

EXECUTIVE SUMMARY

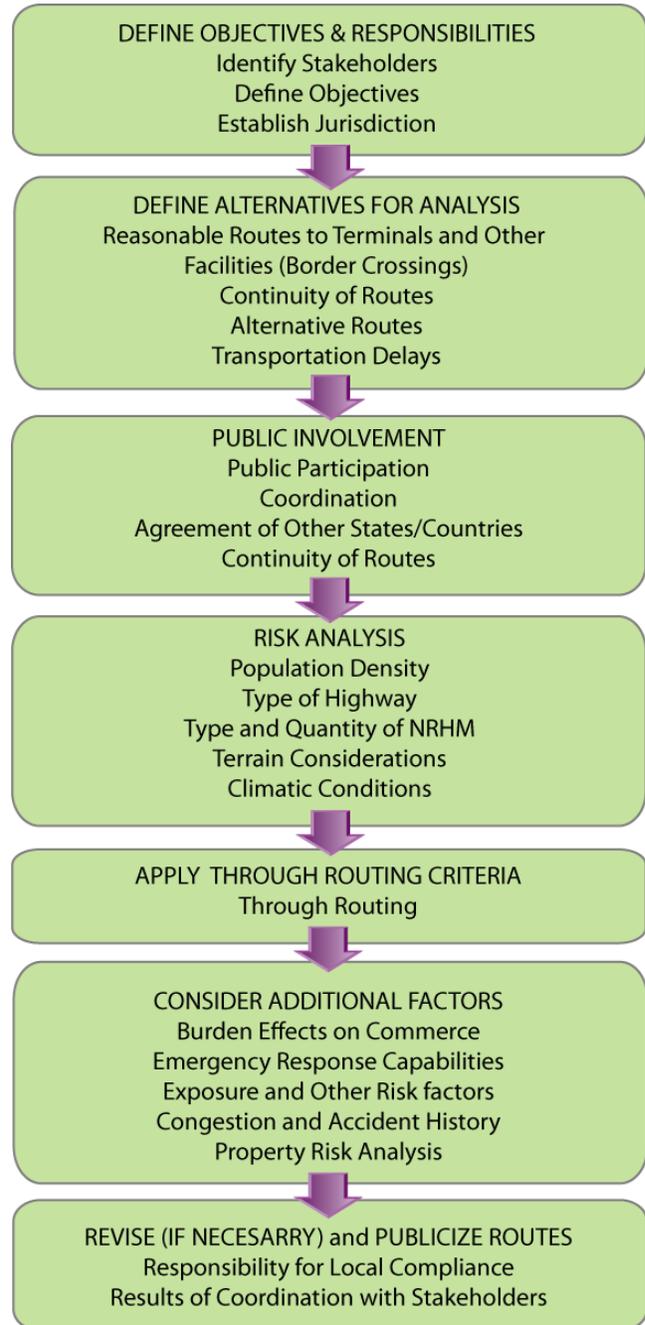
The Brownsville and Harlingen-San Benito Metropolitan Planning Organizations (MPOs), in collaboration with regional stakeholders, conducted a hazardous cargo route study in order to develop a set of non-radioactive hazardous materials (NRHM) routes for Cameron County. The objective of the Cameron County Hazardous Cargo Route Study was to select NRHM routes that minimize both the potential for hazardous materials incidents and the consequences for the residents of Cameron County should an incident occur. The study involved opportunities for active stakeholder participation during the nine month planning process. In order to achieve the objective of the study, the MPOs and study team followed the steps in the diagram shown in Figure E-1.

The methodology for the study mirrors the process approved by the Federal Highway Administration. The standards and evaluation factors included in this methodology are listed below.

Standards:

- Enhancement of safety;
- Public participation;
- Consultation with others;
- Through highway routing;
- Burden on commerce;
- Reasonable routes to terminals and other facilities;
- Reasonable time to reach agreement between affected states or Indian tribes; and
- Timely responsibility for local compliance.

Figure E-1 FHWA Process



Factors:

- Population density;
- Type of highway;
- Types and quantities of Non-Radioactive;
- Hazardous Material (NRHM);
- Emergency response capabilities;
- Results of consultation;
- Exposure and other risk factors;
- Terrain considerations;
- Continuity of routes;
- Effects on commerce;
- Alternative routes;
- Delays in transportation;
- Climatic conditions;
- Congestion and crash history; and
- Burden on commerce.

