasses a portion of the headwaters of the Yaqui River, a major river system that drains into western Chihuahua and eastern Sonora, Mexico. The refuge consists primarily of desert grassland, Chihuahuan desert scrub and mesquite bosque, and supports a diverse riparian forest of Fremont cottonwood and black willow. Numerous ponds and cienegas are

also found on the refuge next to the artesian wells, which supply water to support the native fishes on the refuge.

2.4.2 Agua Prieta, Sonora

2.4.2.1 Sensitive Populations

There are 72 schools located in Agua Prieta, Sonora. There are more than 20 recreational and park areas throughout the city. Of these recreational areas, the following may be more vulnerable to environmental releases due to their proximity to industry and traffic: the baseball field on the corner of Avenida 6 and Calle 13, the soccer field on the corner of Avenida 17 and Calle 13, and the park located on the corner of Avenida 18 and Calle 17.

2.4.2.2 Population Distribution

Agua Prieta's industry is concentrated in the western section of the city. The two main industrial areas are located along the main road that extends south from the port of entry and in a rectangular area located between Calles 13 and 18, and between Avenidas 6 and 17. There are many small industrial areas located throughout the city's residential areas.

Residential and recreational areas are interspersed throughout the city and surround the majority of the industrial and commercial areas. The city's newer residential developments are expanding to the south of the Carretera a Chihuahua.

2.4.2.3 Sensitive Natural Resource Areas

The flora and fauna found in the area of Agua Prieta are consistent with arid and semi-arid terrains. Predominant vegetation in the region includes desert brushwood as well as grazing land and pastures. The grazing lands and pastures, which surround three-quarters of the city, represent one of the region's most important natural resources, particularly for cattle raising.

Brushwood makes up the other quarter of the surrounding area, predominately to the southeast of the city. The most common type of brushwood is spiny shrub locally called "mesquite", "gobernadora", and "huisache".

The soils in Agua Prieta have a very poor top layer of organic material and deep layers of clay, are hardly permeable, and have a high degree of expansion. The soils on the Agua Prieta riverbanks, however, are rich in organic materials and have a dark top layer suitable for farming.

2.5 Drinking Water Supplies and Wastewater Treatment

As a part of a hazard analysis, the identification of drinking water supplies and wastewater treatment facilities is necessary. Available information is presented here.

2.5.1 Douglas, Arizona

All water delivered in the City of Douglas is groundwater from deep wells. There are presently 10 deep wells that can produce high-quality water for public distribution. Hydrologic studies indicate that the water resources available to the City of Douglas are large, with active recharge from the Mule, Dragoon, and Chiricahua mountain ranges. Water stored in the sand and gravel beds of the Douglas Basin Aquifer is adequate to supply the needs of the city at current levels for centuries. The wells are widely separated to minimize risk of any potential local contamination or naturally occurring water quality problems. Total pumping capacity with all wells running is approximately 5.7 million gallons per day (21.6 million liters per day). Each well has its own chlorination equipment that doses the water with 1 part per million of chlorine gas to provide protection from microorganisms.

The City of Douglas recently expanded its wastewater treatment facility. The treatment process uses extended aeration activated sludge. Secondary treatment is done through filtration/disinfection. The capacity is 2.7 MGD (10.2 MLD) and average demand is 1.4 MGD (5.3 MLD). Peak demand is 2.2 MGD (8.3 MLD). Treated water from the plant flows into Agua Prieta, for agricultural use.

2.5.2 Agua Prieta, Sonora

Potable water services are available to 95% of Agua Prieta's population. The zones covered by the distribution network receive a constant supply of potable water. The southern part of the city lacks potable water. Water is supplied to this area through pipes provided by the City Council and by the Mexican National Secretary of Defense through the Army at no cost.

The sewage treatment infrastructure of the City of Agua Prieta consists of a drainage system that collects and conducts the wastewater to the exterior of the city for primary treatment. The oxidation ponds were constructed between the years 1987 and 1992.

Wastewater is piped to the oxidation ponds from the interior of the city. This pipe, last rebuilt in 1987, starts near the intersection of La Via Ferrea Nacozari and the federal highway No. 2 Imuris-Agua Prieta-Janos, Chihuahua.

