

# 2014-2015

## Unified Planning Work Program

for the Houston-Galveston  
Transportation Management Area



**Adopted  
July 26, 2013**

**Updated: Amendments 1-7  
July 24, 2015**





**2014-2015**  
**Unified Planning Work Program**  
**for the Houston-Galveston**  
**Transportation Management Area**

**Adopted**  
**July 26, 2013**

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## **DISCLAIMER**

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# INTRODUCTION

## 2014-2015 UNIFIED PLANNING WORK PROGRAM

### A. PURPOSE

The *2014-2015 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 2014 and 2015 (10/01/13 - 09/30/15) 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 (MPO) 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 2014-2015:

- **Task I – Administration** covers the administrative support activities such as financial management, contract management, public outreach, and the general management of the MPO.
- **Task II – Data Development and Maintenance** covers the collection, maintenance, and analysis of transportation data. These activities include the development of socio-economic forecasts and travel demand models to determine where future transportation investments will be made.
- **Task III – Short Range Planning** addresses planning for activities taking place within a three- to five-year timeframe, including the management of the Transportation Improvement Program (TIP), the provision of transit services outside of the METRO service area, Intelligent Transportation Systems development, and Safety Planning.
- **Task IV – Long Range Planning** covers planning activities for the long-term including the development of the *2040 Regional Transportation Plan*, air quality planning, bicycle and pedestrian facilities, and the promotion of sustainable development.
- **Task V – Special Studies** cover other planning issues and studies including major corridor studies (MCS), hurricane evacuation planning, freight planning, and general aviation planning.

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Carried over from the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the Moving Ahead for Progress in the 21st Century Act (MAP-21) requires the consideration of eight factors in the metropolitan and statewide planning processes listed in 23 USC 134(h). Below lists how the MPO addresses these factors and how they have been programmed:

**1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;**

- *Transportation Improvement Program (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.*
- *The Regional Transportation Plan (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 (GCFRD) 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 convenes a Regional Safety Council to address transportation safety in the region.*

**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 facilitate enhanced security*
- *MPO participates in emergency preparedness and evacuation activities initiated by state and local governments*

**4. Increase the accessibility and mobility of people and for freight;**

- *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, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;**



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- *MPO has been engaged in a Subregional Planning initiative designed to link local land use goals with transportation investments.*
  - *MPO has developed geographic information system (GIS) layers of regional environmental assets.*
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;**
- *The Livable Centers initiative designed to improve access and connectivity to and around transit stations.*
  - *The TIP and RTP support projects such as the downtown intermodal terminal that will link a variety of modes in one station.*
  - *The MPO engaged in discussions with stakeholders regarding opportunities to reduce conflicts between pedestrians, vehicles and passenger and freight rail activities.*
  - *The MPO supports regional vanpooling, carpooling and telework initiatives.*
  - *The TIP provides funding for transit implementations and studies.*
- 7. Promote efficient system management and operation; and,**
- *The Congestion Management Process (CMP) focuses on identifying non-added capacity alternatives that will improve traffic flow and safety for motorists.*
  - *The 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.*
  - *The TIP provides funding for expansion of traffic management systems throughout the region.*
- 8. Emphasize the preservation of the existing transportation system.**
- *Over \$400 million has been programmed in the 2013-16 TIP for preservation, rehabilitation and maintenance of the existing system.*
  - *The MPO works with the state to identify major reconstruction needs over the life of the plan.*

As part of MAP-21 legislation, an increased emphasis is placed on performance-based planning and programming in order to increase accountability and transparency in regards to transportation investments. This includes the requirement that MPOs establish performance measures in conjunction with the following seven national goals outlined in U.S.C. 23 Sec 150(c):

1. **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. **Infrastructure condition.** - To maintain the highway infrastructure asset system in a state of good repair.
3. **Congestion reduction.** - To achieve a significant reduction in congestion on the National Highway System.
4. **System reliability.** - To improve the efficiency of the surface transportation system.

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5. **Freight movement and economic vitality.** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. **Environmental sustainability.** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. **Reduced project delivery delays.** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

In addition, The USDOT, citing renewed focus on transportation planning brought about by MAP-21, issued a set of additional Planning Emphasis Areas for FY 2015 to be identified within the UPWP. Below lists how the MPO addresses these Emphasis Areas and how they have been programmed:

## 1. **MAP-21 Implementation: Transition to Performance Based Planning and Programming**

- **Subtask 3.4** - the State of Safety Report, will provide a summary of crash statistics to assess the regional crash experience and utilize the information for planning efforts to improve regional traffic safety (Product 3.4.a6)
- **Subtask 4.1** - the development of a Regional Transportation Plan (RTP), calls for the development of performance measures, which will be utilized in project selection criteria and project prioritization to link RTP goals and objectives (Product 4.1.a1).
- **Subtask 4.1** – The Congestion Management Process calls for tracking and updating of congestion indices, which will play a role in assessing system performance and for project prioritization in the RTP process (Product 4.1.d2).
- **Subtask 5.3** - calls for the development of freight performance measures to gauge system conditions and use, evaluate transportation programs and projects, and help decision-makers to allocate limited resources (Product 5.3.a8).

## 2. **Models of Regional Planning Cooperation: Promote cooperation and coordination across MPO boundaries and across State boundaries where appropriate to ensure a regional approach to transportation planning**

- The Houston-Galveston MPO has representation from TxDOT's Beaumont District, which covers the Beaumont MPO, as well as two counties within the Houston-Galveston MPO.
- **Subtask 4.2** – H-GAC Air Quality Program staff meet with their NCTCOG counterparts to share information on regional air quality programs, including vehicle replacement and commute alternative programs.
- **Subtask 5.2** - Evacuation Planning activities include the planning and coordination of evacuation activities stemming from the Houston-Galveston area to the San Antonio, Austin, and Dallas/Fort Worth regions.

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### **3. *Ladders of Opportunity: Access to essential services – as part of the transportation planning process, identify transportation connectivity gaps in access to essential services.***

- **Subtask 3.2** - Short-Range Transit Planning activities include the planning and coordination of public transportation projects that operate in underserved areas of the region, and provide service to low-income, physically and mentally-challenged, and elderly populations that may not have access to an automobile
- **Subtask 4.1** - The RTP addresses the incorporation of Environmental Justice to identify socially and economically-disadvantaged areas of the region, their proximity to jobs, and access to transit options (Product 4.1.a1).
- **Subtask 4.3** - Bicycle/Pedestrian System Planning addresses non-motorized options of travel, including the identification of facilities and proposed improvements to facilities to allow those users safe access to their destinations.

H-GAC, in conjunction with its development of the 2040 RTP, will develop a set of performance measures that will reflect the seven national goals. FHWA is currently developing guidance for MPOs to conduct performance-based planning and programming, which will be utilized along-side guidance from TxDOT to ensure consistency with statewide programming.

MPOs must also develop a public involvement process that provides complete information, timely notification, and public access to the planning process. H-GAC developed and adopted its Public Participation Plan (PIP) in 2007, which was updated in November 2012. 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.

## **B. 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 four U.S. Census-designated urbanized areas with populations greater than 50,000 (the Houston Urbanized Area, the Texas City/La Marque Urbanized Area, The Woodlands Urbanized Area, and the Angleton/Lake Jackson Urbanized Area), with an estimated 5.9 million people in 2010. Please see Appendix B for a map of the Houston-Galveston TMA.

## **C. ORGANIZATION and STAKEHOLDERS**

The Transportation Policy Council (TPC) is the policy-making board for the MPO. Its twenty-eight (28) 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

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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-eight (38) 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 six (6) 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, 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 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.

### **D. PRIVATE SECTOR INVOLVEMENT**

The private sector is actively involved in planning efforts outlined in the 2014-2015 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

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provide opportunities for private sector involvement related to 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. Staff will continue to work through the FTA 5307 and FTA 5311 programs to expand the public transportation services through a public/private partnership agreement.

### **E. PLANNING ISSUES AND EMPHASIS AREAS**

**2040 Regional Transportation Plan** – The MPO will continue working on the development of the 2040 Regional Transportation Plan (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, an enhanced congestion management system, and a consideration of the growth in regional freight activity and the related infrastructure needed to improve regional multi-modal mobility. In addition, emphasis will be placed on the development of performance measures in response to MAP-21, in order to ascertain the benefits of the region’s improvements.

**Air Quality Planning** - 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. Activities 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.

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**Safety Planning** – H-GAC will continue to assess safety data as it is provided to determine the problem areas in terms of traffic safety. Staff will continue work on a regional safety plan based on the data assessments and provide potential countermeasures for consideration. H-GAC will also continue to provide technical support on traffic safety issues, including the support of various outreach initiatives to promote safer driving.