Decisions about routing requirements for hazardous materials affect a broad spectrum of community members, including: motor carriers; shippers; public safety officials (e.g., fire, police, civil defense); state and local government officials; the general public; and people in industries served by motor carriers. Due to the wide variety of stakeholders that are affected by any routing decision, the first step in the process was for the team to identify the possible routing alternatives and then compile a list of potentially affected parties. The study team solicited input from these potentially affected parties through the formation of a project advisory committee, carrying out an active stakeholder outreach and consultation process, and conducting public hearings.

Participation by these stakeholders as advisory committee members from the inception of the process had the dual benefit of introducing multiple perspectives on the issues and building consensus on the approach. The motor carrier industry, in particular, was encouraged to identify its special needs. Involving the industry in the process of developing routing requirements helped identify reasonable and workable solutions. In addition, representatives of various agencies (e.g., highway officials) and other jurisdictions potentially affected by routing designations were contacted. The participation of these stakeholders provided meaningful input into the study, and including them early in the process helped facilitate the finalization of routing designations.

Participation by jurisdictional stakeholders was particularly important because the final step in the process is enactment and enforcement of a Hazardous Cargo Route Ordinance

by the various municipalities in the county study area. The Brownsville and Harlingen-San Benito MPOs were the coordinating agencies for developing the Cameron County Non-Radioactive Hazardous Materials Route, however implementation of the proposed routes will require action in the form of ordinances or approvals from multiple jurisdictions (municipalities, the county, etc.) and stakeholder agencies.

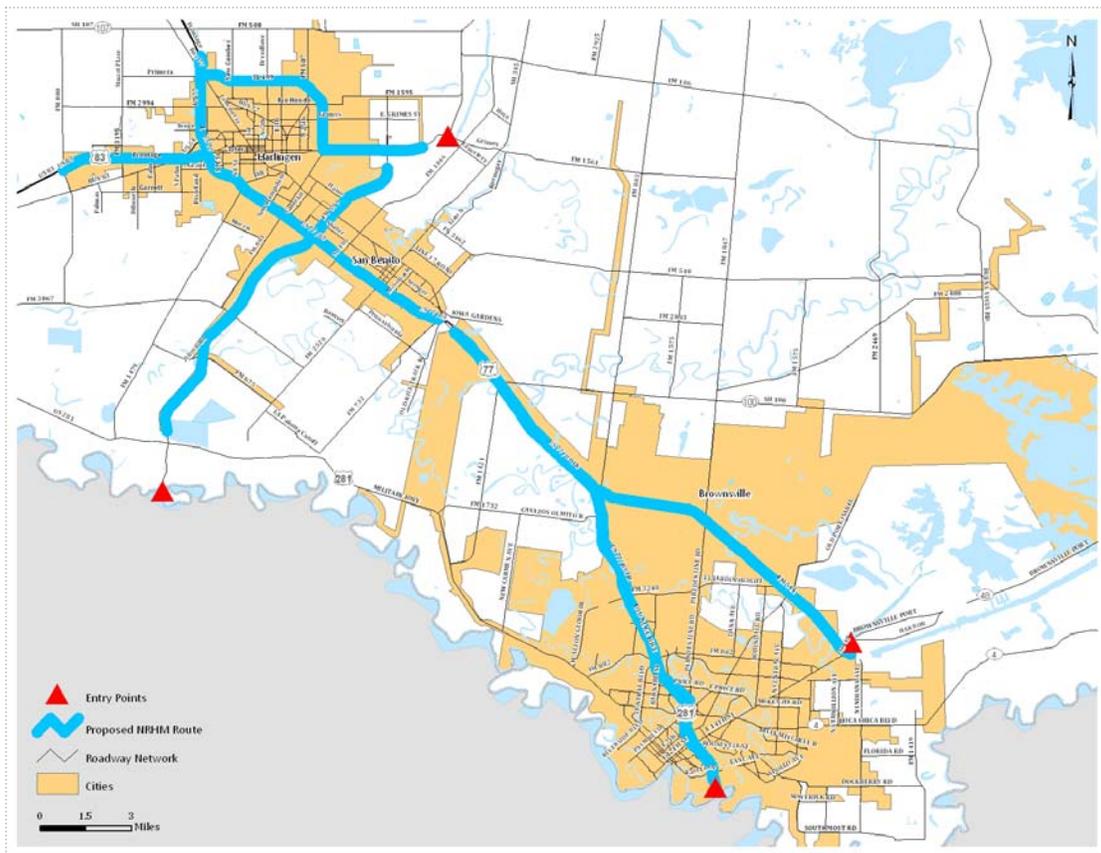
Selection of the preferred route(s) reflects the community's consensus on which criteria are most important and includes input from other affected jurisdictions. The route selection decision is documented in this report, which has been submitted to the Brownsville and Harlingen-San Benito MPOs for consideration and acceptance. The report and its recommendations were accepted by both MPOs at their respective May 12, 2010 Policy Committee Meetings. The report includes assumptions used in the analysis, and describes factors that were assessed. Prior to adoption of the route recommendations contained in the report, the route plan was made available for public comment and two public hearings were held to receive comments.

