



Houston-Galveston  
Area Council

Adopted July 24, 2009  
Amended June 25, 2010

## 2010-2011 Unified Planning Work Program





**2010-2011  
Unified Planning Work Program  
for the  
Houston-Galveston  
Transportation Management Area**

**Adopted  
July 24, 2009**

**As Amended**

**September 25, 2009 – Amendment #1**

**June 25, 2010 – Amendments #2-9**

## **DISCLAIMER**

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# INTRODUCTION

## 2010-2011

### UNIFIED PLANNING WORK PROGRAM

#### PURPOSE

The *2010-2011 Unified Planning Work Program* (UPWP) describes the transportation plans and programs and the transportation-related air quality planning activities that will be conducted during Fiscal Years 2010 (10/01/09 - 09/30/10) and 2011 (10/01/10 - 09/30/11) regardless of funding sources or agencies conducting these activities. Through the development of the UPWP, changes in regional transportation planning priorities are identified. In addition, the role of the Houston-Galveston Metropolitan Planning Organization for the Houston-Galveston Transportation Management Area (TMA) is documented.

The process of operating, maintaining, and improving the region's surface transportation system is complex and demands ongoing regional planning efforts. Many of the activities described in this document support the collaborative and coordinated decision-making process between state and local government agencies, transportation providers, shippers, and carriers of goods, and the residents of the region. Through the cooperation of these stakeholders, the products of these planning efforts will provide the region with greater mobility benefits. The following five tasks document the transportation planning activities in the TMA in 2010-2011:

- **Task I** of the UPWP describes the administrative support and policy development activities provided by the Houston-Galveston Area Council (H-GAC) staff, which supports the transportation planning process and facilitates interagency cooperation and coordination throughout the TMA. This section also documents the public outreach efforts as applied to all of the Tasks and stakeholders.
- **Task II** of the UPWP describes the planning activities that generate or collect critical transportation data. Transportation planning requires the development of detailed databases that describe the primary aspects of the transportation system. These include the condition and use of system facilities or services, the purposes for which the system is used, the system's relationship to existing and future land uses, and the system's impact on the social, environmental, and economic well being of our region.
- **Task III** addresses short-range planning activities. A number of sub-area studies and transit feasibility analyses will be undertaken to advance the development of sub-area profiles and to test the viability of the expansion of public transportation beyond the service area of the Metropolitan Transit Authority of Harris County (METRO). This

Task also includes the update and implementation activities of the Regional Intelligent Transportation System (ITS) Plan and the Transportation Improvement Program (TIP).

- **Task IV** of the UPWP describes the planning activities that are being undertaken to develop an updated long-range *2040 Regional Transportation Plan*, including a regional visioning exercise and continuation of Bicycle and Pedestrian planning activities. By the year 2040, the region's population and employment are expected to increase to over 9 million people and 4 million jobs. The demand for travel has historically grown at a faster rate than the area's population or employment. With over 290 million daily vehicle miles of travel (VMT) projected for the year 2040, the region's transportation needs will grow beyond our ability to expand the region's roadway system. Such growth may also further impact the region's air quality. The development of new transportation technologies and strategies, in conjunction with expansion of the region's roadway system, are necessary to maintain the Houston-Galveston region's economic competitiveness and to improve the local quality of life.
- **Task V** of the UPWP includes special one-time planning studies looking at safety, security, intermodal, and aviation issues in the region. This task also includes Major Corridor Studies (MCS), formerly called Major Investment Studies. These long-range corridor plans are the means for examining the role of alternative transportation modes and strategies in specific corridors or areas. The MCS results in a specific design concept and scope for transportation improvements within a corridor or area. Should a 'one-time study' result in development of an on-going planning activity then it will be moved to its applicable task in the next UPWP development.

## DEFINITION OF SERVICE AREA

The Houston-Galveston Area Council has been designated by the Governor of Texas to serve as the Metropolitan Planning Organization (MPO) for transportation planning in the urbanized region that consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties. This eight-county TMA includes five U.S. Census-designated urbanized areas with populations greater than 50,000 (the Houston Urbanized Area, the Texas City/La Marque Urbanized Area, the Galveston Urbanized Area, The Woodlands Urbanized Area, and the Angleton/Lake Jackson Urbanized Area), with a total of 4.7 million people in 2000. The 2010 decennial census is expected to increase the number of urbanized areas and thus the population. Please see Appendix B for a map of the Houston-Galveston TMA.

## ORGANIZATION and STAKEHOLDERS

The Transportation Policy Council (TPC) is the policy-making board for the MPO. Its twenty-six (26) voting members are responsible for the development and approval of transportation plans and programs within the TMA. Membership on the TPC consists of chief elected officials and their designated alternates from the seven major cities (over 50,000 in population) and each of the eight counties within the TMA. In addition, Harris, Brazoria, and Montgomery counties each have an at-large city representative appointed by the H-GAC Board of Directors. The H-GAC Board of Directors also appoints one member to the TPC to represent regional concerns. The TPC appoints one representative for “Other Transportation Interests” that would otherwise not be formally represented. The Texas Department of Transportation (TxDOT) has two representatives, one from each of their two districts in the TMA and the Metropolitan Transit Authority of Harris County (METRO) has one representative. Current TPC membership is listed in **Appendix A**.

The TPC created a standing Technical Advisory Committee (TAC) to assist with the technical aspects related to the development of the RTP; the TIP; the Regional Bicycle and Pedestrian Plan; Major Corridor Studies; and other transportation programs and plans. Its membership consists of thirty-five (35) transportation planning and air quality experts from agencies throughout the TMA, as well as representatives from various advocacy groups with an interest in transportation decisions. The TAC exists to assure that transportation-planning decisions are considered in their broadest context. The TAC currently has established seven (7) subcommittees to assist with specific program activities. These are: Regional Transportation Plan (RTP) Subcommittee, Transportation Improvement Program (TIP) Subcommittee, Transportation Demand Management (TDM) Implementation Subcommittee, TCM/VMEP Development Working Group, Regional Transit Coordination Group, Operations Task Force, and the Pedestrian and Bicycle Subcommittee. Current TAC membership can also be found in **Appendix A**.

In 1991, the Regional Air Quality Planning Committee (RAQPC) was specifically created to work with H-GAC staff and other governmental agencies on coordination of regional air quality programs to meet federal clean air standards and to advise the H-GAC Board of Directors and the TPC on air quality policy. This twenty-six (26) member committee is composed of members representing a variety of public agencies, private industry, business, local health organizations, and citizen and environmental groups. The membership list is available upon request.

In 2005, the Regional Safety Council (RSC) was set up by the TPC to provide recommendations for improving transportation safety in our region. Its membership consists of professionals with backgrounds in transportation, law enforcement, emergency medical service, injury prevention, public health, trucking, railroads, insurance, shipping, safety advocacy, and

safety research. The RSC created five sub-committees to focus on specific safety issues: 1) Reducing DWI/DUI Crashes; 2) Reducing Aggressive Driving; 3) Improving Freight Safety; 4) Improving Safety Information Systems; and 5) Improving Bicycle, Pedestrian, and Child Safety. The RSC submitted a set of recommendations to the TPC and published in the 2007 State of Safety in the Region report. The 2008 State of Safety in the Region reported on the implementation status of the 2007 recommendations and the 2009 State of Safety in the Region reports on the new crash data.

## **PUBLIC INVOLVEMENT PROCESS**

The development of the UPWP is consistent with this region's Public Participation Plan (PIP) as adopted in 2007. The intent of the plan is to create a transportation planning process that is accessible, inclusive, and proactive. The plan is designed to educate and inform the public about transportation and related air quality issues, and to provide the public with opportunities to contribute their ideas and opinions early and often throughout the planning process.

## **PRIVATE SECTOR INVOLVEMENT**

The private sector is actively involved in planning efforts outlined in the 2010-2011 UPWP. H-GAC utilizes private sector contractors and consultants extensively to execute many of its planning responsibilities. In addition, the private sector participates in H-GAC's transportation planning policy structure. Industry interests and business groups have representatives serving on the Technical Advisory Committee, the Regional Air Quality Planning Committee, the Regional Safety Council, and their respective subcommittees.

Private businesses also serve on steering committees, which provide guidance for various transportation-related plans & studies. Transportation Management Organizations (TMOs) also provide opportunities for private sector involvement in the provision of ridesharing, vanpooling, and other trip reduction activities. H-GAC provided start-up funds for area TMOs, which assist employers in implementing transportation demand management (TDM) strategies such as carpooling and vanpooling.

H-GAC staff continues to provide technical assistance to private and public transit and para-transit operators in the planning and delivery of expanded transit services in coordination with METRO and other regional public transportation providers. For example, several projects were approved for funding in the 2006-2007 Call for projects under the Job Access Reverse Commute (JARC) and New Freedom Grant programs. The sub-recipients of those grant funds often contracted with private companies to implement the new services. In one project, the

Greater Houston Transportation Company (Yellow Cab) was awarded grant funding of \$ 284,250 to install wheelchair ramps to 30 new vehicles through the New Freedom Program. That project increased the availability of ADA compliant vehicles in the private cab fleet, which increased the accessibility to wheelchair bound users to twenty-four hours each day, year round.

A JARC funded project in Austin County expanded the public transportation services through a public/private partnership agreement. Another initiated commuter project connects the Woodlands Township in Montgomery County with the Sam Houston State University (SHSU) in Huntsville, in Walker County, with funding provided through a public/private partnership.

## **PLANNING ISSUES AND EMPHASIS AREAS**

### REGIONAL TRANSIT FRAMEWORK

Today there are five public transit providers serving different areas of the Houston region. The Metropolitan Transit Authority of Harris County (METRO) is the region's largest transit authority. It serves more than two-thirds of Harris County and a portion of Fort Bend and Montgomery counties. Island Transit, Connect Transit, The District and Colorado Valley Transit provide service in the smaller urban areas and in parts of the rural areas of the region. Working with the service providers, the Regional Transit Framework study seeks to:

- Develop a vision for regional transit through consensus building and public understanding;
- Determine financially unconstrained transit funding needs in the region;
- Identify the level and kinds of resources needed to enhance or expand existing transit services;
- Identify optimal service standards and performance measures for evaluating service;
- Based upon performance measures, develop a framework for funding decisions among the providers;
- Identify costs and potential new funding mechanisms;
- Provide recommendations on an optimal governing structure and integration of service areas;
- Develop a 2040 regional transit plan.

### 2040 REGIONAL TRANSPORTATION PLAN (RTP) UPDATE

One planning effort of the 2010-11 UPWP will involve development of the 2040 Regional Transportation Plan (RTP) and its financial plan. This update will play a critical role in

defining transportation investment priorities envisioned for the next three decades and will begin to identify specific financial resources needed to implement these programs. The goal is to enhance mobility by providing an efficient, affordable, safe, and environmentally responsible transportation system for both people and goods.

SAFE, ACCOUNTABLE, FLEXIBLE AND EFFICIENT TRANSPORTATION EQUITY ACT – A LEGACY FOR USERS (SAFETEA-LU) OF 2005 – EIGHT PLANNING FACTORS

Even though the SAFETEA-LU authorization ends September 30, 2009, it is unlikely a new reauthorization act will be in place for much of FY 2010, as such, SAFETEA-LU Planning Factors shall prevail in this document.

SAFETEA-LU recognized that transportation investments impact the economy, environment, public safety/security, efficient movement of people/goods, and community quality of life. SAFETEA-LU included eight factors that replaced the 7 TEA-21, 16 metropolitan, and 23 statewide planning factors for consideration in the metropolitan and statewide planning processes. Specifically, SAFETEA-LU requires consideration of eight broad areas and how the MPO addresses these factors have been programmed in italics below:

**1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency, including services provided by public and private operators;**

- *TIP project selection criteria assigns benefits to projects that: a) support/improve port operations, b) remove bottlenecks & fill gaps on existing system that inhibit the movement of people and goods, and c) provide improved access between activity centers.*
- *RTP focuses on strategic corridor plans that will improve the movement of people and goods within and through the region.*
- *MPO supports activities of the Gulf Coast Freight Rail District that is seeking to improve the movement of freight within and through the region by reducing conflicts with personal vehicular travel.*
- *MPO supports transit service activities that foster urban redevelopment and improve access around transit stations*

**2. Increase the safety of the transportation system for motorized and non-motorized users;**

- *TIP provides funding for improved bicycling & pedestrian facilities.*
- *RTP focuses on identification of crash hot spots and strategies to reduce crashes*
- *MPO formed Regional Safety Council to address transportation safety*

- 3. Increase the security of the transportation system for motorized and non-motorized users;**
  - *TIP provides funding for improved lighting in and around transit centers*
  - *RTP supports connections at port entrances and exits that are designed to facilitate enhanced security*
  - *MPO participates in emergency preparedness activities initiated by state and local governments*
- 4. Increase the accessibility and mobility of people and for freight, including services provided by public and private operators;**
  - *TIP project selection criteria assigns benefits to projects that: a) support/improve port operations, b) remove bottlenecks & fill gaps on existing system that inhibit the movement of people and goods, and c) provide improved access between activity centers.*
  - *RTP focuses on strategic corridor plans that will improve the movement of people and goods within and through the region.*
- 5. Protect and enhance the environment, promote energy conservation, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;**
  - *MPO engaged in Subregional Planning initiative designed to link local land use goals with transportation investments*
  - *MPO supports regional vanpooling, carpooling and telework initiatives*
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight, including services provided by public and private operators;**
  - *Livable Centers initiative designed to improve access and connectivity to and around transit stations*
  - *TIP and RTP support projects such as the downtown intermodal terminal that will link a variety of modes in one station.*
  - *MPO engaged in discussions with stakeholders regarding opportunities to reduce conflicts between pedestrians, vehicles and passenger and freight rail activities*
- 7. Promote efficient system management and operation; and,**
  - *CMP focuses on identifying non-added capacity alternatives that will improve traffic flow and safety for motorists.*

- *RTP includes an expanded managed lane system to derive improved efficiency from new capacity projects.*
- *Access Management studies and implementation efforts undertaken by the MPO and partners are designed to improve system operation and traffic flow.*
- *TIP provides funding for expansion of traffic management systems throughout the region.*

**8. Emphasize the preservation of the existing transportation system, including services provided by public and private operators.**

- *TIP programs approximately half of all funding to preservation, rehabilitation and maintenance of the existing system.*
- *MPO works with the state to identify major reconstruction needs over the life of the plan*

AIR QUALITY PLANNING AND IMPLEMENTATION

Air quality planning efforts are aimed at finding control strategies and policies to ensure that on-road mobile sources in the eight-county Houston-Galveston-Brazoria nonattainment area comply with federal pollution standards and State Implementation Plan (SIP) requirements. Note the non-attainment area and TMA are the same eight counties. Identified in Subtask 4.2, these efforts include:

1. Initiating technical and policy analyses of control strategies for the TMA's ozone SIP;
2. Participating with regional leaders, business and industry, environmentalists, and federal, state and local governments to develop/review clean air strategies, modeling, processes, and technologies;
3. Conducting conformity analyses, as needed by the TIP, RTP and/or SIP timelines;
4. Defining the potential regional impacts of implementation, as well as the potential sanction ramifications of the current one-hour nonattainment designation and the eight-hour nonattainment designation (although we are not designated for fine particulate 2.5 nonattainment designation, we continue to monitor developments);
5. Participating in the establishment of emission budgets for transportation conformity;
6. Aiding in the implementation of SIP strategies through demonstration projects and contractual programs; and
7. Working on flexible and alternative attainment plans.



### SAFETY & SECURITY IN THE TRANSPORTATION PLANNING PROCESS

H-GAC continues to be involved in safety and security planning (Subtask 5.1). These issues cut across the various other planning issues. They involve 1) continuing development of a GIS-based crash information system; 2) identification of high crash locations or areas (hot spots); 3) conducting of preliminary engineering studies in order to understand the factors underlying the crashes; 4) proposal of mitigation measures to reduce the number of crashes; and 5) prioritization of the proposed mitigation measures based on a benefit-cost ratio.

Emergency evacuation became a more critical issue with the hurricane evacuation difficulties in the summer of 2005 and again in 2008. Special modeling efforts in Subtask 2.2 (Physical Features, Data, & Modeling Support) and programs in Subtask 5.3 (Evacuation Planning) are providing valuable coordination of safety and security issues among the agency stakeholders

### LIVABLE CENTERS AND SUBREGIONAL PLANNING

H-GAC continues to provide outreach, training, and technical assistance to local governments and private developers to help achieve an improved connection between development patterns and the transportation system (Subtask 4.4). H-GAC's Livable Centers and Subregional Planning programs provide local governments with opportunities to assess new strategies and utilize best practices in land use/transportation coordination. The Livable Centers programs helps to create quality, mixed-use places that provide multi-modal transportation options through studies and implementation projects. The Subregional Planning program identifies strategies and projects that realize local priorities and link these with regional goals through the creation of subregional plans and a best practices toolbox.

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# **TASK I**

## **PROGRAM MANAGEMENT**

The purposes of the activities listed under Task 1.0 are to provide administrative support to the transportation planning process for the eight-county Houston-Galveston Transportation Management Area (TMA) and to facilitate interagency cooperation and coordination.

### **OBJECTIVES:**

- To develop a Comprehensive, Continuing and Coordinated, or "3-C," regional transportation planning process.
- To develop public information exchange and education programs that increase public interest and participation in ongoing transportation and air quality planning activities.
- To promote public involvement and communication in "best practices" for land use/ transportation interactions.
- To prepare the Regional Transportation Plan (RTP) for the 2040 planning horizon with proactive public outreach efforts including: follow-up and feedback to concerned citizens regarding comments made on the 2040 RTP;
- To obtain and maintain computer hardware, software, technical support, and training necessary to maintain transportation and related air quality planning activities.

### **EXPECTED PRODUCTS:**

- New 2-year Unified Planning Work Program (UPWP).
- Technical assistance and support for committees and public meetings.
- Public information materials and interaction in a variety of formats, including emails, letters, brochures, websites, surveys, etc.
- Build consensus on "best practices" in interfacing development patterns and the transportation system.

### **PREVIOUS WORK**

- The FY2009 self-certification assurances were approved in July 2008 as well as the procurement, lobbying, and debarment certifications.
- H-GAC developed a new DBE Plan with goals for FY2008 and FY2009. It was adopted October 21, 2008 by the H-GAC Board of Directors and is posted on the webpage.
- The MPO Federal Certification Review was completed successfully in November 2008.
- Provided administrative assistance, graphic design services, and website development for Harris County judge's transportation conference and provided website development and training to Gulf Coast Freight Rail District.
- Provided advertising, staff support, marketing, public relations, graphic design and video development to Harris County Toll Road Authority and Texas Department of Transportation for public outreach campaign for Katy Freeway managed lanes.

- The 2008-2009 UPWP was amended four times in fiscal year 2008. There were nine amendments on November 16, 2007, five amendments on April 18, 2008, two amendments on June 27, 2008, and seven amendments on August 22, 2008.
- Replaced ten (10) personal computers for staff because old PCs reached the end of three-year life or beyond repair. Purchased Reflex X5 DVD/CD Duplicator to aid in quantity production/reproduction of program related materials.
- Replaced both work-group color printers and the high-speed black & white draft printer used by the Department as the old printers surpassed their economic life.
- Developed a hurricane preparedness campaign designed for special needs populations.
- Hosted an environmental justice workshop to train local governments on best practices in reaching special needs and underserved populations.
- The 2008 FHWA-TSU Summer Transportation Institute's annual visit to H-GAC provided half-day training on transportation planning as education outreach to area high school students.
- A Context Sensitive Solutions workshop was hosted by H-GAC to provide information on sustainable development practices.
- Conducted numerous public meetings throughout the year to discuss transportation projects and programs, completed three (3) newsletters and one transportation progress report on TIP projects.

### **SUBTASK 1.1 Program Support / Unified Planning Work Program (MPO)**

The activities that take place under Subtask 1.1 include the development and maintenance of the planning program reports and grants, and TxDOT/H-GAC contract administration. This subtask includes all administrative support for the MPO planning program in general, including assistance to Federal, State and local agency staff as needed.

This subtask includes the development and maintenance of the Unified Planning Work Program (UPWP), which describes the transportation plans and programs and the transportation-related air quality planning activities conducted during the fiscal year(s) regardless of funding sources or agencies conducting these activities.

H-GAC also serves as the Regional Reviewing Agency under the Texas Review and Comment System (TRACS). TRACS is the official state review process, and it offers both state and local officials the opportunity to review applications for state and federal assistance that may affect the H-GAC's 13-county area.

### **PRODUCTS:**

#### **Program Support & Administration**

- 1.1.1** Complete contracts and agreements between the MPO and participating agencies, including subcontracts with outside consultants as needed. [As needed]
- 1.1.2** Maintain the federal certification of the Houston-Galveston Transportation Management Area's transportation planning process, related requirements associated with the budgeting and expenditures of Federal, State, and local funding, including the Annual

- Performance & Expenditure Report (APER), the Disadvantaged Business Enterprise goal development, and the annual self-certification assurances. [Annually]
- 1.1.3** Provide technical assistance to local governments, public agencies, other qualified grant sponsors, and staff regarding federal grant applications, TRACS, transportation planning activities, and transportation management issues. [2010-2011]
  - 1.1.4** Provide technical assistance to the Transportation Policy Council (TPC), the Technical Advisory Committee (TAC), and other committees and subcommittees appointed. Technical assistance includes preparing meeting materials, meeting notices, maintaining permanent meeting records, an annual training workshop for the respective members, and other assistance as directed. Provide food and non-alcoholic beverages at selected meetings and events when deemed appropriate. [2010-2011]
  - 1.1.5** Non-lobbying participation in the Association of Metropolitan Planning Organizations (AMPO), Texas Metropolitan Planning Organizations (TEMPO), National Association of Regional Councils (NARC), Texas Association of Regional Councils (TARC), Transportation Research Board (TRB), American Association of State Highway and Transportation Officials (AASHTO), and other organizations that enhance the planning process. [2010-2011]
  - 1.1.6** Provide analysis of State and federal laws, regulations, and legislation for TPC and TAC members, and local government officials to aid them in the application of regional transportation policy strategies. [2010-2011]
  - 1.1.7** Organize and/or participate in one or more Planning Capacity Building (PCB) peer reviews on technical challenges as needed in the TMA, such as air quality, safety, security, intermodal activities, travel behavior, interagency cooperation, or emergency planning. [2010-2011]
  - 1.1.8** Provide introduction, development, and staff training for the implementation of and migration to “Microsoft SharePoint” office software to gain better control over electronic content by sharing structured locations for organizational resources and knowledge that easily integrates with other Microsoft applications. [2010]
  - 1.1.9** Maintain historical data, publications, and map warehousing/archive libraries and facilitate the training and transfer of historical data to Knowledge Lake document management software when implemented. [2011]
  - 1.1.10** Continue the development and initiation of an interim online-query system for public access to the Transportation CD archive and paper document libraries. [*SharePoint and Knowledge Lake implementation will eventually replace this system.*] [2010-2011]
  - 1.1.11** Acquire legal defense/advice in accordance with 2 CFR Part 225, Cost Principles for State, Local, and Indian Tribal Governments (OMB Circular A-87) for conformity determinations and other issues as determined to be necessary and reasonable to carry out the metropolitan planning process per 23 CFR 420.113. [2010-2011]

*Unified Planning Work Program Development*

- 1.1.12** Maintain the 2010-2011 Unified Planning Work Program (UPWP), reflecting current plans, programs, and regional priorities, by amendments approved by the TPC, TxDOT, FHWA, and FTA. [2010-2011]
- 1.1.13** Develop and adopt the 2012-2013 Unified Planning Work Program per schedule determined by staff in coordination with other Transportation Partners. [2011]
- 1.1.14** Provide routine acquisition, maintenance, and upgrades for PC equipment, workstations, and related hardware/software, including audio/visual aids, as needed for MPO growth and/or changing program needs. **Appendix F** contains the FY 2010-2011 Capital Equipment Expenditures Table. [2010-2011]

**SUBTASK 1.2 Transp. Public Involvement and Outreach Program (MPO)**

H-GAC has an ongoing, inclusive, and active public involvement process for transportation planning. The goals and objectives of the public involvement process are described in the Public Participation Plan adopted in July 2007. The primary objective is to provide timely, accurate, and complete information to the public on important transportation issues. Fulfilling this objective requires the continuous development of visualization techniques, educational materials, transportation websites, newsletters, and other public outreach activities.

**PRODUCTS:**

*Public Involvement*

- 1.2.1** Staff support for public meetings for the RTP, TIP, UPWP, and other significant plans. This includes legal notices, press releases, advertisements, slide presentation production, and development of educational materials for distribution at these meetings and may supply food and non-alcoholic beverages when deemed appropriate. (**Consultant: \$400,000 TPF**) [2010-2011]
- 1.2.2** Work with local governments to develop plans and policies to respond to forecasted future growth. Provide information packets, assist with public outreach activities, provide presentations to local policymakers and stakeholders, etc. as part of a long-range planning effort, supplying food and non-alcoholic beverages events when deemed appropriate. Provide presentation, public speaking, public outreach, and media training for key staff. (**Consultant: \$100,000 TPF**) [2010-2011]
- 1.2.3** Publication and distribution of H-GAC Transportation Department newsletters, executive summaries, planning documents, and other publications as needed. [2010-2011]
- 1.2.4** Continue to solicit public comment on transportation programs, projects, and policies and to respond to public comment in a timely fashion. [2010-2011]
- 1.2.5** Continue to employ visualization techniques to deliver information, including websites, video, and audio technologies to interested parties. [2010-2011]

- 1.2.6** Continue to develop and maintain mailing and community contact lists to ensure adequate distribution/notice of public meetings and materials. [2010-2011]
- 1.2.7** Establish a main webpage for the Access Management program that will help to “brand” the program. This page will give a better introduction to the overall topic of access management and link users to specific studies, technical resources, and other supporting subpages. (Consultant: \$18K TPF) [2010]

**Policy and Government Affairs**

- 1.2.8** Continue to provide MPO comments to FHWA/FTA/EPA as part of the federal rule-making process. [2010-2011]
- 1.2.9** Develop seminars, peer exchange, and peer review activities as necessary to facilitate communication between MPOs and federal agencies, providing food and non-alcoholic beverages when deemed appropriate. [2010-2011]
- 1.2.10** Development of briefings and printed materials for policy-makers on federal and state issues relevant to the regional transportation planning process. [2010-2011]
- 1.2.11** Participate in best practices and public involvement training workshops when resources are available. [2010-2011]

<b>TASK 1: Program Mgmt. 2010-2011 Funding Table</b>			
<b>Subtask</b>	<b>1.1</b>	<b>1.2</b>	<b>TASK</b>
<b>Agency</b>	<b>MPO</b>	<b>MPO</b>	<b>TOTAL<sup>2</sup></b>
TPF (2010-11) <sup>1</sup>	\$2,600,000	\$1,818,000	<b>\$4,418,000</b>
LOCAL	\$0	\$0	<b>\$0</b>
<b>TOTAL FUNDING</b>	<b>\$2,600,000</b>	<b>\$1,818,000</b>	<b>\$4,418,000</b>
<sup>1</sup> Includes FY09 unexpended TPF estimate of:			\$320,000
<sup>2</sup> One-half of these funds may not necessarily reflect one year.			
<i>TxDOT will apply transportation development credits sufficient to provide the match for FHWA PL-112 and FTA Section 5303 programs. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.</i>			

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## **TASK II**

# **DATA DEVELOPMENT AND MAINTENANCE**

The Subtasks contained in Task II, collect, update, model, and maintain the basic data and tools required for executing the planning activities described in this UPWP.

### **OBJECTIVES:**

- To collect, process and analyze socioeconomic data necessary to develop and implement regional transportation plans and systems.
- To develop and maintain advanced state-of-the-practice travel demand modeling tools and explore *advanced practice* modeling methods that enhances the region's capabilities for regional, sub regional, and corridor planning and analysis.
- To participate in the ongoing data collection efforts of other transportation agencies in the region and expedite the sharing of roadway inventory data and candidate roadway project information between transportation agencies.
- To maintain a regional database clearinghouse on the H-GAC Transportation web pages to provide easier access to the large quantities of data generated by the various transportation agencies.
- To develop the technical expertise to support for emergency evacuation planning for the region.

### **EXPECTED PRODUCTS:**

- Maintain roadway networks in support of transportation mapping and planning activities.
- Maintain socioeconomic databases necessary for transportation planning and modeling activities.
- Development of revised population and employment forecasts and base year estimates.
- Continued development of an “advanced-practice” set of regional travel models that incorporate updated modeling practices and theories as well as new travel survey data.
- Cartographic materials in support of the public outreach and environmental justice programs.
- Web-based roadway project information sharing between Transportation agencies.
- Establish a central location for transportation-related data, generated by local governments in the course of performing planning activities.
- Continue scenario testing of the Emergency Evacuation Model as needed by local governments.

### **PREVIOUS WORK**

- Continued updating databases with aggregate and disaggregate county and sub-county level socioeconomic information from the American Community Survey, and the Census Population Estimates program, Bureau of Economic Analysis, Bureau of Labor Statistics, Texas Workforce Commission, Texas State Data Center and other public and private sources
- Continued updating a database with information on the location, timing, and details of

- planned development projects in the region, including a regional land use database
- Continued improving internet-based mapping and database query tools to display and access the regional forecast and other socioeconomic data
  - Staff provided data and analytical support to local governments and their consultants. Among the many data recipients were City of Houston, City of Galveston, Harris County, Montgomery County, and METRO
  - HGAC, in cooperation with the Metropolitan Transit Authority of Harris County (METRO), completed the 2007 fixed route weekday On-board transit survey.
  - Developed new simplified mode choice model.
  - Developed new 5,800 zone system.
  - Developed new directionally coded network.
  - Completed the 2007 Toll Road Survey.
  - Completed the validation of Track I transit and roadway networks.
  - Providing travel-modeling assistances to HGAC's member agencies in regard to various corridor studies, Environmental documents, and special studies.
  - Provided continued assistance to transportation partners on previously completed planning studies including SH 146, SH 35, SH 288, I-45 North Hardy Corridor, SH 225 , SH 99 , the I-69/Trans Texas Corridor major investment study, US 290 rail initiatives, and the commuter rail connectivity project as public input raised issues on their implementation.
  - Completed migration and validation of the Track 1 regional travel demand model set from EMME/2 to Cube Voyager.
  - Acquired Cube Cargo for future freight modeling activities.
  - Completed the development of special networks, demographic and trip tables for the Cube Avenue-based Evacuation models.

## **SUBTASK 2.1 Demographic Data and GIS Services (C&E Planning)**

Subtask 2.1 addresses the ongoing inventory of socioeconomic data, including current estimates and long range, small area forecasts of employment, population, household, and land use information. This subtask also includes analytical support in the evaluation of alternative scenarios for all of the transportation partners in the TMA.

### **PRODUCTS:**

#### **Development of Socioeconomic Data**

- 2.1.1** Staff will continue maintaining and updating a database with aggregate and disaggregate county and sub-county level socioeconomic information from the decennial censuses, American Community Survey, and the Census Population Estimates program, Bureau of Economic Analysis, Bureau of Labor Statistics, Texas Workforce Commission, Texas State Data Center and other public and private sources. [On-going]
- 2.1.2** Staff will continue developing and updating a database with information on the location,

timing, and details of planned development projects in the region. Staff will also continue monitoring, researching, analyzing, and documenting economic, demographic, and development trends germane to regional growth and to transportation planning and policy. [On-going]

**2.1.3** Staff will maintain and keep updating:

- A parcel-level database with disaggregate information on current and historic land use and land values;
- A building-level database with disaggregate information on current and historic valuations and other characteristics for residential and non-residential structures;
- A company-level database with disaggregate information on type, size, and location of businesses in the region; and
- A household-level database with disaggregate synthesized socioeconomic information on the households in the region.

