BINATIONAL HAZARDOUS MATERIALS PREVENTION AND EMERGENCY RESPONSE PLAN AMONG THE COUNTY OF SAN DIEGO, THE CITY OF SAN DIEGO, CALIFORNIA AND THE CITY OF TIJUANA, BAJA CALIFORNIA

January 14, 2013

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ACKNOWLEDGMENTS 2003

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ACKNOWLEDGMENTS 2011

This plan was revised and updated by a Steering Committee for the communities of San Diego County and the City of San Diego, California, and the City of Tijuana, Baja California. The planning effort was facilitated and funded by the U.S. Environmental Protection Agency, Region IX and BECC. The Steering Committee members include:

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BINATIONAL HAZARDOUS MATERIALS PREVENTION AND EMERGENCY RESPONSE PLAN AMONG THE COUNTY OF SAN DIEGO, THE CITY OF SAN DIEGO, CALIFORNIA, AND THE CITY OF TIJUANA, BAJA CALIFORNIA

FOREWORD

In 1999, the United States of America and Mexico signed a Joint Contingency Plan (JCP) that established a foundation for cooperative efforts regarding prevention, preparedness, response, and mitigation of hazardous substances releases in the border area, which is defined as 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 to develop plans and establish preventive and response mechanisms between Sister Cities. They recognize the benefits of cross border response and cooperative sharing of resources and manpower in times of national disasters. So too, the communities of San Diego County/City of San Diego, California and Tijuana, Baja California 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 an accidental or deliberate 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, environment, and property 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 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 COMMUNITIES OF TIJUANA, BAJA CALIFORNIA, MEXICO, THE CITY OF SAN DIEGO, CALIFORNIA, UNITED STATES, AND THE COUNTY OF SAN DIEGO, CALIFORNIA, UNITED STATES

The City of Tijuana, Baja California, the County of San Diego and the City of San Diego, California have agreed to cooperate to effectively reduce the risk of threats to the public health, safety and welfare of their communities caused by explosions, fires, spills, or releases of hazardous substances into the environment. This Memorandum of Understanding (MOU) is to reinforce the cooperation among the jurisdictions to assist them in preventing and responding more efficiently to these emergencies, as well as properly notifying counterpart agencies in the event of an incident on either side of the international border.

The signatory parties have developed this MOU and related emergency preparedness and response plan with the support of the U.S. Environmental Protection Agency pursuant to established binational environmental protection agreements between the two nations. Fourteen (14) pairs of sister cities along the US/Mexico border have been designated to develop similar agreements for binational cooperation.

The following statements of principles are intended to serve as a guide to emergency planning and response authorities in all three jurisdictions.

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.

2. The agencies of all three jurisdictions charged with emergency responsibilities will seek to ensure that in areas of common concern, plans of all three jurisdictions 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, and in accordance with the Border 2012 program, a Binational Emergency Preparedness and Response Task Force will be established and will meet regularly. The Task Force will address planning and preparedness activities, and training needs, and conduct a biennial binational exercise to evaluate and improve the coordination of this binational plan.

3. It is mutually agreed that this MOU 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 applicable standards.

4. Although the binational plan establishes important protocols for ongoing coordination and cooperation, there remain issues that may require state or federal legislation to resolve, and other issues that may remain outstanding. Some of these challenges are:

a) Emergency response equipment is not covered by U.S. insurance policies once the vehicles and equipment cross the international border in either direction.

b) Good Samaritan laws do not protect U.S. emergency responders from a personal liability lawsuit in Mexico.

c) There does not now exist an accepted standard communication frequency to coordinate incident response within the border area with a common license to operate on compatible frequencies.

It will be necessary to pursue resolution of these issues at the federal, state and local levels in both countries. A possible solution would be umbrella coverage through the state or federal governments for emergency vehicles and personnel, and licensing of the border emergency response participants to operate on compatible frequencies on both sides of the border. The Task Force will seek to explore options and resolution of these issues with those governmental agencies of jurisdiction.

5. Response Limitations

In light of the conditions described in Section 4, the County of San Diego and City of San Diego are presently not able to cross the international border to respond to an incident in Mexico. Roles and responsibilities are limited to technical assistance, trainings, exercises, notifications, hazardous materials information sharing and the exchange of emergency responder equipment between both the County of San Diego and Emergency Responders from Mexico. The mutual exchange of equipment is necessary to assist in the identification and mitigation of potentially hazardous substances that may compromise public health and safety. Once health and environmental impacts have been alleviated, all equipment is to be returned to their respective governmental agency. There will also be a strong commitment to prevent and reduce risks, both accidental and deliberate on both sides of the border.

A) Notification

The signatory parties agree to provide timely binational notification to counterpart authorities in the event of a hazardous materials incident within a **two-mile radius** of the international border. A Notification Flow Chart has been developed and included in the binational plan. The parties agree to periodically exercise notifications to ensure proper and timely communications. Any changes in phone numbers, or proposed changes to notification procedures, will be communicated promptly.

B) Hazardous Materials Information Exchange

To assist in the proper identification of potential risks, the County of San Diego and the City of Tijuana agree to the semiannual exchange of information regarding the location, types and estimated quantities of chemicals handled by facilities located within the two-mile radius of the international border, as described in the binational plan. This

information is to be treated as confidential and is intended only for use as a reference for first responders in these jurisdictions. This information will be exchanged on compact disk or through a web based interface.

C) Technical Assistance

The signatory parties agree to provide limited technical assistance as requested by counterpart agencies. This technical assistance may include, but is not limited to, analysis of conditions and circumstances of a given incident, the assessment of potential equipment purchases and training, exercises, prevention and risk reduction. Training will be provided, as funding is available.

6. For the purpose of emergency relief, and health and welfare services, each government will use its best efforts to ensure that those affected by an incident receive the best treatment available.

7. Each government will use its best efforts to protect and restore the natural environment during and after an incident.

8. Every two years, the parties will examine the present MOU and implementation and decide whether it should 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.

9. Any party to this understanding may withdraw at any time by giving thirty calendar days prior written notice to all the parties.

Any party may change its service address by giving 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:

Board of Supervisors
County of San Diego
1600 Pacific Highway
San Diego, California 92101

Presidencia Municipal
Ayuntamiento de Tijuana, B.C.
Av. Independencia Esquina Paseo del Centenario
Zona Urbana Río, C.P. 22320

City of San Diego
City Clerk
202 C Street
San Diego, California 92101

In witness, whereof, this understanding has been executed on October 24, 2003.

//Original signed by//
Greg Cox
Chairman, Board of Supervisors
San Diego County, California

//Original signed by//
C. Jesús González Reyes
Presidente Municipal
Tijuana, Baja California

//Original signed by//
Clerk of the Board
San Diego County, California

//Original signed by//
Secretario del Ayuntamiento
Tijuana, Baja California

//Original signed by//
Dick Murphy
Mayor
City of San Diego, California

//Original signed by//
City Clerk
City of San Diego, California

In witness, whereof, this understanding has been executed November 17, 2011.

//Original signed by//
Greg Cox
Chairman, Board of Supervisors
San Diego County, California

//Original signed by//
Carlos Bustamante Anchondo
Presidente Municipal
Tijuana, Baja California

//Original signed by//
Clerk of the Board
San Diego County, California

//Original signed by//
Secretario del Ayuntamiento
Tijuana, Baja California

//Original signed by//
Bob Filner
Mayor
City of San Diego, California

//Original signed by//
City Clerk
City of San Diego, California

The current Sister City plan is an update to the existing plan that was originally created, signed and executed on October 23, 2003. The current update was amended on November 17, 2011 with the assistance of various parties, including the Tijuana Fire Department, Cal EPA Region IX, Border Environmental Cooperation Commission, and headed by the binational support of The County of San Diego Hazardous Materials Division and Protección Civil of Baja California.

In witness, whereof, this understanding has been executed January 14, 2013.

Michael Vizzier
Chief, Hazardous Materials Division
Department of Environmental Health
San Diego County, California

Mario A. Rodriguez
Deputy Director, Civil Protection
State Directorate
Tijuana, Baja California

PARTICIPATING AGENCIES

Federal, state and local officials from the United States and Mexico joined to develop this binational prevention and emergency response plan for the San Diego/Tijuana border area. This plan will improve communication, coordination and cooperation among members of the emergency planning and response community regarding a hazardous substance release. The objectives of the plan are to use resources effectively, to reduce polluting incidents and to protect public health, safety and the environment.

A Steering Committee composed of key agencies listed below guided the development of this regional accord.

The following are brief introductions to the governmental agencies that participated in the plan development. These same entities will ultimately be responsible for its successful implementation.

MEXICO AGENCIES

Baja California Civil Protection Administration
The Civil Protection Administration is in charge of organizing, coordinating and operating the State's Civil Protection System, as well as conducting strategic planning and coordinating emergency response actions when the needs of a municipality surpass its resources to respond to an emergency or when so requested. The State Civil Protection Administration provides guidance to local authorities and provides resources to identify and mitigate risks. The Administration sets policies for planning and responding to natural or technological catastrophes.
www.depcbc.gob.mx

Civil Protection Administration of the Municipality of Tijuana
The Civil Protection Administration at the local level in Tijuana assumes a general coordinating role in major emergency events. Civil Protection is responsible for the development of prevention programs, as well as response and recovery in the case of major emergencies. Civil Protection also keeps and maintains records of human resources, material and equipment to be used in emergencies.

Secretariat of the Environment and Natural Resources (SEMARNAT)
SEMARNAT has among its main functions the establishment of Mexican Official Standards in the area of ecology and compliance monitoring, as well as regulating and controlling activities considered high risk. This includes the generation, handling and final disposal of materials and wastes considered hazardous to the environment and ecosystems. Other related functions are: to regulate the sustainable recovery of natural resources and flora and fauna, both land and aquatic; and to evaluate findings of environmental impact studies and risk assessments to prevent ecological accidents. The Secretariat also participates in the prevention and control of emergency and environmental incidents in accordance with civil protection policies and programs.
www.semarnat.gob.mx

Tijuana Fire Department

The Tijuana Fire Department is the primary response entity for the City of Tijuana. The Department has many capabilities, including hazardous materials response. The Fire Department works in cooperation with local Civil Protection authorities. The Tijuana Fire Department has developed a solid working relationship with counterpart agencies in San Diego.

Federal Attorney General for the Protection of the Environment (PROFEPA)

PROFEPA is in charge of monitoring and promoting compliance with environmental and natural resource legislation, through authority actions (inspection and monitoring), through its personnel directly, or concurrently with the community and other government agencies. It evaluates and imposes sanctions on illegal acts in order to contribute to the permanent improvement of renewable natural resources and environmental conservation. PROFEPA's scope of environmental authority in the industrial area is: hazardous wastes, risks, air, environmental impacts, noise and environmental audits. With regard to natural resources, the areas of PROFEPA's authority are: forestry, wild life, cynegetics, environmental impact, the marine land federal zone and phytosanitary.
www.profepa.gob.mx

Secretariat of the Navy

This Secretariat works closely with SEMARNAT, PROFEPA and the United States Coast Guard regarding polluting marine incidents affecting the United States and Mexico. The Secretariat of the Navy and the United States Coast Guard signed the MEXUS agreement, which provides joint response protocol to polluting incidents in the marine environment. The Pacific Annex to this agreement, called MEXUSPAC, refers specifically to the marine environment in the California and Baja California area.
www.semar.gob.mx

Secretariat of Health

This Secretariat is in charge of enforcing the Epidemiology Surveillance System to respond to manmade and natural incidents. The Secretariat also maintains hospital units with emergency services in border cities. The Environmental Health department of the Secretariat coordinates service sites at the border in charge of International Health for control and regulation purposes. Environmental Health also regulates technological incidents involving chemical and radioactive substances.
www.salud.gob.mx

Mexican Customs

The main function of Customs is to inspect, monitor and control the import and export of merchandise, including its means of transportation, by ensuring compliance with the provisions issued by the Secretariat of the Treasury, and other authorized Federal Government secretariats. Customs also assists in guaranteeing national security, and protecting the country's economy, public health and the environment by preventing the flow of hazardous or illegal materials into national territory. Customs in the city of Tijuana, Baja California has sections and/or checkpoints at the Abelardo L. Rodriguez International Airport, Otay Mesa and Puerta Mexico.
www.aduanas.sat.gob.mx

Federal Preventive Police (PFP)

The main function of the Federal Preventive Police is to safeguard people's rights, prevent crime, and maintain liberty, public order and peace under the terms of the Federal Preventive Police Law. For public security purposes, PFP has the authority to monitor and inspect the import and export of merchandise, as well as the entrance and exit of persons at airports, marine ports authorized for international traffic, Customs facilities, fiscal yards, Customs sections, gates and Customs checkpoints. With regard to emergency response, PFP works at the request of the other authorities, particularly with Civil Protection in public disaster situations, high-risk situations or natural catastrophes. The PFP is trained to use the Emergency Response Guide in cases that involve responding to hazardous materials releases. The PFP is also an important agency in the monitoring of potential terrorist activity in Mexico.