The work of developing the preferred route was carried out collaboratively with the advisory committee to: identify objectives; define and analyze factors and criteria; and conduct the risk, through routing, and other analyses. The results of this work were compiled and alternative scenarios were developed for presentation to the public at two public hearings on Wednesday April 28, 2010 at 7:00 pm at the Brownsville Public Library, and on Thursday April 29, 2010 at 6:00 pm at the San Benito City Hall. These public hearings were widely publicized through various outreach mechanisms, which included: email listserv distribution; placement of notices in local and state print media; and press releases to print media and electronic media throughout the study area. The alternative scenarios were also presented to and discussed with a broad range of stakeholders through the consultation process.

The input from the Advisory Committee hearings, public hearings and stakeholder consultation were taken into consideration along with the technical analysis of the alternative routes to formulate the final route presented in this report for acceptance by the Brownsville MPO and Harlingen-San Benito MPO Transportation Policy Committees. The recommended route consists of the following roadways:

Recommended Route Description: The recommended route contains both travel directions of the following roadways: US Hwy 77 from Harlingen’s northwestern city limits to the southeastern city limits of San Benito; SL 499 from US Hwy 77 to FM 106; FM 106 from SL 499 to the central-east city limits of Harlingen; US Hwy 83 from Harlingen’s central-west city limits to US Hwy 77; FM 509 from the southwestern city limits of Harlingen to FM 106; from FM 509 to the southeastern city limits of San Benito (at US Hwy 77/83); US Hwy 77/83 from the Brownsville northwest city limits to the Veterans International Bridge at Los Tomates; and SH 550 (FM 511) from US Hwy 77/83 to the Port of *Brownsville*.

Map 1: Recommended Route



Having received the endorsement of the Brownsville MPO and Harlingen-San Benito MPO Transportation Policy Committees along with letters of support from the cities of Harlingen, San Benito and Brownsville, the findings of this study and the recommended route(s) , that make up the Cameron County Non-Radioactive Hazardous Cargo Plan will be forwarded to TxDOT for review, additional public comment and adoption.



CHAPTER 1 INTRODUCTION**PURPOSE AND OBJECTIVES**

In 2008, more than 15,000 crashes involving trucks carrying freight classified as hazardous materials, occurred in the state of Texas. Of those 15,000 crashes, 487 or 3% were fatal. Additionally, hazardous cargo spills occurred in 49 of these incidents, and as a result, there were two fatalities and 47 non-fatal injuries. According to the Texas Department of Public Safety, there were nine crashes involving trucks carrying NRHMs in 2008 and three crashes in 2009. In addition to physical injuries or fatalities, hazardous material cargo spills have led to negative environmental externalities such as health impacts and the contamination of storm water runoff.

To reduce the potential risk of exposure to hazardous materials if a crash occurs involving trucks carrying Non-Radioactive Hazardous Materials (NRHM), the U.S. Department of Transportation's Federal Highway Administration (FHWA) implemented 49 Code of Federal Regulation Part 397 in 1985. This regulation limits the through-routing movement of commercial vehicles carrying non-radioactive materials classified as hazardous (i.e. petrochemicals, gases, corrosives, etc.) of a certain weight and quantity to designated highways or routes. The regulation also requires each state or Indian tribe to ensure there are designated NRHM routes within their jurisdictions. However, various states, including Texas, have delegated the authority to complete the FHWA prescribed process of designating specific roadways as NRHM routes to metropolitan organizations, with the legal authority extended to municipalities to enforce use of routes through municipal codes.

Therefore, the Brownsville Metropolitan Planning Organization (BMPO) and the Harlingen-San Benito Metropolitan Planning Organization (HMPO) commissioned this study to accomplish various objectives. In particular, the first objective of both MPOs was the development of a NRHM plan for Cameron County in order to reduce the risk of incidents involving trucks carrying hazardous materials and to reduce the impact on Cameron County residents should an incident occur involving the release of non-radioactive hazardous materials. Other objectives of the study included ensuring that the selected route was intuitive and matched the route that most commercial vehicles carrying hazardous commodities would mostly likely use, and reducing any potential burden on commerce due to the establishment of the NRHM route.

SPONSORING AGENCIES

- 1 Alliance Transportation Group, Inc.