**Development of Socioeconomic Forecasting Models**

**2.1.4** Staff will continue improving and enhancing the existing modeling framework for generating scenario-based long-range integrated demographic and economic forecasts for the region and the counties. [On-going]

**2.1.5** Staff will continue updating and enhance the existing operational version of the land-use forecasting model. [On-going]

**2.1.6** Staff will continue using analytical tools to evaluate the sensitivity of the land-use forecasting model to changes in development policies, transportation options, and other relevant exogenous factors. [On-going]

**Development of Socioeconomic Forecasts**

**2.1.7** Staff, in cooperation with the Travel Demand Modeling group, will develop a small-area baseline regional integrated “land use-transportation” forecast for Transportation Planning purposes and a series of alternative integrated “land use-transportation” forecasts. (**Consultant: \$20K TPF**) [2010]

**Dissemination of Socioeconomic Information**

**2.1.8** Staff will maintain and keep improving and enhancing web-based interfaces to mapping and database query applications to allow easy access to forecast and other socioeconomic data by transportation partners and the general public [On-going].

**2.1.9** Staff will produce a printed summary of the updated baseline regional forecast (2010), and will publicize the data, forecasts, and socioeconomic modeling via printed publications, media outlets, and presentations to various transportation-related audiences. [2010-2011]

**Analytical Support**

**2.1.10** Staff will use analytical tools to evaluate the demographic, economic, land use, environmental, and transportation impacts of different growth scenarios in support of the

preparation of the RTP in 2011, as well as other planning documents and special studies in 2010.

- 2.1.11** Staff will provide informational and analytical assistance to H-GAC Transportation staff, transportation agencies, local governments and their consultants in support of regional transportation planning studies. [As needed]
- 2.1.12** Staff may provide in-depth analytical services in socioeconomic modeling and forecasting to agencies and organizations, upon request and subject to schedule availability and funding assistance. [Local \$10,000, as needed].

## **SUBTASK 2.2 Physical Features, Data, & Modeling Support (MPO)**

Subtask 2.2 describes the ongoing development, maintenance, and training activities associated with the MPO's Windows XP-based personal computers, a Microsoft Windows 2000-based local area network, T1 Internet connections, and the ArcGIS/ArcView Geographic Information System (GIS) used by MPO staff in support of data development and travel demand modeling. This subtask describes efforts directed toward the continued development, enhancement, and maintenance of the Houston-Galveston Regional Travel Demand Models. This subtask includes the physical collection, entry, preliminary tabulation, maintenance, and analysis of transportation-related data and includes staff support for the geographical representation of the region's physical features; associated publications, maps, and data archives.

### **PRODUCTS:**

#### **Transportation Data & Modeling Support**

- 2.2.1** Use GIS application tools of Arc/Info, ArcView, Avenue, Map Objects, and other new ESRI products to develop menus, macros, programs, and user manuals needed to display and evaluate transportation tasks defined in the UPWP. [2010-2011]
- 2.2.2** Data Services staff will provide GIS technical support for the development, maintenance, and indexing of map coverage and databases on MPO servers. [2010-2011]
- 2.2.3** Rectify and maintain all roadway networks with the county base maps and fully incorporate TxDOT's reference marker system, mile points, block numbers, and control section numbering scheme. [2010-2011]
- 2.2.4** Purchase travel time and speed data from fleet and/or GPS data providers for updating base-year model, congestion management assessment, and new project ranking criteria. **(Consultant- \$80K TPF)** [2010]
- 2.2.5** TxDOT, in cooperation with H-GAC, will conduct Travel Surveys for the Houston-Galveston TMA during FY 2007-08. These surveys are as follows:
- **Work Place / Special Generators Survey** - 500 businesses in TMA, including six special generator supplemental surveys (TxDOT-\$1 Million SPR) [FY2010 - Fall]
  - **Commercial Vehicle Survey** – (TxDOT-\$125K SPR) [FY 2010-Fall]

- **External Station Survey** – Suspended by State Legislator.

*[NOTE: \$570,832.80 in PL112 (TPF) funds are to be reimbursed to TxDOT in 2010 due to the change in funding source and accounting rectification. (Status of surveys: On-Board Transit completed 2007; Household completed in 2009.)]*

- 2.2.6 External Station Survey - 33 sites in H-GAC MPO [14 shared with SETRPC MPO.] (**Total \$300K TPF**) [FY 2010]
- 2.2.7 Expand the viewing capabilities of the project viewer based on public feedback. (**Consultant-\$50K TPF**) [2011]
- 2.2.8 Expand the capabilities of the existing traffic count viewer including enhancements to query capabilities, counter-compatible import functions, Microsoft-compatible export, and report functions. (**Consultant-\$50K TPF**) [2010-2011]
- 2.2.9 Participate with the Texas Transportation Institute in developing a region-wide roadway count clearinghouse. (**Consultant \$40K TPF**) [2010-2011]
- 2.2.10 Develop an analysis tool to calculate greenhouse gases emission reductions from different control strategies at project and county level for on-road mobile sources. {Consultant \$60K (H-GAC - \$50K TPF, TxDOT - \$5K in-kind, HARC - \$5K in-kind)} [2010-2011]
- 2.2.11 Purchase waybill data from TxDOT for use in modeling freight movements. (Pass-thru to TxDOT \$20K TPF) [2010]

### **Travel Demand Forecasting**

- 2.2.12 Develop a state-of-the-practice travel demand model set, (**Consultant- \$1,000K, \$800K STP, \$200K Other Local (METRO) {CSJ#0912-00-391, MPOID#13630}**) [2010-2011]
- 2.2.13 Continue technical support and assistance in the implementation of the Cube Voyager model set. (**Consultant (TTI) \$205K TPF**) [2010-11]
- 2.2.14 Participate and support the efforts of the nationwide mobility measurement research project. (**Consultant (TTI) \$50K TPF**) [2010-11].
- 2.2.15 Support special studies and unusual model applications with technical support and review of major model applications. [As Needed]
- 2.2.16 Review and assessment of traffic count data used in base year networks. This activity will include working with TranStar and TTI to access video, AVI, Wavetronic, and ATR data to develop time-of-day and classification counts. [2010-2011]
- 2.2.17 Review and assess demographic data and other model inputs. [2010-2011]
- 2.2.18 Continue the development of the Cube Avenue based emergency-evacuation model. [2010-2011]

**MPO Support and Training**

**2.2.19** Attend meetings and participate on committees of the GIS Users Groups, Network Users Groups, and other technical support groups as needed. [2010-2011]

**2.2.20** Continue staff training on the Cube Suite of software. [2010]

<b>TASK 2: Data Development &amp; Maintenance 2010-11 Funding Table</b>			
<b>Subtask</b>	<b>2.1</b>	<b>2.2</b>	<b>TASK</b>
<b>Responsible Agency</b>	<b>C &amp; E PLANNING</b>	<b>MPO / TxDOT / METRO</b>	<b>TOTAL</b>
TPF: 2010-11 <sup>1</sup>	\$1,300,000	\$2,175,000	<b>\$3,475,000</b>
STP	\$0	\$800,000	<b>\$800,000</b>
TxDOT SPR	\$0	\$1,125,000	<b>\$1,125,000</b>
TxDOT MPO <sup>2</sup>	\$0	\$700,000	<b>\$700,000</b>
TxDOT In-kind	\$0	\$5,000	<b>\$5,000</b>
Other Local	\$10,000	\$205,000	<b>\$215,000</b>
<b>TOTAL FUNDING</b>	<b>\$1,310,000</b>	<b>\$5,010,000</b>	<b>\$6,320,000</b>
<sup>1</sup> Includes FY09 unexpended TPF estimate of:			\$800,000
<sup>2</sup> Includes PL112 funds [TPF] retained by TxDOT in 2007 for Travel Surveys			
<sup>3</sup> One-half of these funds may not necessarily reflect one year			
TxDOT will apply transportation development credits sufficient to provide the match for FHWA PL-112 and FTA Section 5303 programs. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.			

## **TASK III**

### **SHORT-RANGE PLANNING**

The work elements contained in Task III include the development of the Transportation Improvement Program (TIP), as well as sub-regional or county-level mobility studies, transit feasibility studies, and operations planning. Short-range planning efforts will also be focused on the continued coordination and development of transit and Transportation Demand Management (TDM) projects. An important aspect of that effort includes the facilitation of ongoing planning and coordination of public transportation services within the 13 county Gulf Coast Planning Region for the elderly, physically challenged, low income and those who cannot or choose not to drive. Task III also includes ongoing maintenance of the Regional Intelligent Transportation System (ITS) Plans. Please note that all Congestion Management Process-related activities previously listed under this task in the 2008-09 UPWP have been moved to Task IV under Subtask 4.1.

#### **OBJECTIVES:**

- Support the development of short-range transportation planning consistent with federal air quality requirements.
- Facilitate implementation of transportation projects and programs in the TIP through coordination and consultation with local implementing agencies.
- Involve the private sector in the planning of transit services and the joint development of transit facilities.
- Maintain and enhance the transportation project database.
- Revise and maintain the Regional ITS Architecture and Strategic Plan completed in 2003.
- Continue support for TDM activities that are consistent with recommendations from earlier planning studies.
- Continue to seek improved mobility options for people who have limited mobility choices today. That group includes people transitioning from Welfare-to-Work, youth, senior citizens, the physically-challenged, and others. This objective will be accomplished by improving access to jobs, training opportunities, and educational, social, medical, and recreational activities.

#### **EXPECTED PRODUCTS:**

- Maintain the 2010-2013 Transportation Improvement Program (TIP). The 2010-2013 TIP is scheduled to be approved by the Transportation Policy Council (TPC) near the end of FY 2009, and will be amended as necessary. The TIP will include roadway, transit, air quality, bicycle, and pedestrian, and all other federally funded transportation improvements scheduled for implementation during the new TIP period, between September 1, 2009 and August 31, 2013.
- Enhance Private-sector participation in the planning of transit services and the joint development of transit facilities.
- The continuation of planning for public transit pilot projects including, but not limited to,

paratransit/demand response services, local circulators, commuter shuttles, and other services in areas without adequate public transportation.

- Continuation of regional transit service planning, the development of operating and financial plans and the development of action plans for the priority pilot projects that are identified in the regional transit service planning and coordination project.
- Maintenance of the Regional ITS Strategic Plan, Architecture and User Manuals.

## **PREVIOUS WORK**

- The 2008-2011 TIP was adopted by both the TAC and TPC in August of 2007. Staff began development of the 2010-2013 Transportation Improvement Program in FY2009.
- As of April 2009 there were approximately 123 amendments to the 2008-11 TIP. Staff worked with the Texas Department of Transportation (TxDOT) and the local government project sponsors to make the most effective changes to the authorized projects.
- Assisted City of Pearland with a technical park and ride transit-oriented development review and analysis and assisted the City of Montgomery with a visioning exercise in conjunction with their Comprehensive Plan.
- In consultation with TAC, staff developed a revised TIP Amendment Process for major amendments to the TIP.
- Completed the Montgomery County Transit Plan. Priority recommendations have been implemented. Drafted the Liberty County Transit Plan with public hearing anticipated in FY 2009. Drafting the Chambers County Transit Plan, delayed due to impacts of Hurricane Ike.
- Completed a Call for Projects for JARC and New Freedom programs in the spring of 2008. No projects were recommended for funding. Initiated a second Call for Projects in late FY 2008.
- Continued the coordination and planning activities with the Regional Transit Coordination Sub-Committee through quarterly meetings. Progress to date has resulted in the elimination of a barrier to purchasing transit vehicles through the H-GAC Buy Cooperative Purchasing Program.
- Staff set up Systems Engineering training for public sector entities to provide information on the federal requirement for ITS projects funded with federal monies.

## **SUBTASK 3.1 Transportation Improvement Program**

The Transportation Improvement Program (TIP) is a cooperatively-developed, four-year program outlining transit, highway, and traffic improvements, as well as other transportation- and air quality-related activities within the Houston-Galveston TMA. The purpose of the TIP is to identify the transportation improvement projects selected by the TPC through the continuing, coordinated, and comprehensive ("3-C") regional transportation planning process. The TIP must conform to federally mandated emission reductions for air pollutants, and must be financially consistent with estimated federal, state, and local revenues for the four-year time frame.

The transportation project database is used to provide information on projects for numerous



planning activities. The database includes design concept and scope descriptions of all existing and proposed transportation facilities. Its level of detail is sufficient to permit conformity determinations and to develop cost estimates. The database is used to:

- Identify projects and project priorities for inclusion in the RTP;
- Develop appropriate travel demand networks;
- Track the development and implementation of projects programmed in the TIP; and
- Develop any reports on project characteristics that may be required by decision-makers.

#### **PRODUCTS:**

- 3.1.1** Continuation of local enhancements to the TELUS software system to ensure that it is more user-friendly and that query and reporting functions are streamlined. Implement mechanisms to share project information with other transportation agencies via the Internet. This will include import/export mechanisms for project tracking systems at other agencies. (**TELUS Consultant \$50K TPF**) [2010]
- 3.1.2** Provide information regarding project programming and implementation to Federal, State and local transportation stakeholders as required. [2010-2011]
- 3.1.3** Track the implementation status of projects [project monitoring] and update the project list for interim periods, maintaining a historical record of projects submitted by various sponsors for inclusion in the RTP and TIP project databases. [2010-2011]
- 3.1.4** Determine project readiness by screening TIP and short-term projects and reviewing project budgets. (**Consultant \$300,000 TPF**) [2010-2011]
- 3.1.5** Analyze proposed amendments to the current TIP for conformity implications, financial impact, and administrative changes. [2010-2011]
- 3.1.6** Staff, in conjunction with the subcommittees of the Technical Advisory Committee (TAC), will gather input for various planning and project development activities. Guidance from Subcommittees is used to develop recommendations to the TAC and Transportation Policy Council when needed. [2010-2011]
- 3.1.7** Conduct educational RTP/TIP presentations and Workshops for H-GAC committee members, local transportation and government agencies, as well as other project sponsors and the public. These presentations and educational workshops include review of such activities as project submittal, selection, evaluation, amendment procedures, and policies, and Title VI investigations as necessary. Provide food and non-alcoholic beverages at selected meetings and events when deemed appropriate. [2010-2011]
- 3.1.8** Conduct project development workshops for project sponsors and transportation engineering consultants when new projects may be called for. The project development workshop(s) will be used to educate project sponsors on advanced project implementation with TxDOT. [2011]

### SUBTASK 3.2 Short-Range Transit Planning

The objective of this subtask is to undertake planning and coordination projects for public transportation services in underserved areas of the region. These projects may take the form of transit feasibility assessments or coordination plans that will include the development of a five-year financial plan for new or expanded services. The primary beneficiaries of this coordinated planning effort are the elderly, physically and mentally challenged persons, and low-income individuals, particularly those without access to an automobile or those living in areas with inadequate public transit services.

#### PRODUCTS:

- 3.2.1** Completion of an update to the Colorado Valley Transit Authority's transit plan. **(Consultant - \$30K TPF)** [2010]
- 3.2.2** Continue planning support for project implementation activities for Job Access and Reverse Commute (JARC) FTA5316 and New Freedom (NF) FTA5317 Calls for Projects in the MPO's Urbanized Area (UZA) as well as TxDOT's call for JARC and NF projects in the small urban and rural areas. [2010-2011]
- 3.2.3** Continue staff support to the Regional Transit Coordination Subcommittee of the Technical Advisory Committee (TAC). The subcommittee has formed three working groups that are taking steps to implement the recommendations from the regional transit coordination plan relative to; resource sharing, public information and involvement, and a seamless fare system. [2010-2011]
- 3.2.4** Continuation of sub regional and county level planning analyses in support of Environmental Justice-Title VI requirements to ensure compliance with FTA requirements. Planning level socio-economic and equity analyses will be used to support the data needs in the semi-annual Title VI compliance reports. [2010-2011]
- 3.2.5** Staff support of additional transit planning efforts stemming from the Gulf Coast Region Public Transportation Coordination Plan recommendations, adopted in 2006; specific recommendations to be determined when funding made available. **(Consultant - \$90K, \$60K FTA 5304, \$30K TPF)** [2011]
- 3.2.6** Transit agencies wishing to use **FTA 5307** funds for planning purposes must have those dollars programmed in the UPWP and the current TIP. [2010-2011]
- A Island Transit {Galveston UZA} Planning** - Funding applications, marketing plans, planning for local and regional rail connectivity; peer review of Island Transit; financial capacity analysis; activities identifying transportation projects and related improvements to reduce congestion, improve air quality and create economic and employment impacts. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees

FTA 5307 Planning	Federal	State	Local	Total
2010	\$88,000	\$0	\$22,000	\$110,000
2011	\$88,000	\$0	\$22,000	\$110,000

**B Gulf Coast Center {Lake Jackson/Angleton UZA}** - Implementation planning for initiation of local service. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees.

FTA 5307 Planning	Federal	State	Local	Total
2010	\$110,339	\$5,000	\$22,585	\$137,924
2011	\$131,249	\$5,000	\$27,812	\$164,061

**C Gulf Coast Center {Texas City/LaMarque UZA}** - Implementation planning for user side subsidy taxi service. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees.

FTA 5307 Planning	Federal	State	Local	Total
2010	\$140,441	\$8,860	\$26,250	\$175,551
2011	\$141,345	\$8,860	\$26,476	\$176,881

**D Harris County Transit {Houston UZA}** - Review of the present location of park & ride lots and study the long term need to retain in place or relocate; Conduct site and engineering studies for two proposed lots on SH 225; provide grant and planning administration; training activities; feasibility analyses. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees.

FTA 5307 Planning	Federal	State	Local	Total
2010	\$496,000	\$0	\$124,000	\$620,000
2011	\$496,000	\$0	\$124,000	\$620,000

**E Fort Bend County Transit {Houston UZA}** - Planning activities related to financial, operational, marketing, and reporting activities; Analysis activities related to ridership projections, service modes, travel demand, capital projects, transit regulations. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees.

FTA 5307 Planning	Federal	State	Local	Total
2010	\$343,745	\$0	\$85,936	\$429,681
2011	\$348,417	\$0	\$87,104	\$435,521

**F The District (Brazos Transit) {The Woodlands UZA}** has opted to use no federal FTA 5307 funding for planning purposes. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees included.

FTA 5307 Planning	Federal	State	Local	Total
2010	\$0	\$57,305	\$14,326	\$71,631
2011	\$0	\$58,451	\$14,612	\$73,063

**G The Metropolitan Transit Authority of Harris County {Houston UZA}** has opted to use no federal FTA 5307 funding for planning purposes. Grant and other submissions include TIP, RTP, and UPWP preparations and participation on H-GAC transportation planning committees included.

FTA 5307 Planning	Federal	State	Local	Total
2010	\$0	\$0	\$0	\$0
2011	\$0	\$0	\$0	\$0

### **SUBTASK 3.3 Regional Intelligent Transportation Systems Planning**

The aim of Intelligent Transportation Systems (ITS) is to improve efficiency and safety of the transportation system in the area through deployment of advanced technologies and systems management techniques. ITS technologies offer benefits ranging from improved safety on the existing transportation infrastructure to enhanced travel information to users of the transportation facilities. ITS technologies also provide managers of the transportation systems to better utilize existing infrastructure by using information from ITS solutions.

A foundation element for deploying and integrating Intelligent Transportation Systems (ITS) is the development of an ITS Architecture and Strategic Plan. The ITS architecture defines how major elements of a comprehensive system are interrelated while the strategic plan defines how to successfully deploy and operate the ITS infrastructure.

METRO has a history of being an industry leader and innovator. Technology is advancing quickly and METRO needs to take a strategic approach to evaluating, selecting, and implementing emerging technologies. The Emerging Technologies work program will include research, development, and management of new technology initiatives.

#### **PRODUCTS:**

- 3.3.1** Re-evaluate RTP and TIP project selection processes and criteria to ensure consistency with the adopted ITS Plan, Architecture and User's Guide. [2010]
- 3.3.2** Facilitate "best practices" approach of incorporating compliance measures into existing plans and programs, including preliminary engineering, traffic simulation modeling, and project prioritization. [2010-2011]
- 3.3.3** Continue to participate in Houston TranStar/ITS related functions, such as attending ITS meetings to provide the MPO's perspective and fulfilling TranStar Leadership Team requests. [2010-2011]
- 3.3.4** Continue to develop a prototype regional arterial traffic information collection system to collect and store information on traffic signal outages, traffic incidents, street/lane closures, and other traffic-related data for the assessment of non-recurring arterial congestion. The prototype will be developed using City of Houston information systems to assess the data potential for a regional system. **(Consultant-TTI \$25K TPF)** [2010]

- 3.3.5** Develop a set of system engineering templates for traditional ITS implementations in accordance with 23 CFR 940.11. (**Consultant \$189K TPF**) [2010]
- 3.3.6** Facilitate annual ITS training for public sector entities in the TMA involved in the implementation of ITS. Provide food and non-alcoholic beverages at events when deemed appropriate. [2010-2011]
- 3.3.7** Test blue tooth/WIFI communications technologies for capturing continuous remote data streams for use in establishing congestion mitigation indices, arterial speeds and other arterial traveler information systems. [2010]
- 3.3.8** Provide technical assistance to the Operations Task Force Subcommittee and other ITS-related groups as appointed. Technical assistance includes preparation of meeting materials, notices, maintaining meeting records, training workshop(s) for the respective members, and other assistance. [2010-2011]
- 3.3.9** Non-lobbying participation in the Intelligent Transportation Society of America (ITS America), the Texas Chapter of ITS America (ITS Texas), and other organizations that enhance the ITS planning process. [2010-2011]
- 3.3.10** Best practices will be researched and developed to include emerging technologies in public transit and other related industries around the world, and then evaluate and prioritize them in relation to METRO's needs and technological viability. Potential projects currently under consideration include Wi-Fi on commuter buses, solar panels on building roofs or in parking lots, electric non-revenue fleet cars, and solar powered bus shelters. (**TPF Pass-thru to METRO \$90K**) [2010-2011]
- 3.3.11** In conjunction with METRO, conduct an assessment of regional incident management practices, including the holding of a peer review and an interactive forum. (**Pass-thru to METRO- \$61K TPF**) [2011]

<b>TASK 3: Short-Range Planning 2010-2011 Funding Table</b>				
<b>Subtask</b>	<b>3.1</b>	<b>3.2</b>	<b>3.3</b>	<b>TASK</b>
<b>Responsible Agency</b>	<b>MPO</b>	<b>Multi - Agency</b>	<b>Multi-agency</b>	<b>TOTAL<sup>2</sup></b>
<b>TPF (2010-11)<sup>1</sup></b>	\$1,200,000	\$480,000	\$570,000	<b>\$2,250,000</b>
<b>FTA 5304</b>	\$0	\$60,000	\$0	<b>\$60,000</b>
<b>FTA 5307 Planning:</b>	\$0	\$3,124,113	\$0	<b>\$3,124,113</b>
<i>METRO (Houston UZA)</i>	\$0	\$0	\$0	<i>\$0</i>
<i>The Woodlands UZA {The District [Brazos Transit]}</i>	\$0	\$144,694	\$0	<i>\$144,694</i>
<i>Fort Bend County (Houston UZA)</i>	\$0	\$865,202	\$0	<i>\$865,202</i>
<i>Harris County (Houston UZA)</i>	\$0	\$1,240,000	\$0	<i>\$1,240,000</i>
<i>Texas City/LaMarque UZA {Gulf Coast Center}</i>	\$0	\$352,232	\$0	<i>\$352,232</i>
<i>Lake Jackson/Angleton UZA {Gulf Coast Center}</i>	\$0	\$301,985	\$0	<i>\$301,985</i>
<i>Galveston UZA{Island Transit}</i>	\$0	\$220,000	\$0	<i>\$220,000</i>
<b>LOCAL</b>	\$0	\$0	\$0	<b>\$0</b>
<b>TOTAL FUNDING</b>	<b>\$1,200,000</b>	<b>\$3,664,113</b>	<b>\$570,000</b>	<b>\$5,434,113</b>
<sup>1</sup> Includes FY09 unexpended TPF estimate of:		\$1,130,000		
<sup>2</sup> One-half of these funds may not necessarily reflect one year.				
<i>TxDOT will apply transportation development credits sufficient to provide the match for FHWA PL-112 and FTA Section 5303 programs. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.</i>				

# **TASK IV**

## **LONG-RANGE PLANNING**

### **INTRODUCTION**

The 2040 Regional Transportation Plan (RTP) itself is a complex and detailed public policy document. The plan is principally concerned with workers and businesses that sustain our region's economic health, while at the same time preserving and improving the community and environmental attributes that contribute the region's quality of life. The RTP's recommendations are regional and are intertwined with local transportation decisions, requiring coordinated actions. The plan is constrained by the available financial resources and air quality requirements.

Federal and state mandates require that: 1) the RTP conform to air quality mandates; 2) the RTP be financially constrained; 3) the eight Planning Factors identified in the SAFETEA-LU be considered in the RTP's development; 4) public participation be actively sought in designing the RTP for the region's future transportation system; and 5) the Congestion Management Process (CMP) be integrated with RTP development. The ongoing maintenance of the CMP is included in the RTP subtask.

This task also includes ongoing initiatives regarding transportation-related air quality planning and emissions inventories and the Area Emission Reduction Credit Organization (AERCO). A secondary objective of the program is to improve the region's air quality by complying with state and federal requirements contained in the State Implementation Plan (SIP) and Clean Air Act (CAA).

The subtask for regional bicycle and pedestrian planning was added during FY 2003. Its purpose is to focus resources on developing and implementing a full range of plans, processes, promotion, education, and outreach for the region's bicycle and pedestrian traffic safety.

### **OBJECTIVES:**

- Develop regional, sub-regional and local area plans; continued emphasis on analyses of alternative land use and transportation system development scenarios, safety and security related projects, goods movement, and regional public transportation needs.
- To incorporate projects and/or strategies resulting from Major Corridor Studies and Alternative Analyses (See Subtask 5.2).
- To comply with the Clean Air Act as outlined in the State Implementation Plan (SIP), its development and revisions, and to provide implementation assistance for local governments.
- To prepare the planning, tracking, documentation and reporting of implementation projects as related to Transportation Control Measures (TCMs) and Voluntary Mobile Emission Reduction Program (VMEP).
- To provide local governments with information regarding the strategies, alternatives, implications, and consequences of SIP measures.
- To develop and/or update mobile emission inventories and participate in the establishment of emissions budgets for ozone precursors emitted by the region's

transportation system.

- To calculate the conformity of the RTP to the air quality emission budgets from the State Implementation Plan.
- Promote public involvement and communication in ‘best practices’ for land use/transportation coordination.
- To develop more Livable Centers plans and projects, assisting local governments in creating quality mixed-use places that reduce dependence on single-occupancy vehicles
- To increase the share of trips made by walking or biking by planning safe and accessible pedestrian and bicyclist facilities
- To integrate and maintain the congestion management process into the RTP, replacing the plan adopted in 1997.

### **EXPECTED PRODUCTS:**

- Draft 2040 Regional Transportation Plan (RTP), with a proactive public involvement process, an enhanced public information campaign, performance-based evaluation criteria, and safety and security related projects.
- Draft conformity determination documentation.
- Ongoing Metropolitan Planning Organization (MPO) support in State Implementation Plan (SIP) development, coordination, and implementation efforts.
- Document the progress and fulfillment of VMEPs and TCMs.
- Support of clean air compliance for local governments.
- Facilitate the Area Emission Reduction Credit Organization initiatives and reporting.
- Document efforts to meet the mobile vehicle emission budget.
- Support for the implementation of pedestrian and bicycle planning initiatives, especially in areas that show the greatest potential for pedestrian and bicyclist activity.
- Regional Bikeway Plan that correlates with the 2040 RTP and emphasizes regional connectivity for all modes of travel including bicycling.
- Best management practices guide for pedestrian and bicyclist infrastructure to help local units of government develop a safe and accessible network of bicycle and pedestrian facilities.
- Analyses of project implementation and prioritization, capacity enhancements, environmental status, environmental justice, performance measures, scenario planning, costs, description of work, etc.
- Update of the Transportation Metropolitan Mobility Plan (TMMP).
- Documentation regarding control strategies for on-road and non-road mobile sources to be included on SIP.
- Calculation of on-road emission inventories for the Reasonable Further Progress SIP for several years.
- Livable Centers studies to assist local areas in creating walkable, mixed-use places that provide transportation options.
- Sub regional planning will provide a community-based focus and a major input into the 2040 RTP.
- Eligible Livable Centers and other Pedestrian-Bicyclist projects that can be considered in the RTP and TIP.



- Periodic reports of CMP activities and impacts in the Houston-Galveston transportation management area (TMA).

## PREVIOUS WORK

- Staff provided technical support to several major corridor feasibility studies, including participation on project steering committees and review and comment in the TRACS review system for transit grant applications (elderly and disabled) and for DEIS and FEIS documents for TxDOT and METRO.
- The 2035 RTP was approved by the Transportation Policy Council in August 2007. It was updated and approved in October 2007. The air quality conformity determination for the plan was approved in November 2007.
- Supported and conducted outreach for development of Air Quality State Implementation Plan Mobile Control Measures provided throughout this past year by staff and Environ staff during numerous stakeholder meetings, meetings with elected officials and community leaders and posted public meetings and workshops. Final short list of mobile control measures with comments was submitted to TCEQ for consideration in SIP development.
- AERCO distributed \$3,247,440 to school districts for clean school bus projects during fiscal year 2008, from which \$101,783 came from SEP funds and the rest from CMAQ funds.
- Assisted many local governments with the development and review of their RTP and TIP candidate project submissions.
- Completed a pedestrian/bicycle special districts study for the City of Sugar Land and /the Airline Improvement District in unincorporated Harris County for an additional special district study (estimated completion March 2009). Missouri City was selected for the next special district study (estimated completion August 2009).
- Held a bicycle safety workshop for planners and engineers to demonstrate the unique safety, design, and maintenance considerations for bicyclists (May 2008)
- Provided staff support for the Pedestrian-Bicycle Subcommittee of the Technical Advisory Committee (TAC).
- Acquired project and plan updates from counties and cities for updates to the Regional Bikeway Plan
- Staff attended FHWA course Title VI/Non-Discrimination in Federal Aid Programs, 2008, Austin, Texas.
- An Ecological Framework initiative was launched in 2008 in support of the environmental element of the 2040 RTP.
- A Context Sensitive Solutions workshop was hosted by H-GAC to provide information on sustainable development practices
- Context Sensitive Solutions Workshop scheduled for September 23<sup>rd</sup>, 2008 rescheduled to December 10<sup>th</sup>, 2008 due to Hurricane Ike. County Planning Workshop held November 9, 2007 and Small Cities Planning Workshop held November 7, 2008.
- A Livable Centers best practices publication was completed in August 2008 as a resource to help local governments understand and implement the essential components of Livable Centers.