UNITED STATES AGENCIES

U.S. Environmental Protection Agency, Region IX

U.S./Mexico Chemical Emergency Preparedness and Response

EPA's U.S./Mexico Border Program for Chemical Emergency Preparedness and Response conducts, sponsors and participates in a variety of activities to help border communities plan for and respond to accidental and deliberate releases of hazardous materials. EPA conducts scientific and technical research to identify hazardous material risks. EPA promotes program development, including facilitation of binational, multi-agency forums and Sister City Plans. The agency provides and actively advocates funding and support to improve local emergency responder readiness and sponsors hazardous material exercises. EPA provides training and support to other U.S. federal, local and state agencies, as well as to emergency responders in Mexico. Upon activation of the Joint Response Team, EPA is authorized to provide technical assistance and conduct emergency response actions in Mexico, in cooperation with Mexican authorities.

www.epa.gov

Bureau of Customs and Border Protection

Any hazardous material incidents occurring at the ports of entry will be contained as much as possible and first responders will be notified. Federal Inspection employees assigned to the ports of entry are trained to deal with emergency situations and have emergency response plans in place. The Federal Agencies have installed a Border Mutual Aid Radio System (BMARS) that provides immediate communications capabilities with Mexican officials at the Mexico/U.S. border crossings for coordination and notification of any serious incidents. Customs management officials participate in the Border Liaison Mechanism (BLM) Group chaired by the U.S. and Mexican Consul Generals. The Group is comprised of a variety of working groups and meets regularly to address any cross border issues dealing with law enforcement situations, emergency procedures or other concerns.

www.cbp.gov

State of California Governor's Office of Emergency Services (OES)

OES coordinates overall state agency response to major disasters in support of local government. OES interfaces with the U.S. federal government for emergency response and recovery. OES works with the Federal Emergency Management Agency for disaster preparedness and response. OES manages the California Specialized Training Institute in San Luis Obispo. OES is active in U.S./Mexico border projects, including the Coast Guard's MEXUSPAC Plan.

www.oes.ca.gov

San Diego County Office of Emergency Services

The San Diego County Office of Emergency Services provides training to local governments and citizens on preparing for disasters. This office provides emergency information through the use of the Emergency Alert System (EAS) and the Life Saving Information for Emergencies Radio System (L.I.F.E.). This office also coordinates the development of the operational Area Emergency Plan and provides training to member jurisdictions in the use of the plan. The Office serves as a coordinator. The Office administers the County's Hazardous Incident Response Team (HIRT) program and is a partner with the HIRT team to provide joint chemical and biological emergency response to the cities and unincorporated areas throughout the County. The Office works closely with the City of San Diego Fire-Rescue Department and the County's Department of Environmental Health, and operates the County's Emergency Operations Center.

www.co.san-diego.ca.us/cnty/cntydepts/safety/disaster

County of San Diego Department of Environmental Health (DEH), Hazardous Materials Division (HMD)

The mission of DEH is the protection of the environment and enhancement of public health by preventing disease, promoting environmental responsibility and, when necessary, enforcing environmental and public health laws. The Department of Environmental Health, Hazardous Materials Division, is the Certified Unified Program Agency (CUPA) for the County. HMD is responsible for regulating hazardous materials and waste, tiered permitting, hazardous materials business plans and chemical inventory, underground storage tanks, risk management plans, and medical wastes in business located throughout San Diego County. HMD's emergency response team is part of the County's Hazardous Incident Response Team (HIRT) and responds to over 300 emergency incidents each year. HMD also has a pivotal role, in coordination with the U.S. EPA, in emergency response planning and training. The HMD, under contract with the Department of Toxic Substances Control (DTSC) and in coordination with U.S. Customs Service, monitors the Otay Mesa and Tecate ports of entry for illegal shipments of hazardous wastes. In addition, HMD provides training in the United States and Mexico on requirements for the handling, storage, and transportation of hazardous wastes and materials, pollution prevention and emergency response.

www.sdcdeh.org

United States Coast Guard

The U.S. Coast Guard is responsible for preventing and coordinating responses to oil and other hazardous material spills in the coastal zone or marine environment in the United States/Mexico border area through the United States/Mexico Joint Contingency Plan and the MEXUS Plan. The Commanding Officer of the San Diego Coast Guard Marine Safety Office, as the Pre-designated Federal On-Scene Coordinator (FOSC), actively coordinates border planning, preparedness and response activities with the Second Naval District in Ensenada, Baja California and is implementing a regional annex to the MEXUS Plan. Should a discharge occur, the U.S. Coast Guard maintains a rapid response capability to coordinate the containment and recovery of oil and hazardous substances from pollution incidents. In addition, the U.S. Coast Guard National Strike Teams are at the ready to assist in responses to major oil or other hazardous material spills in the inland waterways and coastal regions.
www.uscg.mil/uscg.shtm

San Diego Fire-Rescue Department

San Diego Fire-Rescue Department staffs a Hazardous Materials Response Team with on-duty firefighter personnel trained to the Hazardous Materials Technician and Specialist level. The mission of this team is to protect life, property, and environment from the adverse effects of hazardous materials emergencies. This specialized response service is provided to all areas within the City and County of San Diego. As a resource to the local on-scene Incident Commander, the Hazardous Materials Response Team primarily conducts identification, rescue, and mitigation operations for all types of chemical and biological emergencies. All Fire-Rescue personnel are trained to the Hazardous Materials First Responder Operational level, are skilled in performing mass casualty decontamination, and work effectively in the Incident Command System (ICS). The Fire-Rescue Department has bilingual liaisons (Spanish/English) who are available to assist with binational events, including training and technical assistance.
www.sannet.gov/fireandems

California Department of Forestry and Fire Protection (CDF)

CDF has its own binational aid agreement with Mexico through the Border Agency Fire Council. The agreement enables firefighters to travel beyond the border of the neighboring country to fight a fire, up to one mile into Mexico or the United States. Firefighting equipment has already been pre-registered with U.S. Customs to facilitate its return, which must occur through a designated port of entry. The Fire Council has received national recognition for its efforts.
www.fire.ca.gov

California Highway Patrol (CHP)

CHP is an emergency responder and scene manager. CHP has jurisdiction on all freeways and all roadways within the unincorporated areas of California. CHP has a key role in emergency response involving areas within its jurisdiction. The CHP contributes to public safety through its truck inspection facility at Otay Mesa. www.chp.ca.gov

San Diego Police Department

The San Diego Police Department is a public safety agency with emergency response capabilities. Operating under the Standardized Emergency Management System (SEMS) / Incident Command System (ICS) the SDPD provides the following functions at the scene of an emergency: The SDPD will assess the situation immediately and request appropriate agencies and resources. The SDPD will provide scene security, crowd and traffic control. If necessary, the SDPD will develop and implement a plan to evacuate. If the incident is within the jurisdiction of the City of San Diego and is determined to be the result of criminal activity, the SDPD will conduct a joint investigation with other involved agencies.
www.sannet.gov/police

BACKGROUND

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 created 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 Substances 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 to 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 Tijuana, Baja California and the County/City of San Diego, California border area. It consists of an overview of the plan area, the identification of the hazards associated with hazardous materials during their use, handling, transportation and storage, a description of the specific elements for the activation of the Binational Mutual Aid Request, and the establishment of the Binational Emergency Response Operations under the Standardized Emergency Management System (SEMS). This plan specifically addresses the requirement under the JCP to prepare Sister City plans.

INTRODUCTION

The Binational Hazardous Materials Prevention and Emergency Response Plan among the County of San Diego, the City of San Diego, California, and the City of Tijuana, Baja California provides a mechanism for cooperation between the United States and Mexico in response to hazardous materials incidents. These incidents may pose a significant threat to the population, environment and property within a two-mile radius, north and south of the international border. If an incident were to happen on either side of the border, and this incident were of such magnitude that it may affect the neighboring country, a notification system will be activated between the United States and Mexico. The local communication will take place between San Diego and Tijuana if notification or technical support is needed. However, communication at the federal level between the two governments will take place if additional personnel, instruments and equipment are needed as auxiliary support to the incident.

a) Purpose

The purpose of the Binational Hazardous Materials Prevention and Emergency Response Plan is to protect public health, safety and the environment in the border area through the prevention of and adequate response to hazardous materials incidents.

b) Objectives

The specific objectives of the Binational Hazardous Materials Prevention and Emergency Response Plan are:

- Identification and development of a binational database of chemical hazards associated with the use, handling, transportation, and storage of hazardous materials in the border area.
- Establishment of specific elements for the Binational Mutual Aid Request.
- Development of a reliable binational hazardous materials incident notification system.
- Establishment of roles and responsibilities of the U.S./Mexico response agencies during a binational hazardous materials emergency under the Standardized Emergency Management System (SEMS).
- Coordination of binational training, joint exercises and technical assistance.

c) Scope

The Binational Hazardous Materials Prevention and Emergency Response Plan applies to hazardous materials incidents that have the potential to affect the inland border area of the City of Tijuana and the County or City of San Diego. This area encompasses two miles north and south of the boundary between the United States and Mexico.

- Polluting incidents affecting the marine environment are covered in the MEXUSPAC Geographic Annex, of the MEXUS Plan, signed on February 26, 2003 by the Secretary of the Navy of Mexico and the United States Coast Guard. The Binational Hazardous Materials Prevention and Emergency Response Plan will coordinate with the MEXUSPAC Geographic Annex when a hazardous materials incident affects the inland border area and the coastal waters of the Pacific Ocean of both countries.
- This Plan at no time usurps existing federal, state, county, regional, or municipal plans within the jurisdictional boundary addressed by this plan.
- The initial and prime responsibility for providing immediate assistance rests with the city, county or regional government affected.

1.0 TIJUANA/SAN DIEGO BORDER REGION

1.1 General Aspects of the Region

1.1.1 Historical and Cultural Background

In 1848, the international boundary between the United States and Mexico was established across the Tijuana River Valley an intermittent river, 195 km (121 mi) long. A Mexican customs post was established in 1874 at the border crossing of the small town to tax trade between San Diego and Baja California. In 1906, the San Diego & Arizona Eastern railway began to construct a line from San Diego to Yuma that traversed the border. The railway was completed in 1919, stimulating growth in the area. The City of Tijuana was established in 1889 and by 1910 the population was only 700 individuals.

The current town of San Ysidro, located in the U.S. adjacent to the international border, was established in 1909. In 1916, the Hatfield flood destroyed homes and farms, forcing families to sell their holdings to the employees of the Sunset Racetrack in Tijuana. Almost overnight, San Ysidro became a tent city that accommodated a sudden influx of employees who lived in the United States and traveled to work across the border.

In the early part of the twentieth century, Tijuana had grown as an attraction for visitors from San Diego for horse racing, boxing matches, shopping, art, music and the hot springs of Agua Caliente.

The Bracero Program began in 1942, allowing thousands of Mexicans to work in temporary agricultural jobs in the United States. Many of these individuals remained as permanent border residents after the program was terminated in 1964. In 1965, Mexico implemented the Border Industrialization Program that led to the development of the *maquiladora* (assembly plant industry), as a way to create employment along the border. By the early 1980s, *maquiladoras* emerged as the most dynamic element in Tijuana's economy. By the mid 2000s, the industry employed some 170,000 workers in Tijuana. Jobs in the *maquiladora* sector and potential employment in the United States helped attract continuing waves of migrants from central and southern Mexico, assuring the rapid growth of both Tijuana and the border area.

San Diego and Tijuana are linked inextricably by geography, history, culture and economics. The border is an environment of opportunities for both cities to share their own cultural identities through handicrafts, food, music, and education.

The migratory influx to Tijuana is the most dynamic on the U.S.-Mexico border. People from different cultural regions of Mexico have settled along the border and have developed a complexly layered cultural and social environment. Border peoples have developed distinctive styles, social organizations, and local economies.

Tijuana's literacy rate for the population over 15 years of age is one of the highest in Mexico. Tijuana schools provide students quality education to meet the demands of the highly competitive regional job market. The City of Tijuana has 12 institutions of higher education, including universities, technological institutes, and research centers.

The City of San Diego is well known for its research and development centers. San Diego has five highly respected universities and also tops all other U.S. cities in the number of Ph.D.s per capita. The University of California at San Diego (UCSD) is recognized worldwide as a center for scientific learning and research. The institution ranks annually in the top 10 universities nationwide in terms of quality programs and is a leading recipient of research and development funds. Many of San Diego's biotechnology and bio-medical companies are located close to this university campus. San Diego State University (SDSU) is the largest California State University campus and home to the Defense Conversion Center, which focuses on industries converting from defense products to commercial products.

Ethnic and racial diversity plays a very important role in a society, providing an environment for cultural exchange. San Diego's ethnic/racial population has been changing through the years. Table 1 provides data and projections of those changes according to data from San Diego Regional Chamber of Commerce and U.S. Census Bureau.

Table 1

San Diego County Ethnic/Racial population (%)				
	1970	*2000*	*2010*	*2020*
White	83.8	59.3	48.5	48.4
Hispanic	9.1	25.0	32.0	33.6
Black	4.5	6.1	4.7	5.8
Asian/other	2.5	9.6	11.1	12.3

Source: San Diego Regional Chamber of Commerce, 2002; U.S. Census 2010, U.S. Census Bureau

According to the 2000 Census, and reflecting the ethnic diversity of the city, 67% of San Diego residents speak only English, 11.4% residents speak English and Spanish, 3.8% speak English and another Asian or Pacific Island language and 2.3% of residents speak English and another Indo-European language.

1.1.2 Geographic Location

The City of Tijuana is located in Northwestern Baja California, 130 miles from the state capital of Mexicali. The city rests at an altitude of 65.61 feet (20 meters) above sea level, at 32º 31' latitude and 117º 01' longitude. The city covers 427 square miles (1,108 sq. km).

The neighboring areas of Tijuana are San Diego City and County to the north, the municipality of Tecate to the east, the Pacific Ocean to the west and the municipality of Rosarito and the Port of Ensenada to the south.

San Diego County stretches 65 miles from north to south, and 86 miles from east to west, with elevations ranging from sea level to 6,500 feet. Its latitude is 32º 42' and its longitude is 117º 09'. The County covers 4,200 square miles (10,893 sq. km). San Diego County shares common

borders with Orange County to the northwest, Riverside County to the north, Imperial County to the east, and the state of Baja California to the south.