2.6 Risk Reduction Opportunities and Recommendations

Reducing risk to prevent a hazardous materials incident is a proactive approach to emergency planning. The Binational Emergency Planning Committee (BEPC) will look at a variety of mechanisms to reduce hazardous materials risks in the plan area. These include:

- Planning
- Identification and assessment of available resources
- Public and industry education and outreach
- Procurement and integration of equipment
- Building and fire codes
- Pollution prevention
- Traffic controls
- Hazard identification and risk analysis
- Training
- Exercises and drills
- Emergency response preparedness
- Compliance assurance/assistance

3.0 EMERGENCY RESPONSE ROLES AND RESPONSIBILITIES

The adverse consequences of a chemical accident on the health, safety and welfare of the communities of Douglas, Arizona and Agua Prieta, Sonora may be reduced through timely and effective emergency response. This plan provides an integrated and coordinated binational response protocol to supplement the local emergency response plans in the event of a release of hazardous materials in the plan area.

3.1 Notification

Any release or substantial threat of a release of a hazardous material affecting or likely to affect another party shall be reported to that party without delay. The emergency notification list is found on page 5.

3.2 Private Response Mechanisms

Owners or operators of fixed facilities and transportation facilities, including truck lines, rail lines and pipelines, must comply with all local, state, and federal hazardous material planning and reporting requirements. An inventory of private emergency response resources should be conducted and included in this plan.

3.3 Local Response

3.3.1 City of Douglas, Arizona Mutual Aid Request

In Douglas, the Fire Chief will assume the lead role as Incident Commander (IC). If the incident is beyond the control and/or capabilities of the Douglas Fire Department, or the incident might impact the border with Mexico, the Incident Commander will request activation of the Emergency Operations Center (EOC). A request for binational response will be made to the Director of Civil Protection in Agua Prieta, using a predetermined code to be shared only by the Douglas Fire Chief and the Director of Civil Protection in Agua Prieta. The binational response will involve requesting mutual aid from Agua Prieta. Both cities will notify their chains of command.

Upon receipt of this mutual aid request, the Director of Civil Protection of Agua Prieta may respond by providing necessary action, information and/or assistance resources if possible. The scope of mutual aid will be determined by a Joint Command established between the Douglas Fire Chief and the Director of Civil Protection in Agua Prieta. The responding resources will report to the Incident Commander and work under the Incident Commander's direction. The Incident Commander is also responsible for ensuring that response personnel from Agua Prieta are utilized in an effective and safe manner by coordinating with the senior on scene response official from each responding agency.

If the incident is beyond the capabilities of both cities, the Douglas Fire Chief will contact Cochise County and the State of Arizona to request assistance and/or initiate federal and/or Joint Response Team response.

3.3.2 City of Agua Prieta, Sonora Mutual Aid Request

In Agua Prieta, the Director of Civil Protection will assume the lead role as Incident Commander (IC). If the Incident Commander feels that the incident will exhaust the resources available, or that the incident might impact the border, a request for binational response will be made to the Douglas Fire Chief using the predetermined code. The binational response will involve requesting mutual aid from Douglas, Arizona. Both cities will notify their chains of command.

Upon receipt of this mutual aid request, the Douglas Fire Chief may respond by providing necessary action, information and/or assistance resources if possible. The scope of the response will be determined by a Joint Command established between the Douglas Fire Chief and the Director of Civil Protection in Agua Prieta. The responding resources will report to the Incident Commander and work under the Incident Commander's direction. The Incident Commander is also responsible for ensuring that response personnel from Douglas are utilized in an effective and safe manner by coordinating with the senior on scene response official from each responding agency.

If the incident is beyond the capabilities of both cities, the Director of Civil Protection in Agua Prieta will request the Director of Civil Protection, State of Sonora, to initiate a federal and/or Joint Response Team response.