- A Livable Centers benefits calculator was developed to help estimate land use-transportation program benefits. This calculator is a culmination of research in best practices, journals, and peer programs and allows the user to estimate potential mode shift and air quality benefits from the creation of centers of different sizes.
- A Context Sensitive Solutions Workshop was held on December 10, 2008. A County Planning Workshop was held on November 9, 2007 and a Small Cities Planning Workshop was held on November 7, 2008.
- Convened Livable Centers Advisory Committee consisting of Planning Directors and other land use transportation experts and professionals from the region to assist in development of Livable Centers metrics and land use transportation issues.
- Livable Centers RFPs have been issued, consultants selected, and studies kicked off for Tomball, Waller, City of Houston, and the East End Management District.
- Assisted City of Pearland with a technical park and ride transit-oriented development review and analysis. Assisted the City of Montgomery with a visioning exercise in conjunction with their Comprehensive Plan.
- Calculated the on-road mobile emission inventory for the Reasonable Further Progress SIP for the years 2002, 2008, 2011, 2014, 2017, 2018 and 2019 under contract with TCEQ.
- Completed a study on Fuel Economy in Harris County for 2002, 2007 and 2009 for the City of Houston
- Created the TCM/VMEPs working group to advice on project selection for the State Implementation Plan
- Calculated the RTP conformity to the SIP air quality budgets for the years 2007, 2008, 2019, 2015 and 2035

#### **SUBTASK 4.1 Regional Transp. Plan (RTP) Development/Maint. (MPO)**

The 2035 Regional Transportation Plan (RTP) was approved in August 2008. Later that year, work began on the 2040 RTP. Key focus areas for the 2040 RTP include the connection between transportation and land use, an analysis of regional transit needs and opportunities, environmental considerations and implications for project development, and a consideration of the growth in regional freight activity and the related infrastructure needed to improve multi-modal mobility in the region.

The key elements of the plan include:

1. Projects Update
2. Development of Goals, Objectives, and Selection Criteria
3. 2040 Socio-economic Forecast (Subtask 2.1)
4. Transportation Demand Model Network Development (Subtask 2.2)
5. Inclusion of Regional Initiatives, Processes, and Plans: Transit, Congestion Management Process, Environmental Justice, Bike/Pedestrian (Subtask 4.3), Subregional Planning & Livable Centers (Subtask 4.4), Corridor Studies (Subtask 5.2), Safety (Subtask 5.1), ITS (Subtask 3.3), and Freight/Goods Movement (Subtask 5.4).

6. Financial Plan
7. Public Outreach
8. Projects Review and Selection
9. Air Quality Conformity Determination (Subtask 4.2)

In late 2007, development of a Congestion Management Process (CMP) began out of the 1997 CMS plan. A new part of the CMP Plan will be “The State of the Congestion Report” in every TIP cycle. The Significant Roadway Network of the CMP is defined as roadways classified as principal (or major) arterials and above in urban areas, selected major collectors and above in rural areas, as defined in the TxDOT Roadway Inventory Log (RI-2) and other roadways designated by the TPC.

## PRODUCTS:

### Regional Transportation Plan

- 4.1.1 Update the 2035 plan by re-evaluating existing project list based on financial constraint and develop a new conformity determination. [2010]
- 4.1.2 Continue the development of the 2040 regional transportation plan and its components. [2010-2011]
- 4.1.3 Develop a comprehensive Title VI (Environmental Justice) analysis for the 2040 RTP. The analysis will focus on Title VI populations and include a regional accessibility and investment analysis to determine accessibility to jobs, transit, retail, healthcare and higher education facilities, as well as the monetary transportation investments made in Title VI transportation analysis zones. The results of the technical analyses will ensure that EJ considerations are properly integrated into H-GAC’s transportation planning process, including public outreach. **(Consultant \$132K TPF)**. [2010]
- 4.1.4 Financial Plan revisions and enhancements to the financial plan model will occur in parallel with changes to the forecasting model and database. These efforts include review, staff education, verification, and revision of the project-level cost estimates, inclusion of new data as it becomes available, enhanced financial goals and objectives, and a re-evaluation of the project prioritization methodology that was used for the 2035 RTP project evaluation. **(Consultant \$250K TPF)** [2010-2011]
- 4.1.5 Review and develop implementation strategies to link RTP goals and objectives with expected outcomes. The analyses will include, but are not limited to: the prioritization process, project data base, congestion mitigation, capacity enhancement, performance measures, environmental justice (EJ), and scenario planning **(Consultant(s): \$300K TPF)**. [2010 – 2011]
- 4.1.6 Coordinate with the State and local governments to update thoroughfare plan information, project descriptions, and project implementation schedules to develop the 2040 RTP project list. This includes a review of project priorities and project need. Provide food and non-alcoholic beverages at selected meetings and events when deemed appropriate. [2010-2011]

- 4.1.7 Support the development of the RTP network with a connected street grid for subareas. This grid will be used in workshops with local officials to promote connectivity, mobility and complete street concepts. (**Consultant(s): \$200K TPF**). [2010 – 2011]

#### **Long-Range Transit Planning**

- 4.1.8 Develop recommendations for the integration and funding of transit services in the region. Expertise will be sought in the areas of regional transit planning, coordination, and financing a regional transit framework, including phase II of the Fort Bend County Transit Plan implementation. (**Consultant(s) - \$600K TPF [2010], \$375K TPF [2011]**)

#### **Congestion Management Process**

- 4.1.9 Prepare an updated CMP significant roadway network map to reflect roadway classification upgrades and new roadway development. [2010]
- 4.1.10 Develop congestion indices on different facilities across the region as an additional project prioritization measure for the RTP. This will involve first testing and then deploying new technologies to collect peak and off-peak travel times on selected roadways, classified by area type and facility type, to understand the overall consistency of the Region's Transportation System. (**Consultant - \$400K TPF**) [2010]
- 4.1.11 Prepare and submit the First Regional State of Congestion Report with TTI oversight and assistance on 4.1.10. (**Consultant - \$25K TPF**) [2011]
- 4.1.12 Continue to monitor and evaluate transportation system management (TSM) and transportation demand management (TDM) solution effectiveness as they relate to congestion mitigation, air quality benefits, and safety. [2010-2011]
- 4.1.13 Collect traffic and transportation data to perform CMAs for transportation partners unable to perform the analyses themselves. (**Consultant: \$100K, local**) [2010-2011]
- 4.1.14 Review congestion mitigation analyses (CMAs) submitted by transportation partners for regionally significant added-capacity projects on the CMP Network. Provide training when requested. [2010-2011]
- 4.1.15 Work with the Transportation Operations Task Force to establish guidelines for TCM project readiness. This includes measurement of systems operations and management benefits to achieve regional goals for congestion mitigation, system management (RCTSS-type) and ITS projects. [Periodic in 2010]
- 4.1.16 Upon completion of all travel surveys in Task Two, revise the TSM/TDM Toolbox measures of effectiveness based on travel survey analyses. [2011]
- 4.1.17 Conduct a roundabout feasibility study for Meadows Place. (**Consultant-TTI \$4.5K TPF**) [2010-11]

## SUBTASK 4.2 Air Quality Planning/A.E.R.C.O. (MPO)

Air Quality Planning supports all regional efforts to comply with federal air quality standards, while seeking to preserve the region's transportation needs and economic vitality. The MPO works closely with federal, state, and local officials, planning and regulatory agencies, and area stakeholders to develop on-road mobile emission budgets and emission reduction strategies to demonstrate attainment, model transportation conformity, and monitor and track TCMs and VMEPs. Also H-GAC develops the on-road emission inventories for the Reasonable Further Progress State Implementation Plan for the Texas Commission on Environmental Quality (TCEQ). H-GAC provides support and guidance for regional congestion mitigation and air quality implementation programs for compliance with state implementation plan (SIP) and federal clean air requirements.

The Area Emission Reduction Credit Organization (AERCO) is a 501(c)(3) that provides a legal framework to promote air quality improvements and economic growth in the non-attainment area. AERCO initiatives also provide a mechanism for pooling emission credits to meet federal offset requirements and making credits available for economic development. The emission credit trading mechanism under AERCO has not been active for several years, instead AERCO has been providing support to the school bus program by being able to accept federal and state Supplemental Environmental (SEP) Funds and private donations .

### PRODUCTS:

- 4.2.1 Develop, coordinate, and participate in response to state and federal air quality plans and new regulations affecting the region. Examine legal and sanction ramifications regarding different standards for the region. [2010-2011]
- 4.2.2 Provide coordination, participation, and expertise to local and statewide air quality planning committees. [2010-2011]
- 4.2.3 Support the Regional Air Quality Planning Committee (RAQPC), researching air quality issues and making recommendations to the H-GAC Board of Directors. [2010-2011]
- 4.2.4 Support the TCM/VMEPs working group to advice on project selection for the state implementation plan (SIP). [2010-2011]
- 4.2.5 Analyze emissions benefits for VMEPs and TCMs and seek additional commitments from implementing agencies. (**Consultant \$100K TPF**) [2010-2011]
- 4.2.6 Revise, print, and distribute the *Air Quality Initiatives Reference Guide for the Houston-Galveston Area Council*. [2010-2011]
- 4.2.7 Provide staff training, public relations and/or sponsorship support for air quality technical workshops. [2010-2011]
- 4.2.8 Provide consultant assistance to H-GAC for analysis and implementation strategies to meet the 8-hour ozone standards for the region, mobile vehicle emission budget and enhance off-road mobile inventory and control strategies. (**TCEQ \$60K, Consultant - \$50K**) [2010-2011]

- 4.2.9** Continuing to provide assistance to document data and methodologies used in SIP emissions inventory work and additional estimates. Collect and analyze truck drayage data for inclusion in MOBILE6 next generation model, MOVES, in collaboration with TCEQ, TxDOT, Port of Houston, and EPA. (TCEQ pass-thru to EPA \$442,000) [2010-2011]
- 4.2.10** Study the impact of GTL fuel on greater Houston area emissions in collaboration with the non-road consultant. (Shell Global Solutions (SGS) \$50K [Consultant - \$25K]) [2010]
- 4.2.11** Develop on-road air toxics emissions inventories for consultants/TxDOT for analysis of road construction following the NEPA process. [2010-2011]
- 4.2.12** Produce conformity calculations to the current SIP for the RTP and TIP in accordance with SAFETEA-LU regulations when needed. [2010-2011]
- 4.2.13** Collaborate with TxDOT, TTI and TSU on the Portable Emissions Monitoring System (PEMS) study of heavy duty diesel trucks, specifically monitoring the emissions of high emitters and HDDV8b trucks. These results will be used on the development of MOVES. [2010]
- 4.2.14** Provide support for the AERCO Board of Directors and the corporation. Support AERCO's mission to purchase and sell emission reduction credits, while facilitating regional economic development and improving air quality. Provide support to the Clean School Bus Program by accepting SEP funds and private donations. [2010-2011]
- 4.2.15** Provide staff planning support for TSM/TDM operational programs as needed. [2010-2011]

### **SUBTASK 4.3 Bicycle/Pedestrian System Planning (C&E Planning Dept.)**

The Transportation Policy Council (TPC) adopted pedestrian and bicycle policy goals, and recommended action steps in FY 2002. This subtask programs support for the continued implementation of the Transportation Policy Council's adopted pedestrian and bicycle policy goals, and recommended actions.

#### **PRODUCTS:**

- 4.3.1** Provide technical assistance to local governments and other transportation agencies to identify bicycle and pedestrian issues, opportunities, needs and barriers, and provide assistance in project planning and design. [As requested]
- 4.3.2** Review documentation of pedestrian and bicycle accommodations submitted by project sponsors and provide assistance or comments, as appropriate, and work with the sponsors and TxDOT to move TIP and RTP bikeways and special district studies forward. [2010-2011]

- 4.3.3** Continue to solicit “special districts” projects from communities within the TMA that demonstrate opportunities to enhance bicycle and pedestrian travel and safety with targeted improvements. H-GAC staff will provide project management and available data to aid in the preparation of the special district studies. The recommended improvements identified in the studies will be suitable for consideration as future TIP projects. (**Consultant - \$375,000 (\$187,500 TPF, \$187,500 Local)**) [2010-2011]
- 4.3.4** Maintain an up-to-date regional bicycle system plan that identifies existing and planned bicycle facilities, system gaps, and future facility needs by developing a process to standardize GIS and other inputs from local governments that produces easy to read maps and leads to regular updates of the plan. The bicycle system plan will be integrated with the updated TELUS system to allow users and project sponsors to view bikeway projects programmed into the RTP and TIP. [2010]
- 4.3.5** Conduct topical training workshops for local government staff. Potential topic areas include: “best practices” for local pedestrian and bicycle planning; design and maintenance for pedestrian and bicyclist facilities; improving connectivity; project management and cost estimation; and pedestrian bicyclist safety. [2010-2011]
- 4.3.6** Update the Regional Bikeway Plan in concert with the 2040 RTP update. The bikeway plan will place an emphasis on regional connectivity between various modes of travel (i.e. walking, biking and transit) as well as identifying connections among and within regional activity nodes (or livable centers). [2011]
- 4.3.7** H-GAC pedestrian and bicycle staff will coordinate and offer technical assistance for other H-GAC initiatives as necessary including the 2040 RTP update, commute solutions, air quality planning, and the subregional planning initiative. [2010-2011]
- 4.3.8** Procure consultant to research, develop, design, and produce a best management practices manual for pedestrian and bicyclist facilities. (**Consultant - \$20,000 TPF**) [2010-2011]
- 4.3.9** Consultant services will be solicited to assist with tasks that may include bicycle and pedestrian counts and surveys while working with communities in the TMA to better assess the benefits of completed pedestrian/bicyclist facilities. The analysis will focus on determining the likely mode shift to pedestrian or bicycle travel to more accurately predict the travel demand and air quality benefits associated with investments in pedestrian/bicyclist infrastructure. (**Consultant - \$20,000 TPF**) [2010-2011]
- 4.3.10** H-GAC Staff will update the original bicycle and pedestrian special district study to ensure that the study takes into account recent data, including updated pedestrian and bicyclist crash data [2010].

## **SUBTASK 4.4 Livable Centers Planning (C&E Planning Dept.)**

This subtask provides outreach and technical assistance to local governments and private developers in achieving a more effective interface between development patterns and the transportation system; to develop policies, plans, and projects that will help achieve this objective within H-GAC Transportation Management Area (TMA).

### **PRODUCTS**

- 4.4.1** Continue to manage Livable Centers planning studies funded through the TIP and prepare summary of results. Consultants will develop plans and identify transportation improvements that will enhance walking and transit, leverage private investment, and improve the quality of life. **(Consultant(s) - \$ \$1,429,750 [\$1,143,800 STP, \$285,950 local] {CSJ#0912-00-354, MPOID#13587})** [2010]
- 4.4.2** Managing tracking of Livable Center implementation projects funded through the TIP including tracking projects, providing guidance, and receiving updates from project sponsors. [2010-11].
- 4.4.3** Refine criteria and conduct livable center project evaluation for the next TIP funding round. [2011]
- 4.4.4** Continue raising awareness of Livable Centers program as an identifiable program, targeting outreach to local governments, policymakers, and developers, including new outreach materials and updating the Livable Centers webpage and mapping capabilities. **(Consultant: \$15,000 TPF)** [2010-2011]
- 4.4.5** Continue the Subregional Planning program funded through the TIP including creation of subregional plans and best practices toolbox. Consultant will develop plans for identified subregions to identify strategies and projects to realize local priorities and link with regional goals. Work to integrate outcomes of subregional plans into 2040 RTP. **(Consultants: \$807,922 [\$646,337 STP, \$161,584 local {CSJ#0912-00-356, MPOID#13629})** [2010-2011]
- 4.4.6** Assist MPO in documenting the land use/transportation element of the 2040 RTP in preparation and public outreach efforts. [2010-11]
- 4.4.7** Conduct training workshops for local government staff and officials on implementing land use-transportation coordination principles such as context sensitive solutions, financing centers, urban design, or sustainability. [2010-11]
- 4.4.8** Maintain updated database and map of significant centers, mixed use, transit oriented development, or sustainable projects and local government planning and implementation projects pertaining to land use-transportation program. [2010-11]
- 4.4.9** Acquire consultant assistance to conduct research on peer MPO programs, journals, and other publications on estimation of land use-transportation program benefits and best practices, **(Consultant: \$30,000 TPF)** [2010-11]



- 4.4.10** Conduct analysis and utilize data for transportation planning in presentations to local governments, reports to TAC and TPC. [2010-11]
- 4.4.11** Provide technical assistance to local governments on livable centers planning and implementation, site plans, and visioning. [2010-11]
- 4.4.12** Coordinate with ongoing land use-transportation planning efforts of local governments and transportation agencies. [2010-11]

<b>TASK 4: Long-Range Planning 2010-2011 Funding Table</b>					
<b>Subtask</b>	<b>4.1</b>	<b>4.2</b>	<b>4.3</b>	<b>4.4</b>	<b>TASK</b>
<b>Responsible Agency</b>	<b>MPO</b>	<b>MPO / TCEQ / EPA</b>	<b>C&amp;E Planning (H-GAC)</b>	<b>C&amp;E Planning (H-GAC)</b>	<b>TOTAL<sup>3</sup></b>
<b>TPF (2010-11)<sup>1</sup></b>	\$4,374,500	\$1,360,000	\$680,000	\$550,000	<b>\$6,964,500</b>
<b>STP</b>	\$0	\$0	\$0	\$1,790,137	<b>\$1,790,137</b>
<b>TCEQ Local<sup>2</sup></b>	\$0	\$502,000	\$0	\$0	<b>\$502,000</b>
<b>Other Local</b>	\$100,000	\$50,000	\$187,500	\$447,534	<b>\$785,034</b>
<b>TOTAL FUNDING</b>	<b>\$4,474,500</b>	<b>\$1,912,000</b>	<b>\$867,500</b>	<b>\$2,787,671</b>	<b>\$10,041,671</b>
<sup>1</sup> Includes FY09 unexpended TPF estimate of:				\$1,490,000	
<sup>2</sup> Includes \$395,000 passed from TCEQ to EPA, via 3-way CRADA with H-GAC.					
<sup>3</sup> One-half of these funds may not necessarily reflect one year.					

*TxDOT will apply transportation development credits sufficient to provide the match for FHWA PL-112 and FTA Section 5303 programs. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.*

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# **TASK V**

## **SPECIAL PLANNING STUDIES**

The special studies of Task V include special one-time planning activities, major corridor studies / analyses, and an update to the Regional Airport Airspace System Plan (RAASP).

Subtask 5.1 documents the MPO's efforts in addressing Safety issues in the region, including studies on the region's high-crash locations.

Subtask 5.2 provides for MPO support of Major Corridor Studies (MCS) and analyses. Specifically, participation in Study Steering Committees, assistance in public information and outreach activities, and travel model forecasting are programmed. This subtask also includes the continuing studies focused on low-cost access management solutions to some of the region's more congested corridors.

Subtask 5.3 programs funds to support state and local government hurricane evacuation planning, coordination, and implementation efforts.

Subtask 5.4 updates and maintains inventories of multimodal transportation facilities and services including public transit, measures their use, and develops and maintains an inventory of goods movement statistics to and from the region.

Subtask 5.5 documents the planning support for activities and expenditures associated with funding received through the American Recovery and Reinvestment Act (ARRA) of 2009 for development of a regional freight plan and a closer examination of selected commuter rail corridors.

Subtask 5.6 documents the continued update of the Regional Airport Airspace System Plan for the Houston-Galveston TMA as funded by the Federal Aviation Administration.

### **OBJECTIVES:**

- To expand our knowledge of the quantity, severity, and causes of traffic accidents in the region and look for cost effective solutions.
- To enable a more effective dialogue between the Freight stakeholder community and the public sector and to enhance the public sectors ability to respond to Intermodal issues.
- Coordinate the region's Major Corridor Studies and analyses.
- To continue to identify low-cost TSMs along the region's most congested corridors through ongoing access management studies.
- To coordinate and support state and local evacuation planning efforts.
- To examine the issue of commuter rail connectivity along selected corridors as a follow-up to ongoing regional freight study.
- Develop minimum design standards and access management standards for all roadway projects that may be candidates for federal funding assistance.
- To update the 1992 regional airport airspace system plan and examine the potential need for an additional commercial aviation airport in the region.
- To respond efficiently to Congressional mandates for the ARRA package of projects.

**EXPECTED PRODUCTS:**

- Conduct planning studies of locations with a high incidence of crashes
- The creation of an online crash information system for interested parties to conduct basic safety analyses.
- Continue to study congested corridors in the region to find low-cost access management strategies to reduce travel-time delay and crashes without adding capacity.
- Completion of major corridor studies listed in Appendix G as currently underway.
- Continue implementation of strategies based on the Regional Safety Council's recommendations to address safety-related issues
- Complete a new 2008-2040 Regional Airport Airspace System Plan.
- Establish regular reporting mechanisms for MPO-related ARRA projects
- An examination of regional coastal, inland, and intracoastal waterways for use in goods movement strategies and development of a regional freight plan.

**PREVIOUS WORK**

- The Regional Safety Council (RSC) is a multi-disciplinary advisory group established in February 2006 to make transportation safety recommendations for the TMA region. The RSC recently restructured its subcommittees to reflect identified changes in the safety issues facing the region.
- The number of subcommittees was reduced from five to four, and the scope of some subcommittees was consolidated and/or changed. The new RSC subcommittees are the Impaired Driving Subcommittee, the Safety Information Systems Subcommittee, and the Vehicle Operations Safety Subcommittee.
- In June 2008, Staff published an interim State of Safety in the Region report, which discussed the activities of the RSC, provided an update on the status of previous safety recommendations and related state legislation, but did not include any data updates due to the unavailability of current traffic crash record data from the State. Staff published a final State of Safety in the Region report in June 2009.
- H-GAC held its second annual Regional Safety Conference in November 2007 at the University of Houston Hilton. Based on the success of that conference, it was decided to take the event statewide in 2008.
- H-GAC, in conjunction with the Texas Transportation Institute and TxDOT, hosted the first Statewide Traffic Safety Conference in Houston on November 17-19, 2008 at the Houston Hobby Marriott.
- H-GAC contracted with the Texas Transportation Institute to develop a safety course for elected officials. The course development is complete. The pilot course will be offered in the beginning of 2010.
- H-GAC worked with DPS and local emergency management staff to amend the State Traffic Management plan.
- Developed the 2008 Zip Code Zone evacuation map and distributed it to local jurisdictions.

- Emergency evacuation model was completed and consultant assistance will be requested next year to develop enhancements as a result of recent storms in the region.
- H-GAC along with TranStar contracted with The Padgett Group to complete a hurricane communications plan for populations with special needs. A communications plan and supporting materials were developed and local emergency management staff was trained in May 2008.
- H-GAC contracted with Dr. Phil Bedient at Rice University to develop a new flood alert system for TxDOT to provide flood warning capabilities for flood prone sections of major highways. A demonstration project on SH 288 at Brays Bayou was completed and tested. Rice University is currently working with TxDOT to identify additional project locations.
- Phase One of the RASP update began October 1, 2008 [FY 2009]. During FY 2008, the FAA grant was received and the necessary agreements executed. The delay in executing all agreements came as a result of FAA contracting office insisting that H-GAC update its DBE/WBE/MBE/HUB plan. This was accomplished near the end of FY 2008, and updated each summer. The aviation plan update should complete Phase One by the end of FY09

### **SUBTASK 5.1 Safety Planning & Support**

This subtask promotes the continued pursuit and analysis of safety issues as they relate to our long range planning efforts. These efforts range from the collection of crash data to the sponsoring of planning studies and initiatives to address high crash locations. A multi-disciplinary Regional Safety Council has been developed to bring interested and involved parties to the table to address regional safety in a holistic manner.

#### **PRODUCTS:**

- 5.1.1** Develop engineering design solutions for jurisdictions with multiple high crash locations involving vehicles, pedestrians, or bicycles in the eight county TMA. This will include documentation of the causes for the crashes, scoping a preliminary set of countermeasures, and setting up a prioritization methodology and evaluation framework, including a safety benefit-cost analysis. These studies may include sections of roadway along selected 'safety' corridors in any jurisdiction within the eight counties. (**Consultant \$230K, (\$184K STP, \$46K Local)** {CSJ#0912-00-320, MPOID#13493}) [2010-2011]
- 5.1.2** Develop educational and public outreach materials and products, in partnership with local entities, to promote safe driving behavior around commercial vehicles and emphasis the dangers of impaired and aggressive driving. (**Consultant \$72K (\$57.6K STP, \$14.4K Local - HPD Foundation)** {CSJ#0912-00-320, MPOID#13493}) [2010]
- 5.1.3** Development of a regional crash database clearinghouse. This database will serve as a means to access records from TxDOT's Crash Record Information System (CRIS) and provide web-based analysis tools for users. Such a system could potentially be delivered to other MPOs around the state for similar use. (**Consultant – \$120K (\$96K STP, \$24K**

**Local**) {CSJ#0912-00-320, MPOID#13493}) [2010-2011]

- 5.1.4** Continue to support the Regional Safety Council involving transportation, law enforcement, emergency services, medical, safety advocates, non-profit, business, and other interested organizations. [2010-2011]
- 5.1.5** Support the Regional Safety Council recommendations for education with public outreach programs, including marketing assistance in educating the general public about traffic safety issues such as aggressive driving, drunk driving, commercial vehicle safety, motorcycle safety, bicycle/pedestrian, and child seat safety. (**Consultant \$400K (\$320K STP, \$80K Local)**) {CSJ#0912-00-376, MPOID#11214} {TIP amendment in work}) [2010-2011]
- 5.1.6** Co-sponsor and promote *Teens in the Driver's Seat*, an educational program devised by the TTI for teens to educate fellow teens on the dangers of driving at night, speeding, distraction (texting, cell phones, other teens in the vehicle, etc.), not wearing a seatbelt, and driving under the influence. Funding will promote the program in high schools throughout the region and purchase informational materials and promotional items for participants. (**Consultant (TTI) -\$90K (\$72K STP, \$18K Local)**) {CSJ#0912-00-376, MPOID#11214}) [2010-2011]
- 5.1.7** Host a regional safety conference or co-sponsor a statewide traffic safety conference to provide a forum for promoting traffic safety (**\$15K TPF**) [2011]

## **SUBTASK 5.2 Major Corridor Studies**

The requirements for Major Corridor Studies (MCS), formerly called major investment studies (MIS), have changed with the implementation in 2005 of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU). The guidelines have been streamlined to reduce costs and the level of effort for studies associated with regionally significant projects. Also, efforts were made to coordinate development of environmental assessments as part of early phases of the corridor analyses. Corridor Analyses were initiated in FY 1999 and continue beyond FY 2009 for several corridors that were prioritized for improvements.

A MCS may consist of many of the following activities or tasks consistent with the level of feasibility, alternative analyses and/or environmental assessments needed:

- Identify corridor and sub area boundaries, denoting any subdivided areas of analysis within the study area.
- Determination of current and future travel demand along the corridor through travel forecasting support for Major Corridor Studies: Development of input data; Development of travel forecasts; Review of travel forecasts; and Documentation and summary of forecasting methodology and forecasting results.
- Selection of reasonable transportation alternatives, identifying the demand associated with each of those alternatives.
- Perform estimation of the cost effectiveness of each transportation alternative, using

financial analysis.

- Documentation of public comments for each alternative. Comments are received via the public involvement process.
- Identification based on technical analysis and public comments, of the preferred transportation alternative or combination of alternatives.

A combination of funding sources including CMAQ and STP funds will be used for these studies depending, in part, on whether or not a transit alternative is viable for each project. To the extent possible, all major corridor studies, past, present, and future, have been summarized in **Appendix G** for the reader's convenience.

## PRODUCTS:

- 5.2.1** Consultant assistance in completing an access management study along the SH 6 corridor segment from FM 521 to IH-45 S. (**Consultant \$500K (\$400K STP, \$100K TxDOT in-kind)** {CSJ#0912-00-388, MPOID#11985}) [2010-2011]
- 5.2.2** Consultant assistance in performing/completing access management studies along SH 6/FM 1960 from I-10 W to SH 249 and along FM 529 from US 290 to Greenhouse Rd. (**Consultant \$750K (\$600K STP, \$150K TxDOT in-kind)** {CSJ#0912-00-388, MPOID#11985}) [2010-2011]
- 5.2.3** **Appendix G** lists the (past, present, and future) major corridor studies funded in part by TxDOT project planning funds, STP funds, and/or FTA 5309 funds [not including capital or operating funds] when provided by the MPO transportation partners. [2010-2011]
- 5.2.4** HGAC staff will provide traffic demand modeling support to future projects for all member agencies and their consultants within the eight county HGAC MPO Area (**Staff - \$640K STP, \$160K TxDOT in-kind**) {CSJ#0912-72-189, MPOID# 13647}) [2010-2011]
- 5.2.5** The City of Galveston will conduct an alternative analysis/environmental assessment of the SH 3 commuter rail corridor from UTMB in Galveston to CBD area in the City of Houston, following FTA, FHWA, and NEPA guidelines and requirements. (**Consultant \$796K, \$636.8K FTA 5309, \$159.2K Local**) {ID# TX\_12\_X001} [2010]

## SUBTASK 5.3 Evacuation Planning

The massive evacuation from the Houston metropolitan area in response to Hurricane Rita brought into sharp focus the difficulties in evacuating the metropolitan region efficiently and safely. Short term planning activities have focused on traffic operations, communications and logistics. Operational improvements were focused on accident detection and management, changes in transit vehicle routing and scheduling, the elimination of bottlenecks at specific intersections and contra-flow lane operations. Opportunities to improve communications with the public and within the emergency response community, such as "hot lines" for emergency personnel, a protocol for public communications and public education for evacuation events, have also been explored.

Just prior to the formation of Hurricane Dolly in July 2008, H-GAC finalized edits to the Texas Department of Public Safety Hurricane Evacuation Traffic Management Plan. It was only two months later when Hurricane Ike hit the Houston-Galveston area in the early morning hours of September 13th. Category 2 winds and a Category 4 storm surge caused more than 70 reported deaths with property damages in excess of \$30 billion. Prior to the hurricane's approach, much improved communication between elected officials and the media resulted in a substantial number of citizens residing outside the surge zones to stay at home rather than evacuate. A better understanding of the number of special needs citizens needing to be evacuated also helped local and State officials prepare resources to aid in the evacuation.

While the evacuation went well, it became obvious that the local, State, and Federal governments were not as well-prepared for the recovery process. Future planning efforts will need to focus on urgent daily needs that follow a strike on the region, as well as massive power outages, secondary evacuations for those depending on electricity, point of distribution locations, pre-disaster contracts for debris removal, utility and signal repair, inter-local assistance contracts within the region, and long-term recovery. During the 2010-2011 fiscal years, H-GAC will continue to work with the state and local governments to coordinate and facilitate the development of hurricane evacuation planning processes and procedures, as well repatriation efforts.

**PRODUCTS:**

- 5.3.1** Assistance to state and local governments as necessary to support hurricane evacuation and repatriation planning efforts. Consultants will be asked to model various evacuation/repatriation scenarios. (**Consultant \$250,000 - TPF**). [2010-2011]
- 5.3.2** Coordination and distribution of information regarding hurricane evacuation planning, e.g., new initiatives, best practices, mandates, etc. (**Consultant \$ 100,000--TPF**) [2010-2011]
- 5.3.3** In FY 2009, Rice University completed a special flood prediction study for TxDOT on US 288. Conduct a flood prediction study for two newTxDOT-specified locations, to be determined. (**Consultant: Rice U. \$100K, \$26,410 STP, \$69,020 TxDOT Dist. Disc., \$4,570 SPR {CSJ#0912-00-313, MPOID#13467}**) [2010]

**SUBTASK 5.4 Intermodal Initiatives**

This subtask funds activities identified as intermodal needs during the Strategic Freight Initiative efforts of 2000-2004. One objective of this subtask is to update and maintain inventories of multimodal transportation facilities and services, including public transit, and to measure their use, update and maintain base and future year transportation networks, and to develop and maintain an inventory of goods movement statistics to and from the region.