The San Diego-Tijuana region has a population of over 5 million, making it the largest bi-national conurbation shared between the United States and Mexico. It also forms the largest "twin-cities" on the U.S.-Mexico border. Tijuana is the most populated city in the State of Baja California and San Diego is the second most populated city in the State of California.

1.1.3 Topography and Climate

The topography of the San Diego-Tijuana area has elevations ranging from sea level on the west to more than 3,550 feet (1,082 meters) at Otay Mountain to the far east. The western region (two-thirds) is composed largely of relatively flat marine terraces comprised of conglomerate and other sedimentary rocks that are dissected by steep-sided valleys. In the west, severe erosion has left few remnants of upland areas. To the east, the urban zone of Otay Mesa-Mesa de Otay is located in a large area of relatively flat upland areas. The eastern region (one-third) is the most rugged section and is characterized by deeply dissected terrain developed on rocks that are largely igneous in nature.

The climate of the San Diego-Tijuana region is tempered by the Pacific Ocean, which results in relatively cool summers and warm winters. Temperatures below freezing are rare, while hot weather, 90 degrees and above, are more frequent. More than 80 percent of the region's rainfall occurs in the period between December and March. Average annual rainfall is approximately 9.9 inches per year.

The weather patterns in the San Diego-Tijuana area are affected by the "Marine Layer", a giant layer of air in direct contact with ocean water. This moist, cool air covers the region at night and recedes during the day, resulting in foggy or hazy mornings that usually burn off by noon.

Santa Ana winds are another local weather phenomenon. Driven down from the mountains to the east, Santa Ana winds compress as they descend to sea level, generating heat and high temperatures. Santa Ana winds generally occur in September and October, sometimes in November. The temperature often exceeds 90 degrees during these winds; however, the heat is offset by very low humidity, which often drops below 20 percent.

1.1.4 Population

Based on 2010 figures from the U.S. and Mexican Census Bureaus, the estimated cumulative population of the San Diego-Tijuana area is 4.5 million, with 3.0 million people residing in San Diego County, and 1.5 million people residing in the City of Tijuana.

Tijuana's population of 1.5 million represents almost half of the State's total population. Its population grows faster than the national and the state average due to available economic and social opportunities. Most of the population is between 16 and 30 years of age. Approximately 41.76% Tijuana residents were born in the state of Baja California; 53.54% have migrated from different areas of Mexico, and 4.7% are foreign residents.

The City of Tijuana has an annual growth rate of 6.2%. According to City Planning Department forecasts, by the year 2015, the population of Tijuana will be over 2.2 million people.

San Diego County is the sixteenth largest metropolitan area in the United States with a population of over 2.8 million residents. According to information provided by U.S. Census Bureau and the U.S. Department of Commerce, from 1990 to 2010 San Diego County increased its population by 12.6%.

The San Diego-Tijuana region is one of the most demographically dynamic of the entire U.S.-Mexico border. Based on a 2010 Census Bureau ranking of metropolitan areas, and summarized by the Greater San Diego Chamber of Commerce, the San Diego-Tijuana area holds eighth place for population in the United States.

Table 2 provides data and projections for population growth in the binational San Diego-Tijuana region:

Table 2 POPULATION

	1990	2000	2010
Tijuana, B.C.	747,384	1,212,232	1,559,683
San Diego, California	1,110,549	1,223,400	1,307,402
San Diego County	2,498,016	2,813,833	3,095,313

Source: U.S. Census Bureau: 2010 Census; INEGI México: 2010 Data

1.1.5 Economy

The San Diego regional economy continues to undergo a dynamic transformation propelled by high-technology companies that compete in international markets. These high-technology firms produce products and services most in demand in the global economy. San Diego has experienced economic development in the defense industry, as well as the biotechnology, aerospace, electronics and computer industries. Based on information from the San Diego Regional Chamber of Commerce, San Diego's high technology economy in 2002 is distributed as follows: 19% aerospace/defense, 19% telecommunications, 18% bioscience, 13% electronics, 10% computers/peripherals, 9% software, and 12% other high-tech. These sectors account for 148,500 jobs in San Diego County.

The multi-billion dollar visitor industry has also been an important sector of economic power and stability in San Diego. The visitor industry is San Diego's third largest economic sector, behind only manufacturing and military/defense.

The City of Tijuana has grown into an important manufacturing center with 577 *maquiladoras*, employing more than 162,367 workers, according to the information from 2006 Census (INEGI).

However, a slowdown in the U.S. economy, coupled with a growing number of operations being moved to Asia, has contributed to decrease in the number of *maquiladoras* in Tijuana over the past two years.

Tijuana's economic base is comprised of trade, tourism and manufacturing, primarily. Based on the information from the Public Registry of Property and Commerce, Tijuana's business sector consists of 35% commerce services, 24% manufacturing, 18% transportation, 5% agriculture, 5% construction, 3% mining and 10% other.

2.0 REGIONAL INFRASTRUCTURE

2.1 Transportation

2.1.1 Roads

Tijuana

Tijuana is connected to the rest of Mexico by the Mexico-Nogales Highway 2, and to the rest of Baja California with the trans-peninsular Highways 1 and 3. Its proximity to San Diego enables immediate access to the State of California and North America. There is also the Tijuana/Tecate/Mexicali toll road, which connects Tijuana to those cities, following the California/Baja California border.

In the City of Tijuana, six roads carrying high volumes of traffic connect the area of La Mesa to the River Zone: Boulevard Cuauhtémoc, Acceso Otay-Buena Vista, Boulevard Lázaro Cárdenas Poniente, Boulevard Lázaro Cárdenas Oriente, Boulevard Manuel J. Clouthier, and Boulevard Héroes de la Independencia-Boulevard Héctor Terán Terán. The historic urban core of Tijuana, the area adjacent to Avenida Revolución, is connected to the Avenida Revolución-Boulevard Agua Caliente-Boulevard Díaz Ordaz corridor. This corridor, characterized by commercial strip development, has a very heavy volume of public transportation. With no overpasses to speed cross traffic, the route is considerably congested. The Paseo de los Héroes and vías rápidas (expressways) provide additional road capacity parallel to this route. The connection of the Zona Centro with Playas de Tijuana to the west is by the four-lane limited access *Autopista Playas* that traverses the difficult topography of the western hills. The Playas de Tijuana and Otay Mesa sectors are connected by congested surface streets that traverse the Zona Centro and a beltway, the Libramiento Oriente and Libramiento Sur, which loops around the city to the south.

San Diego

San Diego County has four major interstate freeways and six state highways. Among them, Interstate 5 runs north-south and connects the northwest of the United States to Canada and the southwest to Mexico; Interstate 8 runs east-west and connects coastal areas of San Diego eastward to Arizona; Interstate 15 runs north-south parallel to I-5 and connects the northwest of the United States to Canada and the inland southern region of the county. Interstate 805 runs north-south and connects the inland areas of San Diego, National City and Chula Vista.

Highway 905 connects Otay Mesa to I-5 and I-805. Highway 54 runs east-west and connects I-5 to the southeastern region of the city.

2.1.2 Media

The San Diego/Tijuana region has an extensive array of media, including print, radio and television. Many of these sources provide coverage to both sides of the international border, and several are in Spanish.

Tijuana

In the City of Tijuana, there are nine television stations. With regard to print media, there are four main daily newspapers and some weekly publications. There are 14 AM radio stations and 16 FM radio stations in Tijuana.

San Diego

In San Diego County, there are 12 television stations (non-cable) and 10 cable television stations. With regard to print media, there are three main daily newspapers and numerous weekly and monthly publications. There are 13 AM radio stations and 24 FM radio stations in San Diego County.

2.1.3 Railroads

Tijuana

The city of Tijuana offers daily rail freight service to and from the Ports of San Diego and Los Angeles via the SD&IV (San Diego-Imperial Valley Rail System). Additionally, the Amtrak station in San Diego, located only 20 minutes away, offers 20 daily passenger trips to and from Los Angeles. The railroad station is connected by trolley to the San Ysidro Border Crossing facilitating commuter traffic between the two cities.

Mexicali, two and a half hours distant from Tijuana, has connecting rail routes via the Mexican National Rail System to every destination in Mexico.

San Diego

The State of California finances operation of the Pacific Surfliner route, which lies in a generally northwest by southwest direction along the Pacific Coast of California, connecting the cities of San Diego, Los Angeles, Oxnard, Santa Barbara, and San Luis Obispo.

Amtrak California Pacific Surfliner operates seven days per week with 11 daily round-trips between San Diego and Los Angeles; one round trip each day operates between San Luis Obispo and San Diego, while another round trip per day operates between Santa Barbara and San Diego.

Commercial rail activity is primarily comprised of automobiles and lumber. Historically, soda ash has also been shipped by rail, but this activity was recently moved to the Port of Long Beach.

2.1.4 Airports

Tijuana

The City of Tijuana is served by the Abelardo L. Rodriguez International Airport, located in Mesa de Otay and adjacent to the international border in Otay Mesa. It is the busiest airport in northwestern Mexico with six airlines offering national flights throughout Mexico and 125 daily flights, including daily service to Los Angeles, CA and Las Vegas, NV.

San Diego

The Port of San Diego operates the San Diego International Airport-Lindbergh Field providing international and commercial air service for the region. Lindbergh Field hosts 20 passenger airlines and 17 air freight carriers. In 2009, the airport had a total of 199,209 operations. Of these, 143,220 were air carriers, 41,679 were air commuters, 12,984 were civil and 1,326 military.
Source: FAA 2009

The City of San Diego operates two general aviation airports, Brown Field one mile north of the U.S.-Mexico border, and Montgomery Field located in the Kearny Mesa area of the city.

Brown Field airport is a port of entry into the United States for private aircraft coming from Mexico into California. Brown Field is also heavily used by military and law enforcement agencies. The control tower operates daily from 8 a.m. to 8 p.m.

2.1.5 Maritime Ports

Tijuana

Having no seaport of its own, the City of Tijuana is served by the Port of San Diego, the Port of San Pedro in Los Angeles, and the Port of Ensenada. Import-export shipments are scheduled weekly to Yokohama and Kobe, Japan; Hong Kong, China; Kaohsiung, Taiwan; and South Korea. Transfer shipments are available to Singapore and Pennang. South American countries such as Panama, Guatemala and Chile can also be reached through the Port of Ensenada.

San Diego

San Diego Bay is an uncongested harbor located about 96 nautical miles southeast of Los Angeles and just north of the U.S./Mexico border. It is only a few miles from Tijuana, and is 135 miles from Mexicali.

The Port operates two marine cargo facilities, the Tenth Avenue Marine Terminal and the National City Marine Terminal. Also, the Port owns the B Street Cruise Ship Terminal.

The cargo terminals have on-dock rail facilities for rapid transfer of cargo to rail and are minutes from Interstate 5, 8 and 15 for truck transportation. Terminal gates are operated 24 hours a day. The terminals are located 15 miles from the border crossing between the United States and Mexico.

The Tenth Avenue Marine Terminal is a 96-acre, multi-purpose facility offering modern dockside cool/frozen storage, break bulk, dry/liquid bulk, small-scale container operations and warehousing services. The principal inbound cargoes are refrigerated commodities, fertilizer, cement, break-bulk commodities, and forest products. The primary export cargoes include refrigerated cargo, break bulk and bulk commodities.

IMC Chemicals, Inc. (IMC) operates a state-of-the-art bulk loader at this terminal. The loader, rated as one of the worlds most efficient, at 2,000 tons per hour, is used to export soda ash, sodium sulfate, borax, pyroborates, bicarbonate of soda and other bulk commodities.

The National City Marine Terminal is a 125-acre complex and a primary port of entry for Honda, Acura, Volkswagen, Isuzu, Mitsubishi Fuso, and Hino motor vehicles. The terminal is capable of handling well over 300,000 vehicles per year.

The B Street Cruise Ship Terminal is located on B street Pier, between the foot of Broadway and A Street in downtown San Diego. The facility is equipped to handle embarkation and debarkation of passengers and baggage with a 35,000 sq. ft. passenger reception and baggage handling area and a rated capacity of 3,419 persons.

2.2 Water and Sewage Infrastructure

2.2.1 Water

Tijuana

Tijuana's potable water and sewage services are operated by the State Commission for Public Services for Tijuana (Comisión Estatal de Servicios Públicos de Tijuana, CESPT). Tijuana is supplied with water from the Rodríguez Reservoir, with water transported from the Colorado River by an aqueduct, and by wells in La Misión located south of Tijuana on the coast. In addition, a small, but critical portion of Tijuana's water is supplied by the wells in the Río Alamar and Río Tijuana. Efforts are underway to protect these sources and maximize groundwater recharge. Water from the Rodríguez Reservoir and the Colorado aqueduct is treated at the filtration plant at El Florido. The water is distributed throughout Tijuana via two main systems: (1) the Mesa de Otay tank, and (2) the Aguaje de la Tuna tank. Water distributed through the system of mains and supply lines reaches approximately 85% of Tijuana's population. The remainder is serviced through deliveries by tank trucks (*pipas*) at a cost that is two to three times that of piped-in water.

San Diego

San Diego is located in the semi-arid desert region of the southwestern United States where rainfall can vary from nothing one year to plentiful the next. During a normal year about 10-20 percent of the City's water supply is made up of local rainfall and is captured in reservoirs. The remaining 80-90 percent is imported via the Metropolitan Water District of Southern California (MWD) and the San Diego County Water District Authority (CWA) from two separate sources: the Colorado River Aqueduct (CRA) and the State Water Project (SWP).

The Metropolitan Water District built the Colorado River Aqueduct to convey water from the Colorado River. The aqueduct is more than 242 miles long, beginning at Lake Havasu on the Arizona/California border and ending at Lake Mathews in Riverside County. The aqueduct has the capacity to deliver up to 1.3 million acre-feet (MAF) each year.