**Freight Planning** – H-GAC will work on addressing the recommendations of the Regional Goods Movement Study. Freight facilities and services are strongly linked to regional economic competitiveness and quality of life and, from a transportation perspective, freight shipments continue to grow steadily across all modes. Planning for freight is also an effective means of addressing safety, security, environmental, and air quality issues. A major objective of the freight program will be to initiate and sustain meaningful outreach to the local freight community and to build awareness and expertise among planners and the general public. A freight advisory committee will be the focal point of this effort.

**Livable Centers** – H-GAC will continue 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. H-GAC's Livable Centers program provides 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.

**Bicycle and Pedestrian Planning** – H-GAC will continue support for the implementation of the Transportation Policy Council's adopted pedestrian and bicycle policy goals and recommended actions. This includes maintenance of the Regional Bikeway Plan, the development of a long-range bicycle system plan in conjunction with the 2040 RTP, provision of technical support to local governments, and the hosting of training sessions for best practices.

# **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 continue implementation of a Comprehensive, Continuing and Coordinated, or "3-C," regional transportation planning process per 23 USC 134(k).
- To maintain the operations of the MPO, including the fiscal management, handling of personnel matters, and the procurement of equipment and supplies required for operations.
- 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) for FY 2016-17.
- 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.
- Continued production of the MobilityNOW TV series for public information on regional transportation issues.
- Considerable public outreach for the development of the 2040 RTP.

### **PREVIOUS WORK**

- In FY 2012, 66 new consultant contracts were awarded for various projects, such as Clean Cities/Clean Vehicles; Commuter Pilot Projects; Corridor Studies; and Transit Planning. In addition, there were 55 consultant contract amendments regarding time extensions, budget increases, and scope modifications.
- H-GAC submitted its annual DBE report to TxDOT in October 2012 and also submitted a Limited English Proficiency plan to TxDOT in August 2012. The annual self-certifications were submitted to TxDOT and FHWA in October 2012.

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- H-GAC assisted the City of Conroe and the Woodlands Township with the requirements related to their transition from a small urbanized area (transit) to a large urbanized area.
- H-GAC assisted the City of Baytown and Harris County as they prepare for substantial expansions at two major petrochemical facilities that will bring in excess of 10,000 new workers to the eastern portion of our region.
- Prepared meeting agendas, meeting notices, minutes and agenda item background materials for TPC and TAC meetings during the 2012-2013 fiscal year, as well as annual workshops for TPC and TAC members.
- Provided other administrative support to the TPC and TAC as necessary.
- Director, Alan Clark, serves as a board member for AMPO and actively participates in their meetings. Deputy Director, Ashby Johnson, serves as the Executive Director of TEMPO and actively participates in AMPO activities. Several H-GAC staff members serve on TRB and AMPO committees related to planning and travel demand modeling.
- Staff continues to maintain the UPWP. Amendments were approved by TPC in December 2011, April 2012, May 2012, October 2012, January 2013, April 2013, and May 2013.
- Produced 20 editions of the Vision transportation e-newsletter as of May 2013.
- Produced and distributed annual Regional Mobility Report.
- Developed H-GAC YouTube channel to distribute transportation-related video.
- Created [www.mobilitynow.tv](http://www.mobilitynow.tv) website and brand identity to promote the “Mobility Now” TV Show.
- Eight episodes of “Mobility Now” TV Shows taped in the Houston-Galveston Region: 1) US 290, 2) Livable Centers, 3) Regional Freight Movement, 4) SH 288, 5) Houston TranStar, 6) Teens in the Driver’s Seat, 7) Access Management and, 8) I-69. The first three episodes were broadcast on HTV and are available on H-GAC’s YouTube channel.
- Developed a booklet for the Regional Goods Movement plan.
- Developed a booklet for the Gulf Coast Rail District’s Hempstead Corridor Commuter Rail Study as a member government service.
- Staff continues to maintain and improve transportation websites.

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

This subtask includes all administrative support for the MPO planning program in general, including the financial management of the MPO’s operations, contract management, departmental reporting, the provision of technical assistance to member agencies, and participation in state and national organizations involved in transportation planning and development.

This subtask also 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.



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## PRODUCTS:

### *Program Support & Administration*

- 1.1.a1** Manage contracts and agreements between the MPO and participating agencies or subcontractors.
- 1.1.a2** Maintain financial records for departmental contracts and ensure payment of invoices.
- 1.1.a3** 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 self-certification assurances.
- 1.1.a4** 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.
- 1.1.a5** Provide technical assistance to the Transportation Policy Council (TPC), the Technical Advisory Committee (TAC), and other committees and subcommittees. Technical assistance includes preparing meeting materials, meeting notices, maintaining meeting records, an annual training workshop for the respective members, and other assistance as directed. Provide food and non-alcoholic beverages, pending TxDOT approval, at selected meetings and events when deemed appropriate.
- 1.1.a6** Conduct 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.
- 1.1.a7** 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.
- 1.1.a8** Maintain historical data, publications, and map warehousing/archive libraries, along with an online-query system for public research and access to historical information.
- 1.1.a9** The acquisition of supplies, services, software, and equipment to support MPO operations. Equipment and software purchases over \$5,000 per unit require prior State and Federal approval.

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- 1.1.a10** Acquire legal defense/advice with prior State and Federal approval 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.

## *Unified Planning Work Program Development*

- 1.1.b1.** Maintain the 2014-2015 Unified Planning Work Program (UPWP), reflecting current plans, programs, and regional priorities, by amendments approved by the TPC, TxDOT, FHWA, and FTA.
- 1.1.b2.** Develop and adopt the 2016-2017 Unified Planning Work Program per schedule determined by staff in coordination with other transportation partners.

## **SUBTASK 1.2 Public Involvement and Outreach Program**

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 amended in November 2012, with the primary objective to provide timely, accurate, and complete information to the public on important transportation issues and solicit feedback as appropriate. 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.a1** Conduct public outreach and provide support for public meetings for the RTP, TIP, Air Quality, and other significant plans. This includes publishing legal notices, press releases, and advertisements, conducting public meeting arrangements, slide presentation production, and development of educational materials for distribution at these meetings. **(Consultant Assistance Required - \$150,000 TPF)**
- 1.2.a2** Continue to publicize H-GAC's transportation activities via the publication and distribution of newsletters, management of the Transportation Department's website, the holding of informational workshops, and the development of other pertinent publications as needed.
- 1.2.a3** Continue to solicit public comment on transportation programs, projects, and policies and to respond to public comment in a timely fashion.
- 1.2.a4** Continue to employ visualization techniques to deliver information, including websites, video, and audio technologies to interested parties.

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**1.2.a5** Continue to develop and maintain mailing and community contact lists to ensure adequate distribution/notice of public meetings and materials.

**1.2.a6** Continue production of *MobilityNOW*, to provide information to the public via TV and the Internet regarding local transportation issues (**\$326,000 TPF**).

### *Policy and Government Affairs*

**1.2.b1** Continue to provide MPO comments to the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and the Environmental Protection Administration (EPA) to proposed rules from these agencies as part of the federal rule-making process.

**1.2.b2** Organize and/or participate in seminars, peer exchanges, and peer reviews as necessary to facilitate communication between MPOs, federal, state, and local agencies, providing food and non-alcoholic beverages, pending TxDOT approval, when deemed appropriate.

**1.2.b3** Development of briefings and printed materials for policy-makers on federal and state issues relevant to the regional transportation planning process.

**1.2.b4** Participate in best practices and public involvement training workshops when resources are available.

<b>Task 1 Funding Summary Table</b>			
<b>Funding Source</b>	<b>Task 1.1</b>	<b>Task 1.2</b>	<b>Task 1 Total</b>
FHWA-FTA TPF	\$ 3,349,630	\$1,792,753	\$5,142,383
STP - Cat 7	\$ -	\$ -	\$ -
TxDOT SPR	\$ -	\$ -	\$ -
TxDOT Dist. Discret.	\$ -	\$ -	\$ -
TxDOT State Funds	\$ -	\$ -	\$ -
TxDOT-Gen Appropriations Act	\$ -	\$ -	\$ -
TxDOT-Section 402	\$ -	\$ -	\$ -
FTA 5304/5307/5309/5339	\$ -	\$ -	\$ -
FAA	\$ -	\$ -	\$ -
HUD	\$ -	\$ -	\$ -
ARRA	\$ -	\$ -	\$ -
Other Local	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 3,349,630</b>	<b>\$1,792,753</b>	<b>\$5,142,383</b>

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 II**

# **DATA DEVELOPMENT AND MAINTENANCE**

The subtasks contained in Task II are to 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.