**PRODUCTS:**

- 5.4.1** Staff participation in committees that may include but not limited to the Model Deployment, Texas T-bone, Southwest Passage, Southwest Border Transportation



- Alliance, Western States Corridor Alliance, and other intermodal activities and organizations. [Ongoing]
- 5.4.2 Staff support and training in the assessment, acquisition, and implementation of regional goods movement modeling software such as Cube Cargo. [2010-11].
  - 5.4.3 Continue planning support to the Gulf Coast Freight Rail District (GCFRD) to assist in freight rail scenario modeling. [**\$75,000 TPF pass-thru for year 2010**]
  - 5.4.4 Continue grant-writing consultant assistance for GCFRD to take advantage of significant recent funding opportunities in the region regarding rail development opportunities. (**Pass-thru \$5K TPF**) [2010]



### Subtask 5.5 ARRA of 2009 Planning Support

The American Recovery and Reinvestment Act of 2009 (ARRA) was signed into law by The President in February 2009. The bill requires the timely implementation of transportation infrastructure projects in order to stimulate the economy and create jobs. Staff will be working with the state and local governments to meet the requirements of the bill including reporting and tracking the status of projects selected for ARRA funding.

#### PRODUCTS:

- 5.5.1 Develop and submit reports regarding project status of those projects categorized as ITS, Liveable Centers, transit capital projects, and intermodal studies.
- 5.5.2 Work with stakeholders to coordinate project development activities to ensure timely implementation consistent with schedules established by the FHWA.
- 5.5.3 Coordinate with TxDOT on letting schedules and programming.
- 5.5.4 Consultant assistance in final scoping and performing further feasibility analysis in exploring alignment issues and new or upgraded track alternatives along the Eureka, Palestine, and Galveston Subdivisions to handle commuter trains as listed in the H-GAC American Recovery & Reinvestment Funds project list. (**Consultant \$2.0 Million, Stimulus Package {CSJ#0912-00-396, MPOID#14586}**) [2010-2011]
- 5.5.5 Consultant assistance in developing a regional freight plan that will examine alternatives for routing freight in the IH-69 corridor and encompassing the many freight-related tasks currently programmed elsewhere in this document for the Houston-Galveston TMA. (**Consultant \$2.5 Million, Stimulus Package {CSJ#0912-00-398, MPOID#14587}**) [2010-2011]

## **SUBTASK 5.6 Regional Aviation System Plan (RASP) Update**

The Federal Aviation Administration provided H-GAC with a \$1 Million grant to update the 1991 H-GAC Regional Airport Airspace System Plan (RAASP). H-GAC's first RAASP was completed in 1973, with updates in 1981, 1986, and 1991. Many changes have occurred to the airport system in the Houston-Galveston region in the 16 years since the last update. The RAASP includes commercial, reliever, and regionally significant general aviation airports in the 13-county H-GAC planning region.

The title has been shortened to the Regional Aviation System Plan and Phase One of the update began October 1, 2008 [FY 2009]. An inventory of current airport facilities, airspace issues, and forecasts of future airport activity will be conducted with consultant assistance. An analysis of intermodal access issues for the Houston Airport System is also included in this phase. Phase Two, expected to be started and completed in FY 2010, will include both airport and system analysis, make recommendations and suggestions for the aviation industry and the communities they serve in the 13-County area.

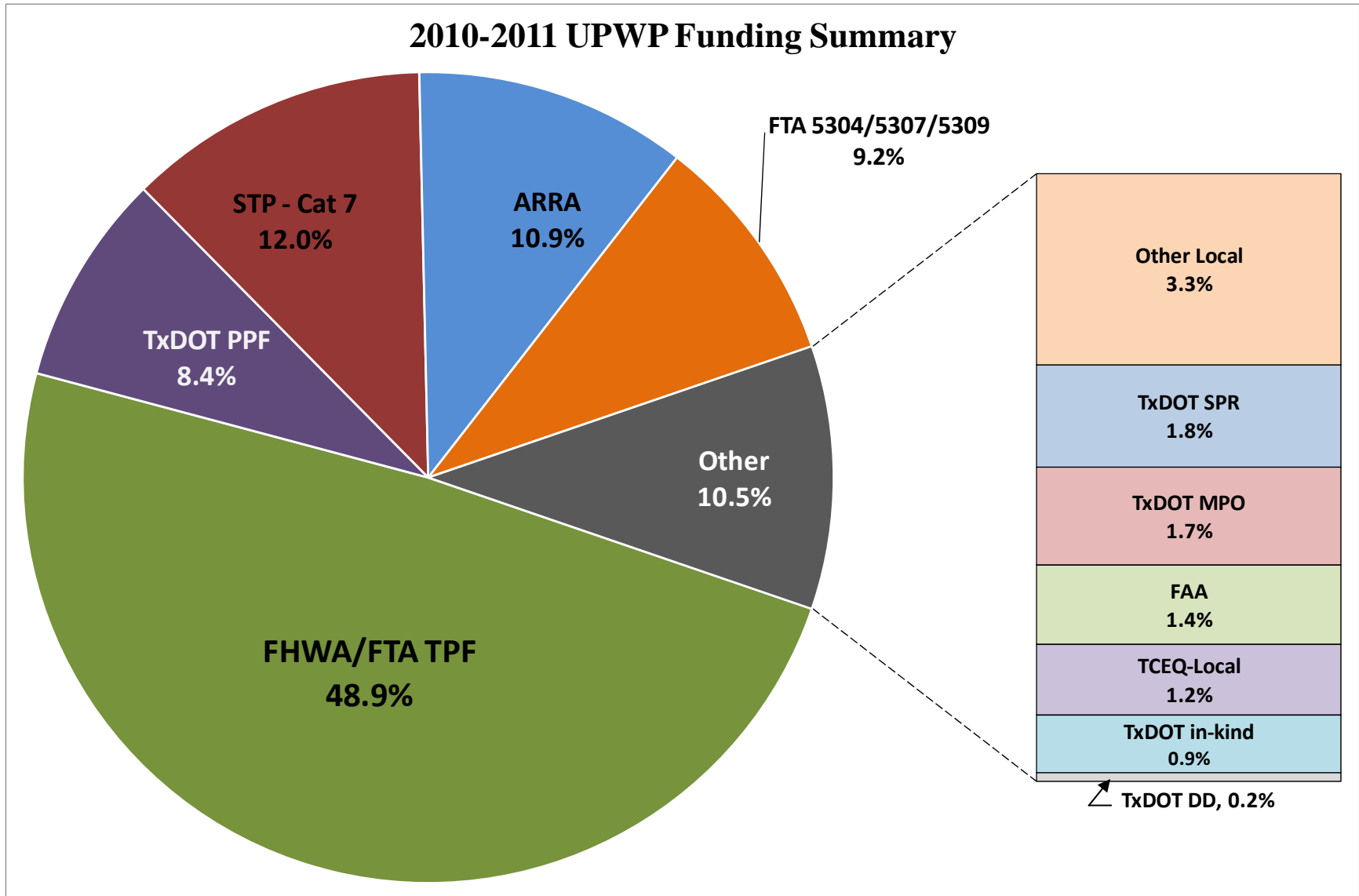
### **PRODUCTS:**

- 5.6.1** Staff participation in development of the RAASP Update. Includes project management, system analysis and airport site visits. [2010]
- 5.6.2** Staff participation in the RASP Project Steering Committee and GHP Aviation Committee; FAA Forecast Conference, and annual TxDOT Aviation Conference. [2010].
- 5.6.3** Continue performing a RAASP update in two phases; phase one included the study design, data collection, evaluation and public outreach and it should be completed in 2009. Phase two includes airport and system analysis, recommendations, public outreach, and approval of the final report. This project will take approximately 24 months and be completed in 2010 (**Consultant: \$500K remaining [\$475K FAA, \$25K H-GAC Local]**) [2010]
- 5.6.4** Staff will assist local general aviation airports in the development of brochures marketing their assets and economic benefits of their local airport. [2011]

<b>TASK 5: Special Studies - 2010-2011 UPWP</b>							
<b>Subtask</b>	<b>5.1</b>	<b>5.2</b>	<b>5.3</b>	<b>5.4</b>	<b>5.5</b>	<b>5.6</b>	
<b>Responsible Agency</b>	MPO	Multi-Agency	Multi-Agency	MPO	MPO / ARRA	MPO / FAA	<b>TOTAL<sup>2</sup></b>
<b>TPF (2010-11)<sup>1</sup></b>	\$290,000	\$570,000	\$535,000	\$400,000	\$235,000	\$0	<b>\$2,030,000</b>
<b>FTA 5309</b>	\$0	\$636,800	\$0	\$0	\$0	\$0	<b>\$636,800</b>
<b>STP</b>	\$729,600	\$1,640,000	\$26,410	\$0	\$0	\$0	<b>\$2,396,010</b>
<b>ARRA</b>	\$0	\$0	\$0	\$0	\$4,500,000	\$0	<b>\$4,500,000</b>
<b>FAA</b>	\$0	\$0	\$0	\$0		\$570,000	<b>\$570,000</b>
<b>TxDOT PPF</b>	\$0	\$3,500,000	\$0	\$0	\$0	\$0	<b>\$3,500,000</b>
<b>TxDOT SPR</b>	\$0	\$0	\$4,570	\$0	\$0	\$0	<b>\$4,570</b>
<b>TxDOT DDF</b>	\$0	\$0	\$69,020	\$0	\$0	\$0	<b>\$69,020</b>
<b>TxDOT in-kind</b>	\$0	\$410,000	\$0	\$0	\$0	\$0	<b>\$410,000</b>
<b>LOCAL</b>	\$182,400	\$159,200	\$0	\$0	\$0	\$30,000	<b>\$371,600</b>
<b>TOTAL</b>	<b>\$1,202,000</b>	<b>\$6,916,000</b>	<b>\$635,000</b>	<b>\$400,000</b>	<b>\$4,735,000</b>	<b>\$600,000</b>	<b>\$14,488,000</b>
<sup>1</sup> Includes FY09 unexpended TPF estimate of:				\$755,000			
<sup>2</sup> One-half of these funds may not necessarily reflect one year.							
<i>TxDOT will apply transportation development credits sufficient to provide the match for FHWA PL-112 and FTA Section 5303 programs. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.</i>							

**TABLE SIX FUNDING SUMMARY ON NEXT PAGE**

<b>Table 6 Funding Summary</b>						
	<b>Task 1</b>	<b>Task 2</b>	<b>Task 3</b>	<b>Task 4</b>	<b>Task 5</b>	<b>TOTAL</b>
	<b>Admin. / Mgmt.</b>	<b>Data Modeling &amp; Maintenance</b>	<b>Short Range Planning</b>	<b>Long-Range Planning</b>	<b>Special Studies</b>	
<b>Funding Source</b>	FTA 44.21	FTA 44.22	FTA 44.24, 44.25	FTA 44.23	FTA 44.26, 44.27	
FHWA-FTA TPF	\$4,418,000	\$3,475,000	\$2,250,000	\$6,964,500	\$2,030,000	<b>\$19,137,500</b>
STP - Cat 7	\$0	\$800,000	\$0	\$1,790,137	\$2,396,010	<b>\$4,986,147</b>
TxDOT SPR	\$0	\$1,125,000	\$0	\$0	\$4,570	<b>\$1,129,570</b>
TxDOT PPF	\$0	\$0	\$0	\$0	\$3,500,000	<b>\$3,500,000</b>
TxDOT Dist. Discret.	\$0	\$0	\$0	\$0	\$69,020	<b>\$69,020</b>
TxDOT MPO	\$0	\$700,000	\$0	\$0	\$0	<b>\$700,000</b>
TxDOT in-kind	\$0	\$5,000	\$0	\$0	\$410,000	<b>\$415,000</b>
ARRA	\$0	\$0	\$0	\$0	\$4,500,000	<b>\$4,500,000</b>
FAA	\$0	\$0	\$0	\$0	\$570,000	<b>\$570,000</b>
TCEQ-local	\$0	\$0	\$0	\$502,000	\$0	<b>\$502,000</b>
Other Local	\$0	\$215,000	\$0	\$785,034	\$371,600	<b>\$1,371,634</b>
FTA 5304 / 5307/ 5309	\$0	\$0	\$3,184,113	\$0	\$636,800	<b>\$3,820,913</b>
<b>TOTAL</b>	<b>\$4,418,000</b>	<b>\$6,320,000</b>	<b>\$5,434,113</b>	<b>\$10,041,671</b>	<b>\$14,488,000</b>	<b>\$40,701,784</b>
<i>Statewide match ***</i>	<i>\$883,600</i>	<i>\$695,000</i>	<i>\$450,000</i>	<i>\$1,392,900</i>	<i>\$406,000</i>	<i>\$3,827,500</i>
<i>FY 2009 carryover</i>	<i>\$320,000</i>	<i>\$800,000</i>	<i>\$1,130,000</i>	<i>\$1,490,000</i>	<i>\$755,000</i>	<i>\$4,495,000</i>
<b>TRANSPORTATION PLANNING FUNDS (TPF) ONLY</b>						
<b>Federal Highway Admin. (FHWA PL-112) funding estimate:</b>					<b>\$15,783,049</b>	*
<i>*includes pre-FY2010 FHWA carryover of:</i>				<b>\$4,571,056</b>		
<b>Federal Transit Admin. (FTA Section 5303 [Sec. 8]) funding estimate:</b>					<b>\$3,836,383</b>	**
					<b>\$19,619,432</b>	
					<b>\$19,137,500</b>	
					<b>\$481,932</b>	
* , ** 2010 and 2011 estimates based on 2009 actual work orders, expect more.						
***Identifies TxDOT's state-wide match estimate for the H-GAC MPO using toll credits to provide 20% match for FHWA (PL-112) funds. Applied statewide, the two funding categories may not be 80/20 for any single MPO.						



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# STATE & LOCALLY FUNDED PLANNING ACTIVITIES SUPPLEMENT

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*While this section of the UPWP documents locally-funded planning activities in the H-GAC TMA, some transportation partners included project development as well as planning activities in their submissions to this document. The MPO, rather than misinterpreting the activity, chose to accept all submissions gratefully, making only minor formatting changes as needed for readability and clarity.*

## TRANSIT AGENCIES

### ***BRAZOS TRANSIT (THE DISTRICT)***

No locally-funded planning activity submitted.

### ***COLORADO VALLEY TRANSIT***

No locally-funded planning activity submitted.

### ***THE GULF COAST CENTER / CONNECT TRANSIT***

The Gulf Coast Center/Connect Transit embarked in 2006 on a multifaceted regional initiative to address significant transit gaps within its service area in Galveston and Brazoria Counties. Providing a wider range of transit services and enhancing regional partnerships have been central to the effort. Among key features of the initiative to expand the efficiency and effectiveness of transit have been the following efforts:

- Through partnerships with local communities, employers and other stakeholders enhance transit mobility through initiation of local bus service, park and ride service and user side taxi subsidies;
- More fully use 5307 federal and state formula funds to enhance local transit services within both small urbanized areas and rural areas;
- Improve the operational and administrative effectiveness of Connect Transit to implement expanded transit services.

#### **Results of the initiative to date include:**

- Expanded coordination with Island Transit in Galveston through the execution of an inter-local agreement between the City of Galveston and the Gulf Coast Center;
- Initiation of local bus service, Texas City Connect, in Texas City starting in October 2008;

- Approval and funding of local bus service in La Marque scheduled to begin in June 2009;
- Expansion of service in eastern Texas City through additional route service;
- Start of Park and Ride service scheduled to begin in June 2009 at Mall of the Mainland.

**Additional efforts are underway to expand services and meet demand including:**

## Lake Jackson Urbanized Area –

- Planning of local bus service complete, implementation planning based upon future available funding.

## Texas City Urbanized Area

- Possible initiation of transit service into Dickinson, San Leon and Bacliff – feasibility study pending;
- Pilot program for user side subsidy taxi service to supplement existing weekday transit service in Texas City and Galveston – implementation planning pending;
- Connect Transit developing regional ADA Plan and provide service for both Texas City and Galveston urbanized areas through an inter-local agreement.

## Houston Urbanized Area – Galveston County and Brazoria County

- Development of southbound Park and Ride service to Galveston Island from UTMB Victory Lakes in League City. Planning complete – implementation awaiting funding approval;
- Initiation of northbound Park and Ride service from League City (Riverbend) to the Houston Central Business District;
- Through a partnership with Houston metro and the City of Pearland development of Park and Ride service from Pearland to the Texas Medical Center.
- Completion of the Pearland Transit Study to assess the feasibility of local transit service within the City of Pearland.

***ISLAND TRANSIT***

**Marketing:** The City will utilize resources within this task to support the creation of marketing plans for existing and new Island Transit services such as route changes, new park and ride service, job access, and other transit related programs.

**Rail Planning:** City of Galveston will undertake advanced planning activities relating to both local (trolley) and regional (commuter) rail connectivity, and the interface of these modes and associated technologies to major trip generators/destinations, other modes (bus, SOV, maritime), and the greater surface transportation system. Connectivity consideration will include:

- Port of Galveston
- Downtown Inter-modal Terminal
- UTMB Complex
- Downtown Rail Trolley system

**Financial Capacity:** The City will identify future operating and capital improvement costs and assesses the City's capacity to fund projected system requirements with available and anticipated local, state, and federal resources. The financial capacity analysis (FCA) will provide the City with accurate and



very precise guidance regarding recommended operating expenditures and the extent to which the City has the local capacity to support capital improvements. The City will conduct a Peer Review to assess Island Transit's operating and performance results pre and post Ike, when compared with other peer systems in Texas. The FCA will reflect the transit funding institutionalized within the new transportation authorizing legislation and at the State level. The updated FCA will be extremely important to the City of Galveston to secure its ability to support future Island Transit operating and capital requirements. This FCA study will reflect significant changes in the federal and state funding categories which have occurred since the City's last study.

## ***METROPOLITAN TRANSIT AUTHORITY OF HARRIS COUNTY***

### **ADMINISTRATION AND MANAGEMENT ACTIVITIES**

Houston is fortunate to already have a very high level of interagency cooperation and an effective interagency transportation planning structure in place. METRO is an active participant in this cooperative effort to plan a transportation system that meets everyone's needs. METRO participates on the region's Transportation Policy Council, the Technical Advisory Committee, and the many interagency subcommittees and task forces that spin off from these bodies.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the Clean Air Act Amendments of 1990 (CAAA) into law, and the issuance/revisions of federal regulations related to planning and air quality conformity have placed a much greater emphasis on cooperative planning efforts. METRO works closely with H-GAC, the local Metropolitan Planning Organization, to implement federally required planning procedures. METRO will also continue to work closely with H-GAC and other area transportation providers to develop and implement policies/programs to respond to air quality conformity mandates.

### **DATA DEVELOPMENT AND MAINTENANCE ACTIVITIES**

METRO routinely collects and monitors a wide range of performance data to ensure that the METRO system is achieving goals set by the Board. Transit facility and route level data are collected and monitored to provide input for facility and route modifications to serve the public better and to operate more efficiently. METRO anticipates that data collection efforts on METRO Rail, METRO Bus, paratransit, vanpool, and HOT lanes will continue during FY 2010-2011. The authority will also continue to collect HOV lane operational data on a quarterly basis.

The work program will include ongoing monitoring of data and model performance and continued coordination with H-GAC modeling staff. To improve data communication, consistency and data sharing, METRO will continue the data current interface tasks between METRO and H-GAC.

### **SHORT-RANGE PLANNING ACTIVITIES**

METRO's Planning And Service Development Division annually updates the Transit Services Program. All existing and proposed routes are evaluated and ranked in terms of cost and projected ridership. Routes are periodically updated to identify potential productivity enhancements and opportunities to serve METRO customers better. Staff

will also conduct research on under-performing routes to determine if changes would improve ridership.

METRO will continue to monitor all existing transit facilities to determine their efficiency and to identify modifications that are warranted. Site selection, environmental analysis, traffic studies and other planning activities will be done on appropriate METRO facilities.

METRO will also conduct the following activities in FY 2010-2011:

- **Signature Service** - Signature Express Bus service is defined in the METRO Solutions Phase 2 Implementation Plan as an unique bus service, identifiable by distinctive branding and offering a more attractive transit mode than traditional bus service. Signature Express Bus service is a high speed, limited stop service providing improved travel time for customers in heavily utilized corridors. The corridors under consideration in METRO Solutions are listed below in no particular order or importance:
  - Bellaire/Holcombe;
  - TMC/Palm Center
  - Acres Homes/Tidwell
  - Gessner and
  - Westheimer

METRO plans to implement the Bellaire signature express service as its demonstration route due to the high concentration of customer boardings at seven (7) bus stops and two (2) transit centers over a relatively short distance. Operating every 15 minutes during the AM and PM peak hour time periods, the service would provide additional ridership capacity within this highly utilized corridor.

METRO plans to implement several of the Signature Bus services by the end of 2011.

- **HOT Lanes** - In the face of growing urban congestion, the range of strategies to maintain and improve highway service is also increasing. The traditional approach has been the addition of general-purpose lanes. However, because of the high cost and impacts of creating new capacity, increasing attention is also being given to strategies that make the maximum use of existing highway capacity.

One of the most recent management concepts – High Occupancy Toll (HOT) lanes – combines HOV and pricing strategies by allowing single occupancy vehicles to gain access to HOV lanes by paying a toll. The lanes are “managed” through pricing to maintain free flow. The appeal of this concept is tri-fold:

- It expands mobility options in congested urban areas by providing an opportunity for reliable travel times to users prepared to pay a toll for this service;
- It generates a new source of revenue which can be used to pay for

- transportation improvements, including enhanced transit service, enforcement; and
- It improves the efficiency of HOV facilities.

Source: "A Guide for HOT Lane Development," U. S. Department of Transportation, Federal Highway Administration, page 2

METRO will be working to implement a network of HOT lanes operation in Houston during the coming months.

### **STATE & LOCALLY FUNDED PLANNING ACTIVITIES**

The METRO staff will be devoting the majority of its data collection efforts to the fixed-route system. Staff will continue to update and refine the network and the demographic data. To further the modeling practices, staff will continue to attend workshops and applicable training sessions. METRO staff participated in development of the 2008-2011 Transportation Improvement Program (TIP), in addition to proposing projects such as new METRO facilities.

The Authority will also continue to improve the passenger amenity program, which will install shelters throughout the METRO service area. Approximately 2,043 of these shelters are currently in place. Benches, information kiosks, and boarding pads are also included in the amenity program planning efforts.

Planning for facilities such as a Gulf Corridor Park & Ride, and a SH-288 corridor park & ride are ongoing.

The City of Houston had Harris County have designated METRO as the agency for coordinating public transportation activities for emergency transportation of people, supplies and materials during major disasters. The METRO staff will be devoting their efforts in the development and maintenance of communication applications (311/METRO Operational Center, HyperAlert, WEBeoc, etc.), preparation and participation of area drills, tabletop exercises and meetings with emergency management coordinators and school districts, the development of print materials, procedures, schedules, maps and reviewing emergency management plans.

### **LONG-RANGE PLANNING ACTIVITIES**

METRO is a key partner in the development of the region's Regional Transportation Plan (RTP). Because air quality conformity is a critical issue in the Houston region, careful consideration will be given to the role that transit can play in helping Houston meet its air quality goals. METRO, as the major transit provider in the region, is involved with the long-range transportation planning process and strategies to identify transportation system priorities/deficiencies and address those needs in a fiscally constrained manner.

Consistent with its long-standing planning strategy, METRO continues to embrace and practice:

- The accessibility and mobility choices our patrons require,

- Sensitivity to the environment and quality of life, and
- Integration/system connectivity.

In FY2004 METRO adopted a system plan (METRO Solutions Phase 2 implementation), which identifies the agency's overall transit system program through 2025 and identifies corridors for potential development of light rail transit. METRO continues to refine that system plan and has begun efforts for the development of the 2035 plan.

The METRO staff will be devoting the majority of their efforts in the development of a bus / rail integration plan for 2010 – 2011. All data collection efforts regarding the current fixed-route system will provide staff the tools to re-structure service to interface with the five rail corridors. Recommendations for the data collection efforts will provide the direction for further transit service plans. Staff will continue to update and refine the transit network until the opening day of rail service.

### **SPECIAL STUDIES**

#### **☐ Feasibility Studies**

METRO will be undertaking or participating in feasibility studies for light and commuter rail in various corridors around the region. METRO will coordinate with regional transportation agencies in examining the feasibility of commuter rail in various corridors in FY 2010-2011. These studies may lead to further planning studies and/or contribute to interagency agreements for the design, construction and operation of light and commuter rail.

In 2008 METRO staff launched Phase III of METRO Solutions identifying eight (8) Sub-Area Corridors. The objective of these corridor assessments is to develop a first class system-wide light rail component to a transportation network. The corridors under review are:

- North to Greenspoint
- Galveston
- Southeast
- SH 288
- Westpark
- Inner Katy
- US 290
- Sunnyside

METRO staff will continue providing long-range travel demand support and perform the assessments and analyses necessary to assist in determining optimum operation plans. Continued emphasis will be placed during FY 2010-2011 on coordination of data collection and travel demand modeling efforts with H-GAC to insure consistency of outputs among local agencies.

#### **☐ Corridor Planning Studies**

Beginning in FY2006 and continuing throughout FY2008 METRO conducted several

Planning Studies. These studies include project development work in corridors that were identified in METRO Solutions Phase 2 as follows:

**Preliminary Engineering/Environmental Studies**

- North (Completed July 2008 and is currently waiting to perform early utility work, design advancement and materials procurement)
- Southeast (Completed July 2008 and is currently waiting to perform early utility work, design advancement and materials procurement)
- University Corridor (currently waiting to receive environmental clearance)
- East End (construction aggressively proceeds in of 2010)
- Uptown (local environmental document under review)

A North Intermodal Facility underwent concept definition and project development. In addition, a Wheeler Intermodal Facility conceptual design was completed in July 2008.

METRO staff will continue providing long-range travel demand support and perform the analyses necessary to assist in determining optimum operation plans and facility locations. Continued emphasis will be placed during FY 2010-2011 on coordination of databases and travel demand modeling efforts with H-GAC to ensure consistency of outputs among local agencies.

Enhancement of METRO's existing HOV system is being examined, including conversion to managed (HOT) lanes.

**Transit Facility Studies**

Staff will continue to monitor the utilization of transit facilities and conduct analyses in corridors where ridership is exceeding the capacity of the facilities. During FY2010-2011, METRO will continue planning/design activities for the following facilities:

- Gulf Corridor Park & Ride – Site selection and conceptual design is underway;
- Grand Parkway – a leased facility is operational;
- SH 288 Park & Ride - Site selection is underway;
- Fort Bend County Park & Ride – Conceptual design is underway;
- Liberty County Park & Ride - Conceptual design is underway; and
- Montgomery County Park & Ride - Conceptual design is underway.

**Air Quality or Emission-Related Studies**

METRO will continue to work with H-GAC and other regional organizations in the development and monitoring of air quality measures and models to ensure that measures and models accurately reflect conditions in the Houston region. In FY2010-2011 METRO and consultants continue to take an active role in the region's efforts to develop control strategies to reduce NOx and VOC's, the two major precursors to the formation of ozone in sunlight.

**Geographic Information System (GIS)**

METRO's GIS program supports all aspects of the business and is focused on

improving data quality and integration thus providing the Agency better geographic analysis and map production. The use of GIS is extensive throughout the Agency, enhancing data structure and deliverability is imperative to progress.

Migration from file-based geographic layers to the enterprise geodatabase (GDB) model allows METRO to better manage and utilize information stored within the GIS. The GDB allows better integration with other systems, improved information delivery, and a more manageable data and software infrastructure. METRO's GIS objectives are to further implement the benefits of the GDB and to expand the delivery of GIS data and information through new interfaces such as web technology, hand-held devices, and enhanced maps.

**Communications Tracking Survey**

Drawing on a random sample of 800 service-area residents, METRO periodically has conducted this telephone survey to measure the awareness and recall of the Authority's advertising efforts. The survey also tracks public perceptions of METRO and its various functions. The last survey was conducted in 2008 and another is scheduled to be conducted in FY 2010.

**Personal Security Survey**

As part of its mission to provide reliable, safe, clean, efficient and progressive transit services, METRO periodically gauges customer perception of personal security. The most recent survey, conducted in 2008, remained consistent with previous studies. The study generated data from interviews with 800 bus riders, 300 METRORail riders, and 300 non-riders (defined as people who had not ridden METRO within six months). The study is conducted every four years.

**Integrated Marketing Activities**

METRO's Marketing Division helps support the Authority's short- and long-term goals through creative advertising, communication, and collateral materials. Marketing develops and distributes materials, such as schedules and maps, brochures, and route guides. These materials are also available on the Authority's Web site, and some materials are in the process of being made available via iPod as well. Marketing also supports public education efforts, quarterly planning studies, and service changes by producing comprehensive communication pieces in English, Spanish, Vietnamese, and Chinese.

**Regional Vanpool Program**

METRO has implemented plans for consolidating two vanpool programs into one regional vanpool program and re-branding it for increased awareness. The STAR vanpool program now encompasses more than 750 vanpools serving approximately 8,000 commuters in the eight-county Houston-Galveston TMA.

**HOV Interconnects**

METRO will continue to study the feasibility of providing direct connections between

existing HOV lanes and other freeway corridors.

**HOV Safety Enhancements (Fixed Guideway Modernization)**

Beginning in FY1994, Congress appropriated Section 5309 Fixed Guideway Modernization funds by formula to all agencies with fixed guideway systems. Improvements under this program are scheduled to continue through FY2010-2011. Included in this project will be high speed and low speed access control systems, signage improvements, integration of electronic devices along US-290 HOV lane into TranStar, and gate monitoring systems, to enhance safety on METRO's HOV lane system. METRO will initiate implementation of the HOV to HOT lanes conversion.

**Intelligent Transportation Systems**

METRO is an active partner in a multi-agency agreement designed to address the specific areas of Intelligent Transportation Systems (ITS). This program specifically calls for more effective use of new technology to improve mobility and safety, while meeting the goals and requirements of the Clean Air Act, as well as other social and environmental concerns.

**Emerging Technologies**

METRO has a history of being an industry leader and innovator. Technology is advancing quickly and METRO needs to take a strategic approach to evaluating, selecting, and implementing emerging technologies. The Emerging Technologies work program will include development and management of new technology initiatives. The best practices will be researched and developed to include emerging technologies in public transit and other related industries around the world, and then evaluate and prioritize them in relation to METRO's needs and technological viability. The range of projects will be broad, from new vehicle technologies, to ITS advances, to improved management practices. The focus will be on implementing applied solutions that will provide significant near-term improvements to METRO's core business by increasing ridership, improving customer satisfaction, and reducing costs.

**Fixed-Route Customer Satisfaction Survey**

This annual survey is designed to measure satisfaction among METRO bus and METRORail riders. Data is collected via intercept interviews. In addition to measuring satisfaction, results from this survey are used to pinpoint areas for improvements. The last survey was conducted in the fall of 2008 and the next one is scheduled for FY 2010.

**Bicycle & Pedestrian Committee**

METRO participates on an interagency committee that is studying the hike/bike trail program. It is anticipated that this committee's planning work will continue into FY2010-2011.

**Bicycle Racks**

METRO has made its facilities more bicycle-friendly by installing bike racks at all the

transit facilities. Installations of bicycle racks on METRO local buses were completed in FY2008.

□ **Small Business Development**

METRO will follow all federal guidelines concerning small business development in the FY 2008-09 timeframe. The Small Business Development Program provides consulting, training, web site development and opportunities to network with prime contractors to qualified small and disadvantaged business owners. These opportunities enhance the firms' abilities to succeed. This work may be local and grant funded in FY 2010-2011.