San Diego also receives water that originates in Northern California from the State Water Project. This water is captured in reservoirs north of Sacramento and released through natural rivers and streams into the Sacramento-San Joaquin River Delta (Delta). The 444-mile-long California aqueduct carries the water from south of the Delta to southern California.

The MWD blends Colorado and State Project water for San Diego to achieve the highest quality for treatment and taste. The water is then transferred to the San Diego treatment plants at Miramar, Alvarado and Otay reservoirs, via pipelines operated by CWA.

The Miramar Water Treatment Plant is the sole provider of drinking water to an estimated 500,000 customers in the northern section of the City of San Diego. The plant is located in the Scripps Miramar Ranch community on the shore of Miramar Lake. Currently the plant produces 140 million gallons of water a day (mgd).

The Alvarado Water Treatment Plant is located adjacent to Lake Murray near the City's border with La Mesa. Currently the plant processes 120 million gallons of water a day, and potable water demand, at times, exceeds available capacity.

The Otay Water Treatment Plant provides up to 34 million gallons per day of potable water to customers primarily in the southern reaches of the City. The treatment plant obtains its water from the Morena, Barrett and Lower Otay Reservoirs.

2.2.2 Sewage

Tijuana

The downtown areas of Mesa de Otay and Zona Centro are served by a system of collectors that transports sewage by gravity from the hills and mesas to main collectors in the Tijuana River Valley. From there, the sewage is transported to Pump Station 1, located at the low spot in Tijuana's collector system, which is adjacent to the International Wastewater Treatment Plant. There is also an interceptor located in the Tijuana River channel that diverts renegade sewage to the pump station and collector system. Most of the Zona Centro has sewage service, but coverage on Mesa de Otay is incomplete, particularly in the growing squatter settlements in the eastern portion of this area. From Pump Station 1, the sewage is pumped up over a series of hills to the ridge above Playas de Tijuana where it enters an open canal and is transported some 3.1 miles (5 kilometers) south to the treatment plant at San Antonio de los Buenos. Another pump station lifts sewage from the area of Playas de Tijuana adjacent to the ocean to the conveyance canal to San Antonio de los Buenos.

San Diego

In the City of San Diego, the wastewater is collected from residents and businesses in the Metropolitan Sewerage system and it is conveyed through pipelines to the Point Loma Wastewater Treatment Plant and the North City Water Reclamation Plant.

The Point Loma Wastewater Treatment Plant (PLWTP) treats up to 190 million gallons of wastewater per day from a 450 square mile area. The PLWTP is energy self-sufficient, using the methane produced at the plant during the wastewater treatment process to generate electricity at the plant's gas utilization facility.

The South Bay International Wastewater Treatment Plant (SBIWTP) is a 25 million gallon per day advanced primary treatment plant located in San Diego County, about 2 miles west of the San Ysidro Port of Entry. The physical-chemical plant treats sewage originating in Tijuana, Mexico and discharges it to the Pacific Ocean through the South Bay Ocean Outfall, a four and one-half mile long, 11 foot diameter pipe completed in January 1999.

The new South Bay Water Reclamation Plant is currently in a test mode and will provide local wastewater treatment services and reclaimed water. The plant has a wastewater treatment capacity of up to 15 million gallons per day. It is located at the intersection of Dairy Mart and Monument Roads in the Tijuana River Valley. However, it is expected to process seven million gallons per day.

The North City Water Reclamation Plant (NCWRP) can treat up to 30 million gallons of wastewater per day generated by northern San Diego communities. Wastewater entering the plant undergoes a series of treatment and disinfection steps, using the latest technology, to supplement the water supply of the region. Reclaimed water is distributed throughout the northern region of San Diego via an extensive pipeline system.

2.2.3 Electricity/Natural Gas

Tijuana

Electricity for the city of Tijuana is generated by two thermoelectric plants: one located in Rosarito and the other in Mexicali (Cerro Prieto), both of which are operated by the Federal Electrical Commission (CFE). Total combined electric energy supply is over 2,000 MW. Tijuana's distribution system includes four high voltage stations and 27 substations.

A 30-inch (76.2 cm), 23-mile (38 km) long natural gas pipeline has been built to feed the Presidente Juarez Thermoelectric power plant in Rosarito. The Rosarito pipeline has a capacity of transporting 500 mcfd (million cubic feet per day). The pipeline is operated by Transportadora de Gas Natural (TGN) in a joint venture between Sempra Energy and Proxima Gas, a consortium of Mexicali businesses.

A second pipeline, Gasoducto Baja Norte brings natural gas from the State of Arizona, with an additional 500 mcfd of capacity. The Baja Norte pipeline crosses the southeast border of California and the State of Baja California to connect with the existing Rosarito pipeline. The Baja Norte pipeline is 145-mile (242 km) long and 30-inch (76.2 cm) wide. The pipeline serves new and existing power plants and industrial customers in northern Baja California and Southern California. It is also a joint venture between Sempra Energy and Proxima Gas.

San Diego

Electricity in San Diego is supplied by San Diego Gas & Electric (SDG&E), which is a regulated public utility that provides service to 3 million consumers through 1.3 million electric meters and 775,000 natural gas meters in San Diego and Southern Orange counties. The company's service area spans 4,100 square miles, covering two counties and 25 cities.

3.0 LAWS AND REGULATIONS

3.1 Authority

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

3.1.1 Laws and Statutes

3.1.1.1 Laws and Statutes in the United States

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. § 9601 *et seq*. Amended October 17, 1986

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*. Amended April 21, 2000

Clean Water Act of 1972, 33 U.S.C. § 1251 *et seq.* Amended 1987.

California Health and Safety Code, Division 20, Chapter 6.95, Hazardous Materials Release Response Plans and Inventory.

California Vehicle Code, Division 2, Chapter 2, Article 4, Highway Spill Containment and Abatement of Hazardous Substances of 1981.

3.1.1.2 Laws and Statutes in Mexico

The General Law of Ecological Balance and Environmental Protection (Published January 28, 1988 and amended on June 4, 2010).

Environmental Protection Law for the State of Baja California (Published November 30, 2001).

The General Law of Civil Protection (Published May, 2000). Amended April 24, 2006.

Civil Protection Law for the State of Baja California (Published January 16, 1998). Amended November 14, 2003

3.1.2 Regulations

3.1.2.1 Regulations in the United States

40 Code of Federal Regulations, Part 300, National Oil and Hazardous Substances Pollution Contingency Plan (2000). Amended may 16, 2011

29 Code of Federal Regulations, Part 1910.120, Hazardous Waste Operations and Emergency Response (2000). Amended April 3, 2006

29 Code of Federal Regulations, Part 1910.38, Employee Emergency Plans and Fire Prevention Plans (2000). Amended November 7, 2002

California Code of Regulations, Title 8, Section 5192, Hazardous Waste Operations and Emergency Response. Amended January 1, 2001.

California Code of Regulations, Title 19, Division 2, Chapter 4.5, California Accidental Release Prevention (CalARP)

3.1.2.2 Regulations in Mexico

Bylaw of the General Law of Ecological Balance and Environmental Protection concerning Hazardous Waste (Published November 25, 1988). Amended January 7, 2000

Bylaw for the Transport of Hazardous Materials and Hazardous Waste by Land (Published April 7, 1993).

Federal Regulation for Safety, Hygiene, and Environment in the Workplace (Published January 21, 1997).

Bylaw of the Law of Ecological Balance and Environmental Protection for the State of Baja California concerning Prevention and Control of Contamination of Water, Soil, and the Atmosphere (Published December 10, 1993).

Bylaw of the Prevention and Control of Fires and Disasters for Public Safety in the Municipality of Tijuana, Baja California (Published March 24, 2000).

Bylaw of Environmental Protection for the Municipality of Tijuana, Baja California (May 11, 2001).

3.1.3 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.

3.2 Other Applicable Contingency Plans

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

3.2.1 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).

The MEXUS PLAN (February 2000) is the Joint Contingency Plan between the United Mexican States and the United States of America regarding pollution of the marine environment by discharges of hydrocarbons or other hazardous substances. It provides standard operational procedures in case of pollution incidents that may represent a threat to the coastal waters or the marine environment of the border zone of both countries.

The MEXUS PLAN has a Geographic Annex, the MEXUSPAC, which defines the applicable regional coordination for the coastal waters of the Pacific Ocean of both countries. The Geographic Annex was signed on February 26, 2003 by the Secretary of the Navy of Mexico and the United States Coast Guard.

3.2.2 Mexico Contingency Plans

3.2.2.1 Local and Regional Plans and Mutual Aid Agreements

The Municipal Contingency Plan for the City of Tijuana (April 2000) provides guidelines to ensure an effective response to emergency situations caused by natural or man-made disasters. The plan addresses duties of government agencies and organizations, operating procedures, and coordination of resources during an emergency response. The Civil Protection Administration has developed the Annexes of the plan for Geological Risks and Hydro-meteorological Risks and is currently developing the plan for chemical risks.

The Municipal Civil Protection Agency has developed the 2000 Risk Atlas for the Municipality of Tijuana, B.C., version 1.0, which is a tool for emergency response planning actions. The Risk Atlas contains the geological, hydro-meteorological, socio-organizational, chemical and sanitary risk evaluation.

3.2.2.2 State of Baja California Plans

The Contingency Plan for the State of Baja California (July, 1, 2008) was developed by the Civil Protection Agency to properly plan, document, train, identify risks, mitigate, and respond to incidents that require the state of Baja California to act in the most efficient and appropriate manner and method.

3.2.2.3 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 Civil Protection System. The Department of the Interior of the Mexican Federal Government approved on May 6, 1986 the basis to establish the National Civil Protection System, which has as a main objective to protect persons and the community in case of a disaster caused by natural or human agents.

In order to fulfill the objectives of the National Civil Protection System, there is the National Civil Protection Program that describes the objectives, policies, strategies, action lines and goals. The National Program is currently in force for the 2001-2006 periods.

DN III-E Plan for Community Assistance. This plan, established by the Secretariat of National Defense, is an active military instrument that establishes the role of the Mexican Army and Air Force to carry out support activities to the community affected by any type of disaster.

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

3.2.3 United States Contingency Plans

3.2.3.1 Local and Regional Plans and Mutual Aid Agreements

The San Diego County Operational Area Emergency Plan (March 2000) describes a comprehensive emergency management system which provides for a planned response to disaster situations associated with natural disasters, technological incidents, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization, and describes the overall responsibilities for protecting life and property and assuring the overall well-being of the population.

In addition, there are four stand-alone emergency plans: 1) San Diego County Nuclear Power Station Emergency Response Plan; 2) San Diego County Operational Area Oil Spill Contingency Element of the Area Hazardous Materials Plan; 3) San Diego County Operational Area Emergency Water Contingencies Plan; and 4) Unified San Diego County Emergency Services Organization Operational Area Energy Shortage Response Plan. Amended April 2007.

3.2.3.2 State of California Plans

The State of California Emergency Plan (May 1998) establishes a system for coordinating all phases of an emergency in California. The plan provides a description of the California Emergency Organization and of mutual aid to be used during emergencies to ensure effective coordination of resources. It describes interagency and intergovernmental shared responsibilities and support capabilities. The plan includes general policies to guide emergency management activities. Amended June 23, 2009.

The State of California Hazardous Materials Incident Contingency Plan (HMICP) was originally published in November of 1982, and later revised and published in January of 1991. The HMICP has been modified since the last publication. The latest draft was published on May 30, 1999.

The HMICP provides an integrated and effective procedure to respond to the occurrence of toxic disasters within the state. The Plan was prepared and edited by the Governor's Office of Emergency Services.

3.2.3.3 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 May 10, 2006). 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, or Nevada.

4.0 HAZARDS IDENTIFICATION

This section identifies the hazards associated with hazardous materials during use, handling and storage on site, during transportation, and at the Otay Mesa Port of entry within a two-mile radius from the international border based on the geographic scope defined for binational emergency response for hazardous contingencies.

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

This section presents the hazards posed by fixed facilities, which use, handle or store hazardous materials in the County of San Diego, California and the City of Tijuana, Baja California.

For the purpose of the plan, this section includes only general information about the hazardous materials handled by the facilities on both sides of the international border. As a separate document, a detailed inventory will be generated, updated, and exchanged every six months between the Tijuana Fire Department and the San Diego County Department of Environmental Health, Hazardous Materials Division. This information will be provided on compact disk in a Microsoft Access program or shared via a secure web-based interface. It will include location specific information, types of chemicals, and descriptions of the hazardous materials used or stored on site, as well as their quantities.

4.1.1 Hazard Analysis

Tijuana

The City of Tijuana comprises nine sectors, known as *delegaciones*: Playas de Tijuana, Centro, San Antonio de Los Buenos, Otay Mesa, La Mesa, Sánchez Taboada, Centenario, Cerro Colorado and La Presa.

Based on information obtained from the Risk Atlas for the Municipality of Tijuana dated March 2000, version 1.0, provided by Municipal Civil Protection, the types of high-risk facilities located at the border are: hazardous materials and hazardous waste transportation, airport services, storage and distribution of liquid propane (LP) gas, food product processing, and fabricated metal products industries. In this section, the hazards analysis focuses on high risk industries within the scope of the plan.

The determination of activities considered high risk is based on the properties of the hazardous substances and the reporting amounts. The amount reported is the minimum amount of hazardous substance in production, processing, transportation, storage, use or final disposal, or their sum, available in a given facility or means of transportation, that when released would have a negative impact on the environment, the population or property.

The General Law of Ecological Balance and Environmental Protection considers the regulation of high-risk activities based on two published listings:

1) The first listing of high-risk activities corresponds to facilities that handle *toxic substances* in volumes equal to, or higher than the reporting amounts published in the Federal Gazette on March 28, 1990.