### **EXPECTED PRODUCTS:**

- Continued maintenance of socioeconomic databases necessary for transportation planning and modeling activities.
- Development of revised population and employment forecasts and base year estimates.
- The collection of revised freeway traffic counts and speed data for model validation.
- The 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 public outreach and environmental justice programs.
- The review and assessment of traffic data used in base year networks, including Automated Vehicle Identification (AVI), Wavetronic, Bluetooth, private data and Automatic Traffic Recorder (ATR) data to help rectify the modeling network.
- The development of utilities for the MOVES model for conducting emissions analyses.

### **PREVIOUS WORK**

- Continued the maintenance and updates of socioeconomic data with the latest available information.
- Continued the collection and integration of planned development project information into the Regional Land Use Information System.
- Completed the first (2010-2040) integrated cycle of scenario-based regional integrated “land use-transportation” small-area population and employment forecasts in July 2012.

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- Created a new 2040 road network with highway directionality. Network will function as our new travel demand model utilizing 5,000 traffic analysis zones (TAZs) for the region.
- Continued development of a state-of-the-practice, activity-based travel model set.
- Completed the Cube Cargo Model developed and tested for freight modeling.
- Supported various special studies and mobility plans at both the state, county and city levels. Provides technical supports to TxDOT for the SH 288 toll study, Fort Bend County, City of Houston, Pearland, and the East End livable center mobility plans and studies. Status – On going
- Produced conformity calculations to the current SIP for the RTP and TIP in accordance with the transportation conformity regulations when needed. On 9/20/2012 FHWA approved the conformity to the amendments for the 2035 RTP Update and 2011-2014 TIP. Ongoing: conformity to the amendments for the 2035 RTP Update and 2013-2016 TIP.
- Continued work on framework for estimating transportation greenhouse gas emissions and assessing mitigation options at project level and regional level. Two reports were generated discussing 1) the quantification of GHG emissions for RTP projects and control strategies, including an analysis tool and example applications, and 2) a white paper on new directions on GHG emissions and climate change.
- Assisted in providing data to local governments, TxDOT and their consultants of on-road air toxics emissions inventories for their analyses of road construction following the NEPA process.
- Provided support for modeling and technical regional meetings for the Southeast Texas Photochemical Modeling Technical Committee, the Texas Working Group, the Association of Metropolitan Planning Organizations and the Center for Houston's Future.
- Compiled and processed external station and vehicle classification count data collected in 2011 as part of development of the external-through and external local trip model components for the new H-GAC travel model.
- Developed possible approaches for modeling special generator airport travel.
- Processed the toll survey data to attach trip-end and toll paid data to the trip records.

## **SUBTASK 2.1 Socioeconomic Data and Models (H-GAC C&E Planning)**

Subtask 2.1 addresses the ongoing development of socioeconomic data and socioeconomic forecasting models, along with informational services and analytical support of Transportation planning activities and studies.

### **PRODUCTS:**

#### **Socioeconomic Data**

- 2.1.a1.** Staff will continue monitoring releases of aggregate socioeconomic data from federal and state agencies, and other public and private sources. Staff will continue maintaining

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and updating databases with such information.

- 2.1.a2.** Staff will continue researching, obtaining, and processing information on the location, timing, and details of planned development projects in the region. Staff will continue maintaining and updating databases with such information.
- 2.1.a3.** Staff will continue researching, obtaining, processing, and synthesizing disaggregate information on parcels, buildings, businesses, and households in the region. Staff will continue maintaining and updating databases with such information.

## **Socioeconomic Models**

- 2.1.b1** Staff will continue improving and enhancing the existing operational version of the demographic and economic macro forecasting model.
- 2.1.b2** Staff will continue improving and enhancing the existing operational version of the land-use micro forecasting model.
- 2.1.b3** Staff, in cooperation with the Travel Demand Modeling group, will develop scenario-based regional integrated “land use-transportation” small-area population and employment forecasts for transportation planning purposes.

## **Information Services and Analytical Support**

- 2.1.c1** Staff will continue improving and enhancing the existing web-based mapping and database query applications allowing easy access to socioeconomic data by transportation partners and general public.
- 2.1.c2** Staff will provide informational services and analytical support to H-GAC Transportation staff, transportation agencies, local governments and their consultants in support of regional transportation planning activities and studies.
- 2.1.c3** Staff will participate in the agency’s work under the Sustainable Communities Regional Planning Grant by providing informational services and analytical support.

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

Subtask 2.2 describes the ongoing development, maintenance, and training activities associated with travel demand data development, mapping, and modeling. This subtask describes efforts directed toward the continued development, enhancement, and maintenance of the MPO’s travel demand models, including the physical collection, entry, preliminary tabulation, GIS-based mapping, maintenance, and analysis of transportation-related data.

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## PRODUCTS:

### Transportation Data & Modeling Support

- 2.2.a1 Use geographic information systems (GIS) to develop menus, macros, programs, and user manuals needed to display and evaluate transportation tasks.
- 2.2.a2. Maintain, refine, and enhance the data required to operate the travel demand models, including the road network, segment nodes, and traffic analysis zones.
- 2.2.a3. Provide programming support for modeling and GIS applications.
- 2.2.a4. Create maps and other GIS-related publications as needed.
- 2.2.a5. Maintain the GIS-based Project Viewer for TIP and RTP projects.

### Travel Demand Forecasting

- 2.2.b1. Continue development of a state-of-the-practice, activity-based travel demand model set. (**Consultant Assistance - \$100,000** (\$80,000 STP, \$20,000 Local))
- 2.2.b2. Continue technical support and assistance in the implementation of the Cube Voyager model set. (**Consultant Assistance Required - \$267,000 TPF**)
- 2.2.b3. Traffic speed and count collection on the freeway system – **PRODUCT POSTPONED TO FY 2016**
- 2.2.b4. Provide support in the development of the TIP, RTP, Subregional Planning, and other studies as needed, including but not limited to toll revenue studies, member agency mobility plans, and environmental justice assessments.
- 2.2.b5. Review and assess traffic data used in base year networks, including AVI, Wavetronic, Bluetooth, private data and ATR data to help rectify the modeling network.
- 2.2.b6. Review and assess demographic data and other model inputs.
- 2.2.b7. Continue Cube Avenue development for use in corridor and mesoscopic analyses.
- 2.2.b8. Continue development of a set of utilities that utilize the MOVES model to conduct conformity analysis, emission inventories, and air quality status. (**Consultant Assistance needed - \$145,000 TPF**).
- 2.2.b9. Continue work on conformity determination to ensure the region does not exceed its



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motor vehicle emissions budgets

- 2.2.b10.** Conduct modeling of proposed design alternatives to Kirkwood Drive in Meadows Place (**Consultant Assistance Required: \$50,000 TPF**)

## MPO Support and Training

- 2.2.c1.** Attend meetings and participate on committees of the GIS Users Groups, Network Users Groups, and other technical support groups as needed.
- 2.2.c2.** Continue staff training on the Cube Suite of software.

<b>Task 2 Funding Summary Table</b>			
<b>Funding Source</b>	<b>Task 2.1</b>	<b>Task 2.2</b>	<b>Task 2 Total</b>
FHWA-FTA TPF	\$ 1,360,734	\$3,424,087	\$4,784,821
STP - Cat 7	\$ -	\$ 80,000	\$ 80,000
TxDOT SPR	\$ -	\$ -	\$ -
TxDOT Dist. Discret.	\$ -	\$ -	\$ -
TxDOT State Funds	\$ -	\$ -	\$ -
TxDOT-Gen Appropriations Act	\$ -	\$ -	\$ -
TxDOT-Section 402	\$ -	\$ -	\$ -
FTA 5304/5307/5309/5339	\$ -	\$ -	\$ -
FAA	\$ -	\$ -	\$ -
HUD	\$ -	\$ -	\$ -
ARRA	\$ -	\$ -	\$ -
Other Local	\$ -	\$ 20,000	\$ 20,000
<b>TOTAL</b>	\$ 1,360,734	\$3,524,087	\$4,884,821

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 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), as well as efforts to improve traffic safety in the region.

#### **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.
- Identify best practices and funding for enhanced regional incident management.
- 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 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.
- To expand our knowledge of the quantity, severity, and causes of traffic accidents in the region and look for cost effective solutions.