□ **HOV Lane Operational Data**

This project involves collecting operational data, including the number and type of vehicles on the HOV Lanes and their occupancies, during peak and off-peak periods every quarter. Real-time information is also collected to compare "actual" operating speeds on HOV lanes versus the adjacent mainlanes. This information is used to monitor the usage trend and set the occupancy requirements to keep the number of vehicles on the HOV lanes below capacity in order to provide substantial travel time savings to the users. Real-time information will be used in marketing promotions to describe the benefit of using transit and to make a case for changing travel demand modeling assumptions to more accurately portray mainlane versus HOV travel times.

□ **Transit On-Board Origin/Destination Travel Survey**

Since 1978, METRO has conducted a number of Origin-Destination Surveys. The basic purpose of these studies is to provide information about the characteristics and travel patterns of transit users within the METRO service area. In March through May of 2007, METRO partnered with H-GAC, Galveston Island Transit, and the Brazos Transit District to conduct a regional transit origin/destination survey. The results of this survey are a resource to several METRO departments as well as to H-GAC and the other participating agencies.

As the largest public transit provider in the region, METRO carries over 293,000 boardings each day. In order to continue to provide service that meets regional transportation needs, current information on transit users' travel patterns and behaviors must be maintained. METRO is a key player in the travel demand forecasting efforts for the Houston-Galveston Transportation Management Area (TMA), and has remained an integral contributor by incorporating the latest travel demand modeling technology and maintaining current and reliable model inputs to provide the best ridership forecasts possible.

FHWA guidelines require periodic revalidation of regional models used to forecast travel demand for projects seeking Federal funding. In order for travel demand models to appropriately replicate travel behavior, they must be validated for the specific area where candidate projects will be tested. During 2007, H-GAC conducted a regional Household Travel Survey. The administration of the Travel Survey allowed METRO and H-GAC to have transit data and regional auto travel data collected during



approximately the same time period, to revalidate the regional travel demand forecasting models. However, the survey was conducted prior to the implementation of the Q-card fare system. In the spring 2008, METRO made major changes in its fare structure policy. The impacts of these changes were not captured in the 2007 survey. Therefore, the OD survey we are proposing in 2010 will not only coincide with the latest Census but also can be used to study the effect of the fare changes. Finally, these results can also be used in Title VI and other environmental justice analyses.

**UPWP - CUBE Software Implementation**

H-GAC has embarked on a major model update process which includes:

1. Updating the transit component of the model (Mode Choice Model) and
2. Switching the application software from EMME/2 to CUBE.

CUBE was chosen by H-GAC because of its user friendly application environment and versatility.

METRO is required to maintain consistency with H-GAC regarding model development and application processes. It makes sharing files between the two agencies much more seamless. For this reason, METRO is installing CUBE software to run the travel models. Networks and coding conventions will be translated for the CUBE environment and tested to ensure compatibility. METRO will engage in short term and long term staff training for CUBE. Please note that METRO will continue to run EMME/2 models for all the FTA New Starts projects. The reason for this is to maintain internal consistency with the results from previous analyses.

## **OTHER LOCAL AGENCIES**

### **(With Planning Programs)**

#### **CITY OF BAYTOWN**

- Major thoroughfare plan (mobility plan)
- Trails/sidewalks master plan (parks department)  
Feasibility of a collector road parallel to Garth Road from Interstate 10 to Rolling Brook
- Feasibility of a collector road north of Lynchberg/Cedar Bayou from Wade to Main Street
- Feasibility of adding more routes to the bus circulator system
- Access management plan for Garth Road from Interstate 10 to Rolling Brook
- Amendments to the subdivision regulations concerning improved road, side walk and trail standards as well as standards for traffic analysis plans (TIA's).

#### **CITY OF GALVESTON**

**Grant Development:** The task will provide the resources to assist the City of Galveston in the pursuit and programming of state and federal grant funding, including the identifying and

active pursuit of a variety of competitive grant opportunities. The City will create of all of relevant grant documents and other related materials. This task will also help to fund the City's effort in amending the H-GAC long rang plan, Transportation Improvement Program (TIP), and State (TIP).

**Financial Management:** The City of Galveston will continuously monitor all FTA/DOT grants to ensure that the existing grant budget shown in TEAM corresponds with the progress of planned capital improvements, the City's budgetary and mobility infrastructure development priorities, and other related factors that potentially impact the grant budget. As needed, the City will make modifications to the existing and proposed grant budgets to more accurately reflect the City's needs. This task will insure that the City complies with FTA's Financial Status Reports (FSR) and Milestone reports for each grant, which are required quarterly by the FTA.

**General Mobility:** The City will identify transportation projects and related improvements that will reduce congestion, improve air quality, and create potential economic and employment impacts. Transportation modes to be reviewed include: highways, arterials, bus and rail services, bridges, hike and bike trails, and Transportation System Management (TSM). Projects identified will be prioritized based upon existing and projected demographic, transportation and economic data; the estimated cost of the mobility improvements; and the availability of funding; and associated project benefits.

## CITY OF HOUSTON

No locally-funded planning activity submitted.

## CITY OF MISSOURI CITY

### Missouri City Comprehensive Plan

The plan is designed to create a framework for guiding future development, redevelopment, and community enhancement. The purpose of the plan is to establish a vision, along with realistic goals and achieve over the next 20 years. The plan will address land use and community character, growth capacity, parks and recreation and mobility issues. The plan was recently updated and is currently going through the process of being adopted by City Council.

### Texas Parkway/Cartwright Road Corridors Redevelopment Plan

Completed earlier this year, this study was performed in order to identify the issues and shortcomings along these two corridors in order to recommend improvements. From this study the City will implement recommendations in order to attract new businesses and enhance existing businesses, enhance property value and generate higher tax revenue, foster a sense of community, improve the visual appearance and eliminate blight, make the corridors a signature image for the city. The study area includes FM2234/Texas Parkway from 90A to FM 3345/Cartwright Road and FM 3345/Cartwright Road from FM2234/Texas Parkway to FM 1092/Murphy Road. From the results of this study the City is performing a preliminary engineering report in an effort to implement recommendations.

### Traffic Management Plan Update

The study will be an update to the previous Traffic Management Plan that was finalized in July 2006. While much of the information remains unchanged, this updated study will account for

changes in the roadway network and previous roadway recommendations. As such, the study will make adjustments for previous recommendations and present the analysis based upon the revised roadway improvements. In addition, the City's Major Thoroughfare Plan will be updated to reflect the adjustments.

### **Bike and Pedestrian Study**

This is a study to be performed in preparation of a conceptual plan for comprehensive pedestrian and bicyclist facility improvements in the City of Missouri City. Major task elements include developing potential sponsor for pedestrian-bicyclist projects, needs assessment, develop conceptual plan and to develop implementation plan for proposed recommendations. The study area consists of four major roadways: FM 2234/Texas Parkway from Buffalo Run to FM 3345/Cartwright, FM 3345/Cartwright Road from FM 2234/Texas Parkway to FM 1092/Murphy Road, FM1092/Murphy Road from Lexington to SH6, and SH6 from Dulles/Austin Parkway to Lake Olympia Parkway.

### **SH 6 Median Study**

The Public Works Department is currently designing medians according to the SH 6 Access Management Plan sponsored by HGAC. This study will determine the impact of the medians that will be installed and recommend improvements to implement.

### **Trails Master Plan**

The Parks and Recreation Department is working on a master plan to layout current and future trails within Missouri City.

## **CITY OF PASADENA**

No locally-funded planning activity submitted.

## **CITY OF SUGAR LAND**

### **Public Works Traffic Division:**

- Emergency Services Integration & Central Fleet Management Software Module [2010-2011). The purpose of this project is to replace the fire pre-emption equipment located at each of our traffic signals with a more sophisticated product which will be capable of pro-actively adapting corridor signal timing to improve response times and reduce accidents.
- Rail Monitoring System (2010). This will cover 6.4 mile of US 90A rail-highway corridor between Kirkwood and Grand Parkway. The system monitors the following parameters: presence of train and direction, speed of train, length of train, and crossing gate closures via monitoring of traffic signal preemption relays. Using this information, the system determines real time train status and projects downstream crossing closing and clearance times.

### **Engineering Division**

- Comprehensive Mobility Plan - This project will develop a comprehensive mobility plan for the City. The plan will lay out a multi-modal transportation network for the City's

ultimate developed condition and include an actionable list of phased projects to pursue. The project will look at commuter and freight rail, transit circulators, commuter transit, pedestrian and bicycle, and traditional auto modes and ensure the modes are coordinated. The plan will consider land use and density objectives and include a funding strategy.

- Pedestrian and Bicycle Mobility - This project will adopt enhanced development and redevelopment requirements for pedestrian improvements. These requirements will address various land uses, including dense activity centers, single family neighborhoods, and business parks. This project will encourage pedestrian and bicycle use by allowing for improved pedestrian connectivity in neighborhoods and activity centers.
- Town Center Transit Circulator - This project will take the results of the feasibility study for a Town Center Transit Circulator and develop specific recommendations on routes, phasing, funding, etc.

**CITY OF TEXAS CITY**

No locally-funded planning activity submitted.

**COUNTY OF BRAZORIA**

No locally-funded planning activity submitted.

**COUNTY OF CHAMBERS**

Although the following projects are not planning projects, they are reported as being locally and/or State funded and described in the TxDOT “West Chambers County Transportation Plan” completed in 2003:

- Right-of-way acquisition planning for the extension of FM 1409 from FM 565 North to FM 565 South; for an east-west thoroughfare to connect SH 146 with SH 99 and FM 3180; and for an east-west thoroughfare to connect FM 1405 to SH 99.
- The City of Mont Belvieu is planning for the improvement of Eagle Drive from IH 10 north to FM 565.

**COUNTY OF FORT BEND**

<b>FUNDING SOURCES</b>	<b>PROJECT DESCRIPTION &amp; ESTIMATED COMPLETION DATE</b>	<b>FEDERAL SHARE</b>	<b>Local &amp; State SHARE</b>	<b>TOTAL COST</b>
5307, 5311	FIXED GUIDEWAY FEASIBILITY ANALYSIS. Phase II - Fort Bend will conduct conceptual engineering to analyze freight and passenger rail issues confronting the county. The County is proposing to step up efforts to establish final plans on fixed guide way needs for freight and public	\$200,000	\$ 50,000	\$250,000

	transportation system needs within Fort Bend County and between the County and the Houston Metropolitan Area. Estimated Completion 1-31-2011			
5307, 5311	OTHER TRANSPORTATION PLANNING ACTIVITIES. Fort Bend County may require contractor assistance with transportation planning activities, including grant preparation, legal advice, contract preparation, financial and operational planning, and other assistance as needed. Planning may also include like activities plans for cities within Fort Bend County. Such activities are to be performed in FY 2010-2011.	\$480,000	\$120,000	\$600,000
5307, 5311	TRANSPORTATION PLANNING MARKETING ACTIVITIES. Fort Bend County will conduct marketing activities to promote the use of services within the county. Such activities are to be performed in FY2010-2011.	\$140,000	\$35,000	\$175,000
5316	Project Administration for Urban JARC services.	\$39,835		\$39,835

**COUNTY OF GALVESTON**

**Grant Development:** The task will provide the resources to assist the City of Galveston in the pursuit and programming of state and federal grant funding, including the identifying and active pursuit of a variety of competitive grant opportunities. The City will create of all of relevant grant documents and other related materials. This task will also help to fund the City’s effort in amending the H-GAC long rang plan, Transportation Improvement Program (TIP), and State (TIP).

**Financial Management:** The City of Galveston will continuously monitor all FTA/DOT grants to ensure that the existing grant budget shown in TEAM corresponds with the progress of planned capital improvements, the City’s budgetary and mobility infrastructure development priorities, and other related factors that potentially impact the grant budget. As needed, the City will make modifications to the existing and proposed grant budgets to more accurately reflect the City’s needs. This task will insure that the City complies with FTA’s Financial Status Reports (FSR) and Milestone reports for each grant, which are required quarterly by the FTA.

**Marketing:** The City will utilize resources within this task to support the creation of marketing plans for existing and new Island Transit services such as route changes, new park and ride service, job access, and other transit related programs.

**Rail Planning:** City of Galveston will undertake advanced planning activities relating to both local (trolley) and regional (commuter) rail connectivity, and the interface of these modes and associated technologies to major trip generators/destinations, other modes (bus, SOV, maritime), and the greater surface transportation system. Connectivity consideration will include:

- Port of Galveston
- Downtown Inter-modal Terminal
- UTMB Complex
- Downtown Rail Trolley system

**Financial Capacity:** The City will identify future operating and capital improvement costs and assesses the City's capacity to fund projected system requirements with available and anticipated local, state, and federal resources. The financial capacity analysis (FCA) will provide the City with accurate and very precise guidance regarding recommended operating expenditures and the extent to which the City has the local capacity to support capital improvements. The City will conduct a Peer Review to assess Island Transit's operating and performance results pre and post Ike, when compared with other peer systems in Texas. The FCA will reflect the transit funding institutionalized within the new transportation authorizing legislation and at the State level. The updated FCA will be extremely important to the City of Galveston to secure its ability to support future Island Transit operating and capital requirements. This FCA study will reflect significant changes in the federal and state funding categories which have occurred since the City's last study.

**General Mobility:** The City will identify transportation projects and related improvements that will reduce congestion, improve air quality, and create potential economic and employment impacts. Transportation modes to be reviewed include: highways, arterials, bus and rail services, bridges, hike and bike trails, and Transportation System Management (TSM). Projects identified will be prioritized based upon existing and projected demographic, transportation and economic data; the estimated cost of the mobility improvements; and the availability of funding; and associated project benefits.

## COUNTY OF HARRIS

### *HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT (HCPID)*

#### Planning & Operations

**Capital Improvement Plan** - The HCPID Capital Improvement Plan (CIP) is an integrated capital projects plan for transportation within Harris County over a 5-year period that is reviewed every year. HCPID created this CIP to develop budgets, plans, and studies for a county infrastructure program. This allows HCPID to more effectively communicate its program within the county system and to the public at large, and serves as a guide to Harris County Commissioners Court when facing policy decisions involving financial matters. With the understanding that comprehensive planning is a continuous process, this CIP is flexible enough to respond to the changing conditions and needs of the County.

**Water and Wastewater Infrastructure Needs Analyses and Facilitation** - Pockets of suburban areas without public water and wastewater services exist throughout unincorporated Harris County. This creates barriers to health, quality of life and economic growth and development both in the affected communities and in those communities which surround them. HCPID is working closely with other county departments and with organizations outside the county to identify areas in need, determine the precise nature of their problems, and formulate long term, permanent solutions. To date, three major master studies have been completed, and another is currently underway. HCPID has progressed to infrastructure design and construction facilitation in several areas showing critical need, and is committed to continue to address this issue until it has been resolved.

**NPDES / TPDES Programs** - The National Pollutant Discharge Elimination System (NPDES) permit is a federally mandated program to regulate point source discharges into the waters of the United States. The City of Houston, Harris County, the Harris County Flood Control District and the Texas Department of Transportation (TxDOT), the Storm Water Management Joint Task Force, prepared and submitted a two-part joint permit application as co-permittees. The NPDES permit, now administered by the State of Texas under the Texas Pollutant Discharge Elimination System (TPDES) permit, requires each co-permittee to develop a Storm Water Management Program and implement 11 program elements to reduce pollutants in storm water runoff. The program elements include activities to effectively prohibit illegal dumping and disposal of hazardous chemicals, monitor and analyze storm water, and promote the proper management of pesticides, herbicides, and fertilizers. Management programs also required by the TPDES permit include, among other things, the implementation and maintenance of structural and non-structural best management practices to reduce pollutants in storm water runoff from residential, commercial and industrial areas and construction sites.

To support implementation of these management programs, Harris County has also developed and implemented a comprehensive Public Education Program to communicate the importance of litter prevention; proper management of pesticides, herbicides, and fertilizers; public reporting of illicit discharges; proper management of used oils and toxics; proper management of household hazardous wastes; and minimizing contaminated runoff from new developments, re-developments, and construction sites. More information regarding the NPDES/TPDES program can be found at [www.cleanwaterways.org](http://www.cleanwaterways.org).

### **Architecture & Engineering**

**County Asset Management System (CAMS)** - On September 28, 2004, Commissioners Court authorized the negotiation of consultant agreements for development of a County Asset Management System (CAMS) for tracking of county infrastructure. PID has successfully defined the high level needs to develop a centralized system for recording all county owned infrastructure and land. PID is completing the work flow analyses, and defining a fixed asset identification methodology to create a centralized recording depository. The CAMS effort is being coordinated with the Permits Automated Workflow System (PAWS) currently being developed. The estimated cost of the CAMS program is \$4 million.

**Traffic Signal Operation and Maintenance Program** - Harris County will continue to provide for routine, emergency, and annual preventive maintenance of **over 900** traffic

signals, emergency and school zone flashers that are maintained and operated within Harris County. The annual contract amount for maintenance in FY 09-10 is \$1,700,000.

**Traffic Planning & Engineering Studies** - Harris County will continue to perform warrant studies for regulatory traffic control devices (i.e. stop signs, signals, speed zones, school zones, etc.) in order to comply with the Texas Manual on Uniform Traffic Control Devices.

**Traffic System Management** - Houston TranStar is a consortium partnership formed by the transportation and emergency management agencies in the greater Houston region. The partnership is comprised of four agencies, including Harris County. Each partner agency has brought high-tech systems to the state-of-the-art center to control their individual functions. These resources are in-turn available to assist and advise other partner agencies. The Houston TranStar partnership is responsible for coordinating the planning, design and operations of transportation systems and emergency management functions and coordinates the development and deployment of Intelligent Transportation Systems (ITS). ITS technologies such as Speed Sensors, Closed Circuit Television Cameras and Dynamic Message Signs are tremendously helpful to travelers, including transit vehicle operators, when emergency evacuations are conducted or at any other time severe weather threatens the greater Harris County region.

In addition to providing support to the field maintenance and construction activities, the traffic management personnel located at Houston TranStar are aggressively engaged in the development of an advance traffic management program. The primary goals of this group are focused on ensuring that Harris County traffic signal systems are managed in a thorough, cost-effective manner, and enhancing mobility along major traffic corridors throughout the County. In order to meet these goals, various state-of-the-art technologies are being implemented. These goals related to the traffic system management program include the development, implementation, and management of traffic signal system control strategies; the fiber optic traffic signal communication network; the development of traffic signal communication equipment standards; and the implementation of practical, new technology.

**Air Quality or Emission Related Studies** - Harris County will continue to work with TxDOT and other agencies to provide local matching funding in the Congestion Mitigation and Air Quality (CMAQ) Program for projects that will improve air quality by reducing traffic congestion

**Roadway Projects** - There are several requirements that Harris County must address in the permit and one of the requirements is to operate roadways in ways that reduce pollutants. Harris County is meeting the permit requirements by developing controls to effectively prohibit non-storm water discharges to the drainage system and to reduce the discharge of pollutants from the municipal separate storm sewer system (MS4) to the maximum extent practicable.

### **Flood Control District**

**Hike & Bike Trails** - Harris County Flood Control District (the District) maintains and operates a system of interconnecting waterways that not only provide the County's primary storm water drainage, but also offer unparalleled opportunities for greenbelt recreation and open space areas. The establishment of trails along waterways serves three of the most



popular recreational activities in Texas - walking, bicycling, and running. They serve a greater number of people for less cost than just about any other recreational facility. An initial trails system along the Harris County drainage infrastructure has been under development for more than fifteen years. Expanded development of trails along the bayous in our community is an important part of Harris County’s future. Through successful partnerships, many miles of recreational trails have already been built on rights of way. Neighborhoods, schools and parks have been connected by these trails, and an important form of transportation and recreation has been provided. The District supports further development of this trail system and continues to facilitate the implementation of this program.

**Urban Stormwater Management Study** - This substantial study is being sponsored by the Harris County Flood Control District, the City of Houston, Harris County, and the Texas Department of Transportation (TXDOT), with the District serving as the managing agency. With advances in technology, additional rainfall and stream gage records, the tools developed during the Tropical Storm Allison Recovery Project ([www.tsarp.org](http://www.tsarp.org)), questions raised during the development of the District's updated Policy, Criteria, and Procedure Manual, and public interest in the subject, an opportunity exists to improve the understanding of issues related to rainfall & stormwater runoff, development & mitigation, and flooding & drainage.

The Urban Stormwater Management Study will include two primary components. The first is a technical component, which will help us all gain a better understanding of natural and urban flooding and drainage systems – from when the rainfall hits the ground until it reaches Galveston Bay. Confirming and/or recommending changes to local stormwater management policy, regulations, and criteria, based on science and engineering, is a major portion of the technical component of this study. The technical component of this study will also help support watershed master plan updates, laying out and designing future land developments, and local governments' future capital improvement programs.

Public communications will be the other primary and equally important component of this study. The public's perceptions, concerns, and expectations regarding flooding and flood risks will be identified, which will help develop the technical scope of services, as well as help shape study recommendations. The study will also work toward increasing public awareness and understanding of flood risks and the work being done to lessen such risks.

**Harris County and Regional Flood Alert System** - The Harris County and Regional Flood ALERT System (FAS) provides accurate and consistent rainfall, stage, and other data on a real time basis. The data is provided in a useful form to Harris County Flood Control District (HCFCFCD), National Weather Service, Harris County Office of Homeland Security and Emergency Management (OHSEM), and other Harris County officials, agencies, and the public to facilitate decision making before, during, and after storm events to reduce the risk of property damage, injuries, and loss of life.

The Harris County FAS is operated and maintained by the HCFCFCD in cooperation with OHSEM, and consists of 301 sensors at 137 locations throughout the County. Rainfall, stage, weather and road flooding sensors from ten other partner agencies in the region have been incorporated into the data receiving and reporting network, which adds another 335 sensors at 112 locations. The total Regional FAS consists of 636 sensors at 249 locations.

The Texas Department of Transportation, METRO, and the City of Houston have water level and weather sensors at critical locations on their roadways.

**Watershed Master Planning** - The goal of the Watershed Master Plan (WMP) project is to develop and maintain a long range strategic plan as well as watershed-specific master plans to guide and support project and land development activities in each of the 22 watersheds in Harris County. The WMPs are evolving documents that address, to the degree that data is available, the many facets of the District: projects, trends, performance, funding, capital facilities, expansion of the public transportation infrastructure, development, multi-use opportunities, goals, and objectives. These plans will be generated using the latest tools and technologies and will pull from years of historical data and knowledge within each watershed.

The WMP project will produce master plans, on a watershed basis, that:

- Have sufficient and appropriate detail to communicate the District's strategy to reduce damages associated with the risk of riverine flooding along the bayous, creeks, and channels in Harris County; and that provide effective guidance and support to the District's Capital Improvement Plan.
- Provide proper guidance and criteria in support of new infrastructure and growth.
- Provide a means to improve the aesthetic, environmental, and recreational quality of Harris County's waterways and flood control facilities.

**Harris County Flood Control GIS** - The Harris County Flood Control District utilizes GIS extensively in many aspects of the District's mission. The mission of the District is to provide flood damage reduction projects that work, with appropriate regard for community and natural values. Once projects are built and become part of Harris County's vast 2,500-mile, multi-billion dollar stormwater drainage system, GIS is used to inventory the system. The inventory is always available and up-to-date, so maintenance and potential problems can be quickly tracked and resolved. Also, increased quality of life is assured through close GIS monitoring of environmental conditions and other aspects that affect the community

The District delivers the data the public needs to be better informed by harnessing GIS's powerful ability to graphically illustrate and organize that data. One way we're doing it is via the Internet. The ground-breaking data generated from the Tropical Storm Allison Recovery Project has produced the most accurate FEMA Flood Insurance Rate Maps ever available for Harris County, and the public has been able to access and view the new data and resulting maps throughout the study on the project's website, [www.tsarp.org](http://www.tsarp.org). The result: a public that has greater awareness and is better prepared for the next flood.

### **Toll Road Authority**

**HCTRA Capital Improvement Plan** - The Harris County Toll Road Authority (HCTRA) is responsible for planning and implementing the County's toll road system. The current plan of projects will require bond fund, commercial paper, and revenue fund financing. The total estimated cost of the Toll Road Authority's current five-year CIP could amount to \$2 billion, although all of the projects have not yet been adopted by Commissioners Court.

The completion of the Sam Houston Tollway from US 59 North to US 90 will begin construction soon. Engineering work continues on the Hardy Downtown Connector, system-wide entrance and exit ramp improvements, and the Sam Houston Tollway South lane widening projects.

HCTRA is continuing viability studies for the remaining SB792 projects signed into law on June 11, 2007:

- **SH 288** between US 59 and SH 99 (Grand Parkway South).
- **US 290 Toll Lanes** between IH 610 West and SH 99 (Grand Parkway Northwest).
- **Fairmont Parkway East** between BW 8 East and SH 99 (Grand Parkway East).
- **South Post Oak Road Extension** between IH 610 South and the vicinity of the Fort Bend Parkway Tollway.

**EZ TAG program** - Dedicated EZ TAG ONLY lanes are for motorists enrolled in the HCTRA EZ TAG program, which enable motorists to avoid delays behind traffic using conventional payment methods in all other lanes. Those who have properly mounted EZ TAGS in their registered vehicles are allowed non-stop passage through these lanes, as tolls are automatically (electronically) deducted from prepaid accounts. These lanes are designated EZ TAG ONLY signs (The TXTAG logo denotes interoperable lanes). Dedicated EZ TAG lanes can accommodate all vehicle classifications, from motorcycles to 18-wheelers.

**Roadside Assistance** - The HCTRA Patron Emergency Assistance Team (PEAT) program provides assistance to stranded motorists on the Sam Houston, Hardy Toll and Westpark Toll Roads Monday through Friday from 5:00 AM - 10:00 PM and Saturday - Sunday from 7:00 AM - 8:00 PM and can be reached by dialing 713-222-PEAT (713-222-7328). A PEAT dispatcher will determine the caller's location and the nature of the problem then send the closest PEAT vehicle to assist. Uniformed PEAT representatives are prepared to assist with minor automotive emergencies such as overheating, flat tires and dry gas tanks free of charge as a public service to toll road patrons. (If services are required beyond those offered by PEAT, the provider of choice may be contacted at the patron's expense). With PEAT drivers helping motorists get their vehicles moving again, traffic delays and possible accidents can also be avoided thereby improving motorist safety. As the program continues to achieve success, HCTRA plans to expand PEAT services to include additional vehicles and expanded hours of service as required.

***HARRIS COUNTY COMMUNITY SERVICES DEPARTMENT***

**Office of Transit Services**

**Introduction** - In late 2005, The Harris County Community Services Department (Formerly the Community & Economic Development Department) commissioned a study on the transit needs of Harris County and developed The Harris County Comprehensive Transit Strategy. This strategy encompassed the expansion of various County transportation programs including a previously existing Medical Services delivery program operated by the Harris

County Social Services Department and the Harris County RIDES program. The strategy also recommended additional services such as Park and Ride and local fixed route services for approximately 1/3 of the County not served by METRO. The result of this strategy was the creation of the Office of Transit Services within the Harris County Community Services Department (CSD).

In early 2007 the Harris County Social Services Department was merged into the Community Services Department. As a result of this merger, CSD acquired the Harris County Transportation Division which had a 50 year history of providing transportation services through out the county for elderly, disabled and low income residents. In late 2008, the Harris County RIDES program was transferred from the Harris County Judge's Office to CSD. The RIDES program provides a taxi voucher program and coordinates the transportation needs of over 19 local social service and human service agencies. OTS operates two Park and Ride Services in Baytown and Pasadena Texas. Both of these services utilize Houston METRO as the service contractor under contract with Harris County. Houston METRO is unable to operate in these communities as they fall outside of their service area but OTS has determined that the utilization of Houston METRO as the service provider assists in the overall goal of coordination of services.

Harris County and the surrounding counties in the region have a high level of interagency cooperation and utilize intergovernmental cooperation in their planning process. The Office of Transit Services (OTS) is an active participant in this cooperative effort to plan a transportation system that meets everyone's needs. OTS participates on the region's Transportation Policy Council, the Technical Advisory Committee, and the many interagency subcommittees of the Houston-Galveston Area Council (H-GAC). OTS also works closely with Houston METRO and Fort Bend Transit to implement federally required planning procedures. OTS will continue to work closely with H-GAC and other area transportation providers to develop and implement policies and programs.

**Data Development and Maintenance Activities** - OTS routinely collects and monitors a wide range of performance data to ensure that the OTS programs are achieving desired goals. Route level data is collected and monitored to provide input for route modifications to better serve the public and operate more efficiently. OTS anticipates that data collection efforts will continue during FY 2010-2011, and we will continue to collect operational data on a monthly basis. The work program will include ongoing monitoring of data and model performance and coordination with H-GAC staff.

**Short-Range Planning Activities** - OTS planning staff is responsible for updating the Transit Services Program. All existing and proposed routes are evaluated in terms of cost and projected ridership. Routes are periodically updated to identify potential improvements. Planning staff will also conduct research on underperforming routes to determine if changes would improve ridership.

OTS will continue to monitor all existing services to determine their efficiency and to identify possible improvements. Service studies and other planning activities will be done on potential and existing routes and park and ride services. OTS will also conduct the following short-range planning activities within the FY 2010-2011 years:

**Park and Ride Services & Lots** – CSD operates two park and ride lots; one in Baytown, Texas, and a lot which will open April 6, 2009, in Pasadena, Texas. Both of these projects are operated from shopping mall parking lots under five year use agreements. There is no charge for the use of the lots. CSD will review the present locations and conduct feasibility studies to determine the long term viability of continuing the operation from the present locations or moving the operations to adjacent or nearby property.

The Harris County Comprehensive Transit Strategy envisioned additional Park and Ride operations in the vicinity of State Highway 225 and Beltway 8 and an additional lot in the vicinity of State Highway 225 and State Highway 146 in La Porte, Texas. CSD will conduct site and engineering studies in support of these proposed activities.

**Fixed Route Services** – CSD operates fixed route service in the City of Baytown, Texas in eastern Harris County. Additional service extensions are anticipated in the near term. CSD will continue to plan and evaluate service extensions and enhancements in the Baytown area including service extensions into the unincorporated areas of the County outside of the METRO service area such as The Highlands, McNair and Crosby, Texas. Planning for additional services is on going for the following additional communities: City of La Porte, City of Pasadena, Seabrook, City of Nassau Bay and the City Webster, Texas.

**Harris County RIDES and Medical Delivery Services** – CSD will continue to operate the Harris County RIDES program and its Medical Delivery Services programs. These programs are vital to the community as they serve the needs of elderly, handicapped and low income residents of the County not served or underserved by Houston METRO. Harris County RIDES Non-emergency Transportation – CSD will continue to operate the Harris County RIDES non-emergency transportation program. This program is vital to the community because RIDES coordinates many local transportation resources to provide basic mobility for people with disabilities, seniors and low-income residents of the County not served or underserved by Houston METRO. RIDES fills in the gaps to provide non-emergency transportation service by providing curb-to-curb demand response service. RIDES is a subsidized voucher program that allows eligible customers and participating agencies to purchase transportation tickets at a discount. Customers are able to select shared ride providers or taxi cabs to meet their transportation needs.

In addition, RIDES offers mobility management through its' RIDES + program by providing one-stop shopping for transportation information and assistance to older adults, and persons with disabilities in Harris County and beyond. RIDES + provides Ambassadors on the shared ride service as the human-to-human link for assisting this targeted population with overcoming travel challenges, and as a result, enable older adults and people with disabilities the ability to remain living independently in the community. RIDES + extends the Harris County RIDES core transportation coordination program by addressing the greater issue of “mobility” or “lack of mobility” experienced by older adults and persons with disabilities. Community mobility is vital to quality of life. Evaluation of services and outreach programs are necessary to evaluate success and require ongoing planning services. Customer surveys are an important part of this process and surveys are conducted annually.