2) The second listing of high risk activities corresponds to facilities that manage *flammable and explosive substances* in volumes that are equal to, or higher than the reporting amounts published in the Federal Gazette on May 4, 1992.

Table 3 shows the types of businesses located in Tijuana within two miles of the U.S.-Mexico border that fall within these categories, and the number of businesses handling chemicals in each category.

Table 3

Type of Facilities	# of Facilities	Type of Hazards	Quantities
Storage/distribution of LPG	2	Fire Explosion	50,000 kg
Food product processing	16	Fire Waste	Minimum amount 1 kg
Ice manufacturing and sales	2	Fire Pressure release of ammonia	Minimum amount 10 kg or more
Slaughter and temporary storage of bovine cattle	1	Waste	1 kg or more
Buy-sale of welding fuels	1	Fire Waste	Minimum amount 1 kg or more
Airport services	1	Waste	1 kg or more
Sale of chemical products	5	Explosion Spill Waste	Minimum amount Minimum amount 1 kg or more
Electroplating	1	Fire Waste	Minimum amount 1 kg or more
Industrial gas distribution	1	Explosion Fire	1-100 kg 1-100 kg
Hazardous waste transportation	3	Spill	0.5 lt or more
Manufacturing of latex products	1	Fire Waste	Minimum amount 1 kg or more
Metal polishing	1	Waste	1 kg or more
Hazardous waste recycling	3	Spill Waste	Minimum amount 1 kg or more
Melting of scrap	19	Fire Waste	Minimum amount 1 kg or more
Manufacturing of ophthalmic lenses	1	Waste Fire	1 kg or more Minimum amount

Others	58	Waste Fire	1 kg or more Minimum amount

Source: The Risk Atlas for the Municipality of Tijuana, first and second listing of high-risk activities (LGEEPA), and Emergency Response Guidebook, 2008

San Diego

San Diego County comprises 18 cities and unincorporated areas. The cities are: Carlsbad, Chula Vista, Coronado, Del Mar, El Cajón, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista.

Based on information provided by the San Diego County Department of Environmental Health, Hazardous Materials Division, regulated businesses operating within the two-mile radius include a variety of industrial and commercial activities, handling various hazardous materials. The zip codes used for border communities that are included in this analysis are: 92154; 92173; 91905; 91906; 91917; 91932; 91934; 91963; and 91980.

Among the most prominent and relevant activities in the border area are: auto wrecking/scrap yards; general auto repair; auto body repair; construction/painting contractors; resin manufacturers and users; machine shops/metal working activities; and retail gasoline stations. Some of this activity is to support the maquiladora industry.

In this section, the hazards analysis focuses on activities requiring a Hazardous Materials Business Plan. A brief description of the regulation is as follows:

Hazardous Materials Business Plan: According to the California Health and Safety Code, Division 20, Chapter 6.95, each business shall prepare a Business Plan if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount
- Hazardous waste in any quantity (to meet the requirements for emergency contingency plans)

Table 4 shows the types of inspections conducted in San Diego, located within two miles of the U.S.-Mexico border that fall within these categories and the number of businesses handling chemicals in each category for 2009.

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Table 4

Type of Facility	Quantity
core work inspections	377
inspections by DTSC as the CUPA in Imperial and Trinity Counties	210
Mexican Border truck stops	2084
complaint investigations closed	57
enforcement cases settled	70
total settlement dollars	$1,988,170
financial assurance funds managed	Approximately $1.9 billion
training classes provided resulting in more than 350 CUPA inspectors, governmental officials, and industry personnel trained	29
criminal cases initiated	258
criminal cases completed	192

Source: San Diego County Department of Environmental Health, Hazardous Materials Division. Annual CUPA report 2009.

* These facilities have submitted documentation to the County of San Diego, Department of Environmental Health, to be under permit. Status pending.

Definition of Hazards: According to 40 CFR 370.2:

- Fire: Flammable liquids and solids, combustible liquids, pyrophorics and oxidizers.
- Reactive: Unstable reactive, organic peroxides, water reactive, radioactive.
- Pressure release: Explosives, compressed gases, blasting agents.
- Acute health (immediate): Highly toxic, toxic, irritants, sensitizers, corrosives, other hazardous chemicals with an adverse effect with short term exposure.
- Chronic health (delayed): Carcinogens, other hazardous chemicals with an adverse effect with long-term exposure.

4.1.2 Recycling Centers

In addition to the facilities described above that handle hazardous materials and are required to provide inventories to regulating authorities, there are other facilities in the plan area that pose hazmat risks. For example, there are recyclers in the plan area that collect various paper, plastics and organic materials from border industry in Mexico and store them on site. There are three recycling centers within the Plan area on the U.S. side. They provide service to the Otay Mesa and Tijuana area. The types of the materials collected by these recyclers are paper, cardboard, wood waste, green waste, glass, metals and plastics.
Mexican authorities will provide information for this section.

In addition to recycling centers, used tire pile sites are also potential hazards. Tire pile fires are very toxic and can have severe impacts on the environment and the nearby population. There are presently no active sites on the U.S. side of the border.

Mexican authorities will provide information for this section.

4.2 Risks Associated with Transportation

This section identifies risks associated with hazardous materials during their transportation in Tijuana, Baja California and in the County/City of San Diego, California.

4.2.1 Roads

Tijuana

The transportation of hazardous materials and wastes through general roadways is regulated by the April 7, 1993 Hazardous Materials and Waste Land Transportation Regulation. This regulation addresses: labeling, container and packaging characteristics used to transport materials or wastes; characteristics and specifications for vehicles used to transport materials and wastes; safety conditions and inspection of transportation units; handling and packing of load; required documentation; and other specifics.

Within the documentation required, the transporter of hazardous materials and wastes should have "Transportation Emergency Information," which should be implemented in case of an incident. This information should state the actions to be taken according to the hazardous material or waste being transported. In addition, the driver and personnel involved in transporting hazardous materials or wastes should have specific training and corresponding updates. The training programs should be authorized by the Secretariat of the Environment and Natural Resources and by the Secretariat of Labor and Social Security.

When hazardous materials and wastes are transported within Municipality of Tijuana city limits, the person contracting the transportation services, the transporter and the addressee, should coordinate to determine the route and transportation schedule that offers the best safety conditions, notifying the Municipal Ecology Office in writing. If there are no concerns, this agency will issue an authorization and will state that the driver of the unit will not make any stops that are not necessary to provide the service, and will avoid downtown areas, in favor of outlying streets.

If the hazardous materials and/or wastes are transported outside the Municipality limits, the route and schedule should be submitted to the Secretariat of Communications and Transportation for its authorization.

San Diego

The primary source of information for this section is the document entitled "San Diego Hazardous Material Commodity Flow Study," which was developed in 2001 by the U.S. Environmental Protection Agency, Region 9.

The movement of hazardous materials through San Diego County (the City of San Diego in particular) is defined by traffic to and from points east (Arizona) and north (Los Angeles metro

area), local traffic from production sites or consumption in the region, and cross border traffic with Mexico.

In San Diego County, traffic moves north on I-5 and I-15 toward Los Angeles, north and south on I-805 within the City of San Diego, and east/west on I-8 toward Imperial County and Yuma, Arizona. No specific traffic counts are available that would indicate the number of trucks carrying hazardous materials on these roads.

During the six years from 2000-2010, 1,483 hazardous materials spills in San Diego County were reported to the National Response Center. More than half of these spills were transportation-related. Petroleum products (oil, jet fuel and gasoline) were the most common substances released. Spill history data consist of only of those spills that are reported, largely representing those parties who have complied with spill reporting requirements.

The cross border traffic with Mexico will be discussed under section 4.3 of the Plan.

4.2.2 Railroads

Tijuana :

The transportation of hazardous materials and wastes by rail is also regulated by the April 7, 1993 Hazardous Materials and Wastes Land Transportation Regulation. This regulation contains specific provisions such as: trains transporting hazardous materials and wastes should have on board and in a permanent manner a supervisor from the railroad company who can verify compliance with the regulations. In case of an accident, the railroad crew should implement the safety measures established in the "Transportation Emergency Information." The railroad company should have training programs to ensure that crew assigned to the train service transporting hazardous materials and wastes have the necessary knowledge for their safe handling.

For the use of trains transporting hazardous materials and wastes, the railroad company should establish trunk lines, and should use the existing railroad routes to prevent traveling through urban areas. Also, trains should remain as little time as possible at stations and maintain a traveling speed not to exceed 15.5 miles/hr (25 km/hr) inside the yard.

Presently, the main hazardous material transported in the Municipality of Tijuana by rail is Liquefied Propane Gas (LP gas). This section will be developed by Mexican authorities.

San Diego

Table 5 shows the number of railcars carrying hazardous materials for export in 1999. According to the data, in 1999 no hazardous materials were imported by rail in San Diego.

Table 5

Commodity Description	1999 Annual Number of Railroad

	Cars
Plastics in primary forms	225
Chemical materials and products	47
Petroleum products	16
Inorganic chemicals	15
Organic chemicals	13
Gas, Natural and manufactured	11
Dyeing, tanning and coloring materials	3
Residues containing metal and metal compounds	3
Cleaning products	1
Fertilizers	0
Chemical preparations	0
Crude minerals	-
Total	**334**

Source: San Diego Hazardous Materials Commodity Flow Study (2001)

4.2.3 Maritime Ports

Tijuana

The City of Tijuana has no seaport of its own. It is served by the Port of San Diego, the Port of San Pedro in Los Angeles, and the Port of Ensenada.

San Diego

There are presently no hazardous materials being shipped in or out of the Port of San Diego.

4.2.4 Other Means of Transport

Tijuana

There is a 23-mile (38-km), 30-inch (76.2 cm) natural gas pipeline in the City of Tijuana, Baja California, which crosses the city from the northeast to the southwest. It passes through Otay Mesa, La Presa, La Mesa, San Antonio de Los Buenos, and extends to the Municipality of Rosarito, Baja California. The control valves for the pipeline are located north of the Otay Mesa sector and southeast of the San Antonio de los Buenos sector. An environmental risk assessment and accident prevention program were developed for this activity, which were reviewed and approved by the Secretariat of the Environment and Natural Resources.

Another important chemical substance to be considered is Liquefied Propane gas (LP Gas), which is transported via underground ducts. The area of the city that has this infrastructure is the downtown sector.

San Diego

Natural gas is transported through underground pipelines throughout San Diego County.

Transportadora de Gas Natural (TGN) built a 23-mile (38-km), 30-inch (76.2 cm) pipeline that began supplying natural gas from the United States-Mexico border near San Diego to the Presidente Juárez power plant in Rosarito, Baja California, in the summer of 2000.

Gasoducto Baja Norte is a 145-mile (242 km) natural gas transportation pipeline that crosses Baja California, Mexico, connecting to the TGN pipeline near Tijuana. The 30-inch (76.2 cm) pipeline has a capacity of approximately 500 million cubic feet per day of natural gas and serves new and existing power plants and industrial customers in northern Baja California and Southern California. The pipeline began operating on September 1, 2002.

4.3 Ports of Entry

There are six ports of entry along the California-Baja California border, which are listed from west to east:

San Ysidro, California / Tijuana, Baja California
Otay Mesa, California / Tijuana, Baja California
Tecate, California / Tecate, Baja California
Calexico, California / Mexicali, Baja California
Calexico East, California / Mexicali, Baja California
Andrade, California / Algodones, Baja California

Table 6 shows historical and projected commercial traffic volumes for the California ports of entry.

Table 6

	California Border Ports of Entry - Northbound Commercial Loads			
Border Ports of Entry	**2000**	**2001**	**2010**	**% of Total Load for 2010**
Otay Mesa	687,577	703,677	745,974	68.1
Tecate	61,707	63,279	65,325	6.1
Calexico	286,811	264,430	269,317	25.6
Andrade	1,578	1,727	1,972	0.2
Total	**1,037,673**	**1,033,113**	**1,082,588**	**100.0**

Source: U.S. Customs, Office of Public Affairs, 01/10/System of Border Stations along the U.S.-Mexico Border

The County of San Diego has three ports of entry for transporting (import/export) hazardous materials: Otay Mesa, Tecate and the Port of San Diego.

The export of hazardous materials through Otay Mesa is greater than the import activity, based on the number of trucks. The majority of the border traffic at Otay Mesa is regional. More than 80% of the merchandise is sent by truck. More than 85% of the exports originate in California and their destination is the state of Baja California. The exports are frequently raw material or

partially finished products destined to production plants in Tijuana. The finished products return to the United States as imports. There is less likelihood for finished products to be classified as hazardous materials than raw material used in production.

Exports can present a greater risk for San Diego than imports because materials that are going to be exported tend to remain longer in the region than imports. Imports cross the border and they immediately go to I-5 or I-805 or head east on Interstate I-8 to their final destination, in transit through San Diego. In comparison, exports frequently remain in San Diego at storage facilities or staging areas for consolidation or for payment of Custom duties. This waiting time in the region increases the risk of a local incident.

United States Customs electronically records all the merchandise coming into the country through the Harmonized Tariff System (HTS), assigning a 10-digit code to each material to be imported, including hazardous materials.

Table 7 shows a list of hazardous materials imported through the ports of entry at Otay Mesa and Tecate, based on the first two digits of the HTS code. The category within the first two digits is generic. As the hazardous material is described in more detail, the numeric code becomes larger.