#### **EXPECTED PRODUCTS:**

- The development of a new TIP and RTP project tracking system.
- The development of the 2015-18 TIP.
- Continued enhancement of the Call for Projects and Project Evaluation processes.
- The provision of assistance to local governments for environmental analyses of projects.
- The integration of the updated Gulf Coast Region Public Transportation Coordination Plan into the 2040 RTP.

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- An update to the regional ITS Architecture.
- The completion of a Regional Incident Management Strategic Plan and Assessment.
- The development of a traffic safety plan to be integrated into the 2040 RTP.
- The development of annual State of Safety in the Region reports outlining the traffic safety situation in the region.
- The coordination of a DWI Task Force to crack down on drunk driving in the region.

### PREVIOUS WORK

- Updated Statewide Transportation Improvement Program (STIP) reporting products in accordance with revised STIP amendment procedures and reporting requirements.
- Staff supported the development of two conformity determinations to address revisions to the TIP and RTP projects.
- Staff worked with TIP Subcommittee and other TAC subcommittees (Pedestrian & Bicycle Subcommittee, Operations Task Force, Regional Transit Coordination Subcommittee and Transportation Air Quality Subcommittee) to develop evaluation criteria and application materials for the 2014-17 TIP Call For Projects.
- Staff worked with TIP Subcommittee to review major TIP amendments.
- Conducted 2014-17 TIP Call for Projects/project development workshop in May 2012.
- Staff worked with sponsors and TIP Subcommittee to prepare the 2013-2016 TIP, approved by the TPC on April 27, 2012. FHWA approval of 2013-2016 STIP obtained November 1, 2012.
- Conducted the Fall 2012 Call for Projects for JARC and New Freedom grant programs.
- Conducted with METRO a JARC Pre-Application Workshop.
- Completed development of the Walker County Transit Plan, which was accepted by the Walker County Commissioners' Court in September 2012.
- A training was provided on June 27, 2012, in conjunction with ITS Texas, on Active Traffic and Demand Management.
- Implemented the ITS Deployment Analysis System (IDAS) to conduct benefit-cost analyses of ITS submissions for the 2014-17 TIP Call for Projects.
- Started work on Regional Incident Management Strategic Plan.
- Conducted multiple crash data analyses on behalf of member governments.
- Continued work with TTI to regionally grow the Teens in the Driver Seat program to provide peer-to-peer teen outreach regarding safe driving.
- Continued work with Texas Children's Hospital to conduct bicycle, pedestrian, and child restraint outreach for young children.

## **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.

### **PRODUCTS:**

- 3.1.a1** Continue the development and improvement of the online TIP/RTP project information database to allow for enhanced project tracking and access by member agencies – **POSTPONED TO FY 2016**
- 3.1.a2** Provide information regarding project programming and implementation to federal, state, and local transportation stakeholders as required.
- 3.1.a3** 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.
- 3.1.a4** Analyze proposed amendments to the current TIP for conformity implications, financial impact, and administrative changes.
- 3.1.a5** 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.
- 3.1.a6** 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, pending TxDOT approval, at selected meetings and events when deemed appropriate.
- 3.1.a7** 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.

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- 3.1.a8** Reassess and modify the TIP Call for Projects process, including submission requirements, readiness determination, timing, and project evaluation process.
- 3.1.a9** Develop and maintain the Transportation Improvement Program, including development of the initial document and required amendments.
- 3.1.a10** Provide assistance to TxDOT and local governments in the development of environmental analyses related to proposed projects, and support the enhancement of transportation planning and environmental linkages – **POSTPONED TO FY 2016**

### **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 target populations 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:**

##### **MPO Transit Planning**

- 3.2.a1** Continue planning support for project selection activities for Enhanced Mobility for Seniors and Individuals with Disabilities Program (FTA 5310) Calls for Projects in the MPO's Urbanized Area (UZA) as well as TxDOT's call for FTA 5310 projects in the small urban and rural areas.
- 3.2.a2** Work on integration of the updated Gulf Coast Region Public Transportation Coordination Plan (RTCP) into the 2040 RTP, as well providing planning support for the implementation of priority projects identified in the Coordination Plan.
- 3.2.a3** Review/Update the RCTP vision, goals, and performance measures.
- 3.2.a4** Continue staff support to the Regional Transit Coordination Subcommittee of the Technical Advisory Committee (TAC).
- 3.2.a5** Continuation of subregional 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.

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- 3.2.a6** PRODUCT REMOVED DUE TO FHWA COMMENT.
- 3.2.a7** Continuation of The Woodlands transit study to determine future and existing transit needs. (**Consultant Assistance Required – \$300,000** (\$240,000 TPF, \$60,000 Local))
- 3.2.a8** Continuation of the transportation assessment for the Texas Medical Center. (**Consultant Assistance Required - \$400,000** (\$320,000 FTA, \$80,000 Local))

### FTA Planning Funds for Transit Agencies

- 3.2.b1** Transit agencies wishing to use **FTA 5307** funds for planning purposes must have those dollars programmed in the UPWP and the current TIP. **Figures are estimated and will be updated upon receipt of new figures:**

- A Island Transit {Galveston UZA} Planning** - Funding applications, finance management, marketing plans, planning for local and regional mobility infrastructure; activities identifying transportation projects and related improvements to reduce congestion, improve air quality and create economic and employment impacts. Continue efforts to minimize transit funding impact resulting from 2010 Census taken before population recovery after Hurricane Ike. 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
2014	\$260,000	\$0	\$65,000	\$325,000
2015	\$260,000	\$0	\$65,000	\$325,000

- 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
2014	\$100,000	\$25,000	\$0	\$125,000
2015	\$100,000	\$25,000	\$0	\$125,000

- 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
2014	\$100,000	\$25,000	\$0	\$125,000
2015	\$100,000	\$25,000	\$0	\$125,000

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- 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; Conduct planning studies for SH 249 corridor; 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
2014	\$616,000	\$0	\$154,000	\$770,000
2015	\$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; Feasibility study for commuter rail bypass; Rosenberg transit stop study; Richmond transit study; Sugar Land commuter study; 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
2014	\$339,840	\$0	\$67,968	\$407,808
2015	\$302,080	\$0	\$60,416	\$362,496

- F City of Conroe** – Federal and state grant financial management and compliance; transit marketing and outreach; transit and transportation funding; development of submissions for the RTP, TIP, and UPWP; and participation on H-GAC transportation planning committees.

FTA 5307 Planning	Federal	State	Local	Total
2014	\$128,000	\$0	\$23,000	\$151,000
2015	\$92,000	\$0	\$23,000	\$115,000

- G The Woodlands Township** – Program coordination; program compliance; grant management; transit planning; legal, administration, insurance costs and capital project planning.

FTA 5307 Planning	Federal	State	Local	Total
2014	\$453,000	\$0	\$64,000	\$517,000
2015	\$136,000	\$0	\$64,000	\$200,000

- 3.2.b2 Fort Bend County Public Transportation Department** will conduct advanced planning, preliminary engineering, property acquisition services, environmental assessment and final design work for the construction of an Administration and Operations facility. **(\$987,196 FTA 5307/5311funds)**



## **SUBTASK 3.3 Regional Operations/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.

The MPO has been tasked with the development and maintenance of the ITS Architecture, which provides a blueprint on how the various ITS elements implemented throughout the region interact with each other to allow for improved system operations. With changes in technology, this Architecture needs revisiting to better describe the activity and connectivity of these systems.

In addition, incident management activities have been recognized as a critical component in congestion management. The MPO will work with various stakeholders to implement the Regional Incident Management Strategic Plan to consolidate activities, increase communications, and grow incident management beyond Harris County.

### **PRODUCTS:**

- 3.3.a1** Re-evaluate RTP and TIP project selection processes and criteria to ensure consistency with the adopted ITS Plan, Architecture and User's Guide.
- 3.3.a2** Conduct an update of the regional ITS Architecture (**Consultant Assistance Needed - \$100,000 TPF**).
- 3.3.a3** Continue to research Benefit-Cost methodologies to better assess operational and ITS improvements' impacts on congestion and air quality.
- 3.3.a4** Participate in Houston TranStar/ITS-related functions, such as attending meetings to provide the MPO's perspective and fulfilling TranStar Leadership Team requests.
- 3.3.a5** Facilitate annual ITS training for public sector entities in the TMA involved in the implementation of ITS. Provide food and non-alcoholic beverages, pending TxDOT approval, at events when deemed appropriate.
- 3.3.a6** 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.

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- 3.3.a7** 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.
- 3.3.a8** Research, develop, and implement training for regional incident management responders based on guidelines developed through FHWA's Strategic Highway Research Program 2 (SHRP2) (**Consultant Assistance Required - \$50,000 TPF**).
- 3.3.a9** Begin implementation of recommendations from the Regional Incident Management Strategic Plan and Assessment.