**State & Locally Funded Planning Activities** - OTS participated in the development of The Gulf Coast Region Public Transportation Coordination Plan and participated in development

of the 2008-2011 Transportation Improvement Program (TIP). OTS intends to expend local funds in support of all planning activities including Livable Communities Initiatives and Transit Oriented Development projects.

**Long-Range Planning Activities** - Harris County and OTS are participants in the development of the region's Regional Transportation Plan (RTP). As such, OTS will continue to coordinate its transit activities with other transit providers where feasible including its planning activities. The Harris County Comprehensive Transit Strategy identifies the overall system program for Harris County OTS through 2015 and identifies corridors and communities for potential development of services. OST will continue to explore other service opportunities in those areas not served or underserved by Houston METRO.

### **Special Studies & Activities**

**Feasibility Studies** – OTS may undertake or participate in feasibility studies for additional services including fixed route, flex route and additional Park and Ride services. These studies may lead to further planning activities and the development of Interlocal agreements for the provision of services.

**Geographic Information Systems (GIS)** - OTS is presently utilizing Automated Vehicle Location (AVL) systems on its fixed route service corridors. The use of these systems has enabled OTS to determine which transit stops have the highest usage and thereby determine the need for transit shelters. In the case of the Baytown Fixed Route Service, Lee College is a participant with the service and service provides free service for all Lee College Students. Through the use of GIS technology and the sharing of student addresses, OTS is in an excellent position to determine future transit corridors to serve the needs of the community. In addition, onboard surveys taken of transit users in Baytown now request the address of the rider in order to locate their proximity to the transit line enabling OTS gauge rider behavior.

**Grant Planning, General Transit Planning and Planning Administration** – This task supports OTS planning activities related to grant development and management, financial management and transit operations.

**Marketing Activities** - OTS marketing activities includes developing and distribution of materials, such as schedules and maps, brochures, and destination guides. These materials are also available on the OTS's Web site. All comprehensive communication is conducted in English and Spanish.

**Intelligent Transportation Systems** - METRO is an active partner in a multi-agency agreement designed to address the specific areas of Intelligent Transportation Systems (ITS). This program specifically calls for more effective use of new technology to improve mobility and safety, while meeting the goals and requirements of the Clean Air Act, as well as other social and environmental concerns. METRO will continue in FY2008-09 to participate in this interagency effort to plan and implement ITS strategies and projects.

**Customer Surveys** – Customer surveys are conducted at least semiannually. The surveys are designed to determine the satisfaction OTS riders with the various services provided. Data is collected via self-administered surveys or through the interview process by an OTS

representative. In addition to measuring satisfaction, results from this survey are used to pinpoint areas for improvement.

**Bicycle Racks** – Bike racks have been installed on all buses providing fixed route service. As transit shelters are established, shelter bike racks will be provided on the basis of customer surveys.

### ***HARRIS COUNTY VARIOUS DEPARTMENTS & DIVISIONS***

**Harris County Homeland Security & Emergency Management** - The Harris County Office of Homeland Security and Emergency Management (OEM) will help prepare, safeguard, and protect the citizens and property of Harris County from the effects of natural or manmade disasters, catastrophes, or threat thereof through effective planning, preparation, response, and recovery activities. To accomplish this mission, the Harris County OEM will:

- Coordinate and maintain the development of a comprehensive emergency management plan.
- Activate and staff an Emergency Operations Center (EOC) to coordinate and support efforts to respond to, and recover from, emergencies and disasters.
- Provide and coordinate the development and delivery of effective public outreach programs.
- Collect, provide, and disseminate information for elected officials, the media, our citizens, partners, and other stakeholders.
- Train, educate, and prepare for emergencies through the development and delivery of effective classes, drills, and exercises.

**Hazardous Materials Transport Team** - The main responsibilities of The Harris County Hazardous Materials Response Team (HAZMAT) include response, identification, and control of hazardous materials; supporting local fire & law enforcement in hazardous materials spills & releases; and Training local first responders.

HAZMAT offers specialized training courses for first responders, law enforcement, hospital facilities and industrial HAZMAT teams. The training courses comply with OSHA, NFPA, and JCAHO standards for response to hazardous materials emergencies. Services include consultation on hazards, mitigation, and scene safety; general HAZMAT sector oversight during large scale, complex, or prolonged incidents; and management of transportation emergencies.

**Harris County Geographic Information Systems Task Force** - The Harris County Geographic Information Systems Task Force was formed in 1998 to provide a central point for establishing standards and procedures to satisfy the requirements of county agencies as they pertain to address, geographic and demographic related applications.

The task force is a group of people representing Harris County and other regional agencies who have interests in creating and maintaining maps, databases and overlays of information related to geography, addressing, criminal analysis, what GIS can do is limited to the imagination and resources of the user.

## **COUNTY OF LIBERTY**

No locally-funded planning activity submitted.

**COUNTY OF MONTGOMERY**

No locally-funded planning activity submitted.

**COUNTY OF WALLER**

No locally-funded planning activity submitted.

**PORT OF HOUSTON AUTHORITY**

No locally-funded planning activity submitted.

**TEXAS DEPT. OF TRANSPORTATION – HOUSTON DIST.**

- TxDOT will work with H-GAC for transportation and traffic data collection services for Congestion Mitigation Analysis (CMA) "High Priority Corridors" projects to support the Congestion Mitigation Process (CMP).
- TxDOT traffic operations will oversee traffic operation support for data collection during the completion of the workplace, commercial vehicle and external station surveys as needed.
- TxDOT will provide planning input, comment and review on contracts, billings, committees, and other planning activities as requested.

**TEXAS DEPT. OF TRANSPORTATION – BEAUMONT DIST.**

- TxDOT will work with H-GAC for transportation and traffic data collection services for Congestion Mitigation Analysis (CMA) "High Priority Corridors" projects to support the Congestion Mitigation Process (CMP).
- TxDOT traffic operations will oversee traffic operation support for data collection during the completion of the workplace, commercial vehicle and external station surveys as needed.
- TxDOT will provide planning input, comment and review on contracts, billings, committees, and other planning activities as requested.



# **Appendix A**

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**Transportation Policy Council**

**and**

**Technical Advisory Committee**

**Memberships**

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## **Introduction**

H-GAC has been designated by the Governor of Texas as the Metropolitan Planning Organization for transportation planning in the Houston-Galveston metropolitan area. The metropolitan area includes Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties. Under the provisions of the Intermodal Transportation Efficiency Act (ISTEA), this eight-county area has also been designated as a Transportation Management Area (TMA).

### **Transportation Policy Council (TPC)**

With the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 by Congress, the roles and responsibilities of Metropolitan Planning Organizations (MPOs) changed significantly. MPOs, in cooperation with their State governments, were now responsible for developing transportation plans and programs for urbanized areas. Under the provisions of ISTEA, each MPO develops and implements transportation plans and programs with the advice and consent of a transportation planning committee.

The H-GAC MPO's Transportation Policy Council (TPC) was formed in 1992 to reflect the enhanced role of the transportation planning committees in selecting and programming transportation projects mandated by ISTEA. The TPC provides several important functions. First, it serves as the MPO's policy board. Second, it is responsible for approving all region-wide federally-funded transportation plans and programs, developed in a manner constant with federal and state regulations. Finally, it provides policy guidance on transportation issues to the H-GAC Board of Directors. H-GAC provides staff support to the TPC, and its various subcommittees described below.

Membership on the TPC consists of chief elected officials and/or their designated alternates from the five major cities and each of the eight counties within the TMA. The Texas Department of Transportation (TxDOT) and the Metropolitan Transit Authority of Harris County (METRO) each have a representative on the TPC. Counties and cities without voting members are represented by members appointed by the H-GAC Board of Directors. Three additional membership positions were added to the TPC in January 1999. Two positions were for smaller cities in Brazoria County and Harris County, and one for other transportation interests. The TxDOT- Beaumont District was added in 2005.

### **Technical Advisory Committee (TAC)**

Due to the increasing administrative and technical complexities of transportation projects and policy considerations within the TMA, the TPC create the Technical Advisory Committee (TAC) in 1992 to assist with technical advice and analysis of MPO transportation plans and projects. The TAC is a permanent standing committee of the TPC. Membership in the TAC is comprised of officials, professionals, and as appropriate, citizens who have technical expertise in developing and implementing transportation plans and projects. Membership is representative of various transportation modes and interests to ensure that a broad spectrum of perspectives is considered during the review and analysis of transportation plans and proposals.

In order to efficiently perform its advisory duties, the TAC has created the following subcommittees:

**Pedestrian & Bicycle Subcommittee** - The Pedestrian and Bicycle Subcommittee is responsible for providing guidance and recommendations to MPO staff in updating and implementation of the Regional Bikeway Plan.

**Transportation Improvement Plan (TIP) Subcommittee** - The TIP Subcommittee is responsible for providing guidance to MPO staff in the development of the TIP. This subcommittee recommends guidelines for the ranking of proposed TIP projects, as well as provides guidance for major TIP amendments and funding decisions.

**Operations Task Force** - The Operations Task Force is responsible for the development of a comprehensive conceptual plan for regional traffic operations projects.

**Regional Transportation Plan (RTP) Subcommittee** - The RTP Subcommittee assists MPO staff in the development of the Regional Transportation Plan. The subcommittee examines and makes recommendations regarding proposed RTP projects and activities and ensures that these proposals are consistent with the TIP and other regional plans.

**Transportation Demand Management (TDM) Implementation Subcommittee** - The TDM Subcommittee assists MPO staff in expanding existing TDM programs and projects and developing new programs for TIP consideration and inclusion as well as implementation of those projects or programs that are consistent with and meet or exceed the Air Quality and Commute Solutions Cost-Benefit Analysis.

**Regional Transit Coordination (RTC) Subcommittee** - The RTC Subcommittee provides guidance regarding the implementation of regional transit coordination pilot projects. The subcommittee also assists with development of initiatives that expand and improving the efficiency and effectiveness of the current regional transit system.

**Transportation Control Measures (TCM)/Voluntary Mobile Emissions Reduction Program (VMEP) Development Working Group** - The TCM/VMEP Development Working Group assists MPO staff with the development of on-road transportation emission reduction measures.

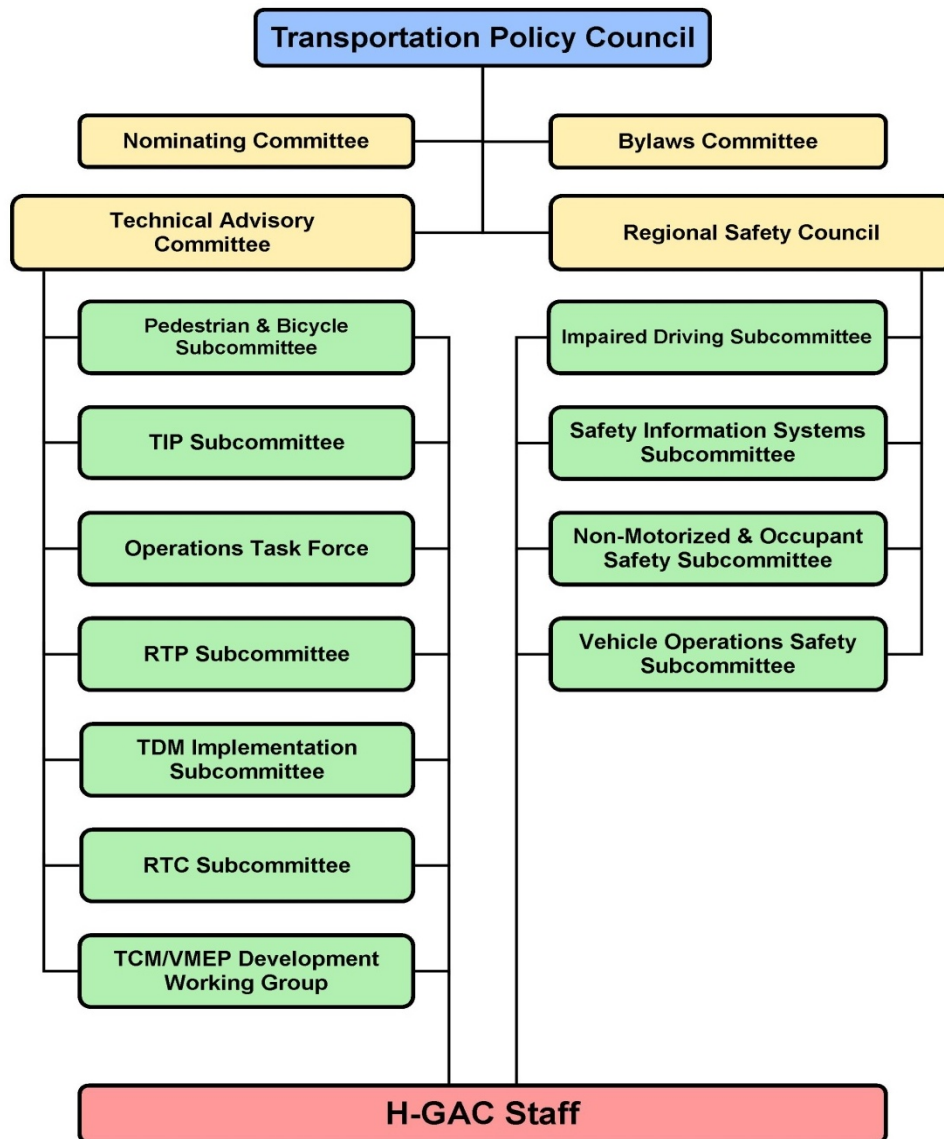
### **Regional Safety Council (RSC)**

In August 2005, the TPC established the RSC to address the region's increasing traffic safety issues. The RSC's mission is to advise and make recommendations to the TPC regarding traffic safety policy. In addition, the RSC is responsible for encouraging safety education, effective law enforcement, safety engineering, emergency service activities, and infrastructure investments to help reduce the number and severity of traffic crashes, injuries and fatalities in the region. The RSC consists of 24 members from a broad spectrum of safety-related professions. Membership includes officials and professionals from local and State governments, transportation, law enforcement, health care, insurance, trucking, railroads and non-profit

organizations involved in safety. The RSC is divided into the following subcommittees, each focused on a specific aspect of traffic safety:

- Impaired Driving Subcommittee
- Non-Motorized & Occupant Safety Subcommittee
- Vehicle Operation Safety Subcommittee
- Safety Information Systems Subcommittee

**Figure A-1  
Metropolitan Planning Organization Committee Structure**



## TRANSPORTATION POLICY COUNCIL – 2010

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### Chairman

James Patterson  
County Commissioner, Precinct 4  
Fort Bend County  
*Representing: Fort Bend County*

Alternate: Paulette Shelton  
Director, Public Transportation Dept.  
Fort Bend County

### 1<sup>st</sup> Vice Chair

Ed Emmett  
County Judge  
Harris County  
*Representing: Harris County*

Alternate: Richard Zientek  
Director of Transportation Issues  
Harris County

### 2<sup>nd</sup> Vice Chair

Norman Brown  
Commissioner, Precinct 4  
Liberty County  
*Representing: Liberty County*

Alternate: Phil Fitzgerald  
County Judge  
Liberty County

### Secretary

Tom Reid  
Mayor  
City of Pearland  
*Representing: Smaller Cities, Brazoria  
County*

Alternate: Modesto Mundo  
Assistant City Manager  
City of Lake Jackson

L.M. “Matt” Sebesta Jr.  
Commissioner, Precinct 2  
Brazoria County  
*Representing: Brazoria County*

Alternate: Donald “Dude” Payne  
Commissioner, Precinct 1  
Brazoria County

Don Brandon, P.E.  
County Engineer  
Chambers County  
*Representing: Chambers County*

Alternate: Gary Nelson  
Commissioner, Precinct 3  
Chambers County

Michael B. Hughes  
Citizen of Galveston/Attorney  
*Representing: City of Galveston*

Alternate: Dianna Puccetti  
Citizen of Galveston

Kenneth Clark Commissioner, Precinct 4 Galveston County <i>Representing: Galveston County</i>	Alternate:	G. Michael Fitzgerald, P.E. County Engineer Galveston County
Arthur L. Storey, Jr. P.E. Executive Director Harris County Public Infrastructure Dept. <i>Representing: Harris County</i>	Alternate:	Jackie Freeman, P.E. Deputy Executive Director Public Infrastructure Dept. Harris County
Stephen C. Costello Council Member, At-Large 1 City of Houston <i>Representing: City of Houston</i>	Alternate:	Wanda Adams Council Member, District D City of Houston
Sue Lovell Council Member, At-Large 2 City of Houston <i>Representing: City of Houston</i>	Alternate:	Brenda Stardig Council Member, District A City of Houston
<i>Vacant</i>	Alternate:	Jeffrey Weatherford, P.E. Interim Deputy Director, Traffic & Transportation City of Houston
George Greanias Acting President and CEO Metropolitan Transit Authority <i>Representing: METRO</i>	Alternate:	John Sedlak Executive Vice President Metropolitan Transit Authority
Scott Elmer, P.E. Public Works Director City of Missouri City <i>Representing: City of Missouri City</i>	Alternate:	Valerie Ruda Engineering Project Manager City of Missouri City
Craig Doyal Commissioner, Precinct 2 Montgomery County <i>Representing: Montgomery County</i>	Alternate:	Mark J. Mooney, P.E. County Engineer Montgomery County

<p>Darrell Morrison                  Councilman, District H                  City of Pasadena  <i>Representing: City of Pasadena</i></p>	<p>Alternate:</p>	<p>Sarah Benavides, PE, CFM                  Planning Director                  City of Pasadena</p>
<p>Jacqueline Baly Chaumette                  Council Member                  City of Sugar Land  <i>Representing: City of Sugar Land</i></p>	<p>Alternate:</p>	<p>Donald L. Smithers                  Council Member                  City of Sugar Land</p>
<p>Doug Kneupper                  City Engineer                  City of Texas City  <i>Representing: City of Texas City</i></p>	<p>Alternate:</p>	<p><i>Vacant</i></p>
<p>Randall C. Redmond, P.E.                  District Engineer                  TxDOT Beaumont District  <i>Representing: TxDOT Beaumont District</i></p>	<p>Alternate:</p>	<p>Phillip Lujan, P.E.                  Director of Transportation                  Planning and Development                  TxDOT Beaumont District</p>
<p>Delvin L. Dennis, P.E.                  District Engineer                  TxDOT – Houston District  <i>Representing: TxDOT Houston District</i></p>	<p>Alternate:</p>	<p>Michael W. Alford, P.E.                  Deputy District Engineer                  TxDOT – Houston District</p>
<p>Orval Rhoads, P.E.                  County Engineer                  Waller County  <i>Representing: Waller County</i></p>	<p>Alternate:</p>	<p>Yancy Scott                  Assistant County Engineer                  Waller County</p>
<p>Steve Howard                  Chief Operating Officer                  Houston-Galveston Area Council  <i>Representing: H-GAC At Large</i></p>	<p>Alternate:</p>	<p>Jack Steele                  Executive Director                  Houston-Galveston Area Council</p>
<p>Alec Dreyer                  Executive Director                  Port of Houston Authority  <i>Representing: Other Transportation Interest</i></p>	<p>Alternate:</p>	<p>A.J. “Pete” Reixach, Jr.                  Executive Director                  Port of Freeport</p>
<p>Larry Calhoun                  Downtown Director                  City of Conroe  <i>Representing: Smaller Cities, Montgomery</i></p>	<p>Alternate:</p>	<p>J. Ross Martin                  Council Member                  City of Conroe</p>



*County*

Robert A. Fry Jr. Mayor Pro Tem West University Place <i>Representing: Smaller Cities, Harris County</i>	Alternate: Vacant
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Mark Ellis Chairman Gulf Coast Freight Rail District <i>Representing: Gulf Coast Freight Rail District</i>	Alternate: Maureen Crocker Interim Executive Director Gulf Coast Freight Rail District
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## TPC EX-OFFICIO MEMBERS – 2010

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Joseph J. Adams  
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 Union Pacific Railroad  
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## TECHNICAL ADVISORY COMMITTEE – 2010

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Chairman

Marlene Gafrick City of Houston Department of Planning and Development <i>Representing: Environmental/Planning</i>	Alternate: Mike Kramer City of Houston Department of Planning & Development
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1<sup>st</sup> Vice Chair

Scott Elmer, P.E. Public Works Director City of Missouri City <i>Representing: City of Missouri City</i>	Alternate: Valerie Ruda Engineering Project Manager City of Missouri City
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2<sup>nd</sup> Vice Chair

Yancy Scott, P.E. Assistant County Engineer Waller County	Alternate: Orval Rhoads, P.E. County Engineer Waller County
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*Representing: Waller County*

Kelly Carpenter, AICP  
Planning Director  
City of Baytown

*Representing: City of Baytown*

Alternate: Dick Carter  
Director of Engineering  
City of Baytown

Gerald Roberts, P.E.  
County Engineer  
Brazoria County

*Representing: Brazoria County*

Alternate: Vacant

Don Brandon, P.E.  
County Engineer  
Chambers County

*Representing: Chambers County*

Alternate: David Abernathy  
Commissioner, Precinct 2  
Chambers County

David Douglas  
Dayton City Manager  
Liberty County

*Representing: Liberty County*

Alternate: James B. Sterling III  
Sterling Realty

D. Jesse Hegemier, P.E.  
County Engineer  
Fort Bend County

*Representing: Fort Bend County*

Alternate: Ron Drachenberg, P.E.  
Assistant County Engineer  
Fort Bend County

Michael Worthy  
Island Transit Director  
City of Galveston

*Representing: City of Galveston*

Alternate: Rick Beverlin  
Vice President, Governmental Affairs  
The Goodman Corporation

G. Michael Fitzgerald, P.E.  
County Engineer  
Galveston County

*Representing: Galveston County*

Alternate: Rod Shaut  
Engineering Technician  
Galveston County

Andrew Mao, P.E.  
Manager, Traffic & Transportation  
Harris County Public Infrastructure Dept.

*Representing: Harris County*

Alternate: Charles Dean, P.E.  
Planning Manager  
Harris County Public Infrastructure Dept.

Jeffrey Weatherford, P.E. Interim Deputy Director, Traffic & Transportation City of Houston <i>Representing: City of Houston</i>	Alternate:	Carol Ellinger, P.E. Sr. Assistant Director City of Houston
Kimberly Slaughter Associate Vice President of Planning Metropolitan Transit Authority <i>Representing: METRO</i>	Alternate:	Larry Badon Manager, Long Range Systems Planning Metropolitan Transit Authority
Jeff Johnson Transportation Engineer Montgomery County <i>Representing: Montgomery County</i>	Alternate:	J. Ross McCall, P.E. County Engineer II Montgomery County
Sarah Benavides, P.E. Planning Director City of Pasadena <i>Representing: City of Pasadena</i>	Alternate:	<i>Vacant</i>
Don Carroll City Planner City of Texas City <i>Representing: City of Texas City</i>	Alternate:	<i>Vacant</i>
Patrick Walsh, P.E. Transportation Director City of Sugar Land <i>Representing: City of Sugar Land</i>	Alternate:	Dale Rudick, P.E. Director, Intergovernmental Relations City of Sugar Land
James Koch, P.E. Director, Transportation Planning & Dev. Texas Department of Transportation <i>Representing: TxDOT-Houston District</i>	Alternate:	Rakesh Tripathi, P.E. Director, Advanced Transportation Planning Texas Department of Transportation
Phillip Lujan, P.E. Director of Transportation Planning and Development TxDOT - Beaumont District <i>Representing: TxDOT Beaumont District</i>	Alternate:	Steven Stafford, P.E. Advanced Planning Director TxDOT - Beaumont District

## TAC “AT-LARGE” POSITIONS – 2010

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Perri D’Armond  
 Vice President, Infrastructure/Special  
 Projects  
 Fort Bend Economic Development Council  
*Representing: Citizen & Business Interests*

Alternate: Bob Eury  
 President  
 Central Houston

Clark Martinson  
 General Manger  
 Energy Corridor District  
*Representing: Citizen & Business Interest*

Alternate: David Crossley  
 President  
 Houston Tomorrow

Catarina Gonzales Cron  
 Director of Environmental Issues  
 Harris County  
*Representing: Environmental and Planning*

Alternate: Billy Cooke, P.E.  
 Executive Vice President  
 Klotz Associates, Inc.

John O’Malley  
 Legacy Landscape Management  
*Representing: Environmental & Planning*

Alternate: Patricia Knudson Joiner, AICP  
 Chief Executive Officer  
 Knudson & Associates

Jeff Taebel, FAICP  
 Director, Community & Environmental  
 Planning  
 Houston-Galveston Area Council  
*Representing: Environmental/Planning*

Alternate: Steve Howard  
 Chief Operating Officer  
 Houston-Galveston Area Council

Maureen Crocker  
 Special Assistant to the Mayor  
 City of Houston  
*Representing: Intermodal Interests*

Alternate: Carol Lewis  
 Director, Center for Trans. Policy  
 Texas Southern University

Mark Loethen  
 Assistant Director  
 Public Works & Engineering Department  
 City of Houston  
*Representing: Environmental and Planning*

Alternate: Jack Whaley, P.E.  
 Director  
 Houston TranStar

James Jackson, P.E.  
 Director of Facilities  
 Port of Houston Authority  
*Representing: Intermodal Interests*

Alternate: Brenda Trevino, P.E.  
 Port of Houston Authority

John Tyler  
Assistant Director for Engineering Future  
Infrastructure  
Harris County Toll Road Authority  
*Representing: Intermodal Interests*

Alternate: David Gornet  
Executive Director  
Grand Parkway Association

Mike Wilson  
Director, Trade Development  
Port of Freeport  
*Representing: Intermodal Interests*

Alternate: Diane Falcioni  
Manager, Governmental Relations  
Port of Galveston Authority

Bill Zrioka  
Project Manager  
Houston Airport System  
*Representing: Intermodal Interests*

Alternate: Monica Newhouse  
Houston Airport System

Paulette Shelton  
Director  
Public Transportation Dept.  
Fort Bend County  
*Representing: Rural Transit*

Alternate: Vastene Olier  
Executive Director  
Colorado Valley Transit District

Luis Nunez  
City Planner  
City of Conroe  
*Representing: Smaller Cities*

Alternate: Robert Heineman  
Vice President of Planning  
The Woodlands Development Company

Mike Hodge, P.E.  
Assistant City Manager  
City of Pearland  
*Representing: Smaller Cities*

Alternate: Pat McLaughlan, P.E.  
City of Bellaire

Ken Fickes  
Transit Service Director  
Harris County  
*Representing: Urban Transit*

Alternate: John Saavedra  
Superintendent, Road & Bridge  
Harris County

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## TAC EX-OFICIO POSITIONS – 2010

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Margie McAllister  
Office of Environmental Policy, Analysis & Assessment  
Texas Commission Environmental Quality  
*Representing: TCEQ*

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# **Appendix B**

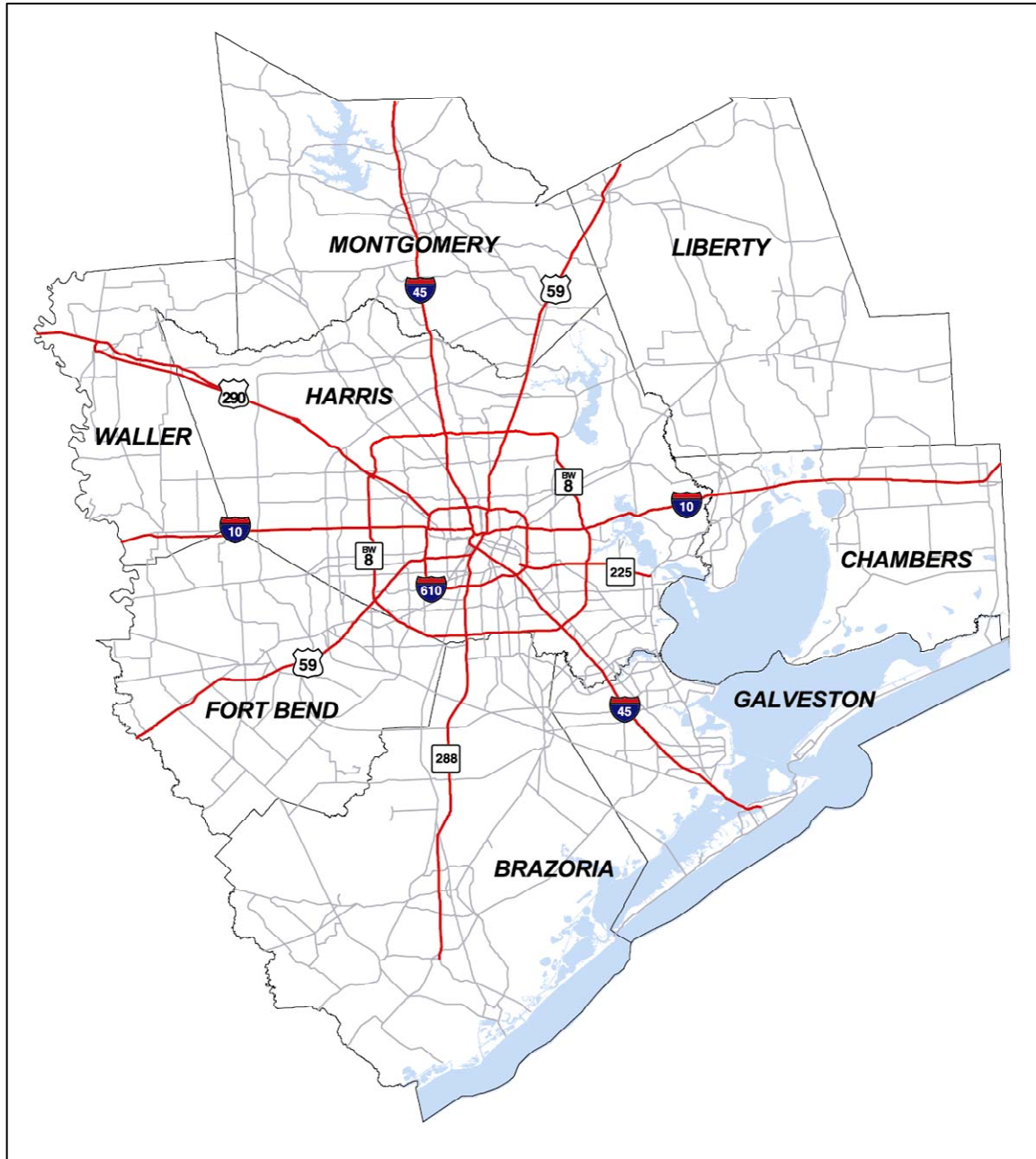
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**Maps of the  
Houston-Galveston  
Transportation Management Area (TMA)  
And  
Urbanized Areas (UZA)**

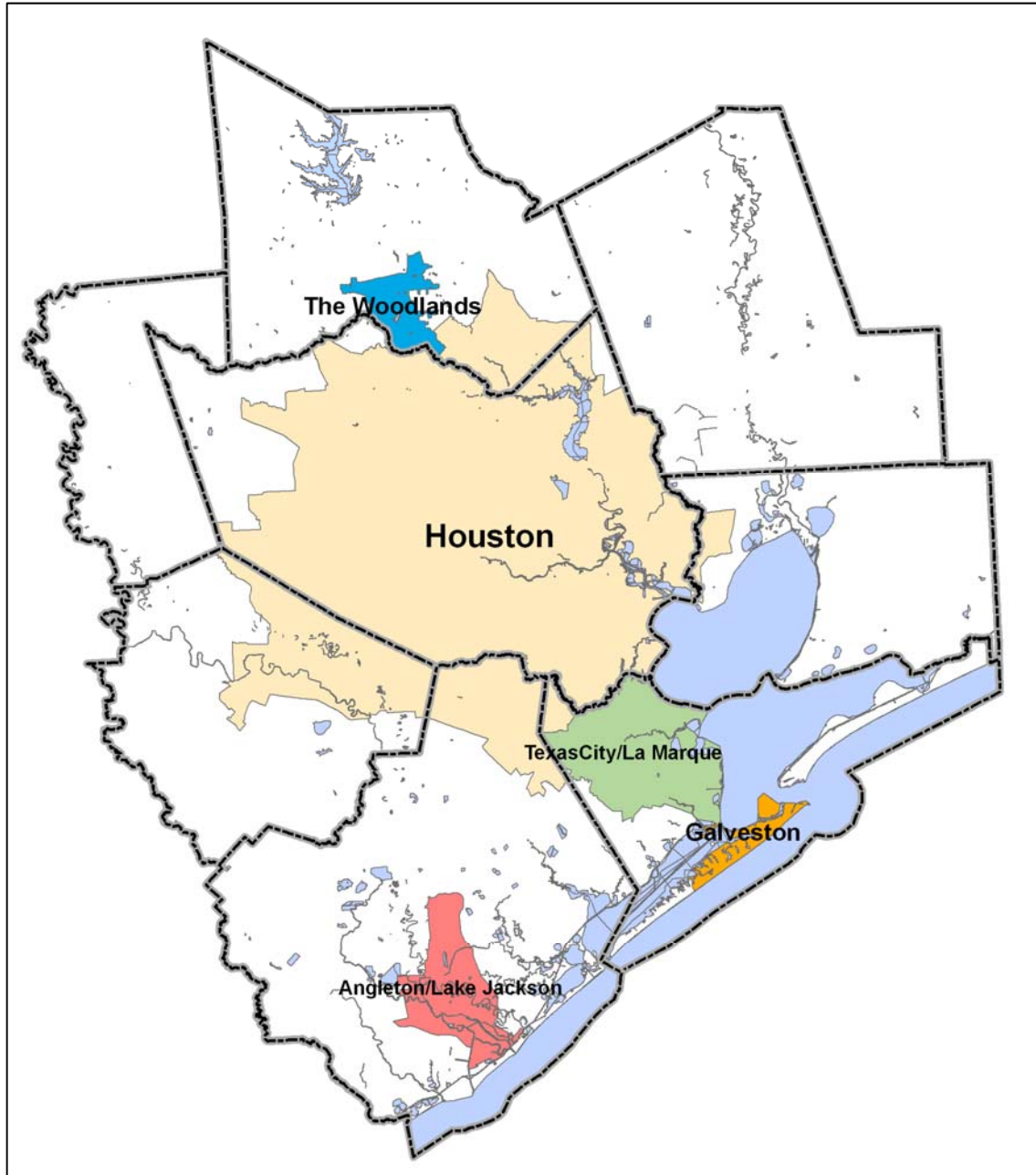
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### Eight-County Houston-Galveston Transportation Management Area



### Transportation Management Area Urbanized Area Boundaries



# **Appendix C**

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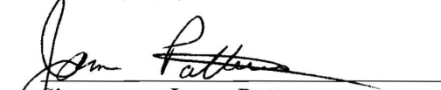
## **Debarment Certification**


**DEBARMENT CERTIFICATION**

**(Negotiated contracts)**

- (1) The Houston-Galveston Area Council as **CONTRACTOR** certifies to the best of its knowledge and belief, that it and its principals:
  - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal debarment or agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public\* transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) Are not presently indicted or otherwise criminally or civilly charged by a governmental entity\* with commission of any of these offenses enumerated in paragraph (1)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions\* terminated for cause or default.
- (2) Where the **CONTRACTOR** is unable to certify to any of the statements in this certification, such **CONTRACTOR** shall attach an explanation to this certification.