Table 7: Hazardous Materials imported by HTS Code

HTS Code	HTS Description
26	Ores, slag and ashes
27	Mineral fuels, mineral oils and products of their distillation
28	Inorganic chemicals, compounds of precious metals, rare earth metals and radioactive elements
29	Organic chemicals
31	Fertilizers
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other coloring matter; paints and varnishes; inks.
34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modeling pastes, dental waxes and dental preparations with a basis of plaster
36	Explosives
37	Photographic and cinematographic goods
38	Miscellaneous chemical products

Source: San Diego Hazardous Material Commodity Flow Study (Harmonized Tariff Schedule of the United States, (January 1, 2011)

The exporting of merchandise is classified based on the Standard International Trade Classification (SITC). This system uses from one to five digits. The fewer digits that are listed, the more generic the description.

Table 8 shows a list of hazardous materials exported through the Otay Mesa and Tecate ports of entry, based on the first two digits on the SITC code.

Table 8: Exported Hazardous Materials by SITC Code

SITC Code	SITC Description
27	Crude minerals (excluding coal and petroleum)
28	Ash and residues containing metals and metallic compounds
32	Coal, coke and briquettes
33	Petroleum, petroleum products and related materials
34	Gas, natural and manufactured
51	Organic chemicals
52	Inorganic chemicals
53	Dyeing, tanning and coloring materials
55	Polishing and cleaning preparations
56	Fertilizers
57	Plastics in their primary forms
59	Chemical materials and products
88	Chemical preparations for photographic uses

Source: San Diego Hazardous Material Commodity Flow Study (US Bureau of Census)

The Otay Mesa port of entry is the only port of entry in the plan area that facilitates the importation and exportation of hazardous materials as compared to the Tecate port of entry, which only allows the exportation of hazardous materials.

Importation of hazardous wastes and materials from Mexico through the Otay Mesa port of entry takes place three days a week. The imported materials are inspected by hazardous materials technicians of the Bureau of Customs and Border Protection and by a hazardous materials technician inspector, either from the Department Toxic Substances Control (DTSC) or from the Department of Environmental Health, Hazardous Materials Division, of the County of San Diego.

Exportation of hazardous materials occurs through the Otay Mesa and Tecate ports of entry. There is not a set schedule for the exportation of these materials either by the United States Customs or the Mexican Customs Agency. The San Diego County Department of Environmental Health, Hazardous Materials Division inspects trucks to identify illegal exportation of hazardous wastes into Mexico.

If an incident with hazardous materials or hazardous waste occurs on the north side of the ports of entry, Customs and Border Protection will notify the local fire department. The Hazardous Incident Response Team (HIRT) will be notified via normal San Diego Fire Dispatch procedures.

4.4 Sensitive Populations and Vulnerable Areas

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

4.4.1 Sensitive Populations

Tijuana

According to informal procedures followed by the Tijuana Fire Department and Civil Protection of the Municipality of Tijuana, when a hazardous material incident occurs in a business or facility located near a school, hospital or any other sensitive population center, the Fire Department is the local agency responsible for responding to the emergency and making an assessment of the site. If the Fire Department determines that there is an imminent danger to the population near the incident, they will notify them to evacuate or shelter in place. If evacuation takes place, Civil Protection will come to the scene and make a second evaluation of the scene. If Civil Protection determines that a bigger area needs to be evacuated, they will begin the coordination and communication with the Police Department, Emergency Medical Services and other emergency response agencies.

If the Fire Department determines that an evacuation is not necessary, they will perform response operations and Civil Protection will provide follow up coordination depending on the conditions and requirements of the incident.

Summarizing the key segments of sensitive populations, in the Municipality of Tijuana there are 86 health service facilities including hospitals, clinics, and medical centers. Within the plan area there are 18 elementary public schools, 24 elementary private schools, 20 secondary public schools, and 19 secondary private schools.

Additionally, the City of Tijuana has 12 main population centers within the scope of the plan which are listed below:

1. Toreo de Playas
2. Plaza Patria
3. CECUT
4. Palacio Municipal
5. Plaza del Zapato
6. Palacio del Estado
7. Hospital General
8. Toreo de Tijuana
9. Aeropuerto
10. Central Camionera
11. Parque de la Amistad
12. Parque Deportivo

Population Center Number 1 is not considered a vulnerable area because there are no high-risk industries in that area.

Population Centers 2-8 are considered sensitive or vulnerable because the area in which they are located (Zona Centro) has the underground infrastructure for the Liquefied Propane Gas (LP gas). Also, there are ten high-risk companies located in this area.

Population Center 9 is considered a sensitive and vulnerable area due to the jet fuel at the airport.

Population Center 10 is considered a sensitive and vulnerable area because there are two high-risk facilities and an LP gas company nearby.

Population Center 11 is considered a sensitive and vulnerable area because the underground pipelines for the natural gas line are located near this area of downtown.

Population Center 12 is considered a sensitive and vulnerable area because two high-risk companies are located nearby.

More detailed information regarding the Sensitive Populations and Vulnerable Areas is provided in Appendix A.

San Diego

There are schools, hospitals, churches and other facilities located within the plan area, which are considered to be sensitive populations when a hazardous materials incident occurs in a business or facility located near those population centers.

According to California Health and Safety Code, Section 25507.10, emergency rescue personnel responding to the reported release or threatened release of an acutely hazardous material, or to any fire or explosion involving a hazardous material release, shall immediately advise the superintendent of the school district having jurisdiction, where the location of the release or threatened release is within one-half mile of a school.

In San Diego County there are 42 public school districts, including 24 elementary school districts that feed into six high school districts and 12 unified districts, where grades K-12 are contained within a single district. Within the plan area there is one public elementary school district and one public unified school district. Information about those school districts is as follows:

San Ysidro School District is located at 4350 Otay Mesa Road, San Ysidro, California. The Superintendent can be contacted at 619-428-4476, extension 3021.

South Bay Union School District is located at 601 Elm Avenue, Imperial Beach, California. The Superintendent can be contacted at 619-628-1605.

The South Bay Union School District has developed a district-wide safety plan to ensure the highest level of prevention, preparation and response in the event of a crisis or safety compromise occurring at any school in the district. The plan defines specific steps to be taken by school and district-level support personnel in the event of a natural or man-made disaster. School and District Level Crisis Response Teams have been formed.

To advise the hospitals of any release or threatened release of hazardous materials occurring within the operational area, the Multi-Casualty Annex to the Operational Area Emergency Plan describes a two-tiered system of medical disaster notification in the Operational Area. This system, "Alert" and "Activate," allows hospitals, transporting agencies, and other components of the emergency medical system to prepare for multi-casualty incidents.

When a multi-casualty incident is suspected, but not confirmed, the affected agencies are notified of an Alert. At this point, designated hospitals and agencies consider notifying only their personnel and making other necessary preparations.

The on-scene Incident Commander or his/her designee decides whether to notify their dispatch center to Alert/Activate the Multi-Casualty Annex. Their dispatch center then contacts the

Sheriff's Communication Center (SCC) and requests the Alert/Activate of the Annex. SCC then makes the necessary notifications. The first arriving ambulance at the scene will contact the Facilitating Base Hospitals and advise them of the incident and that the Multi-Casualty Annex Alert/Activate has been declared.

4.4.2 Population Distribution

Tijuana

In the City of Tijuana, Baja California, the population distribution analysis is done by sectors or "delegations" as follows (Map 1):

In the Playas de Tijuana sector, the land use designation is primarily residential.

In the "Centro" sector, the land use designation is commercial, services and other facilities.

In the San Antonio de los Buenos sector, there are industrial and residential designations.

In the La Mesa sector, the designations are residential and industrial.

In the Otay Mesa sector, land use designations are industrial, residential and public facilities.

In La Presa sector, the designations are residential, industrial and public services.

San Diego

For the border region of San Diego County, the population distribution is based on the land use information provided by the San Diego County Department of Environmental Health (Map 2).

In the central region, the land use categories are predominately residential, commercial/office and public facilities/utilities. The industrial area is distributed throughout the City of Chula Vista and adjacent to the international border. This region encompasses the Community of San Ysidro.

In the western region, encompassing the City of Imperial Beach, the land use categories are predominately residential, parks and recreational areas, and vacant land. Included in this area is the Tijuana Estuary preserve. The industrial area is located on the east side of the southernmost part of San Diego Bay. On the west side of the Bay the land use category is primarily public facilities and utilities, including military installations.

In the eastern region, encompassing the Otay Mesa area, the land use categories are predominately agriculture and vacant land. Pockets of industry are distributed throughout the area.
Many of these industrial facilities support the maquiladora industry in Baja California. This area also includes public facilities and utilities, including the Brown Field General Aviation
Airport, the Donovan State Correctional Facility, and landfills. Adjacent to the international border are rural residential and commercial areas.

4.4.3 Sensitive Natural Resources Areas

Tijuana

The Tijuana-San Diego area has the Cottonwood-Alamar binational creek in common. It originates in the United States with the name Cottonwood Creek and flows south into Mexico. The creeks flowing into it are Kitchen, La Posta, Morena, Hauser, Pine Valley, Corral Canyon, Wilson, Rattlesnake Canyon, McAlmond Canyon, Potrero, Bee Canyon, Campo-Tecate and Mine Canyon.

Once Cottonwood Creek enters into Mexican territory, its name changes to Alamar Creek. The Alamar is currently showing great environmental deterioration from irregular settlements, waste discharges from industries, large deposits of waste and debris, stagnant and contaminated water, as well as arbitrary extraction of rocky materials. The Tijuana City Government is working on the Alamar Arroyo recovery project through the Municipal Planning Institute (IMPlan).

Another important hydrologic unit is the Tijuana River, which runs from south to northeast of Tijuana. The Alamar Creek joins the Tijuana River. It crosses the border and discharges into estuary and the Pacific Ocean in the United States territory.

The Tijuana Estuary is considered a National Sanctuary because a variety of endangered species inhabit this area. Endangered plants and animals are threatened by the Tijuana River discharge, which sometimes contains high concentrations of coliform bacteria, sediment, traces of metals (copper, lead, zinc, chrome, nickel and cadmium), polychlorinated biphenyls (PCBs), and other urban, industrial and agricultural contaminants.

In case of a hazardous material incident, the plants and animals of the Tijuana Estuary would be threatened if the incident were to affect the Alamar Creek or the Tijuana River, which crosses the border and discharges into the estuary.

San Diego

One of the most important sensitive natural resources areas in Southern San Diego County is the Tijuana Estuary. The Tijuana Estuary is a small inter-tidal coastal estuary on the international border between California and Mexico. The estuary is primarily a shallow water habitat, though it is often termed an "intermittent estuary," as it is subjected to extreme changes in stream flow at different times of the year. Extended periods of drought leave parts of the estuary dry during some periods, while flooding inundates the same areas during others. For this reason, the Tijuana Estuary is considered to be a unique part of the National Estuarine Research Reserve System.

The Estuary encompasses a total of approximately 2,500 acres: approximately 1,660 upland acres, 120 non-tidal fresh marsh acres, 400 salt marsh acres, 250 tideland acres and 70 open water acres.

The Tijuana Estuary provides examples of most vegetation communities found in other southern California wetlands. Cord grass (Spartina foliosa) forms robust stands along tidal channels in the northern reaches of the estuary. Above the Spartina-dominated community are found several

succulents, including pickle weed and saltwort. At higher elevations these succulents grade into a cover of shore grass. At the highest elevations, pickle weed becomes codominant with shore grass. The Reserve's marshes also are home to the endangered salt marsh bird's beak. This once abundant plant has been pushed to the brink of extinction by the pressures of marsh destruction in California.

The Reserve boasts more than 370 species of birds, of which about 320 are migratory. Birds at the Reserve include four federally listed endangered birds: the light-footed clapper rail, the California least tern, the least Bell's vireo and the California brown pelican. Peregrine falcons, bald eagles and golden eagles are all occasional visitors as well. The Tijuana River Estuary is located along the Pacific Flyway and is used for staging and wintering by a variety of waterfowl and shorebirds. Wintering waterfowl include pintail, cinnamon teal, American widgeon, surf scoter and ruddy duck.

Shorebirds account for a large portion of the migratory population. While 20 species occur regularly along the sand flats and mudflats of the estuary, four species: the willet, dowitcher, western sandpiper and marbled godwit account for a large part of the bird population throughout the year. Abundance and species composition fluctuate seasonally among habitats with the inter-tidal sand and mudflats supporting both the largest numbers of individuals and species.

The Estuary supports a small mammal population typical of fields and lowland habitats. Rodents, including mice, the California ground squirrel, and rabbits are the most common. At least 29 species of fish reside in the small tidal creeks and channels of the estuary. Species in their juvenile stages that are found in the Reserve's creeks and streams have included longjaw, mudsucker, northern anchovy and several species of gobies. Adult fish residing here include topsmelt, California killifish, staghorn sculpin and longjaw mudsucker.

Crabs are perhaps the most conspicuous invertebrates in Southern California coastal marshes and the Tijuana River Estuary. Rove beetles burrow in the mud and sandflats. A large population of coastal tiger beetles also lives in these areas. The largest population of the wandering skipper in the U.S. resides in the Tijuana Estuary. Several species of mosquito can be found in the Reserve as well. The globose dune beetle and the Belkin's dune fly, both considered threatened, are also found on the Reserve site.

4.4.4 Tecate, California

Tecate, California is a small town with a population of 207 people. It is an unincorporated area of San Diego County. According to San Diego County land use information, the land use distribution in Tecate is predominantly vacant and undeveloped land (Map 5). The community is predominantly agricultural. In the eastern region, the land use categories are industrial, residential, and commercial. The few businesses located in Tecate are primarily commercial with retail stores and warehousing to support cross-border commerce.

4.4.5 Tecate, Baja California

Tecate, Baja California is a community of approximately 64,764 people, located 30 miles east of Tijuana and 86 miles west of Mexicali. Tecate rests on the U.S. border, 45 miles from San

Diego and port facilities. The city is primarily a tourist destination with a very agreeable climate and only occasional rain. The community is predominantly agricultural (Map 6).