### **SUBTASK 3.4 Safety Planning**

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:**

- 3.4.a1** Develop a Regional Transportation Safety Plan to identify areas of concern in transportation safety, appropriate countermeasures for addressing safety issues, and funding sources for remediating these issues (to be incorporated into the 2040 RTP).
- 3.4.a2** Continue to support the Regional Safety Council and its subcommittees involving transportation, law enforcement, emergency services, medical, safety advocates, non-profit, business, and other interested organizations.
- 3.4.a3** Conduct non-lobbying participation in local, state, and national initiatives involved in promoting increased traffic safety.
- 3.4.a4** Research and analyze crash data from TxDOT's Crash Record Information System (CRIS) and assist agencies in assessing problem locations with CRIS data.
- 3.4.a5** Coordinate trainings and workshops on safety-related issues for agencies and regional implementers, if available or needed.
- 3.4.a6** Produce an annual State of Safety in the Region report, summarizing the regional crash experience and various efforts to address traffic-related crashes in the region.
- 3.4.a7** Conduct public outreach and education to promote traffic safety in the region (**Consultant Assistance - \$150,000 TPF**).
- 3.4.a8** Continue support for Safe Kids of Greater Houston/Texas Children's Hospital to

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provide education and outreach for bicycle, pedestrian, and child seat safety geared towards children in the region – (**Texas Children’s Hospital - \$75,000** (\$60,000 STP, \$15,000 Local))

**3.4.a9** Continue support for *Teens in the Driver 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 (**TTI - \$180,000** (\$144,000 STP, \$36,000 Local)).

**3.4.a10** Continue to operate the Regional DWI Task Force to fund overtime for law enforcement during holiday weekends to identify and apprehend drunk drivers - **\$341,947** (\$271,920 TxDOT-Sec 402, \$70,027-In-kind Local)

<b>Task 3 Funding Summary Table</b>					
<b>Funding Source</b>	<b>Task 3.1</b>	<b>Task 3.2</b>	<b>Task 3.3</b>	<b>Task 3.4</b>	<b>Task 3 Total</b>
FHWA-FTA TPF	\$ 884,299	\$1,143,078	\$ 264,808	\$ 269,608	\$ 2,561,793
STP - Cat 7	\$ -	\$ -	\$ -	\$ 204,000	\$ 204,000
TxDOT SPR	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT Dist. Discret.	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT State Funds	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT-Gen Appropriations Act	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
TxDOT-Section 402	\$ -	\$ -	\$ -	\$ 271,920	\$ 271,920
FTA 5304/5307/5309/5339	\$ -	\$4,790,216	\$ -	\$ -	\$ 4,790,216
FAA	\$ -	\$ -	\$ -	\$ -	\$ -
HUD	\$ -	\$ -	\$ -	\$ -	\$ -
ARRA	\$ -	\$ -	\$ -	\$ -	\$ -
Other Local	\$ -	\$ 850,384	\$ -	\$ 121,027	\$ 971,411
<b>TOTAL</b>	<b>\$ 884,299</b>	<b>\$6,883,678</b>	<b>\$ 264,808</b>	<b>\$ 866,555</b>	<b>\$ 8,899,340</b>

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 IV

## LONG-RANGE PLANNING

### INTRODUCTION

The 2040 Regional Transportation Plan (RTP) 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 MAP-21 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 focuses resources on developing and implementing a full range of plans, processes, promotion, education, and outreach for the region's bicycle and pedestrian traffic safety.

The subtask for Livable Centers provides outreach and technical assistance to local governments and private developers in achieving a more effective interface between land-use development patterns and the transportation system.

### OBJECTIVES:

- Develop the 2040 Regional Transportation Plan.
- Develop regional, subregional, 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 develop performance measures used to gauge potential projects (project selection), project performance (project evaluation), plan performance (plan evaluation), and planning process performance (planning process evaluation).
- To incorporate projects and/or strategies resulting from Major Corridor Studies and Alternative Analyses.
- 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

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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 decrease the share of trips made by single-occupancy vehicles and promote alternatives such as walking, biking, telework, vanpool, and carpool.
- To integrate and maintain the congestion management process into the RTP.

### **EXPECTED PRODUCTS:**

- Develop the 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.
- The implementation of performance measures as required in MAP-21.
- Draft conformity determination documentation.
- An updated regional major thoroughfare plan.
- Continued Metropolitan Planning Organization (MPO) support in State Implementation Plan (SIP) development, coordination, and implementation efforts.
- The development of a revised State of Congestion Report for the region.
- Documentation of the progress and fulfillment of VMEPs and TCMs.
- Continued support of clean air compliance for local governments.
- Facilitation of the Area Emission Reduction Credit Organization initiatives and reporting.
- Documentation of efforts to meet the motor vehicle emission budget(s).
- Development of a Regional Bikeway Plan that correlates with the 2040 RTP and emphasizes regional connectivity for all modes of travel.
- Analyses of project implementation and prioritization, capacity enhancements, environmental status, environmental justice, performance measures, scenario planning, costs, description of work, etc.
- Documentation regarding control strategies for on-road and non-road mobile sources to

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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.

### PREVIOUS WORK

- The RTP Subcommittee updated the vision statement and goals, bringing them in line with federal planning goals. Potential performance measures were identified.
- Completed intermodal terminal study.
- Began work on subregional planning studies in Brazoria County, Fort Bend County, the METRO service area, and West Houston, which will be integrated into the 2040 RTP.
- Completed subregional mobility study for the Greater East End Management District.
- Roadway functional classifications were updated for use by FHWA to update the Highway Performance Monitoring System (HPMS), which affects apportionment formulas for funding.
- Continued participation in the Mobility Measurement in Urban Transportation Study run by TTI, which has assisted the region with data collection and analysis techniques, as well as the implementation of Bluetooth-based speed and travel time data collection on regional arterials.
- Staff continued facilitation of the Regional Air Quality Planning Committee, Idling Policy Task Force, Texas Emissions Reduction Program (TERP), and Ozone Non-attainment Designation Task Force.
- Developed and submitted voluntary diesel idling reduction policy to H-GAC Board for adoption and endorsement in February 2012. Policy was adopted by H-GAC Board at May 2012 Board Meeting.
- Staff continued to work with consultant, ENVIRON, to complete the “Multi-Pollutant Analysis of Transportation Control Strategies” project.
- Staff completed and distributed the 2011 and 2012 Air Quality Initiatives Reports.
- Worked with a consultant team to create a best practices guide called “Pedestrian Pathways” for planning for pedestrian facilities.
- Held 12 meetings in September 2012 to inform local governments about pedestrian and bicycle planning efforts including the Regional Pedestrian and Bicycle Plan.
- Updated the bikeway maps throughout the year as cities, counties or project sponsors submit newly constructed or planned bikeway projects to H-GAC.
- Substantial completion of the Pedestrian and Bicycle Counts and Demand Estimation Study contracted with the Texas Transportation Institute (TTI).
- Completed several Livable Centers studies, including Airline (Harris County), Nassau Bay, Hempstead, League City, and Independence Heights/Northline.
- Worked on HUD-funded Regional Plan for Sustainable Development.

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## **SUBTASK 4.1 2040 Regional Transportation Plan (RTP) Development**

This subtask will focus on the continued development of the 2040 Regional Transportation Plan (RTP). Key focus areas for the 2040 RTP include, development of new vision and goal statements; use of performance measures for evaluating projects, project performance, plan performance, and planning process performance; 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.