\*federal, state, or local

  
 Signature – James Patterson  
 Chairman, Transportation Policy Council  
 Title

  
 Signature – Jack Steele  
 Executive Director  
 Title

Houston-Galveston Area Council  
 MPO

Houston-Galveston Area Council  
 Fiscal Agent

05/29/09  
 Date

# **Appendix D**

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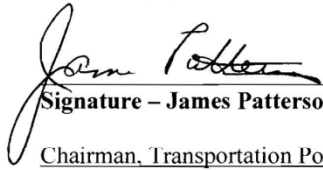
## **Lobbying Certification**


**LOBBYING CERTIFICATION**  
**for**  
**Contracts, Grants, Loans, and Cooperative Agreements**

The undersigned certifies to the best of his or her knowledge and belief, that:

- (1) No federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

  
 \_\_\_\_\_  
**Signature – James Patterson**

  
 \_\_\_\_\_  
**Signature – Jack Steele**

Chairman, Transportation Policy Council  
**Title**

Executive Director  
**Title**

Houston-Galveston Area Council  
**MPO**

Houston-Galveston Area Council  
**Fiscal Agent**

05/29/09  
**Date**

# **Appendix E**

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## **Certification of Procurement Compliance**

**Certification of Procurement Compliance**

I, James Patterson, Chairman, a duly authorized representative of the Houston-Galveston Area Council (H-GAC), do hereby certify that the contract and procurement procedures that are in effect and used by the forenamed MPO are in compliance with 49 CFR 18, "Uniform Administrative Requirements for Grants and Cooperative Agreements with State and Local Governments," as it may be revised or superseded.

  
Signature – James Patterson

Chairman, Transportation Policy Council  
Title

Houston-Galveston Area Council  
MPO

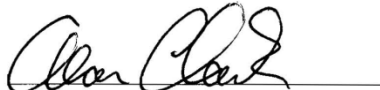
05/29/09  
Date

Concurrence:  
  
Signature – Jack Steele

Executive Director  
Title

Houston-Galveston Area Council  
Fiscal Agent

Attest:

  
Alan C. Clark  
MPO Director



# **Appendix F**

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## **Approved Capital Equipment Expenditures For Fiscal Years 2010 & 2011**

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<b>APPENDIX F</b>				
<b>FY2010 EQUIPMENT EXPENDITURES TABLE -- Metropolitan Planning Organization</b>				
<b>Capital Equipment and Significant Expendable Equipment Expenditures</b>				
<b>Fiscal/Calendar Years 2010</b>				
<b>UPWP WORK TASKS</b>	<b>Estimated EXPENDITURE</b>	<b>FUNDING SOURCE</b>	<b>LIKELY PURCHASE Quarter</b>	<b>DESCRIPTION &amp; PURPOSE</b>
UPWP 1.1 - The majority of all Transportation Department equipment expenditures are budgeted in this task only.	\$20,000	FHWA	2nd & 4th	Hardware upgrades to H-GAC servers for enabling Dynamic Storage and file handling.
	\$25,000	FHWA	5 qtrs	Repair, replacement or upgrades for 17 of 68 PCs & support components.
	\$6,000	FHWA	1st qtr	Repair, replacement or upgrades for 2 laptop PCs and support components.
	\$35,000	FHWA	2nd qtr	Conference Room Presentation enhancement
	\$6,000	FHWA	5 qtrs	Printer and plotter replacement/up grades.
	\$8,000	FHWA	2 <sup>rd</sup> qtr	New servers for webpage support
	\$5,000	FHWA	5 qtrs	Furniture (not typical cubicle furniture) for revised Transportation space.
UPWP 1.2	\$5,000	FHWA	1st Quarter	Photography Equipment for outreach
UPWP 2.1, 4.3, 4.4	\$10,000	FHWA	3rd qtr	PC replacement/upgrades for C&E Department staff performing Transportation activities, [prorated share].
<b>Total Capital Expense</b>	<b>\$120,000</b>	<b>For 5 quarters</b>		
Fed. FY:10-1st qtr.	\$18,200	<<HGAC CY:09-4th qtr.	\$18,200	
Fed. FY:10-2nd qtr.	\$60,200	<<HGAC CY:10-1st qtr.	\$60,200	
Fed. FY:10-3rd qtr.	\$17,200	<<HGAC CY:10-2nd qtr.	\$17,200	
Fed. FY:10-4th qtr.	\$17,200	<<HGAC CY:10-3rd qtr.	\$17,200	
Fed. FY:11-1st qtr.	\$38,600	<<HGAC CY:10-4th qtr.	\$38,600	
<b>Fiscal Year 2010</b>	<b>\$112,800</b>	<b>Calendar Year 2010&gt;&gt;</b>	<b>\$133,200</b>	

FY2011 EQUIPMENT EXPENDITURES TABLE -- Metropolitan Planning Organization				
Capital Equipment and Significant Expendable Equipment Expenditures				
Fiscal/Calendar Year 2011				
UPWP WORK TASKS	Estimated EXPENDITURE	FUNDING SOURCE	LIKELY PURCHASE by Qtr.	DESCRIPTION & PURPOSE
UPWP 1.1 - The majority of all Transportation Department equipment expenditures are budgeted in this task only.	\$20,000	FHWA	5 qtrs	Hardware upgrades to H-GAC servers for enabling Dynamic Storage and file handling.
	\$25,000	FHWA	5 qtrs	Repair, replacement or upgrades for 16 of 64 PCs & support components.
	\$7,000	FHWA	1st qtr	Purchase CD Archive Server
	\$8,000	FHWA	5qtrs	Printer and plotter replacement/upgrades.
	\$10,000	FHWA	5 qtrs	Furniture (not typical cubicle furniture) for revised Transportation space.
UPWP 1.2	\$7,500	FHWA	1st qtr & 3rd qtr	Hardware upgrades /acquisition for Public outreach multimedia presentations
UPWP 1.3, 2.1, 4.3	\$10,000	FHWA	2nd & 4th qtr	PC replacement/upgrades for C&E Department staff performing Transportation activities.
<b>Total Capital Expense</b>	<b>\$87,500</b>	<b>For 5 quarters</b>		
Fed. FY:11-1st qtr.	\$23,350	<<HGAC CY:10-4th qtr.	\$23,350	
Fed. FY:11-2nd qtr.	\$17,600	<<HGAC CY:11-1st qtr.	\$17,600	
Fed. FY:11-3rd qtr.	\$16,350	<<HGAC CY:11-2nd qtr.	\$16,350	
Fed. FY:11-4th qtr.	\$17,600	<<HGAC CY:11-3rd qtr.	\$17,600	
Fed. FY:12-1st qtr.	\$12,600	<<HGAC CY:11-4th qtr.	\$12,600	
<b>Fiscal Year 2011</b>	<b>\$74,900</b>	<b>Calendar Year 2011</b>	<b>\$64,150</b>	

# **Appendix G**

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## **Major Corridor Study Status Table 7**

## MAJOR CORRIDOR STUDIES

TEA-21 directed the U.S. Department of Transportation to eliminate the Major Investment Study (MIS) as a separate requirement and integrate it into the planning and National Environmental Policy Act (NEPA) process. Federal rules and guidelines for carrying out this direction have not been issued. H-GAC, the Texas Department of Transportation (TxDOT), the Grand Parkway Association and the Metropolitan Transit Authority (METRO) continue to utilize these studies, referred to as major corridor studies (MCS) to enhance public participation in proposed transportation improvements of significant local and regional impact. In addition, the MCS insures that a full range of transportation needs and solutions have been examined. As a result, the transportation investments recommended have been designed to work in concert to best meet identified transportation goals.

For the convenience of the reader, Table 7 consists of three sections. The first section is for future major corridor studies. The second section is for active major corridor studies as determined in the Spring of 2009. The final section is a historical list of major corridor studies that were completed previous to this UPWP. They may or may not still be available for review.

**Table 7**  
**Corridor and Feasibility Study Status**  
**FY 2010-11 Unified Planning Work Program**

<b>Future Major Corridor Studies</b>		
<b>NAME</b>	<b>LIMITS</b>	<b>STATUS</b>
Commuter Rail Planning Analyses	Eureka, Palestine, Galveston subdivision corridors	No activity yet
IH 10 East	IH 45 to Chambers County Line	No activity yet
IH 610 E & S	IH 10 to IH 45 & IH 45 S to South Post Oak	No activity yet
SH 6 - South	FM 521 to IH 45S	Begin 2009, end 2010 {H-GAC}
FM 529	US 290 to Greenhouse Road	Begin 2009, end 2010 (H-GAC)
SH 6 – IH 10W	IH 10 W to US 290	Begin 2009, end 2010 {H-GAC}
FM 1960 East	IH 45 N to E. Liberty Co Line	Begin 2009, end 2010 {TxDOT}
Inner Katy Corridor Planning Study	Downtown to Northwest Transit center	Begin 2009, end 2009 {METRO}
US 290 Corridor Study	NW transit center to FM 2920	Begin 2009, end 2010 {METRO}
North Corridor Study	Northline to Greenspoint	Begin 2009, end 2010 {METRO}
SH 288 Corridor Study	Downtown to SH 6	Begin 2009, end 2010 {METRO}
SE to Hobby Airport Corridor Study	Palm Center to Hobby Airport	Begin 2009, end 2009 {METRO}
Sunnyside Corridor Study	Palm Center to Sunnyside Area	Begin 2009, end 2009 {METRO}
Galveston Corridor Study	Galveston to Intermodal transit center	Begin 2009, end 2009 {METRO}
West Park Transit Corridor Study	West park to Grand Parkway	Begin 2009, end 2009 {METRO}
SH 105	Frazier Street to FM 2854	Begin 2009, end 2010 (TxDOT)

<b>Active Major Corridor Studies</b>		
<b>NAME</b>	<b>LIMITS</b>	<b>STATUS</b>
SH 99 Segments A	I-45 South to SH 146	TxDOT started preliminary corridor analysis.
SH99 Segments H, I-1	US 59 North to IH 10 East	MIS complete. EIS in progress. Anticipated ROD in April 2011
SH 3 Commuter Rail Corridor AA	Alternatives Analysis / Environmental Assessment	Began 2009 – complete in 2010 (City of Galveston)
FM 1960 Business	FM 1960 W of Lee to FM 1960 east of Humble	Access Mgmt. restart in 2009 (TxDOT)
EIS for US 90A Suburban Rail	Fannin Park-and-Ride to the Harris County Line	No Activity Yet
<b>Completed Major Corridors</b>		
<b>NAME</b>	<b>LIMITS</b>	<b>STATUS</b>
Downtown to Astrodome Lt. Rail	North of Houston CBD to South of IH 610	Completed
IH 10W Katy Freeway	Houston CBD to Waller/Austin Co. Line	MIS and Draft EIS complete.
US 59 South	SH 6 to Wharton Co. Line	MIS\EA complete.
I-45 South	Beltway 8 to 61 <sup>st</sup> Street	MIS complete.
IH 610 W	IH 10 W to Westpark	MIS and EA complete
I-45 North	Loop 336 N. to FM 1375	Completed
SH 249	FM 149@Pinehurst to FM1774	Completed 2002
Beltway 8 West	US 290 to US 59 S	No Study
NW MKT RR R-O-W Corridor Study	Houston CBD (NW Transit Center) to Tomball	Completed
Southeast-University-Hobby Planning & DEIS Study	East from Downtown to UH/TSU area & South to Hobby Airport	Completed
Uptown/West Loop Corridor Planning & DEIS Study	Along West Loop/Post Oak Blvd. From NW Transit Center to S. Rice @ Westpark	Completed
Westpark Transit Corridor Study	Main Street @ Wheeler / Blodgett to Grand Parkway	Completed
Harrisburg Corridor Planning Study	Downtown along Harrisburg Blvd. to east loop 610	Completed
Varied FreightCorridors	Statewide Freight Rail Study	Completed in 2007
Outer Katy Transit Corridor Plan Study	IH 610 to Katy, TX	Completed
Inner Katy (I-10) Corridor Plan Study	Downtown Houston to the West Loop (IH610 West)	Completed
US 90A “Commuter Rail Feasibility Study”	Houston CBD (METRO Rail light rail line’s Fannin South P&R station along US90A to Rosenberg, TX.	Completed
I-45 North/Hardy Corridor Study	Hou CBD to Woodlands includes US59 from IH45 to Spur527	Completed

Westheimer Access Management Study	Loop 610 to SH 6	Completed
FM 518 Access Management Study	From Loop SH 146 to US 288	Study completed 2004, construction to begin in 2008
FM 1960 Access Management Study	From SH 249 to IAH 45	Study completed 2004, construction to begin 2009
SH 6 - Fort Bend Co.	IH 10 to FM 521	Completed
FM 2920	US 290 to Spring-Cypress Rd.	Completed
SH 288	US 59 (CBD) to SH 36 (Freeport)	MIS complete. EA anticipated approval by FHWA in Sept 2010
SH 35	IH 45 to SH 288 (Angleton)	MIS Complete. EIS completion anticipated Summer 2010
SH 225	IH 610 to SH 146	MIS complete.
US 290	I-610 West to FM 2920 [33.45mi]	MIS completed in 2003. Final EIS in progress. Approval anticipated in September 2009.
US 59	Spur 527 to IH 45 [1.9mi]	Study complete.
SH 99 Segments F1, F2, & G	US 290 to US 59 N	MIS complete. EIS complete. Seg F-1 ROD issued Nov 2008. Seg F-2 ROD anticipated May 2009. Seg G ROD anticipated June 2009.
SH 99 Segment B	SH 288 to I-45 South [26.2mi]	MIS complete. EIS in progress - anticipated DEIS approval July 2009.
SH 146	I-45 South to Fairmont Parkway [25.44mi]	MIS complete.
SH 99 Segment C	US 59 South to SH 288 [26.4mi]	MIS complete. EIS in progress. ROD anticipated by October 2009.
SH 99 (Segment E)	IH 10W to US 290	MIS and EIS complete. ROD issued June 2008



# **Appendix H**

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## **2010-2011 UPWP Adoption Resolution**

and

**AMENDMENT 1 – September 25, 2009**

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# Resolution

NO. 904 – UPWP

ADOPTING THE 2010-2011 UNIFIED PLANNING WORK PROGRAM FOR TRANSPORTATION PLANNING BY THE TRANSPORTATION POLICY COUNCIL FOR THE HOUSTON-GALVESTON TRANSPORTATION MANAGEMENT AREA AND CERTIFYING COMPLIANCE WITH FEDERAL PLANNING REQUIREMENTS.

**WHEREAS**, the U.S. Department of Transportation, prior to the funding of any planning or capital grant project within an urban region, requires the preparation and adoption of a Unified Planning Work Program (UPWP) describing transportation planning activities to be accomplished during FY 2010-2011; and

**WHEREAS**, the 2010-2011 Unified Planning Work Program addresses the needs for planning Administration/Management, Data Development and Maintenance, Short Range Planning, the Metropolitan Transportation Plan, and Special Studies, identifying agency responsibilities by work task and anticipated funding requirements; and

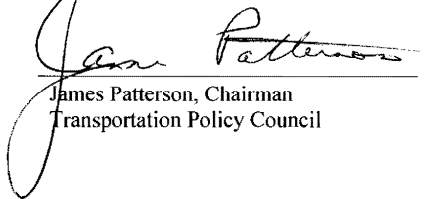
**WHEREAS**, the Transportation Policy Council certifies its compliance with federal planning requirements as outlined in the introduction of the 2010-2011 Unified Planning Work Program and in accordance with 23 CFR Part 450.334 and 450.220 of the SAFETEA: LU as adopted by resolution on May 29, 2009 for FY 2010.

NOW, THEREFORE, BE IT RESOLVED BY THE TRANSPORTATION POLICY COUNCIL FOR THE HOUSTON-GALVESTON TRANSPORTATION MANAGEMENT AREA THAT:

- The 2010-2011 Unified Planning Work Program (UPWP) for Transportation Planning is hereby adopted; and
- Cost overruns of up to 25 percent at the activities task level are allowable, provided that the totals as shown in Table 6 (Budget Summary) of the 2010-2011 UPWP are not exceeded.

PASSED AND APPROVED this 24th day of July 2009, at a regularly called meeting of the Transportation Policy Council for the Houston-Galveston Transportation Management Area.

APPROVED:

  
James Patterson, Chairman  
Transportation Policy Council

ATTEST:

  
Tom Reid, Secretary  
Transportation Policy Council

**2010-2011 UNIFIED PLANNING WORK PROGRAM (UPWP)****Background**

The 2010-2011 Unified Planning Work Program (UPWP) describes the metropolitan transportation planning activities to be conducted during the 2010-2011 Fiscal Years (October 2010 - September 2011) for the Houston-Galveston Transportation Management Area (TMA).

In May, staff presented some of the planning highlights for the new UPWP: a regional transit coordination framework; an update of the regional aviation plan; enhanced sub regional planning and new sustainable development studies; hi-tech data collection; priority off-street bikeways; enhanced forecasting scenarios; new air quality measuring methods including greenhouse gases; and stimulus funds for freight planning and focused passenger rail corridor analyses.

The draft 2010- 2011 Unified Planning Work Program (UPWP) was posted on H-GAC's website for the TAC on May 8, 2009, beginning the 30 plus day comment period, which ended on June 10, 2009. A May 22, 2009 draft of the UPWP was posted on the TPC webpage for the May 29, TPC meeting. A public meeting was held on June 2, 2009 at the offices of the Houston-Galveston Area Council from 5:30pm to 7:15pm. In excess of twenty (20) persons attended the public meeting. Verbal comments and questions at the meeting were addressed and summarized in Appendix I.

**Current Situation**

All comments, questions, and corrections to the May 8<sup>th</sup> & May 22<sup>nd</sup> draft documents have been addressed, answered, and summarized in Appendix I of the 2010-2011 UPWP and posted on the H-GAC website under "what's new", and on the TAC agenda page. The net result of all comments and corrections was a net \$280K reduction in transportation planning funds, a \$5 Million reduction in TxDOT project planning funds, and an increase of \$1.24 Million in FTA 5307 'planning' funds for Harris County. Final, bound, and printed versions of the 2010-2011 UPWP will be available shortly after the TPC adopts the final draft.

**Requested Action**

Staff requests approval of the resolution to adopt the 2010-2011 Unified Planning Work Program.

TPC Agenda Item 6C  
Mailout - 09/18/09



# Resolution

NO. 1001-UPWP

ADOPTING AMENDMENTS TO THE 2010-2011 UNIFIED PLANNING WORK PROGRAM FOR THE HOUSTON-GALVESTON TRANSPORTATION MANAGEMENT AREA.


WHEREAS, the Transportation Policy Council adopted the 2010-2011 Unified Planning Work Program (UPWP) on July 24, 2009; and

WHEREAS, with **Amendment 1: Task 3 Short-Range Planning**, the text and applicable funding tables for Task 3 are amended to include brief planning activity descriptions with the funding totals for 2010 and 2011 as reflected in the current Transportation Improvement Program for each TMA transit agency recipient;

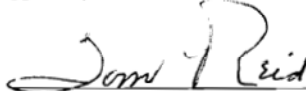
***NOW, THEREFORE, BE IT RESOLVED BY THE TRANSPORTATION POLICY COUNCIL, THAT REVISIONS TO THE UPWP DOCUMENT, AS SHOWN IN THE ATTACHMENT, ARE HEREBY APPROVED AND INCORPORATED INTO THE 2010-2011 UNIFIED PLANNING WORK PROGRAM.***

PASSED AND APPROVED this 25th day of September 2009, at a regularly called meeting of the Transportation Policy Council.

APPROVED:

  
James Patterson, Chairman  
Transportation Policy Council

ATTEST:

  
Tom Reid, Secretary  
Transportation Policy Council

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# **Appendix I**

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## **Public Outreach Efforts for the 2010-11 Unified Planning Work Program**

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## Public Outreach Efforts for the 2010-11 Unified Planning Work Program

The draft 2010-2011 Unified Planning Work Program (UPWP) was made available to the public on May 08, 2009, which began the 30-plus day comment period scheduled to end officially on June 10, 2009. A public meeting was scheduled for June 02, 2009 at the offices of the Houston-Galveston Area Council. The following items document the Public Outreach efforts and public comments received:

### Advertising

**Paid advertising in the Chronicle purchased:** May 18, 2009

**Advertised:** Wednesday May 20, 2009 and Wednesday May 27, 2009

**Sent to Texas Register:** May 14, 2009

**Sent to Neighborhood Media (28) -** May 20, 2009 and Wednesday May 27, 2009

**Published in the Texas Register:** May 29, 2009

**Meeting alert emailed to other interested persons (840), TAC members (68), TPC members (52), RAQPC members (24), a total of 985 persons.**

**H-GAC Publications Distribution List (330 persons)**

### Document Distribution

Ten draft copies of the 2010-2011 UPWP were sent to TxDOT before June 01, 2009 as requested. A copy of the draft 2010-2011 UPWP was placed on the H-GAC webpage on May 8, 2009. Printed copies of the draft UPWP were distributed to all Transportation Policy Council members and audience on May 22, 2009. Copies of the draft 2010-11 UPWP were made available to all Technical Advisory Committee members on May 8, 2009, and to other interested parties who previously requested full meeting material packets.

### Public Meeting [open-house] – June 02, 2009

The public meeting was held on June 02, 2009 in Conference Room A at the offices of the Houston-Galveston Area Council from 5:30 p.m. to 7:00 p.m. There were twenty-two (22) persons present. The agenda of the public meeting included a brief introduction and PowerPoint presentation. One person signed up to make a public comment and was offered the opportunity to speak before or after the presentation, he chose the latter.

Following the presentation, a member of the audience asked what type of comments we were seeking or expecting. We assured everyone that any type of comments were acceptable, and while we hope some of them might be editorial, we welcome everything from program ideas to public outreach issues. Mr. Clark Martinson, with the Energy Corridor District, made a brief oral presentation on the planning activities within their district. A copy of his handout was posted on the webpage with the draft UPWP. The audience was again encouraged to ask questions and they are summarized below:

**Can comments be submitted online, electronically?** *Yes, sending your comment online to [PublicComment@h-gac.com](mailto:PublicComment@h-gac.com) will result in the comment immediately being forwarded*

*to the appropriate staff who will respond to your concerns as quickly as possible.*

**How might a jurisdiction or citizen suggest a corridor for an access management study?** *Inquiries about possible roadway corridor candidates for access management studies are always welcome from any source. H-GAC is considering another 'call for projects' for access management studies sometime during 2010.*

**Is there some kind of cost share required with the use of federal funding?** *Yes, local funding participation is expected for 20% of the cost or better to match any federal funding needed. There are actually many resources to consider for finding the local match. In addition to those government entities that have jurisdiction over the roadway corridor, there are school districts, economic development councils, and/or local chambers of commerce who may be persuaded to provide some local funding. If the candidate corridor has regional significance [not a local street] even TxDOT may participate with state funding. H-GAC staff has significant experience in preparing for access management studies and will be most willing to assist you in any way possible. It is important that you explore these opportunities prior to proposing your candidate project to give it the best chance for selection.*

**Is there funding available for implementation of access management recommendations?** *It would depend on the amount of funding needed and how quickly your jurisdictional entity could propose an amendment to the current TIP and/or long-range plan to seek approval for federal funding. Again, the regional significance of the project and size of the funding request will also have impact on how quickly a project's recommendations might be implemented. Most of the access management studies have been on State system roadways and some of the early studies were implemented unusually fast because TxDOT had arranged for implementation funding early. Implementation of recommendations could occur within 2-10 years of the study's completion, depending on all of the parameters mentioned above.*

**The current funding authorization bill, SAFETEA-LU, is ending and a new reauthorization will perhaps occur sometime during the two-year time-period of this draft UPWP; how will that affect this UPWP?** *The 2010 funding amounts programmed in this draft document are amounts recommended by FHWA and TxDOT – Austin as probable funding levels. This also includes \$1.8 Million in FTA planning funds already acknowledged as FTA funding is approved a year in advance. Because annual budgets and reauthorizations do not always occur when expected, the MPO is cautious about spending only authorized funding. FHWA and TxDOT will quickly inform us of any program changes as a result of the next reauthorization.*

*The new transportation authorization bill is likely to have three new focus areas; Livable Centers development, where transportation and land use development issues are examined closely together to improve quality of life; new technology to measure and reduce greenhouse gas emissions; and greater emphasis on transit, including transit-oriented development. It is clear from the slide presentation that we have not waited for the reauthorization as these issues are important to our region now. This has been made quite apparent to us in a variety of public venues and we have listened.*

**Will the slide presentation be available online?** *The slide presentation from the public meeting is already posted on the H-GAC Transportation Department webpage <http://www.h-gac.com/taq> under the heading 'What's New?' along with the draft UPWP document. The audio from this meeting will be posted there. Printed copies of the draft 2010-2011 Unified Planning Work Program were on the side table at the meeting and can be obtained by calling our offices.*

**How will we know what happened to comments made about the UPWP?** *All comments will be acknowledged and addressed. The actions and/or responses will be summarized in Appendix I of the final draft of the 2010-2011 UPWP.*

**What is the difference between projects in the TIP and projects in the UPWP?** *The TIP is mostly a listing of roadway, transit, and other projects programmed for implementation, either preliminary engineering or construction, using funds not typically used for planning activities. The UPWP programs strictly planning activities and most often with funds designated solely for planning purposes. There are occasionally large planning activities funded with STP funds, for example, that are passed through the TIP. A good example of that would be the access management studies. To make it easier to identify these special planning projects, there are usually associated with a consultant activity [in bold] and have some type of ID number, such as a control section job number (CSJ#), assigned by TxDOT for all candidate projects in their system.*

**Why are STP funding from the TIP shown in the UPWP and not Congestion Mitigation/Air Quality (CMAQ) funding for the commute solutions programs?** *The unified planning work program is a planning document and planning programs cannot be funded with CMAQ funds. Prior to 2003, when the clean air, commute solutions, and clean vehicle programs were in their infancy, they were funded mostly with transportation planning funds and included in Task Five 'special studies'. In 2003, with the development of the first two-year work program [2004-2005], the clean air, commute solutions, and clean vehicle programs were moved to a Task Six to separate them from the 'planning programs' in Task Five special studies. In 2005, FHWA and TxDOT-TP&P concluded that implementation projects should not be included in the UPWP and Task Six was dropped from the format in developing the 2006-2007 UPWP.*

The formal portion of the meeting ended at 6:40pm, but the last attendee did not leave until 7:15pm. An audio tape of the open-house exchange has been posted on the website with the public meeting presentation.

## WRITTEN PUBLIC COMMENTS RECEIVED

Public comments or corrections were received from the following organizations, companies, and/or individuals by yellow comment cards from the public meeting, surface mail, or email:

- H-GAC Staff corrections {see below}
- The City of Baytown sent revisions to their 'Locally-funded Planning Activities'.

- The City of Missouri City submitted their locally-funded planning activities.
- METRO staff submitted a correction to the TAC membership list in Appendix A.
- Harris County provided corrections to their FTA 5307 funding for planning.
- Houston Tomorrow, an institute for Research, Education, and Discussion was the last entity to submit comments. Corrections and comments will be addressed below.
- Staff corrected TPC membership in Appendix A per June TPC action.

Staff made every effort to incorporate all changes or suggestions wherever it seemed appropriate, applicable, and the necessary resources were available. Correction comments and responses are listed below as applicable, in no particular order, and the **source of the correction or question is in parentheses**. Actual comments, emails, and correction requests are on file at the offices of the H-GAC and can be provided upon request.