The City of Tecate has three industrial parks. The principal types of industry located in Tecate are: polishing and electroplating of metal parts, copper plating, electronic components assembly, wooden furniture and frames, stained glass, automotive alternators, and manufacturing of latex products. The Tecate brewery is a major employer in Tecate representing a significant segment of Tecate industrial base.

The international border crossing at Tecate has both vehicular and commercial gates. With the exception of Andrade, the Tecate border is less traveled than other ports of entry between California and Baja California.

4.4.6 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.

Tijuana

The Tijuana River is the main body of water in the city. Its waters originate in the *Sierra de Juarez* about 8.7 miles (14 kilometers) to the south of the city. The Abelardo L. Rodriguez dam, one of the main water supply sources for the city, captures the river flow. The Tijuana River flows southwest until it meets the Alamar Creek where it enters the United States.

There are several arroyos that converge into the Alamar Creek, among which are the Nido de las Aguilas, Magisterial, Murúa, Industrial, La Loma and Pestejé arroyos. These arroyos are in areas close or adjacent to industries located in the Otay Mesa Delegation, within the two mile (3.2-kilometer) area included in the plan.

Among the creeks that flow into the Tijuana River are the Jonson, Jalisco arroyo and the "K" arroyo, which are in areas close or adjacent to industries located in Downtown Tijuana, within the two mile (3.2-kilometer) area included in the plan.

In the case of a hazardous materials release, if the release flows to the arroyos that converge to the Alamar Creek or to the arroyos that flow into the Tijuana River, the contaminants could be transported by the Tijuana River to the Tijuana Estuary and the Pacific Ocean.

If the release enters the storm water sewer system, the contaminants would be transported directly to the beaches and to the Pacific Ocean without receiving any type of treatment, because the storm water sewer system is not connected to the city's wastewater treatment system.

If the contaminated water flows into an area where the soil does not have an insulating protective layer, the water will filter into the soil and subsoil and could contaminate the water tables or basins in the area where the incident originated.

County/City of San Diego, California

There are a total of 11 hydrologic units in the San Diego Hydrologic Region. From north to south they are San Juan Creek, Santa Margarita, San Luis Rey, Carlsbad, San Dieguito, San Diego, Peñasquitos, Pueblo San Diego, Sweetwater, Otay, and Tijuana. For purposes of the plan, the focus is the Otay and Tijuana river basins because these two basins are located in the south of the San Diego Hydrologic Region, within the border area.

The Tijuana river basin covers San Diego County and the Municipalities of Tijuana, Rosarito and Tecate in Baja California. The basin has an approximate area of 1,750 square miles (4,530 square kilometers). Only 30% of the basin is in California, the remaining 70% is in Baja California.

The San Diego Water Department supplies potable water to the city from three treatment plants: the Miramar Filtration Plant located to the north of the city, the Alvarado Filtration Plant located in the central part and the Otay Filtration Plant located to the south of the city.

The Otay Filtration Plant receives water from the Morena, Barret and Lower Otay reservoirs. The Otay Reservoir is considered one of the three main bodies of water in the Otay river basin. The primary land use designations in the Otay river basin are 67% open space and 20% urban/residential. The basin consists mainly of unincorporated areas, but it also includes portions of Chula Vista, Imperial Beach, Coronado, National City and San Diego. Discharges reaching the Otay basin are urban, agricultural, septic and marine in nature.

The Tijuana river basin has primarily three bodies of water: Tijuana River, Cottonwood Arroyo and the Tijuana Estuary. Only 30% of the basin is located in California. The river discharges into the Tijuana Estuary and the Pacific Ocean. The cities of Imperial Beach and San Diego on the United States side of the border have jurisdiction within the basin. The cities of Tijuana and Tecate on the Mexican border are the most important urban centers located in the basin.

The Tijuana river basin is classified by the State Water Resources Control Board as Category I (impaired), due to the large variety of water quality issues. These problems are the result of mobile agricultural sources in the United States territory and a large variety of point and mobile sources in Mexican territory. Discharges reaching the Tijuana river basin are urban, spills from the sewage system, industrial spills, and agricultural and septic spills.

4.5 Counter terrorism

The events of September 11, 2001 have altered the way that people view terrorism. Terrorist acts constitute a global threat, and can happen in any community at any time. In order to safeguard our freedoms, while guarding against terrorist activity, a cooperative international strategy must be developed. The need for such collaboration is nowhere more important than along the U.S./Mexico border.

The substantial flow of people and goods across the U.S./Mexico border is vital to the economies of both nations. However, such movement along the border area can also serve as a conduit for terrorist acts. Nuclear, chemical and biological weapons of mass destruction pose a real threat to which U.S. and Mexican authorities must be prepared to respond.

The first line of defense in any terrorist attack is the first responder community – local law enforcement, firefighters, emergency medical professionals, public health, and public workers. Properly trained and equipped first responders have the greatest potential to save lives and limit casualties after a terrorist attack. Currently, capabilities for responding to a terrorist attack vary widely across the U.S./Mexico border region. Strengthening the assets, training and communications capabilities of first responders along the border will contribute to the safety and well being of border communities.

Cross border response and contingency plans are the cornerstone documents for cross border planning and response to terrorist acts. The planning process provides an opportunity for U.S. and Mexican agencies to assess capabilities and develop appropriate communication, cooperation and response protocols.

In addition to improving and coordinating their response capabilities, border communities need to conduct terrorist vulnerability and risk assessments of ports of entry, public and private fixed facilities, highways and waterways to guide prevention and response efforts.

The development of counter-terrorism strategies requires the participation of additional federal and state law enforcement and health authorities. A list of the appropriate authorities is included in the supplemental directory of Hazardous Material Planning and Emergency Response Contacts.

4.5.1 U.S. Response

In the wake of the terrorist attacks, the new Department of Homeland Security was created to provide a unified homeland security structure that will improve protection against today's threats and be flexible enough to help meet the unknown threats of the future.

The mission of the new Department is to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that may occur.

The Department of Homeland Security has four main divisions:

- Border and Transportation Security
- Emergency Preparedness and Response
- Chemical, Biological, Radiological, and Nuclear Countermeasures
- Information Analysis and Infrastructure Protection

The Department of Homeland Security is responsible for securing the borders and transportation systems. The department manages who and what enters the United States, and works to prevent the entry of terrorists and the instruments of terrorism while simultaneously ensuring the speedy flow of legitimate traffic.

The Department works with federal, state, and local public safety organizations to build a comprehensive national incident management system for response to terrorist threats involving weapons of mass destruction and natural disasters. It directs exercises and drills for federal,

state, and local chemical, biological, radiological, and nuclear response teams and plans. The existing federal government emergency response plans will be consolidated into one genuinely all-hazard plan. In time of an emergency, the Department will manage and coordinate federal entities supporting local and state emergency response efforts.

4.5.2. San Diego County Response

San Diego County developed the Operational Area Emergency Plan in March 2000, which describes a comprehensive emergency management system. It defines responsibilities, establishes an emergency organization, defines lines of communication, and is designated to be part of the statewide Standardized Emergency Management System. The Operational Area Emergency Plan has fifteen Annexes. The Unified San Diego County Emergency Services Organization approved the sixteenth Annex (Annex P), which addresses terrorism in the San Diego County Operational Area.

The San Diego County Board of Supervisors approved Annex P in September 2001. The purpose of this Annex is to establish a terrorism response system and prescribe responsibilities and actions required for the effective operation of the response to acts of terrorism. To see the full text of Annex P, visit the San Diego County Office of Emergency Services website at: http://www.sdcounty.ca.gov/oes/emergency_management/protected/docs

4.5.3 Mexican Response

In light of the September 11 events in New York, and the subsequent emergency response preparations, the public is on alert for the possibility of mass terrorist actions, with the possibility of using biological and/or chemical agents, which would put the public at risk. Even though the risk of a terrorist attack in Mexico is very unlikely, public health and safety services should have a plan for Surveillance and Notification Systems, as well as contingency plans in case of major emergency situations. With this in mind, the State Department of Civil Protection for Baja California has prepared the basis for the Border Security Project, which was submitted and approved in May 2003.

The objective of the Border Security project is to create a plan or system for binational coordination and cooperation, specifically designed to prevent, investigate or address terrorist acts, which would have to be approved by the heads of relevant federal agencies and by governors and municipal authorities in both countries.

The participating Mexican institutions are: The General Office of Civil Protection, State of Baja California Civil Protection Municipal Organizations, Municipal Fire Departments, Non Governmental Organizations (NGOs) and ISESALUD. Also participating with regard to security are: the National Immigration Institute (INM for its Spanish acronym), Secretariat of Treasury and Public Credit (SHCP for its Spanish acronym)/Customs, the Attorney General's Office, Federal Preventive Police (PFP for its Spanish acronym), Investigation and National Security Center (CISEN for its Spanish acronym), Secretariat of Foreign Relations (SRE for its Spanish acronym)/Consulate, the State Attorney General (PGJE), and the Office of Municipal Public Safety (DSPM for its Spanish acronym).

The institutions participating in the United States are: INS, Border Patrol, U.S. Customs, Justice Department, FBI, U.S. Marshall, Attorney General's Office, and local Police Departments.

5.0 ENVIRONMENTAL EMERGENCIES RESPONSE

5.1 Local Emergency Response

Emergency Response within San Diego County

There are over 400 hazardous materials responses a year in the San Diego County Operational Area. An average of six responses a year occurs within the border area. The HIRT Team is made up of California State Certified Hazardous Materials Technicians and Specialists. The HIRT is a Joint Team staffed by DEH and San Diego Fire-Rescue Department to investigate and mitigate chemically related emergencies or complaints. Emergency response activities include mitigation, containment and control actions as well as hazard identification, so as to evaluate the threat to the local populations and the environment.

The response capabilities of the DEH-HIRT and the San Diego Fire-Rescue Hazardous Incident Response Team are described in Appendix B.

Emergency Response within Tijuana, Baja California

In the Municipality of Tijuana there are 50 hazardous material emergency responses a year. The Tijuana Fire Department is the main response entity in the City of Tijuana. The Fire Department Hazardous Materials Division staffs the Hazardous Materials Response team with nine members to respond to all hazardous materials emergencies within the city. The team has received 280 hours of hazardous material training. Also, the Hazardous Material Response team serves the Municipality of Tecate if assistance is requested.

The response capabilities of the Tijuana Fire Department are described in Appendix B. A list of resources for the Tijuana Civil Protection Administration is also included.

5.2 Declarations of Emergency

County/City of San Diego, California

According to the Emergency Management Annex to the San Diego County Operational Emergency Plan, there are three levels of declaration of emergency, which are described as follows:

1. Local Emergency Proclamation

In the event of a disaster or condition of extreme peril to persons and property within a jurisdiction, which is beyond the capability of local responders to manage, the Board of Supervisors assumes the role of initiating a Proclamation of Local Emergency for the entire

Operational Area. A hazardous materials incident is one of the events that can lead to a Local Emergency Proclamation.

2. State of Emergency

After or as part of the Proclamation of a Local Emergency, the Board or City Council may request that the Governor proclaim a State of Emergency. The Governor's State of Emergency allows for the following:

- Mandatory mutual aid may be exercised
- The Governor may request the President to declare an Emergency or Major Disaster
- The Governor has the authority to commit State resources

3. Presidential Declaration

After or as part of a Proclamation of a State of Emergency, the Governor may request that the President declare an Emergency or Major Disaster. The Presidential Declaration allows for Federal disaster assistance and resources.

Tijuana, Baja California

The following is a description of the state of emergency process, which should be primarily declared by the Mayor. If the Mayor is not available to do so, the City Manager may declare a state of emergency, or if he is not available, the Civil Protection Director can do so. Each of them has this authority in their respective capacities as President, Executive Secretary and Technical Secretary of the Municipal Civil Protection Council.

State of Pre-alert: The state of pre-alert refers to an unusual situation, which arises due to the potential occurrence of destructive phenomena implying that there is a need for the appropriate organizations to take precautionary measures. A **PRE-ALERT** is generated when the Municipal Civil Protection Agency identifies signs regarding the potential occurrence of a catastrophe, based on reports from the observation network or through supplemental sources, as well as from visual perception or external reports.

State of Alert: The state of **ALERT** is established when information is received regarding the imminent impact of a disturbing phenomena capable of affecting and even destroying, in such a way that it is very feasible that more specific measures and actions have to be enforced in order to respond to the emergency.

State of Alarm: The state of **ALARM** is established when there has been damage to the population, its assets and environment, which call for the need to execute the Municipal Contingency Plan. In the state of alarm, it is necessary to have the immediate intervention of responding agencies and organizations. The state of alarm can be present without previously going through a state of pre-alert or alert, as in the case of an earthquake. The state of emergency will always be declared in the alarm phase. The actions to be carried out at this level are practically the same as in the state of alert, however, if the condition is a catastrophe, and

according to the situation and to what is established by the Municipal Government and the Municipal Civil Protection Council, it may be necessary to request State and Federal cooperation.

The Municipal Center for Emergency Operations (C.M.O.E. for its Spanish acronym): The C.M.O.E. is set up temporarily when information of a disaster occurring in municipal territory is received; it is the place where members of the Municipal Civil Protection Council meet to guide and coordinate actions, to make decisions and order their execution, as well as establish communication channels and follow-up on the situation that caused the disaster.

When to Activate the C.M.O.E.:
The C.M.O.E. is activated when a situation occurs or might occur of a magnitude that requires any amount of resources from several City/County Agencies for an extensive period of time, and when the magnitude of the problem requires central control, guidance and coordination to respond to the emergency.