3.3.3 Local Response Duties

Local agencies are responsible for emergency planning and preparedness within their jurisdictions. The agencies are expected to assume lead roles during the emergency phase of the incident. Local agencies will conduct response activities within the scope of their department training and capabilities. Local agencies will provide emergency response services when possible, including, but not limited to:

- Notification
- Initial hazard identification
- Initial sampling to identify and determine concentrations of materials, if possible
- Communications
- Rescue and emergency medical service
- Fire fighting
- Security (site perimeter, traffic, and crowd control)
- On scene liaison with other agencies and organizations
- Providing public information
- Evacuation and shelter

Local government assignments in Douglas are generally shared among the Douglas Fire Department, Cochise County Sheriff's Department, Douglas Police Department, Cochise County Emergency Services, emergency medical services, public works and the health department. Detailed roles and responsibilities of these agencies can be found in the City and County plan.

When responding to requests for mutual aid, local response agencies from both sides of the border will adhere to their department's standard operating protocols. At no time should personnel from either city be requested to perform duties outside their training and capabilities. Incident Commanders in both cities are familiar with the capabilities of the agencies available for response, and will use the personnel from the agencies in an appropriate manner. If concerns arise, the Douglas Fire Chief and Civil Protection Joint Command will be notified and an appropriate decision will be made at that level.

3.4 State Response

The State of Arizona can provide assistance for hazardous materials incidents to Douglas and Agua Prieta if the responsible party and local capabilities or resources prove to be insufficient, incapable or inadequate. The Arizona Department of Environmental Quality (ADEQ) will appoint a State On Scene Coordinator (SOSC) who will assist the Incident Commander by providing and overseeing needed State resources.

In Sonora, Civil Protection in Agua Prieta notifies Civil Protection at the State of Sonora level when an incident occurs. If necessary, Civil Protection at the state level will respond with appropriate resources.

3.5 Federal Response

The U.S. Federal government can provide assistance for hazardous materials incidents if combined local and state capabilities or resources prove insufficient, incapable or inadequate. Once the National Response Center (NRC) has been notified of a release, they alert the Federal On Scene Coordinator (FOSC), who may activate the Regional Response Team (RRT) or the National Response Team (NRT), depending on the severity of the incident. For incidents occurring in the Douglas, Arizona area, the Federal On Scene Coordinator will be from the U.S. EPA Region IX, headquartered in San Francisco, CA.

Normally, the U.S. EPA contributes to the response by working with the local, state, tribal and federal agencies and citizens to assure that the information needed to maximize the effectiveness of the response effort is easily accessible. If there is a spill where the responsible party is not identified, or does not contain, clean up the material, or adequately respond, the federal responsibilities will prevail as outlined in the National Contingency Plan. These responsibilities include assisting state and local responders or, in some circumstances, taking over the response.

Federal agreements between the U.S. and Mexico require that each country notify the other if there is a release or substantial threat of a hazardous materials release which may impact the other side of the border. The notification should occur between local authorities and between state authorities on both sides of the border to ensure that the information is properly elevated to the federal levels as required.

If it appears that the incident may exceed the capabilities of the local and state resources, the Federal On Scene Coordinator will request the Joint Response Team to implement the Joint Contingency Plan.

The Mexican Federal Government can provide assistance through the National Civil Protection System for hazardous materials incidents to Agua Prieta, Sonora, if the combined responsible party and local capabilities or resources prove to be insufficient or inadequate. Civil Protection will appoint an On Scene Coordinator (OSC) who will assist the Incident Commander by providing, coordinating and overseeing needed federal resources.

3.5.1 U.S. Environmental Protection Agency

The U.S. EPA activates and operates the federal response system for inland hazardous materials incidents and provides a Federal On Scene Coordinator who can provide technical resources and expert advice on public health and environmental effects of a release. U.S. EPA also provides planning and preparedness assistance to prevent and mitigate environmental harm.

The U.S. EPA Regional Response Team performs regional level contingency planning. National level contingency planning is performed through the National Response Team (NRT). The Regional Response Team (RRT) is co-chaired by the U.S. EPA and the U.S. Coast Guard (USCG) and consists of representatives from selected state and federal agencies. It plans, prepares and responds to hazardous materials incidents, providing advice and recommendations to the Federal On Scene Coordinator.