1. Product 5.5.4 was corrected to include the Palestine and Galveston subdivisions as part of the consultant tasks. (GCFRD)
2. Product 5.5.5 was corrected to reflect the expansion of scope to a regional freight plan for the Houston-Galveston TMA. (H-GAC)
3. The Task Four and Five summary table text boxes concerning TxDOT development credits were expanded to correct the cut off sentences. (TxDOT-Houston District)
4. The major corridor study Table 7 was corrected to reflect updated information from TxDOT-Houston District, METRO, H-GAC, and the City of Galveston.
5. Updated locally-funded planning activities for the City of Baytown.
6. Corrected headers/footers in the Task 2, Task 4 and Task 5 Chapters. (H-GAC, Houston Tomorrow)
7. Updated TAC and TPC membership lists. (METRO, H-GAC)
8. Modified Task V description in the introduction chapter on page i-6 to complete the description of the chapter. (H-GAC)
9. Revised the FY 2009 carryover estimate based on more recent data, resulting in a greater carryover estimate. The MPO also hired new staff at a lower grade level than originally budgeted; reducing the amount of planning funds programmed in some tasks. (H-GAC)
10. The access management study programmed in Subtask 5.2 for two SH 6 segments now includes the FM 529 segment that crosses SH 6. The text was split into two products and the funding tables were revised to reflect the separate contracting efforts. (H-GAC)
11. The funding tables in Task 3 had \$1,240,000 in FTA 5307 funding added for Harris County and it is our understanding these funds are coming out of their capital budget and does not reflect additional funding for Harris County. (Harris County)
12. Added acronym definitions for ARRA, PEMS, and MOVES to Appendix J. (H-GAC, TxDOT-TP&P)
13. Added product 4.2.15 to reflect transportation planning fund staff support for TSM/TDM operational programs that are implemented with CMAQ funds. (TxDOT District)
14. Added locally-funded planning activities for both TxDOT Districts. (TxDOT District)
15. Added ARRA Commuter Rail Corridor study to MCS Table 7. (TxDOT District)

16. Added references to food and non-alcohol beverages to products 1.1.4, 1.2.1, 1.2.2, 1.2.8, 3.1.7, 3.3.6, & 4.1.6 (TxDOT District)
17. Corrected 'previous work' bullets on page 2-2 to better reflect work accomplished in previous UPWP and correct some omissions. (TxDOT-TP&P)
18. Revised and shortened opening paragraphs of Task Four and clarified opening text of Subtask 4.1. (TxDOT TP&P)
19. Revised bullets in Task Five to correct omissions and provide clarifications as requested by TxDOT-TP&P.
20. Modified subtask 3.3.4 to reflect the planning nature of this ITS product rather than project implementation which is not an eligible use of transportation planning funds. (FHWA, H-GAC, TTI)
21. Removed a reference to access management studies in the introduction to Subtask 5.2 as all access management studies are regionally significant in scope and included in Appendix G, table 7. (TxDOT-TP&P)
22. Revised the text in Product 5.5.3 to abbreviate TxDOT. (TxDOT TP&P)
23. Combined 5.1.2 and 5.1.3 into one product [5.1.2] and revised the text to better reflect the scope of these public outreach and education activities. (H-GAC)
24. The Pie Chart percentage labels on page 5-11 were corrected to reflect the funding sources shown in the Summary Table on page 5-10. (H-GAC)
25. All funding corrections/changes resulted in all funding tables in the 2010-2011 UPWP being revised in some manner. (H-GAC)
26. Houston Tomorrow questioned the lateness of the public meeting in the comment period. Please be reminded of the changes in TAC and TPC meeting dates due to the holiday calendar; June 2<sup>nd</sup> was the second choice of dates after the May 15<sup>th</sup> TPC meeting was moved to May 29<sup>th</sup>. As a courtesy to TPC, the public meeting could not be held prior to TPC viewing the draft for the first time. (Houston Tomorrow)
27. Houston Tomorrow questioned the lack of transit modeling in the UPWP. The development of the Cube Cargo model, Track Two model development, and newer modeling tools, such as Cube Avenue are all decisions made to enhance transit alternative planning including modal change decisions. (Houston Tomorrow)
28. Staff removed products 5.4.3 and 5.4.5 as they have been incorporated into the regional freight plan of product 5.5.5. This action also reduced program planning funds in Task 5 by \$250K. (H-GAC)
29. Corrected miscellaneous page & product-numbering, formatting, and typographical errors as noted by various sources in passing.

The close of public comments was 5:00pm on June 10, 2009. Corrections and documentation made through close of business on July 7, 2009.

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# **Appendix J**

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## **Transportation and Air Quality Planning Acronyms and Phrases**

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## Transportation and Air Quality Planning Acronyms

### A

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<b>AADT</b>	Annual Average Daily Traffic
<b>AASHTO</b>	American Association of State Highway and Transportation Officials
<b>ACS</b>	American Community Survey
<b>ADA</b>	Americans with Disabilities Act
<b>ADT</b>	Average Daily Traffic
<b>Advanced-Practice</b>	Incorporating updated modeling practices or theories being used by other MPOs in the USA when applicable.
<b>AE</b>	Annual Element
<b>AERCO</b>	Area Emission Reduction Credit Organization
<b>APO</b>	Average Passenger Occupancy
<b>APTA</b>	American Public Transportation Association
<b>AQC</b>	Air Quality Compliance
<b>AQCRs</b>	Air Quality Control Regions
<b>AQMA</b>	Air Quality Maintenance Area - Areas noted by the EPA that have a potential for, or that presently exceed, the National Ambient Air Quality Standards
<b>ARRA</b>	American Recovery and Reinvestment Act of 2009
<b>ATOM 2</b>	A modified version of the Atomistic Model - Disaggregate Trip Distribution Model of the TTDP
<b>AVL</b>	Authorized Vehicle Lane
<b>AVN</b>	Division of Aviation, TxDOT
<b>AVO</b>	Average Vehicle Occupancy

### B

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<b>BER</b>	Basic Emission Rate
<b>Biennial</b>	Every two years or every other year
<b>BMS</b>	Bridge Management System
<b>Brazos Transit</b>	Former name, now referred to as "The District"
<b>BNSF</b>	Burlington Northern & Santa Fe Railroad Company
<b>BRINSAP</b>	Bridge Inventory, Inspection, and Appraisal Program
<b>BWC</b>	Best Workplace for Commuters

### C

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<b>3-C Planning Process</b>	Continuing, Comprehensive and Coordinated; 3-C planning process required by TxDOT
<b>CAA</b>	Clean Air Act of 1970, and its related Amendments of 1990
<b>CAFÉ</b>	Corporate Average Fuel Economy
<b>CAGR</b>	Compound Annual Growth Rate
<b>CBD</b>	Central Business District
<b>CDP</b>	Census Designated Places
<b>CEI</b>	Cost Effectiveness Index
<b>CFR</b>	Code of Federal Regulations
<b>CIP</b>	Capital Improvement Program
<b>CMAQ</b>	Congestion Mitigation Air Quality
<b>CMA</b>	Congestion Mitigation Analysis (formerly known as SOV Analysis)
<b>CMP</b>	Congestion Management Process
<b>CMS</b>	Congestion Management System
<b>CMSA</b>	Consolidated Metropolitan Statistical Area – <i>The Houston-Galveston-Brazoria CMSA consists of the Houston PMSA (Chambers, Fort Bend, Harris, Liberty, Montgomery, and Waller counties), the Galveston-Texas City PMSA (Galveston County), and the Brazoria PMSA (Brazoria County)</i>
<b>CNG</b>	Compressed Natural Gas

<b>CO</b>	Carbon Monoxide
<b>COG</b>	Council of Governments
<b>CPTED</b>	Crime Prevention Through Environmental Design
<b>CRIS</b>	Crash Record Information System
<b>CRP</b>	Consolidated Road Program
<b>CT</b>	Census Tract
<b>CTMS</b>	Computerized Traffic Management System
<b>CTPP</b>	Census Transportation Planning Package
<b>CTR</b>	Center for Transportation Research, University of Texas at Austin

**D**


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<b>D-2</b>	Division of Aviation, TxDOT
<b>D-10</b>	Division of Transportation Planning, TxDOT
<b>D-11</b>	Division of Public Transportation, TxDOT
<b>DEIS</b>	Draft Environmental Impact Statement
<b>DEMO</b>	Demonstration grant - funding of an experimental program
<b>DERC</b>	Discrete Emission Reduction Credit
<b>DIME</b>	Dual Independent Map Encoding - A technique of creating a geographic base file (replaced by TIGER files)
<b>DOT</b>	Department of Transportation

**E**


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<b>EA</b>	Environmental Assessment
<b>EJ</b>	Environmental justice
<b>E+C</b>	Existing Plus Committed
<b>EIS</b>	Environmental Impact Statement
<b>EPA</b>	U.S. Environmental Protection Agency
<b>ERC</b>	Emissions Reduction Credit
<b>ERP</b>	Emissions Reductions Plan
<b>ETR</b>	Employer Trip Reduction

**F**


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<b>FAA</b>	Federal Aviation Administration
<b>FAHPM</b>	Federal Aid Highway Program Manual (replaced by FAPG)
<b>FAI</b>	Federal Air Interstate System
<b>FAP</b>	Federal Aid Primary System
<b>FAPG</b>	Federal Aid Policy Guide (replaces FHPM)
<b>FAS</b>	Federal Aid Secondary System
<b>FAU</b>	Federal Aid Urban System
<b>FBI</b>	Federal Bureau of Investigation
<b>FCFF</b>	Federal Clean Fuel Fleet
<b>FFGA</b>	Full Funding Grant Agreement
<b>FHWA</b>	Federal Highway Administration
<b>FIP</b>	Federal Implementation Plan
<b>FMA</b>	Federal Maritime Administration
<b>FMVCP</b>	Federal Motor Vehicle Control Program
<b>FONSI</b>	Finding of No Significant Impact
<b>FRA</b>	Federal Railroad Administration
<b>FRN</b>	Federal Register Notice
<b>FTA</b>	Federal Transit Administration (formerly UMTA)

**G**

<b>GCFRD</b>	Gulf Coast Freight Rail District
<b>GCHSR</b>	Gulf Coast High Speed Rail
<b>GCSPR</b>	Gulf Coast State Planning Region
<b>GIS</b>	Geographic Information Systems
<b>GRH</b>	Guaranteed Ride Home
<b>GSU</b>	Geographic Statistical Unit

**H**

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<b>HAOS</b>	Houston Area Oxidant Study
<b>HB&amp;T</b>	Houston Belt & Terminal Railroad Company
<b>HBW</b>	Home-Based Work
<b>HC</b>	Hydrocarbons
<b>H-GAC</b>	Houston-Galveston Area Council
<b>H-GRTS</b>	Houston-Galveston Regional Transportation Study - Part of TxDOT, Houston District
<b>HOT</b>	High Occupancy Toll
<b>HOV</b>	High Occupancy Vehicle
<b>HPMS</b>	Highway Performance Monitoring System
<b>HPR</b>	Highway Planning and Research
<b>HRT</b>	Heavy Rail Transit
<b>HUD</b>	U.S. Department of Housing and Urban Development

**I**

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<b>IH</b>	Interstate Highway
<b>I/M</b>	Inspection/Maintenance Program (for vehicle emission controls)
<b>IMS</b>	Intermodal Management System
<b>IPG</b>	Intermodal Planning Group
<b>ISTEA</b>	Intermodal Surface Transportation Efficiency Act of 1991
<b>ITS</b>	Intelligent Transportation System
<b>IVHS</b>	Intelligent Vehicle Highway System (outmoded term)

**J**

**K**

**L**

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<b>LEV</b>	Low Emission Vehicle
<b>LMRT</b>	Local Match for Rural Transit
<b>LMT</b>	Local Match for Transit
<b>LNG</b>	Liquefied Natural Gas
<b>LOM</b>	Level of Mobility (traffic volume/roadway design capacity)
<b>LOS</b>	Level of Service
<b>LRP</b>	Long-Range Transportation Plan
<b>LRT</b>	Light Rail Transit

**M**

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<b>MCA</b>	Major Corridor Analysis
<b>MCS</b>	Major Corridor Study (Alternatives Analysis or Feasibility Study), replaces MIS
<b>MEC</b>	Major Employment Center
<b>MERC</b>	Mobile Emission Reduction Credit
<b>METRO</b>	Metropolitan Transit Authority of Harris County
<b>MIS</b>	Major Investment Study, replaced with MCS

<b>MOBIL5a</b>	EPA's Mobile Emissions Factor Model, (X = 5)
<b>MOBIL6</b>	EPA's Mobile Emissions Factor Model, (X = 6)
<b>MOSERS</b>	[Mobile Source Emissions Reduction Strategy] Methodology for TCM quantification
<b>MOU</b>	Memorandum of Understanding
<b>MOVES</b>	Motor Vehicle Emissions Simulator
<b>MPO</b>	Metropolitan Planning Organization
<b>MTP</b>	Metropolitan Transportation Plan (formerly Long Range Transportation Plan)
<b>MVEB</b>	Motor Vehicle Emissions Budget

## N

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<b>NAAQS</b>	National Ambient Air Quality Standards
<b>NAFTA</b>	North American Free Trade Agreement
<b>NARC</b>	National Association of Regional Councils
<b>NASP</b>	National Airport System Plan
<b>NEPA</b>	National Environmental Protection Act
<b>NHS</b>	National Highway System
<b>NHTSA</b>	National Highway Traffic Safety Administration
<b>NOx</b>	Nitrogen Oxide
<b>NPRM</b>	Notice of Proposed Rule Making

## O

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<b>O<sub>3</sub></b>	Ozone
<b>O&amp;D</b>	Origin and Destination
<b>O&amp;M</b>	Operation and Maintenance
<b>OPD</b>	Overall Program Design - A budgetary document of H-GAC

## P

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<b>P&amp;M</b>	Preservation & Maintenance
<b>P&amp;P</b>	Park and Pool
<b>P&amp;R</b>	Park and Ride
<b>PASS</b>	Principal Arterial Street System (TxDOT)
<b>PCB Program</b>	Planning Capacity Building (PCB) Program of FTA and FHWA
<b>PDP</b>	Project Development Plan
<b>PE</b>	Preliminary Engineering
<b>PEMS</b>	Portable Emissions Monitoring System
<b>PI</b>	Public Information
<b>PIP</b>	Public Involvement Plan
<b>PL 112</b>	FHWA Planning Funds
<b>PM</b>	Particulate Matter (suspended solids)
<b>PMS</b>	Pavement Management System
<b>PMSA</b>	Primary Metropolitan Statistical Area
<b>PMT</b>	Personal Miles Traveled (daily or annually)
<b>PPM (B)</b>	Parts Per Million (Billion)
<b>PPP</b>	Public Participation Plan
<b>PRT</b>	Personal Rapid Transit
<b>PS&amp;E</b>	Plans, Specifications and Estimates
<b>PTF</b>	Public Transportation Fund (State of Texas)
<b>PTMS</b>	Public Transportation Facilities and Equipment Management System
<b>PTN</b>	Division of Public Transportation, TxDOT
<b>PTRA</b>	Port Terminal Railroad Authority

**R**


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<b>RAASP</b>	Regional Airport/Airspace System Plan
<b>RAP</b>	Reliever Airport Plan
<b>RAQPC</b>	Regional Air Quality Planning Committee
<b>RCAP</b>	Regional Commute Alternatives Program, known as H-GAC's Commute Solutions Program
<b>RCTSS</b>	Regional Computerized Traffic Signalization System
<b>RFP</b>	Request for Proposal
<b>RFQ</b>	Request for Qualification
<b>RMP</b>	Regional Mobility Plan
<b>ROP</b>	Rate of Progress
<b>ROW</b>	Right-of-way
<b>RSAS</b>	Regional Strategic Arterial System
<b>RSC</b>	Regional Safety Council
<b>RTNA</b>	Regional Transportation Needs Assessment
<b>RTP</b>	Regional Transportation Plan

**S**


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<b>8 Planning Factors</b>	... used in RTP development
<b>SEP</b>	Supplemental Environmental Plan
<b>SAFETEA-LU</b>	Safe, Accountable, Flexible and Efficient Transportation Equity Act – A Legacy for Users - Transportation Reauthorization Act for 2003-2009
<b>SH</b>	State Highway
<b>SIP</b>	State Implementation Plan – Plan detailing pollution controls for achieving attainment status required of TCEQ by the U.S. EPA through the CAAs of 1972 and 1977
<b>SMP</b>	Statewide Mobility Program (Build-it Section of TxDOT's UTP)
<b>SMS</b>	Safety Management System
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>SOV</b>	Single Occupancy Vehicle
<b>SPP</b>	Statewide Preservation Program (Maintain-it Section of TxDOT's UTP)
<b>SPR</b>	State Planning and Research (a category of funding used by TxDOT)
<b>SRP</b>	Short-Range Transportation Planning
<b>STF1</b>	Summary Tape File 1
<b>STF3</b>	Summary Tape File 3
<b>STIP</b>	State Transportation Improvement Program
<b>STP</b>	Surface Transportation Program
<b>STOL</b>	Short Takeoff and Landing Aircraft
<b>STRAHNET</b>	Strategic Highway Network

**T**


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<b>TAC</b>	Technical Advisory Committee to the Transportation Policy Council
<b>TACB</b>	Texas Air Control Board (Replaced by the Texas Commission on Environmental Quality)
<b>TAFF</b>	Texas Alternative Fuel Fleet Program
<b>TASP</b>	Texas Airport System Plan
<b>TAZ</b>	Travel Analysis Zone
<b>TCAA</b>	Texas Clean Air Act
<b>TCEQ</b>	Texas Commission on Environmental Quality (formerly known as the TNRCC)
<b>TCMs</b>	Transportation Control Measures
<b>TCP</b>	Transportation Control Plan (as envisioned by EPA to reduce mobile source emissions enough to meet the NAAQS)
<b>TDM</b>	Travel Demand Modeling; also Transportation Demand Management
<b>TDP</b>	Transit Development Program

<b>TEA-21</b>	Transportation Equity Act for the 21 <sup>st</sup> Century (Enacted June 9, 1998; replaces ISTEA)
<b>TEMPO</b>	Texas Metropolitan Planning Organizations
<b>TERP</b>	Texas Emissions Reduction Plan
<b>The District</b>	Formerly Brazos Transit
<b>THTS</b>	Texas Highway Trunk System
<b>TIGER</b>	Topologically Integrated Geographic Encoding and Referencing (replaced DIME files)
<b>TIP</b>	Transportation Improvement Program
<b>TIRZ</b>	Tax Increment Reinvestment Zone
<b>TMA</b>	Transportation Management Area
<b>TMO</b>	Transportation Management Organization
<b>TMS/H</b>	Traffic Management System for Highways
<b>TNRCC</b>	Texas Natural Resource Conservation Commission, renamed TCEQ Sept. 1, 2002
<b>TOPICS</b>	Traffic Operations to Increase Capacity and Safety
<b>TPC</b>	Transportation Policy Council
<b>TPD/Y</b>	Tons per day/year
<b>TPF</b>	Transportation Planning Funds (FHWA PL-112 and/or FTA 5303 funds)
<b>TPIP</b>	Transportation Public Involvement Plan
<b>TP&amp;P</b>	Division of Transportation Planning & Programming, TxDOT
<b>TRACS</b>	Texas Review and Comment System
<b>TRC</b>	Texas Railroad Commission
<b>TSM</b>	Transportation Systems Management
<b>TTC</b>	Texas Transportation Commission
<b>TTDP</b>	Texas Travel Demand Package
<b>TTI</b>	Texas Transportation Institute - A division of Texas A&M University
<b>TxAQS 2000</b>	Texas 2000 Air Quality Study
<b>TxDOT</b>	Texas Department of Transportation (formerly known as the Texas Highway Department)

## U

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<b>UA/UZA</b>	Urbanized Area
<b>UPRR</b>	Union Pacific Railroad
<b>UPWP</b>	Unified Planning Work Program
<b>USC</b>	United State Code
<b>USDOT</b>	United States Department of Transportation
<b>UTP</b>	Unified Transportation Plan
<b>UTPS</b>	Urban Transportation Planning System - Computer programs for transportation planning

## V

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<b>V/C</b>	Volume to Capacity
<b>VHT</b>	Vehicle Hours Traveled
<b>VMEP</b>	Voluntary Mobile Emissions Reduction Program
<b>VMT</b>	Vehicle miles traveled (daily or annually)
<b>VOC</b>	Volatile Organic Compound

## Z

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<b>ZEV</b>	Zero Emission Vehicle
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# **Appendix K**

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## **MPO Self-Certification**

## MPO Self Certification Compliance

*Metropolitan Planning Organizations must certify annually their compliance with federal, state, environmental, and civil rights regulations. This document summarizes the H-GAC MPO's compliance with these regulations. The 2035 Regional Transportation Plan, the 2008-2011 Transportation Improvement Program, and the 2010-11 Unified Planning Work Program were developed in accordance with DBE, ADA, and CAA requirements. In addition, these plans met all federal requirements prohibiting lobbying, payment or influence of federal employees regarding the award of federal contracts, grants, loans, or cooperative agreements.*

### Metropolitan Planning:

The State and the MPO shall annually certify to FHWA and FTA that the planning process is addressing major issues facing their area and is being conducted in accordance with all applicable transportation planning requirements. The planning process will undergo joint review and evaluation by FHWA, FTA, and TxDOT to determine if the process meets requirements. The Federal administrators will take the appropriate action for each TMA to either issue certification action, or deny certification if the TMA planning process fails to substantially meet requirements. If FHWA and FTA jointly determine that the transportation planning process in a TMA does not substantially meet the requirements, they may withhold, in whole or in part, the apportionment attributed to the relevant metropolitan planning area or they may withhold approval of all or certain categories of projects. Upon full, joint certification by FHWA and FTA, all funds withheld will be restored to the metropolitan area, unless they have lapsed. For non-TMA areas TxDOT will determine whether a MPOs transportation planning process substantially meets requirements and act accordingly. (23 CFR 450.334; 49 CFR 613; USC Title 23, Sec. 134; and USC Title 49, Ch. 53, Sec's 5303 – 5306)

*H-GAC MPO Response: The 2008-2011 TIP and the 2008-09 UPWP includes the MPO Self Certification, which certifies that in accordance with 23 CFR 450.334 & 450.220, TxDOT and the MPO for the Houston-Galveston, Texas City, La Marque, Lake Jackson and Woodlands urbanized areas have been conducted in accordance with 23 CFR 450.334; 49 CFR 613; USC Title 23, Sec. 134; and USC Title 49, Ch. 53, Sec's 5303 – 5306. In 1997, 2001, 2004 and most recently in November 2008, H-GAC hosted a certification review by officials from FHWA, FTA and TxDOT. Final comments from the first two reviews were received and no significant problems were encountered with the MPO planning process during the desktop review or interviews with MPO staff, TxDOT, TPC officers, or transit providers. Each of the five areas of concern were addressed during 2002. Comments on the 2004 review indicated satisfaction with all aspects and encouraged increased due diligence with public participation. Comments from the 2008 desktop review are still pending from FTA and FHWA. This document is no longer required to be included in the UPWP per instructions from TxDOT Planning and Programming Division.*



**Statewide Planning:**

The process for developing the transportation plans and programs shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problems to be addressed. The State shall coordinate transportation planning activities for metropolitan areas of the State, and shall carry out its responsibilities for the development of the transportation portion of the State implementation plan (STIP) to the extent required by the Clean Air Act. The State will carry out the long range planning processes and the STIP in cooperation and consultation with designated metropolitan planning organizations, affected local transportation officials and affected tribal governments. Transportation improvement programs should include financial plans that demonstrate how the programs can be implemented, indicates resources from public and private sources reasonably expected to be made available for carrying out the programs, and recommend any additional financing strategies for needed projects. (23 CFR 450.220; USC Title 23, Sec. 135; and USC Title 49, Ch. 53, Sec's 5307 – 5311, 5323(l))

*H-GAC MPO Response: The Unified Planning Work Program (UPWP), the Regional Transportation Plan (RTP) [UPWP Subtask 4.1], and the Transportation Improvement Program (TIP) [UPWP Subtask 3.1] have been developed in accordance with the consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate. Further, the RTP and TIP include financial summaries of the projects scheduled for implementation within their respective timeframes. A new element was added to the 2035 RTP in Appendix F in response to the State HB 3588 requirement for regional transit service planning and coordination between the Health and Human Services Division and the Texas Department of Transportation. A regional transit coordination plan was submitted to TxDOT in December 2006 and the highest priorities from that plan are being implemented incrementally. A subcommittee to the Technical Advisory Committee has been formed to guide that implementation process. Background information is available on the project website at [www.ridethegulfcoast.com](http://www.ridethegulfcoast.com).*

**Title VI, Civil Rights Act of 1964:**

Title VI prohibits exclusion from participation in, denial of benefits of, and discrimination under federally assisted programs on grounds of race, color, or national origin. Title VI assurance regulations were also executed by each State, prohibiting discrimination based on sex or disability. (USC Title 23, Sec. 324 and USC Title 29, Sec. 794)

*H-GAC MPO Response: Sections 2.05 Equal Employment Opportunity, 2.06 Affirmative Action, and 2.07 Sexual Harassment of the H-GAC Personnel Policies, adopted January 8, 2007 as amended April 21, 2009, cite the MPO's compliance with the Title IV, Civil Rights Act of 1964.*

### Environmental Justice:

In support of Title VI regulations, each Federal agency must identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. State Highway agency responsibilities are to develop procedures for the collection of statistical data (race, color, religion, sex, and national origin) of participants in, and beneficiaries of State highway programs, i.e., relocatees, affected citizens and affected communities. Recipients of federally assisted programs shall keep documentation, for federal review, demonstrating extent to which members of target populations are beneficiaries of such programs. (EO 12898, 23 CFR 200.9 (b)(4), and 49 CFR 21.9 (b))

*H-GAC MPO Response: In conjunction with the 2025 & 2035 RTP development, regional and sub regional environmental and socioeconomic analyses were conducted, including Title VI & environmental Justice Accessibility. 1.) Summary of average travel times to jobs and other trip purposes by mode for low-income and minority travelers compared to others; 2.) Assessment of the social impacts of transportation projects in low-income and minority areas; and 3) the development of a Transit Need Index to identify transit need in the region. (See 2008-09 UPWP Subtask 4.1: Development/Maintenance of the RTP). Staff has completed and begun implementing the methodology for the Title VI Environmental Justice elements of the 2025 RTP and 2035 RTP.*

### **Disadvantaged Business Enterprises in Planning Projects**

The Disadvantaged Business Enterprise (DBE) program ensures equal opportunity in transportation contracting markets, addresses the effects of discrimination in transportation contracting, and promotes increased participation in Federally funded contracts by small, socially and economically disadvantaged businesses, including minority and women owned enterprises. The statute provides that at least 10% of the amounts made available for any Federal-aid highways, mass transit, and transportation research and technology program be expended with certified DBEs. (TEA-21, Pub. L. 105-178, Sec. 1101(b); CFR 49, Subtitle A, Part 26)

*H-GAC MPO Response: In accordance with FTA/FHWA/FAA annual reporting requirements, H-GAC filed its 2008-2009 DBE Plan with the Federal Aviation Administration on November 12, 2008, for fiscal years 2008 and 2009. The DBE goal for fiscal year 2008 was 18% and the DBE participation goal for 2009 is 19%. The H-GAC DBE Plan was adopted by the H-GAC Board of Directors in October 2008. This plan is being updated this summer. The MPO utilizes the Texas Unified Certification Program [TUCP] as its source for DBE certification. Development of the DBE Plan for 2010-2011 is underway and will be approved by the H-GAC Board of Directors in Summer 2010.*

### **Americans with Disabilities Act of 1990:**

Programs and activities funded with Federal dollars are prohibited from discrimination based on disability. Compliance with the applicable regulations is a condition of receiving Federal financial assistance from the Department of Transportation. (Pub. L. 101-336, 104 Stat.

327 as amended; 49 CFR Parts 27, 37 and 38)

*H-GAC MPO Response: Section 2.08 of the H-GAC Personnel Policies, adopted January 8, 2007, cites the MPO's compliance with the American Disabilities Act of 1990. In addition, the H-GAC was instrumental in assuring its place of business, 3555 Timmons Lane, complies with all ADA requirements. All meetings, funded with Federal dollars or as part of doing business, are held only in ADA compliant facilities. Accessibility Consultants Incorporated performed a building property evaluation in March 1992. As of December 31, 2000, all noted discrepancies were corrected. As of December 31, 2001, ten additional handicapped spaces were added to the level 5 covered area of the parking garage. The most recent inspection was conducted in April 18, 2007. As a result of this inspection, all restrooms on the H-GAC floors have been updated to become ADA compliant during late 2008 and early 2009.*

**Restrictions on influencing certain Federal activities:**

No appropriated funds may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing a federal employee regarding the award of Federal contracts, grants, loans or cooperative agreements. (49 CFR, Part 20)

*H-GAC MPO Response: Sections 3.04 Outside Activities, 3.05 Gifts and Gratuities, 3.06 Conflict of Interest, and 3.07 Political Activity of the H-GAC Personnel Policies, adopted January 8, 2007, cites the MPO's compliance with the Restrictions on Influencing certain Federal Activities.*

**Clean Air Act: Air Pollution Prevention & Control:**

All State and local transportation officials will take part in a 3-C planning process in non-attainment areas to determine which planning elements will be developed, adopted and implemented to maintain or improve the air quality for said area. In non-attainment areas that include more than one state, the affected states may jointly undertake and implement air quality planning procedures. Activities not conforming to approved plans will not be financially supported by the Federal government. Priority of funding will be given to those projects or programs that achieve and maintain national primary ambient air quality standards. (42 USC, Ch. 85, Sec's. 7408, 7410, 7504, 7505a 7511, 7512, 7506 (c) and (d) and 7604; 49 USC, Ch. 53, 23 USC, Sec. 134)

*H-GAC MPO Response: UPWP Subtasks 1.2, 2.1, 3.2, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.4, & 5.5 address various aspects of the CAA requirements, including public outreach, SIP development, air quality conformity attainment, financial constraints, alternative modes of travel, and contributions to maintaining national primary ambient air quality standards.*

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# Resolution

## NO. 1002-UPWP

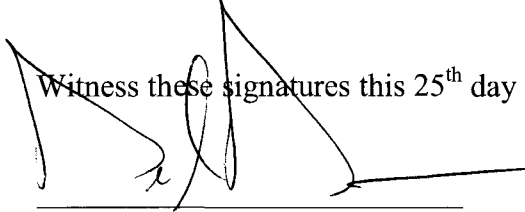
### MPO SELF-CERTIFICATION

WHEREAS, In accordance with Title 43, Part 1, Chapter 15, Subchapter A, Rule §15.5 of the Texas Administrative Code, the Texas Department of Transportation, and the Houston-Galveston Area Council Metropolitan Planning Organization for the Houston, Galveston, Texas City, La Marque, Lake Jackson, and Woodlands urbanized areas hereby certify that the transportation planning process is addressing the major issues in the metropolitan planning area and is being conducted in accordance with all applicable requirements of:

- (1) 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart; (compliance with Metropolitan Planning)
- (2) In non-attainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
- (3) Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
- (4) 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
- (5) Section 1101(b) of the SAFETEA-LU (Public Law 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
- (6) 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
- (7) The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
- (8) The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;

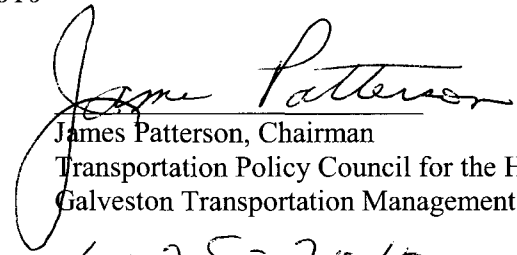
- (9) Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
- (10) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

Witness these signatures this 25<sup>th</sup> day of June, 2010



Delvin Dennis, P.E. District Engineer  
Texas Department of Transportation  
Houston District

6/30/10  
Date



James Patterson, Chairman  
Transportation Policy Council for the Houston-  
Galveston Transportation Management Area

6-25-2010  
Date