Types of Activation:
- Partial
- Total

Type of Risks that Activate It:
- Hydrometeorological
- Geological
- Socio-organizational
- Chemical
- Sanitary

Who Can Activate the C.M.O.E:
- Mayor
- City Manager
- Director, Civil Protection

How to Activate It:
In case a state of PRE-ALERT, ALERT or ALARM is declared; telephone and radio communication (by pager) will be established with the coordinators of each work team that make up the Municipal Civil Protection Council. Furthermore, the Municipal Center for Emergency Operations will be established according to the current protocol. Key personnel from the Municipal Civil Protection Council will be notified, verifying their availability at the time the message was received.

Table 9 shows the levels of state readiness in relation to the emergency situation.

Table 9

Situation / Level	Normal	Threat of Loss	Impending Loss Occurrence	Emergency		
				Municipal	State	National
Municipality	Normal	Pre-alert	Alert	Alarm	Alarm	Alarm
State	Normal	Normal	Pre-Alert	Alert	Alarm	Alarm
Federation	Normal	Normal	Normal	Pre-Alert	Alert	Alarm

5.3 Levels of Mutual Aid Within Each Country

County/City of San Diego, California

The San Diego County Operational Area Emergency Plan has been designed to follow the statewide Standardized Emergency Management System (SEMS). The plan describes situations associated with natural disasters, technological incidents, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies components of the Emergency Management Organizations, and describes the overall responsibilities for protecting life and property and assuring the overall well being of the population. The plan also identifies the sources of outside support, which might be provided through the mutual aid system by other jurisdictions, state and federal agencies and the private sector.

The mutual aid system is designed to ensure that adequate resources, facilities, and other support are provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation. To facilitate the coordination and flow of mutual aid, the state has been divided into three Office of Emergency Services (OES) Administrative Regions and six OES Mutual Aid Regions.

Through this mutual aid system, State OES can receive a constant flow of information from every geographic and organizational area of the state.

Tijuana, Baja California

The Municipality of Tijuana, B.C. has the Municipal Civil Protection System in which all the agencies related to emergency prevention and response at the three levels of government participation. The system also has the support of private, social, community and voluntary groups. In case of a hazmat incident of such magnitude that the effects of the emergency or disaster exceed the response capability of the Municipal Civil Protection System, the Mayor will seek the declaration of a State Emergency and will request the Governor of the State to activate the State Emergency Plan to provide the corresponding assistance.

By declaring a State Emergency, the Governor will implement the Emergency Response Plan through the State's Civil Protection Administration. The Civil Protection State Board will be in charge of planning, coordinating, guiding and controlling actions towards solving urgent needs, implementing programs and protection, as well as safeguarding and rehabilitation activities in coordination with Municipal Systems.

In the event the emergency or disaster exceeds the response capabilities of State Civil Protection, the Governor of the State can request the federal authorities to make the corresponding Declaration and assign federal resources to carry out actions guided towards the protection of life and health.

5.4 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 San Diego County area, the Federal On-Scene Coordinator will be from the U.S. EPA Region IX, headquartered in San Francisco, California.

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 and 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 that 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 Tijuana, Baja California, 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.

5.4.1 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.

The U.S. EPA's Emergency Response Program has responsibilities pursuant to the National Contingency Plan to respond to incidents involving hazardous materials and petroleum products. The Program also conducts response operations during national disasters, under the authority of the Federal Response Plan. EPA provides support to the Federal Bureau of Investigation (FBI) for Crisis Management and the Federal Emergency Management Agency (FEMA) Consequence Management during terrorist events, under the direction of Presidential Decision Documents. These activities are carried out through the National Response System (NRS), which is the Federal mechanism for responding to releases or incidents. The NRS is a multi-agency/multi-level system and has been in existence for 30 years. It was designed to support state and local responses. A number of assets are available through the NRS including Regional Response Teams, Federal On-Scene Coordinators, contractor support and Special Forces. The Regional Response Team (RRT) brings together the resources from 16 Federal agencies and the states to support response activities. The Federal On-Scene Coordinator (FOSC) provides coordination and manages Federal response resources through the incident command/unified command system. The FOSC can bring a number of Special Forces to play during a response that include the EPA's Environmental Response Team, EPA's Radiological Environmental Response Team, and the U.S. Coast Guard's National Strike Force. These resources provide specialized technical expertise and resources to a response. EPA's response assets can be accessed through the National Response Center (NRC) at 1-800-424-8802. The Agency's Response Program has proven to be very effective during recent terrorist events, including the World Trade Center and numerous anthrax responses. The dedicated men and women working in this program have overcome a number of obstacles, and are on the cutting edge when it comes to effectively addressing public health and environmental issues associated with terrorist threats.

5.4.2 Federal Attorney General for the Protection of the Environment

This section will be developed by PROFEPA.

5.5 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 U.S.-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.

5.6 San Diego-Tijuana Emergency Response Communications

Historically, there has been informal communications between San Diego and Tijuana emergency response agencies regarding hazardous materials incidents. Officials of these jurisdictions have communicated through beepers and phone lines during these incidents. As a part of this informal communication, binational technical support has been exchanged between the County/City of San Diego and the City of Tijuana.

As a part of the binational plan development, representatives from the Federal, State and local agencies from the United States and Mexico have formalized communications and notifications procedures between San Diego and Tijuana Emergency Responders. A complete flow chart of north and southbound notification procedures is illustrated in Appendix G. The Notification Protocol will be discussed in section 6.2.

6.0 BINATIONAL EMERGENCY RESPONSE OPERATIONS

General Information

The Incident Command System (ICS) is a standardized on-scene emergency management system specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. The Incident Command System is built around five major management sections in accordance with the Standardized Emergency Management System (SEMS).

a) Command: Sets the response objectives and priorities. It has the overall responsibility at the incident or event.
b) Operations: Manages the tactical operations to carry out the incident action plan, develops and evaluates the tactical objectives, organizes and directs all the resources available (including the hazardous materials group).
c) Planning: Responsible for collecting, evaluating, disseminating, and using information about the incident and status of resources. This information is needed to: 1) understand the current situation, 2) predict the probable course of incident events, and 3) prepare alternative strategies for the incident.
d) Logistics: Responsible for providing facilities, services, and material in support of the incident response. Identifies and processes requests for additional resources to support planned and expected operations.
e) Finance/Administration: Is responsible for all financial and cost analysis aspects of the incident. Monitors the costs, provides accounting, procurement, time recording and cost analyses.

Sections under the Incident Command System are staffed and utilized as required depending on the scale of the incident.

6.1 Initiation of Action

A hazardous materials response action takes place when an incident merits the participation of the members of the Hazardous Materials Incident Response Team of the City and County of San Diego (HIRT) and/or of the City of Tijuana.

6.1.1 Incident Command Authority

<u>San Diego</u>

This section is intended to provide a brief overview of the regulations which provide guidance for the implementation of the Incident Command System (ICS) and how the ICS is typically utilized in the County of San Diego.

According to Federal (29 CFR 1910.120 (q)(3)(i)) and California (Title 8 CCR Section 5192(q)(3)(a)) regulations, the senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS).

In San Diego County, the local fire agency is the first responder to all non-roadway hazardous substance releases. The senior emergency response official from that fire agency fulfills the role of Incident Commander (IC).

The authority for incident command at the scene of an on-highway hazardous substance incident is vested in the appropriate law enforcement agency having primary traffic investigative authority on the highway where the incident occurs (CVC §2454). The California Highway Patrol is responsible for incident command at the scene of an on-highway hazardous substance spill or disaster on all highways (and roadways in the unincorporated areas) where the department has primary traffic investigative authority. On all other roadways the local police department or Sheriff's department has primary traffic investigative authority and is responsible for ensuring that ICS is instituted at hazardous substance spills. In San Diego County, agreements are in place between the local police and Sheriff's departments and the local fire agencies, which authorize the fire agencies to perform the function of incident commander at hazardous substances releases on all (non-highway) roadways. An exception to this is in place in the City of Vista, where the Sheriff retains the role of IC for all hazardous substance incidents on roadways.

According to CGC 8670.7, the Department of Fish and Game has the primary authority to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in the marine waters of the state.

Additionally, CGC 8607 requires that state and local agencies use a standardized emergency management system (SEMS) to coordinate multiple jurisdictions or multiple agency emergency and disaster operations.

In the Operational Area of San Diego, the Incident Commander will determine the participation of the Hazardous Materials Incident Response Team (HIRT). HIRT is comprised of members from the San Diego Fire-Rescue Department's Hazardous Materials Team and members of the Hazardous Emergency Response Team from the San Diego County Department of Environmental Health (DEH).

On scene, the Incident Commander will appoint the San Diego Fire-Rescue Department Hazardous Materials Team Captain, as the Hazardous Materials Group Supervisor under the Operational Section of the Incident Command System. The Hazardous Materials Group Supervisor is responsible for coordinating and directing all hazardous materials activities related to the incident. They are tasked with providing personnel, equipment and expertise to safely mitigate hazardous materials incidents. The supervisor has thorough knowledge of agency specific requirements, operational procedures, risk analysis, and safety considerations to manage the incident.

The Hazardous Materials Group Supervisor's responsibilities include:

1) Obtain briefing from the Operations Section, or from the Incident Commander if an Operations Chief is not appointed
2) Ensure the development of control zones and access control points

3) Evaluate and recommend public protection actions
4) Ensure that current weather data and future weather predictions are obtained
5) Establish environmental monitoring of the hazard site for contaminants
6) Ensure that a Site Safety Plan is developed and implemented
7) Conduct safety meetings with the hazardous materials group
8) Participate in the development of the Incident Action Plan
9) Ensure that recommended safe operational procedures are followed
10) Ensure that proper personal protective equipment is selected and used
11) Maintain Unit log
12) Ensure that all appropriate allied agencies are notified, including Local, State, and Federal, and Mexico when appropriate.

During an incident, a member from the San Diego County Department of Environmental Health is routinely assigned to work closely with the Hazardous Materials Group Supervisor to address public health and safety issues. They are able to:

1) Identify or assist in the identification of the material on scene
2) Act as technical advisor on characteristics and direct health and environmental effects of the hazardous materials on scene
3) Assist the Incident Commander in the determination of the need for evacuation and the establishment of the reentry criteria
4) Perform multi-media sampling to determine the extent of the environmental contamination and to identify any public health concerns
5) Recommend cleanup levels and advise on the adequacy of cleanup both during and after the emergency
6) Assist the IC in obtaining financial and other resources necessary for any required cleanup.
7) Provide on-scene liaison with other agencies and Mexico.

Tijuana

This information will be provided by Mexican authorities.

6.2 Binational Notification

For the purpose of this plan, the Hazardous Materials Group Supervisor, under the Incident Command System, is tasked with triggering the notification to counterparts in Tijuana or San Diego.

During a hazardous materials incident, the Hazardous Materials Group Supervisor will gather and analyze all incoming information from the incident. A decision will be made with concurrence of the Incident Commander and the emergency responder from DEH (if the incident occurs in San Diego) to activate the binational notification protocols.

In order to facilitate the notification between the Hazardous Materials Response Teams of San Diego and Tijuana, a binational notification protocol has been developed. A flow chart of the north and southbound notification procedures is included in Appendix G.

The San Diego County Communications Center, Station M, and the Tijuana Fire Department will serve as the dispatch centers for the hazardous materials binational notifications. Each of the dispatch centers will complete the Local Emergency Notification Form (Appendix I) when contacted by their respective Hazardous Materials Group Supervisors on scene. The information compiled on the form will then be provided to the dispatch center of the Sister City. The recipient dispatch center will then provide the information to the local emergency response team.

6.3 Binational Mutual Aid Request

There are two types of aid that may be provided or received under this plan: technical and logistical assistance. The City/County of San Diego will provide technical assistance to their counterparts in Tijuana. The assistance to be provided by the City/County of San Diego will be via telephone between the Hazardous Materials Team and their counterparts in Tijuana. The mutual exchange of equipment may also be necessary to assist in the identification and mitigation of potentially hazardous substances that may compromise public health and safety. Once health and environmental impacts have been alleviated, all equipment is to be returned to their respective governmental agency.

The United States Environmental Protection Agency may provide logistical support as deemed appropriate.

As previously stated in section 5.4.1, any direct assistance in responding to an incident in either country that exceeds local capability will be initiated through the U.S./Mexico Joint Response Team.

7.0

TRAINING AND EXERCISES

Each of the operational plans referenced requires training and exercising to ensure that responders are always in a state of readiness. Joint training and exercising are important to emphasize as binational relationships and activities develop.

The preparation of 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.

While not included in this binational emergency response plan, a written training plan based on the unique needs of the San Diego/Tijuana area could be developed by the San Diego/Tijuana Emergency Preparedness and Response Task Force (Task Force). The Task Force is addressed in the memorandum of understanding signed by the participating parties.

7.1 Training

Individual organizations are responsible for their own training. Internal 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 the response operations they may conduct. This training must comply with all applicable local, state, and federal worker health and safety regulations.

Currently, hazardous materials specialists in both San Diego and Tijuana participate in regular training sessions. For example, the Department of Toxic Substances Control of the California Environmental Protection Agency funds hazmat training programs for first responders in municipalities throughout Baja California. The Governor's Office of Emergency Services periodically receives disaster-planning officials from Baja California at the California Specialized Training Institute (CSTI) in San Luis Obispo. These and other avenues for training should be explored and highlighted in the training plan developed by the Task Force.

7.2 Exercises

Local and regional hazardous materials contingency plan exercises are encouraged, as they are the best means of keeping the plans current and active. Tijuana, Baja California and San Diego County, California should routinely conduct joint exercises that allow for cross training of personnel. This will ensure that deficiencies in response activities are identified. To keep this plan current, the plan will be exercised.