3.5.2 Civil Protection

The National System of Civil Protection has established, in each federal and municipal entity, civil protection organizations to handle emergencies occurring in each jurisdiction. Civil Protection has prepared the “ANEXO III - Plan de Respuesta a Emergencias con Materiales Peligrosos” (Annex III - Hazardous Materials Response Plan). This plan is designed to be used by all entities in Mexico to aid in developing contingency plans for hazardous materials incidents.

3.6 Joint Response Team

When the magnitude of an incident exceeds local and state response capabilities, or when a response involves more than one state jurisdiction, or federal lands, the federal government will coordinate the response operation and provide assistance as necessary. The U.S. EPA co-chairs the Joint Response Team for the U.S. and PROFEPA co-chairs for Mexico.

When the U.S. and Mexico have agreed to initiate a joint response to an incident, the function and responsibilities of the Joint Response Team include:

- Advise the Federal On Scene Coordinator about measures needed to respond to the incident and what resources are available to carry out those measures

- Evaluate and make recommendations concerning the measures taken by the Federal On Scene Coordinator
- Provide continuing advice to the Federal On Scene Coordinator
- Coordinate and use as appropriate the resources that agencies or persons of the U.S. or Mexico or a third party can contribute
- Assist the Federal On Scene Coordinator in preparing information releases for the public
- Participate in the termination of response

In a non-emergency mode, the JRT coordinates US-Mexico border area contingency planning and training activities.

For inland releases, the U.S. EPA provides the Federal On Scene Coordinator. Upon notification of a release of hazardous substances that is crossing or is likely to cross the U.S.-Mexico border, the National Response Center will notify the Federal On Scene Coordinator. The Federal On Scene Coordinator will determine as quickly as possible the need for activating the Regional Response Team, the Joint Response Team, the Environmental Response Team (ERT), or the National Response Team. For incident notification in Mexico, Civil Protection maintains a 24-hour telephone number in Mexico City. For incident notification in the U.S., the NRC maintains a 24-hour number in Washington D.C.

4.0 INCIDENT RESPONSE OPERATIONS AND RESOURCES

This plan employs the phases of operational response to an incident as outlined in the Joint Contingency Plan.

4.1 Discovery and Notification

Upon the discovery of a hazardous materials release or threatened release within the City of Douglas, a notification is made to the appropriate emergency organization. The initial notification will involve calling 911 to notify the Douglas Fire Department. The agency receiving the initial contact will follow the Douglas Fire Department's standard operating protocol for the notification of all other appropriate agencies. The responsible party (RP) is also required to notify appropriate federal and state agencies by contacting the National Response Center and other state and local agencies depending on the substance released. These agencies will also notify appropriate local, state, and federal agencies.

For Agua Prieta, the responsible party is required to call 060, Civil Protection and the Fire Department.

Binational agreements between the Governments of the United States and Mexico require that the countries notify each other in the event of a release or substantial threat of a release of a hazardous substance, pollutant, or contaminant affecting or likely to affect the other country (Joint Contingency Plan Sections 105.3 and 301).

4.2 Preliminary Assessment and Initiation of Action

The first official on the scene will assume the role of Incident Commander. This duty will be relinquished to the appropriate official upon that person's arrival at the incident. All agencies report to the established Incident Commander for all response and recovery operations. Each agency will provide its own special equipment and reference data, and will function within its field of expertise. If an incident exceeds the resources of the local or county agencies, command may be transferred to the more appropriate responding agency. This function may also be transferred to the Federal On Scene Coordinator, if a federal or JRT response is activated.

4.2.1 Preliminary Assessment

Upon confirmation that an incident may impact the other side of the border or may involve the release of hazardous materials, the Fire Chief of Douglas or the Director of Civil Protection for Agua Prieta will assume the role of Incident Commander. The first official on the scene assumes the role of Incident Commander until the designated senior official arrives to coordinate the response.

4.2.2 Initiation of Action

Upon arrival on scene, the predesignated Incident Commander will implement the following actions:

- Relieve the first official on-site
- Establish an Incident Command Post (ICP) and implement the Incident Command System (ICS)
- If the incident threatens the border or the cities of Douglas, Arizona or Agua Prieta, Sonora, the Incident Commander will ensure that the appropriate notifications are made to the Joint Response Team, and if mutual aid will be required, ensure that the proper notifications are made to implement a binational response.