Efforts to overhaul the Congestion Management Process (CMP) began in FY 2012 that are based on materials from 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:**

#### **2040 Regional Transportation Plan**

- 4.1.a1** Develop a Regional Transportation Plan (RTP) with new goals and performance measures by conducting public education and outreach and providing an expanded role to the RTP Subcommittee to reflect the regional vision. Revise project selection criteria to link RTP goals and objectives to recommended projects. Develop performance measures and evaluation methodologies based on RTP goals. Analysis will include, but not limited to the prioritization process, project data base, congestion management, performance measures, environmental justice, land use/ transportation integration, and scenario planning – (**Consultant Assistance - \$500,000 TPF.**)

The key elements of the plan include:

- Development of Goals, Objectives, and Selection Criteria
- Development of Performance Measures, as required in MAP-21
- 2040 Socio-economic Forecast
- Transportation Demand Model Network Development
- Inclusion of Regional Initiatives, Processes, and Plans: Transit, Congestion Management Process, Environmental Justice, Bike/Pedestrian, Livable Centers, Corridor Studies, Safety, ITS, and Freight/Goods Movement
- Financial Plan
- Public Outreach
- Projects Review and Selection
- Air Quality Conformity Determination



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- 4.1.a2 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, pending TxDOT approval, at selected meetings and events when deemed appropriate.
- 4.1.a3 Finish development of a financial analysis tool for the 2040 RTP. (**Consultant Assistance - \$44,000 TPF**)

### Long-Range Transit Planning

- 4.1.b1 Develop implementation plan for the recommendations discussed in the Regional Transit Framework, including regional transit planning, coordination, integration, and financing for a regional transit framework.
- 4.1.b2 Conduct a study to assess a northern access for a downtown Houston intermodal terminal – **PRODUCT ELIMINATED.**
- 4.1.b3 Conduct a Station Area Planning Study, in conjunction with METRO, for the purpose of achieving regional and community goals by encouraging Transit Oriented Developments (TODs) opportunities on select sites within the ½ mile radius surrounding a select number of METRORail stations as well as regional Park & Ride facilities (**Consultant Assistance Required - \$300,000 TPF**).
- 4.1.b4 Conduct a study to identify post-trip transportation needs (passenger pick-up, taxi/limousine, rental car, public transportation) for passengers utilizing the proposed High Speed Rail system (**Texas Southern University: \$25,000 TPF**).

### Subregional Planning Initiative

- 4.1.c1 Conduct a subregional analysis of current and future transportation infrastructure and land use in Eastern Harris County and Western portions of Chambers County to include the Cities of Baytown and Mont Belvieu – **POSTPONED TO FY 2016.**
- 4.1.c2 Complete work within the Greater West Houston area to develop an integrated subregional land-use and transportation plan, which will assist in the development of projects for the RTP (**Consultant Assistance Required - \$312,000** (\$249,600 STP, \$62,400 Local)).
- 4.1.c3 Conduct a subregional analysis of current and future transportation infrastructure and land use in Northeast Harris County, within a study area roughly bound by I-69/US 59, the San Jacinto River, Lake Houston/Beltway 8, I-10/Loop 610 – **POSTPONED TO FY 2016.**

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- 4.1.c4** Continue a subregional mobility study for South Montgomery County to help improve mobility and access to jobs, homes and services (**Consultant Assistance Needed – \$500,000** (\$300,000 TPF, \$200,000 Local))
- 4.1.c5** Continue the development of a thoroughfare plan for Fort Bend County (**Consultant Assistance Required - \$240,000 TPF**)
- 4.1.c6** Identification of potential freight corridors – **PRODUCT ELIMINATED – DUPLICATE OF PRODUCT 5.3.a15**, Urban Core Freight Reliever Route Identification.
- 4.1.c7** Develop a thoroughfare plan for Montgomery County (**Consultant Assistance Required: \$300,000** (\$200,000 TPF, \$100,000 Local)).
- 4.1.c8** Develop a Bicycle Master Plan for the City of Houston to guide infrastructure policy decisions for improving bicyclist safety (**Pass-thru to the City of Houston: \$125,000 TPF**).

### **Congestion Management Process**

- 4.1.d1** Revise CMP significant roadway network map to reflect roadway classification upgrades and new roadway development as needed.
- 4.1.d2** Maintain and update congestion indices on regional facilities as for project prioritization measurement for the RTP.
- 4.1.d3** 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.
- 4.1.d4** Review congestion mitigation analyses (CMAs) submitted by transportation partners for regionally significant added-capacity projects on the CMP Network. Provide training when requested.
- 4.1.d5** Continue participation in and support for the nationwide mobility measurement research project – (**TTI - \$50,000 TPF**)
- 4.1.d6** Revise the State of Congestion Report based on new private sector roadway data. (**TTI - \$100,000 TPF**).
- 4.1.d7** Complete revision of the Congestion Management Process to be integrated into the 2040 RTP (**Consultant Assistance - \$175,000 TPF**).

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### **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.a1** 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.
- 4.2.a2** Provide coordination, participation, and expertise to local and statewide air quality planning committees.
- 4.2.a3** Support the Regional Air Quality Planning Committee (RAQPC), researching air quality issues and making recommendations to the H-GAC Board of Directors.
- 4.2.a4** Support the Transportation Air Quality Subcommittee to advise on project selection for the State Implementation Plan (SIP).
- 4.2.a5** Analyze emissions benefits of CMAQ eligible projects for VMEPs, TERMS, and TCMs and seek additional commitments from implementing agencies. (**Consultant Assistance - \$100,000 TPF**)
- 4.2.a6** Revise, print, and distribute the *Air Quality Initiatives Reference Guide for the Houston-Galveston Area Council and Annual Air Quality Report*.
- 4.2.a7** Provide staff training, public relations and/or sponsorship support for air quality technical workshops.

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- 4.2.a8 Develop survey of transit buses and update previous survey of school bus fleet age/emissions.
- 4.2.a9 Develop analysis and inventory of regional heavy-duty vehicle (including school buses) idling emissions – **POSTPONED TO FY 2016.**
- 4.2.a10 Conduct update to 2002 Transportation Mobility Measures Study. (**Consultant Assistance Needed - \$100,000 TPF**)
- 4.2.a11 Develop regional alternative fuel inventory and infrastructure plan. (**Consultant Assistance Needed - \$125,000 TPF**)
- 4.2.a12 Develop potential control strategies for PM 2.5 emissions. Potential control measures will utilize strategies throughout the region, with a particular focus on identifying cost-effective reductions around the Clinton Road monitor. (**Consultant Assistance - \$66,000 TxDOT-SPR**)
- 4.2.a13 Conduct a study on how commuters and employers along Houston's most congested corridors (IH-45 North, US59 South, and US290) respond to the use of various incentives for using commute alternatives (**Consultant Assistance Required - \$223,998 TxDOT-SPR**)

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

The Transportation Policy Council (TPC) adopted pedestrian and bicycle policy goals, and recommended action steps. 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.a1 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.
- 4.3.a2 Review documentation of pedestrian and bicycle accommodations submitted by project sponsors and provide assistance or comments, as appropriate, and work with sponsors and TxDOT to move TIP and RTP bikeways and special district studies forward.
- 4.3.a3 Maintain an up-to-date Regional Bikeway Plan that identifies existing and planned bicycle facilities, system gaps, and future facility needs by developing a process to standardize data collection and other inputs from local governments and transportation

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agencies to produce easy to read maps with regular updates of the plan. The Plan will be included in the project management system update to allow users and project sponsors to view bikeway projects programmed into the RTP and TIP.

- 4.3.a4** Conduct or host topical pedestrian/bicycle training workshops for local government agencies, organizations, and interested groups. Potential topics include: “best practices” for local pedestrian and bicycle planning; design and maintenance for pedestrian and bicyclist facilities; improving connectivity; project management; cost estimation; and pedestrian bicyclist safety.
- 4.3.a5** Update the Regional Bikeway Plan in concert with the 2040 RTP update. The bikeway plan will place an emphasis on regional connectivity among various modes of travel (i.e. walking, biking and transit) as well as identifying connections between and within regional activity nodes (or livable centers).
- 4.3.a6** Conduct a minimum of one new Special Districts study within the Transportation Management Area that are within subregions where there may be a high potential to increase the walking and biking mode share. **(Consultant Assistance - \$100,000 (\$75,000 TPF \$25,000 Local))**
- 4.3.a7** Coordinate and offer technical assistance for other H-GAC initiatives as necessary including the 2040 RTP, Commute Solutions, air quality planning, and the subregional planning initiative.
- 4.3.a8** Work closely with the Commute Solutions program staff on developing user-friendly bikeway maps. Mapping products will be available both on an interactive website and in a waterproof, printed format that will be made available for distribution. The interactive web-based maps will be available to view by smart phone or mobile device in order to assist with commuting by bicycle. **(Consultant Assistance - \$40,000 TPF)**
- 4.3.a9** Coordinate regular pedestrian and bicycle counts and surveys at areas throughout the TMA by working with local governments, regional transportation agencies, research organizations, improvement districts, and non-profit organizations. At least once a year, a workshop will be provided to assist local entities in the TMA with information about performing routine bicycle and pedestrian counts and surveys to better assess the benefits of planned and completed pedestrian/bicycle facilities. H-GAC has three pedestrian/bicycle counters that can be loaned out to jurisdictions within the TMA to perform counts. Depending on popularity of equipment usage, H-GAC may purchase more counters to assist with data collection. The data from the count efforts will be used to determine pedestrian and bicycle usage on existing facilities. Documentation of actual pedestrian and bicycle usage will be used to determine/calculate travel demand and air quality benefits associated with investments in pedestrian/bicyclist infrastructure. Counts will also be used to document trends of facility usage over time. Consultant services will be required to assist with establishing a collection

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methodology and process for revisions and to include ongoing technical assistance. (Consultant Assistance - \$20,000 TPF)

**4.3.a10** Coordinate with the Regional Plan for Sustainable Development to provide support and technical assistance on Plan elements related to pedestrian and bicycle travel, land use and transportation connections, and broader connections between livability and transportation. H-GAC staff will participate in coordinating this effort with the 2040 RTP, assist with transportation related advisory committees for the Plan, and help develop policy and implementation recommendations related to transportation and livability.