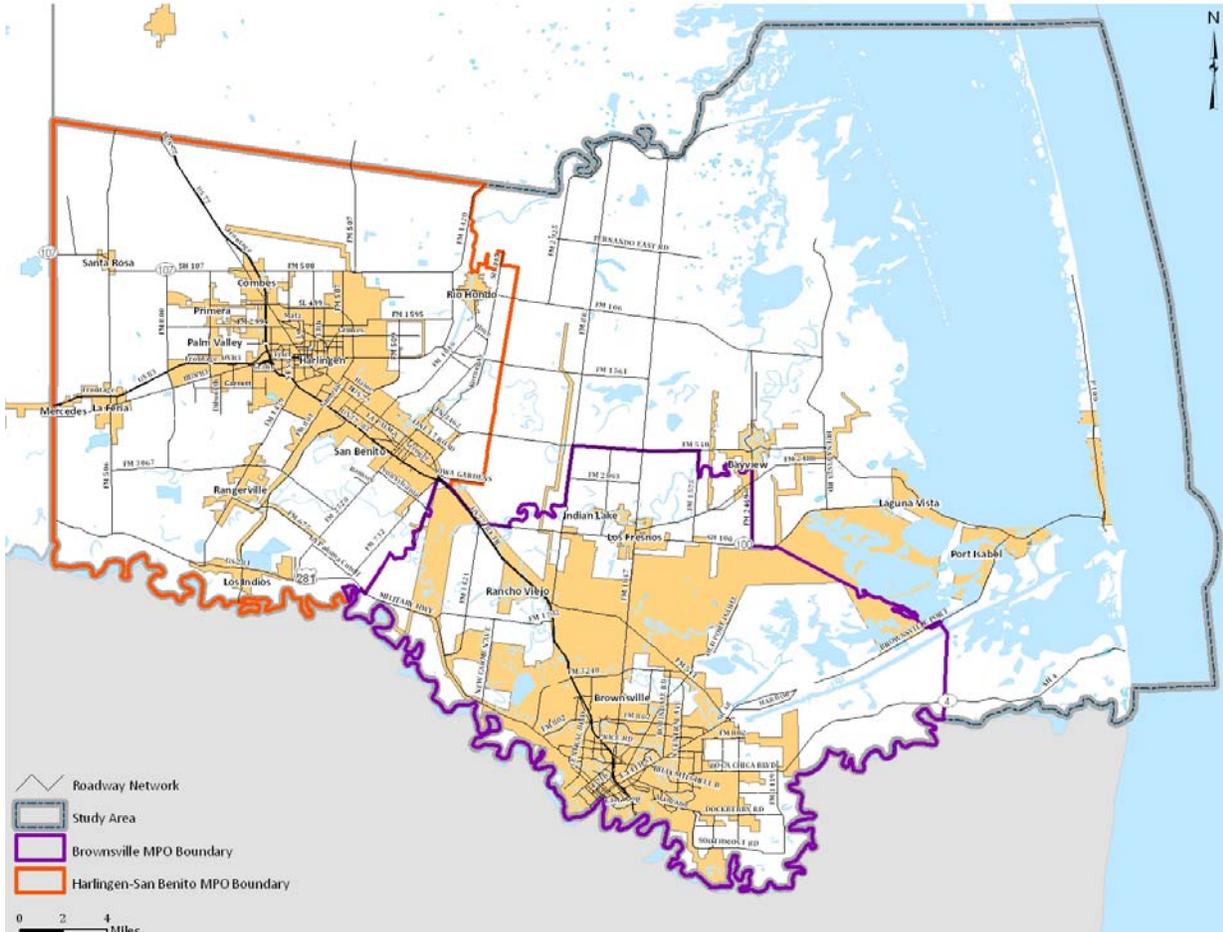
Both the Brownsville Metropolitan Planning Organization and the Harlingen-San Benito Metropolitan Planning Organization (MPO) led the effort of designating a safe and reasonable NRHM route in Cameron County. Each MPO played an essential role in conducting continuous, cooperative, and comprehensive transportation planning efforts in the region.

In addition to the sponsoring agencies, the policy board of each MPO consists of elected officials from each of the member cities thus creating a liaison to the jurisdictions that must enact the ordinances to enforce the designated NRHM route. Both policy boards adopted the recommended route identified in the plan at their respective Policy Board meetings on May 12, 2010.