4.3 Containment

The Incident Commander will implement appropriate measures to contain, restrict, reduce or eliminate the release or threat of release of hazardous materials at the incident, as well as downstream or downwind from the site. This includes defensive action to prevent, minimize, or mitigate an incident to protect public health and the environment.

4.4 Documentation and Cost Recovery

All actions taken during hazardous materials incidents will be carefully documented so that sufficient and accurate information is available to support response and recovery operations and to recover costs, if applicable. Documentation should be self-descriptive to prove the source and circumstances of the incident, identity of the responsible parties, and impact or potential impact to public health and the environment. Documentation may be written, graphic, audiovisual, or in other form and will include the location of the incident, time, date and duration of the spill, source and cause of the incident, name and contact information of the responsible parties, description of the released material, resources affected or threatened, status of response and cleanup efforts, and accurate accounting of public costs incurred. A notification form is provided for this purpose on page 7.

Examples of other forms of documentation of hazardous materials incidents include:

- Daily or personal logs in bound notebooks, to record all relevant response activities for evidentiary purposes
- Photographic documentation at the source of the release, pathway of discharge, and affected biota
- Samples of released material and material from the suspected source collected according to established chain of custody procedures
- A statement of witnesses identifying the source of a release

4.5 Evacuation or Shelter-In-Place

It is the responsibility of the Incident Commander to assess the hazardous materials release or potential release. If there is a threat to the public, immediate action needs to be taken for their protection. Actions which protect the public include first aid, search and rescue, designation of an exclusion zone, shelter-in-place, fire suppression and evacuation.

If evacuation is necessary, the Incident Commander will determine the area that will require evacuation. The Incident Commander is also responsible for estimating the number of people in the evacuation area and number of people needing transportation assistance. The Incident Commander will follow all the appropriate standard operating protocols outlined in local plans.

The Incident Commander will coordinate with law enforcement to identify major evacuation routes and establish traffic control points. Law enforcement will establish evacuation assembly points, monitor traffic flow on evacuation routes and establish security patrols and access control procedures. In a toxic environment, agencies with more appropriate protective clothing and equipment may be called upon to perform these tasks.

If the incident is of sufficient magnitude that the potential for a cross border evacuation exists, the Incident Commander will work closely with the appropriate border agencies such as Immigration and Customs authorities.

4.6 Post-Incident Management

The Incident Commander, or a designated replacement, is required to remain on scene until the immediate danger to public health and the environment has been abated. Primary responsibility for the actual cleanup and restoration costs will remain with the responsible parties. In the event that the responsible parties are unknown, cleanup is the responsibility of the parcel manager, the lessee, the land owner, the affected jurisdiction, the county agency, the state agency, or the federal agency having jurisdiction.

Cleanup and disposal of the spill should be accomplished as soon as possible. Prompt action is important to minimize damage to the environment. The first step is to establish the cleanup priorities at the site. Once the priorities are set, determination of appropriate cleanup methods is necessary. The cleanup actions must be constantly monitored to ensure the cleanup priorities are being properly addressed.

Evaluation of the cleanup to determine its effectiveness is necessary. The evaluation process should assess impacts on the habitat and organisms, effectiveness of removal, public concerns, aesthetics, and costs. The Incident Commander must develop criteria to determine when the cleanup is complete, using applicable or relevant and appropriate requirements. The Incident Commander will ensure proper transportation and disposal of hazardous substances in compliance with local, state and federal laws.

4.7 Response and Cleanup Funding Availability

The Incident Commander will attempt to identify and have the party accountable for the release assume responsibility for containment, removal and disposal. In Mexico, this will be the responsibility of the Civil Protection authorities in accordance with the National Protection System.

If it is determined that the responsible parties are not acting promptly, taking or proposing to take appropriate actions, or if the responsible parties are unknown, state and federal funds may be made available to ensure proper cleanup.