**4.3.a11** PRODUCT MOVED TO 4.1.c8

### **SUBTASK 4.4 Livable Centers (H-GAC 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.a1** Assist project sponsors in completing project readiness component for TIP eligibility or for other funding sources, including environmental processes, cost estimations, and partnership development.

**4.4.a2** Refine criteria and conduct livable center project evaluation for next TIP funding round and other potential funding programs.

**4.4.a3** Assist Transportation Department staff, including contributing to land use/transportation related RTP elements, preparation for 2040 RTP, Subregional Planning program and public outreach efforts.

**4.4.a4** Conduct training workshops for local government staff and officials on implementing land use-transportation coordination principles such as context sensitive solutions, financing livable centers, urban design, and sustainability.

**4.4.a5** Maintain updated database and map of significant centers, mixed use, transit oriented development, or sustainable mobility projects and local government planning and implementation projects pertaining to land use-transportation program.

**4.4.a6** Conduct analysis and utilize data for transportation planning and in presentations to local governments, reports to TAC and TPC.

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- 4.4.a7** Coordinate with the Regional Plan for Sustainable Development by providing support and technical assistance on plan elements related to land use and transportation connections, livable centers, and broader connections between livability and transportation. H-GAC staff will participate in coordinating this effort with the 2040 RTP, organize and manage transportation and land use related advisory committees for the Plan, assist with public outreach efforts, develop policy and implementation recommendations related to transportation and livability, participate in outreach and education to local governments regarding plan elements, and assist with plan development and writing (**Consultant Assistance Required - \$389,000 HUD**)
- 4.4.a8** Seek to identify new sources of funding to help support Livable Centers planning in diverse communities throughout the TMA.

### **Livable Center Studies**

- 4.4.b1** Conduct Livable Centers Studies in conjunction with local project sponsors to facilitate the creation of more compact, walkable, mixed-use places in the region. Studies will provide a framework for promoting efficient use of existing infrastructure, creating multi-modal travel choices, improving accessibility and circulation, and leveraging private resources for strategic investment. Studies will identify TIP eligible transportation projects and include an air-quality benefit calculation. (**Consultant Assistance Needed - \$1,500,000, (\$1,200,000 STP, \$300,000 Local)**)

### **Other Initiatives**

- 4.4.c1** Create a white paper that outlines a potential approach for addressing wetland impacts associated with RTP implementation in order to minimize project development costs, minimize risk, and accelerate project delivery. (**\$13,750 TPF funds**)

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<b>Task 4 Funding Summary Table</b>					
<b>Funding Source</b>	<b>Task 4.1</b>	<b>Task 4.2</b>	<b>Task 4.3</b>	<b>Task 4.4</b>	<b>Task 4 Total</b>
FHWA-FTA TPF	\$ 3,777,264	\$1,198,159	\$ 433,565	\$ 345,567	\$ 5,754,555
STP - Cat 7	\$ 249,600	\$ -	\$ -	\$ 1,200,000	\$ 1,449,600
TxDOT SPR	\$ -	\$ 289,998	\$ -	\$ -	\$ 289,998
TxDOT Dist. Discret.	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT State Funds	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT-Gen Appropriations Act	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT-Section 402	\$ -	\$ -	\$ -	\$ -	\$ -
FTA 5304/5307/5309/5339	\$ -	\$ -	\$ -	\$ -	\$ -
FAA	\$ -	\$ -	\$ -	\$ -	\$ -
HUD	\$ -	\$ -	\$ -	\$ 389,000	\$ 389,000
ARRA	\$ -	\$ -	\$ -	\$ -	\$ -
Other Local	\$ 362,400	\$ -	\$ 25,000	\$ 300,000	\$ 687,400
<b>TOTAL</b>	<b>\$ 4,389,264</b>	<b>\$1,488,157</b>	<b>\$ 458,565</b>	<b>\$ 2,234,567</b>	<b>\$ 8,570,553</b>

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 V**

## **SPECIAL PLANNING STUDIES**

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

Subtask 5.1 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 5.2 programs funds to support state and local government hurricane evacuation planning, coordination, and implementation efforts.

Subtask 5.3 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. This subtask also looks at general aviation development for the region.

### **OBJECTIVES:**

- 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.
- Work on implementation of recommendations from the Regional Aviation System Plan, including the further examination of the potential need for an additional commercial aviation airport in the region.

### **EXPECTED PRODUCTS:**

- The completion of access management studies in Richmond, Rosenberg, Dickinson, and Stafford.
- The redevelopment of the web-based hurricane evacuation map.
- Completion of studies to improve congestion on roadways identified in Rider 42.

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## PREVIOUS WORK

- Completed access management studies for FM 1092 in Missouri City, FM 1764 in Texas City, BF 1960 in northern Harris County, and SH 105 in Montgomery County.
- Staff worked with State and local law enforcement and emergency management personnel to update regional Emergency Evacuation Traffic Management Plans.
- Completed the Together Against the Weather initiative for hurricane preparedness, including translations into Spanish and Chinese.
- Completed work on the Regional Goods Movement Study.
- Developed Regional Aviation System Plan.

## SUBTASK 5.1 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.

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 STP funds will be used for these studies depending, in part, on whether or not a transit alternative is viable for each project.

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## PRODUCTS:

**5.1.a1 Active Major Corridor Studies** - The following are major corridor studies with anticipated activity occurring during FY 2014-15 that are 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. These major corridor studies are designed to enhance public participation in proposed transportation improvements of significant local and regional impact. In addition, the studies insure 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.

<b>Regional Active Major Corridor Studies – FY 2014-15</b>		
<b>NAME</b>	<b>LIMITS</b>	<b>STATUS</b>
SH99 Segments H, I-1 (TxDOT)	US 59 North to IH 10 East	Anticipated ROD in December 2013
SH 288	US 59 (CBD) to SH 36 (Freeport)	Environmental Assessment expected December 2013
SH 35 (TxDOT)	IH 45 to SH 288 (Angleton)	Environmental Assessment for toll facility from IH-45 to Bellfort Road anticipated in December 2013
SH 99 Segment B (TxDOT)	SH 288 to I-45 South [26.2mi]	EIS in progress – anticipated ROD in February 2015
IH 45	US 59 to BW 8 North	EIS in progress. Expect ROD 2016

**5.1.a2** Completion of feasibility analysis in exploring alignment issues and new or upgraded track alternatives along the Eureka, and Palestine Subdivisions to handle commuter trains as listed in the H-GAC American Recovery & Reinvestment Funds project list. **(Consultant Assistance Needed - \$1,350,000 ARRA)**

### **Access Management Studies**

Access management is a transportation strategy that reduces and consolidates entry and exit points between roadways and adjacent land uses. These access points, commonly in the form of driveways, medians, and interchanges, are designed to maximize safety at efficient road capacities and speeds.