STUDY AREA

The study area includes all of Cameron County, Texas as shown in Map 2. Cameron County is a unique region within Texas, as well as the United States, because of its growing population and employment; proximity to the US-Mexico international border and Gulf of Mexico; and because it is home to two international water ports and three international bridges, which serve as international border crossings. Although the study covers the entire county, the study team placed particular emphasis on the urbanized area within the Brownsville-Harlingen Metropolitan Statistical Area (MSA). The focus on the urbanized area resulted from the fact that under the Texas Administrative Code counties do not have authority to designate NRHM routes in unincorporated areas. Therefore, designation and enforcement of NRHM routes is carried out through municipal ordinances within the incorporated areas.

Map 2: Cameron County Study Area



POPULATION AND EMPLOYMENT

The location of population and employment is a key factor in designating a NHRM route. To minimize the potential of exposure to a hazardous material spill caused by an incident involving a placarded truck carrying hazardous materials, designated routes should be along roadways with low population and employment densities. As a result, as population and employment growth occurs in the future, this study should be revisited and updated to ensure that the designated route minimizes Cameron County residents' and employed non-residents' risk of exposure to a NRHM spill.

Population projections suggest that there will be substantial growth in Cameron County over the next decade. For example, Texas State Data Center population estimates placed the Brownsville-Harlingen Metropolitan Statistical Area (MSA) at approximately 394,346 people in July 2009.¹ Using the average migration rates observed between 2000 and 2007, the Texas State Data Center projected the Brownsville-Harlingen population to rise to 456,635 in 2015 and 491,465 in 2020.² In addition, the Texas Workforce Commission 2006 (TWC) total employment estimate was 132,550. The TWC currently projects Cameron County's 2016 employment to grow by 30,700 new jobs or rise to 163,250.

Population and employment data used for this study were obtained from the latest available demographic and socioeconomic estimates developed by the Brownsville Metropolitan Planning Organization BMPO and Harlingen-San Benito Metropolitan Planning Organization HSMPO, in conjunction with the provision of the data to TxDOT for use in the statewide travel demand modeling and transportation planning process.

BORDER CROSSINGS

Cameron County has four international border crossings, which include: Veteran's International Bridge at Los Tomates (Puente Internacional General I. Zaragoza), Gateway International Bridge (Puente Internacional Nuevo), B&M International Bridge (Puente Internacional Viejo), and Los Indios International Bridge (Puente Internacional Tratado de Libre Comercio). Both the Veterans International and Free Trade bridges serve as ports of entry for Mexican nationals and the movement of traded goods. According to the Texas Department of Public Safety, in 2006 more than 201,700 trucks crossed the border into the US via the Veterans International Bridge at Los Tomates. More than 41,600 trucks crossed the border into the US via the Free Trade Bridge at Los Indios. Many of these international trucks were drayage carriers that transported cargo into the US only to the limits of a specified border zone, and then a US licensed carrier transported the cargo to a secondary or final destination. Additionally, at least some of these international trucks crossing into the US via the Veteran's International Bridge at Los Tomates and Free Trade Bride at Los Indios transported NRHMs through Cameron County.

¹ 2008 Metropolitan Statistical Area Estimates, Texas State Data Center

² 2008 Methodology for Texas Population Projections, Texas State Data Center

INTERNATIONAL PORTS

Cameron County has two water-based ports, the Port of Brownsville and the Port of Harlingen, which support international trade between the US and Mexico, South America, Central America, Germany, Belgium, Korea, Japan, and China. In 2007, the Port of Brownsville processed over 5.3 million tons of cargo³. The main imports received through the Port of Brownsville included: petroleum, steel and other types of metals, grains, minerals, ores and vegetable oils. The Port of Harlingen processed over 564,000 tons of cargo in 2007 and its main imports included: cement, fertilizer, sand, and petroleum products. Subsequently, many NRHMs such as petroleum and other oils, cement, and asphalt, which are imported and exported at these international ports, were transported by trucks through Cameron County to destinations in the US and to other countries such as Mexico or Canada.

SUMMARY OF INTRODUCTORY INFORMATION

Cameron County is a unique location for designating a NRHM route because of its growing population and employment; proximity to the U.S.-Mexico international border; its two international water ports; and its three international border crossings. Additionally, both the water ports of Brownsville and Harlingen, and the international bridges at Los Tomates and Los Indios serve as conduits for the movement of NRHM into and out of the Cameron County and the United States.

The process of designating a route for Cameron County requires a delicate balance between competing interests among NRHM haulers, exporters and importers, and the health and welfare of Cameron County's current and future population. The following sections will identify the steps taken to balance these interests using FHWA's guidelines for NRHM route designation, engaging the public through an extensive public involvement process, utilizing criteria to identify a recommended NRHM route for adoption, and providing strategies for implementation.

³ Texas Ports 2009-2010 Capital Program, Texas Department of Transportation, pg. A-5