The State On Scene Coordinator or the Federal On Scene Coordinator may make funds available. Depending on the circumstances, money may be made available from one or more of the following funds.

4.7.1 State Funds

The State of Arizona and the State Water Quality Assurance Revolving Fund (WQARF) maintain funds that can be used for the response to hazardous materials incidents. These funds are available on a case-by-case basis, generally for incidents for which a responsible party has not been identified, or when there is an immediate threat to life and health.

The Arizona Department of Environmental Quality also administers a fund to reimburse local government or political subdivisions for hazardous materials responses.

4.7.2 Federal Funds

The U.S. EPA administers the Hazardous Substance Response Trust Fund (Section 1.2.1 above, Comprehensive Environmental Response, Compensation and Liability Act) and the Local Government Reimbursement Program.

As part of the Oil Pollution Act (OPA) of 1990, states are given access to federal funds for the immediate removal, mitigation, or prevention of a discharge, and may be reimbursed by the trust fund for removal and monitoring costs incurred during oil spill response and cleanup efforts, which are consistent with the National Contingency Plan (NCP).

In Mexico, if the responsible party for the release is not located or does not pay, a remediation program is administered by the Office of the Federal Attorney General for Environmental Protection (PROFEPA).

4.8 Communications

Communications will be established pursuant to the local municipal standard operating protocols. In the event of a binational response, communications must be effectively established as soon as possible.

Due to the numerous radio frequencies used by the various response agencies in the plan area, the Incident Commander must define a primary response channel or rely on cellular communications. Appendix A provides a listing of the various phone numbers available. Communications between the Agua Prieta command and the Douglas command must be established and maintained throughout a binational response. This will ensure a secure and reliable flow of information between the two commands.

4.9 Health and Safety

The Incident Commander will be responsible for appointing a Site Safety Officer (SSO) for the incident. The Incident Commander and Site Safety Officer will be responsible for developing and implementing a Site Safety Plan to ensure the health and safety of all response personnel. For response across the border, the Incident Commander and senior official of each response agency will ensure that the appropriate state and federal worker health and safety laws of their country are observed while in the neighboring country.

4.10 Response Resources

The Douglas, Arizona Fire Department has 25 full time staff, including fifteen that are trained as firefighter/EMT and four that are trained as HazMat first responders. The department also has four fire engines, four ambulances, one rescue vehicle, and one support vehicle in addition to other equipment. In the event of an extreme emergency, the Douglas Fire Department has made arrangements with the Sunnyside and Pirtleville Fire Districts to provide resources if necessary.

Emergency response efforts for the City of Agua Prieta are coordinated by the local Civil Protection, in cooperation with the volunteer fire department, the Red Cross, and the Municipal and State Police. The National Emergency Commission has 40 persons trained as emergency responders, including 15 in firefighting and 20 in hazardous materials.

A list of response resources for both cities can be found in Appendix I.

5.0 TRAINING AND EXERCISES

This plan, written pursuant to the U.S.-Mexico Joint Contingency Plan, is an administrative summary of the relevant hazardous materials emergency response plans which have jurisdiction within the planning area. Each of the operational plans referenced requires training and exercising to ensure that responders are always in a state of readiness. The concepts and resources for binational training and exercising are important to emphasize as binational relationships and activities develop.

Preparing a written plan with well-defined operational roles, policies and resource acquisition procedures is an essential step. The written plan should contain training requirements and procedures for responders. Exercising the plan provides training, allows response personnel to become thoroughly familiar with response procedures, resources and systems, and enables planners to identify areas of the plan that need improvement.

5.1 Training

Individual organizations are responsible for their own training. Internal binational training, private contractors, and state or regional training resources are some of the binational options available to local agencies. Organizations must ensure that personnel are adequately trained for response operations that they may perform. This training must comply with all applicable local, state, and federal worker health and safety regulations.

5.2 Exercises

Local and regional hazardous materials contingency plan exercises are encouraged, as they are the best means of keeping the plans current and active. Douglas, Arizona and Agua Prieta, Sonora routinely conduct joint exercises that allow for cross training of personnel. This ensures that deficiencies in response activities are identified. To keep this plan current, the plan will be exercised annually.