**5.1.b1** Completion of an access management study for the US 90A corridor from Harlem Road in Richmond to Spur 529 in Rosenberg; and, FM 1640 corridor from Spur 592 in Rosenberg to FM 762 in Richmond; and, FM 762 from FM 1640 to US 90A in Richmond **(Consultant Assistance Required – \$192,000 (\$153,600 STP; \$38,400 TxDOT State Funds)**

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- 5.1.b2** Completion of an access management study for FM 1092 from US 59 to Dove Country Road in Stafford (**Consultant Assistance Required**) - **\$25,000 (\$20,000 STP; \$5,000 TxDOT State Funds)**
- 5.1.b3** Completion of an access management study for SH 3 from Hughes Road in Dickinson to FM 518 in League City; and, FM 517 from Cemetery Road to Gum Bayou in Dickinson (**Consultant Assistance Required**) - **\$9,000 (\$7,200 STP; \$1,800 TxDOT State Funds)**
- 5.1.b4** Additional Access Management studies - **PRODUCT REMOVED DUE TO FHWA COMMENT**
- 5.1.b5** Conduct an access management study of SH 249 from Beltway 8 to IH-45 North (**Consultant Assistance Required** - **\$500,000 (\$400,000 STP/\$100,000 TxDOT State Funds)**)
- 5.1.b6** Complete post-implementation assessment of recommendations from prior access management studies (**Consultant Assistance Required** - **\$24,000 (\$19,200 STP/\$4,800 TxDOT State Funds)**)

### **Rider 42 Funded Studies**

- 5.1.c1** Conduct a comprehensive feasibility study to develop viable and long-term solutions to all the congested freeway sections within the IH 610 Loop (**Consultant Assistance Needed** - **\$5,000,000 82<sup>nd</sup> Leg, Gen. Appropriations**).
- 5.1.c2** Conduct a feasibility study and design of mobility improvements along major streets parallel to IH 45 North (**Consultant Assistance Needed** - **\$2,000,000 82<sup>nd</sup> Leg, Gen. Appropriations**).
- 5.1.c3** Conduct an engineering study to identify potential freeway locations that can benefit from operational treatments such as comprehensive incident management, dynamic rerouting, variable speed limits, time of day ramp closures, etc. Identify the cost of implementing these strategies, implementation funding sources and benefits (**Consultant Assistance Needed** - **\$850,000 82<sup>nd</sup> Leg, Gen. Appropriations**).

### **SUBTASK 5.2 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. Past planning activities have focused on traffic operations, communications and logistics. Operational improvements have focused on accident detection and management, changes in transit vehicle routing and scheduling, the elimination of bottlenecks at specific

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intersections and contra-flow lane operations. Current activities have included improving communications with the public and within the emergency response community.

### **PRODUCTS:**

- 5.2.b1** Redevelop and maintain the Web Based Evacuation Map, which allows for the tracking by local governments of law enforcement and transportation resource deployments during a hurricane evacuation (**Consultant Assistance Needed - \$40,000 TPF**).
- 5.2.b2** Monitor the Web Based Evacuation Map during an evacuation event.
- 5.2.b3** Update and maintain the Zip Zone and Evacuation Route maps and provide to interested parties as requested.
- 5.2.b4** Provide on-going support and training to local governments and State regarding evacuation-related matters.

### **SUBTASK 5.3 Multimodal Initiatives**

While improving the personal commute is perhaps a primary focus in transportation planning, freight movement is also a critical planning factor within the Houston-Galveston Area Council region. Freight facilities and services are strongly linked to regional economic competitiveness and quality of life and, from a transportation perspective, freight shipments continue to grow steadily across all modes. Planning for freight is also an effective means of addressing safety, security, environmental, and air quality issues.

A major objective of the freight program will be to initiate and sustain meaningful outreach to the local freight community and to build awareness and expertise among planners and the general public. A freight advisory committee will be the focal point of this effort.

As our region continues to grow, aviation planning becomes an increasing need as capacity at the region's primary airports continues to be filled. Improvements at alternative facilities need to be assessed to help alleviate the congestion.

### **PRODUCTS:**

#### **Freight Planning**

- 5.3.a1** Provide staffing and coordination for the development of a Freight Advisory Committee, as recommended in the Regional Goods Movement Study.
- 5.3.a2** Formally define and designate the Freight Significant Network and work with partners to mitigate short-term deficiencies on the network.

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- 5.3.a3** Seek approval from the Transportation Policy Council (TPC) to create a new subcommittee focused on addressing regional goods movement issues as part of the regional planning process and recommended by the Goods Movement Study
- 5.3.a4** Facilitate Freight Advisory Committee and freight community input on the TIP, 2040 RTP, UPWP, and other relevant policy issues, technical studies, and programs.
- 5.3.a5** Incorporate Freight-Specific Measures into Project Evaluation Processes (TIP).
- 5.3.a6** Respond to inquiries, surveys, and requests regarding the region's freight transportation network and freight planning process.
- 5.3.a7** Designate and publicize a freight point-of-contact/technical lead to serve as a liaison between the private sector freight community and H-GAC, between H-GAC and TxDOT and between the MPO and its other transportation partners. Designation of a freight point of contact will help demonstrate a commitment to freight planning within H-GAC, as well as allow it to build and sustain relationships with key members of the private sector freight community.
- 5.3.a8** Develop a freight performance measures program to enable agencies to gauge system conditions and use, evaluate transportation programs and projects and help decision-makers allocate limited resources more effectively that would otherwise be possible.
- 5.3.a9** Develop a freight educational outreach effort as recommended by the Regional Goods Movement Study. This will include outreach to shippers, intermodal interests and freight stakeholders as well as developing, maintain, and updating a user-friendly freight page on the H-GAC website containing freight-related information and data.
- 5.3.a10** Develop, refine and update freight related GIS information and data developed from the Regional Goods Movement Study.
- 5.3.a11** Develop a freight data collection portal to facilitate the exchange of information and a concept of operations for a Freight ITS Program.
- 5.3.a12** Pursue grant funding opportunities through collaborative efforts with the H-GAC Air Quality program.
- 5.3.a13** Regional Freight Wayfinding Plan – PRODUCT REMOVED PER TIP AMENDMENT. FUNDING ADDED TO 5.3.a15 and 5.3.a16
- 5.3.a14** Urban Core Freight Relief Route study – PRODUCT REMOVED, SPLIT INTO 5.3.a15 and 5.3.a16

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- 5.3.a15** Conduct study to assess a potential urban area reliever route for freight movement identified from recommendations from the Regional Goods Movement Study – **POSTPONED TO FY 2016**
  
- 5.3.a16** Conduct study to assess a potential reliever route for freight movement from Freeport to Hempstead – **POSTPONED TO FY 2016**

### Aviation Planning

- 5.3.b1** Regional Aviation System Plan (RASP) development – **PRODUCT REMOVED DUE TO FHWA COMMENT**
  
- 5.3.b2** RASP update – **PRODUCT REMOVED DUE TO FHWA COMMENT**

<b>Task 5 Funding Summary Table</b>				
<b>Funding Source</b>	<b>Task 5.1</b>	<b>Task 5.2</b>	<b>Task 5.3</b>	<b>Task 5 Total</b>
FHWA-FTA TPF	\$ 471,957	\$ 146,983	\$ 173,431	\$ 792,371
STP - Cat 7	\$ 600,000	\$ -	\$ -	\$ 600,000
TxDOT SPR	\$ -	\$ -	\$ -	\$ -
TxDOT Dist. Discret.	\$ -	\$ -	\$ -	\$ -
TxDOT State Funds	\$ 150,000	\$ -	\$ -	\$ 150,000
TxDOT-Gen Appropriations Act	\$ 7,850,000	\$ -	\$ -	\$ 7,850,000
TxDOT-Section 402	\$ -	\$ -	\$ -	
FTA 5304/5307/5309/5339	\$ -	\$ -	\$ -	\$ -
FAA	\$ -	\$ -	\$ -	\$ -
HUD	\$ -	\$ -	\$ -	\$ -
ARRA	\$ 1,350,000	\$ -	\$ -	\$ 1,350,000
Other Local	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$10,421,957</b>	<b>\$ 146,983</b>	<b>\$ 173,431</b>	<b>\$ 10,742,371</b>

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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## 2014-15 UNIFIED PLANNING WORK PROGRAM FUNDING SUMMARY

<b>2014-15 UPWP Funding Summary</b>						
	Task 1	Task 2	Task 3	Task 4	Task 5	TOTAL
	Admin. / Mgmt.	Data Modeling & Maintenance	Short Range Planning	Long-Range Planning	Special Studies	
Funding Source	FTA 44.21	FTA 44.22	FTA 44.24, 44.25	FTA 44.23	FTA 44.26, 44.27	
FHWA-FTA TPF	\$ 5,142,383	\$ 4,784,821	\$ 2,561,793	\$ 5,754,555	\$ 792,371	\$ 19,035,923
STP - Cat 7	\$ -	\$ 80,000	\$ 204,000	\$ 1,449,600	\$ 600,000	\$ 2,333,600
TxDOT SPR	\$ -	\$ -	\$ -	\$ 289,998	\$ -	\$ 289,998
TxDOT Dist. Discret.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TxDOT State Funds	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000
TxDOT - Gen. Appropriations	\$ -	\$ -	\$ 100,000	\$ -	\$ 7,850,000	\$ 7,950,000
TxDOT - Section 402	\$ -	\$ -	\$ 271,920	\$ -	\$ -	\$ 271,920
FTA 5304/5307/5309/5311/5339	\$ -	\$ -	\$ 4,790,216	\$ -	\$ -	\$ 4,790,216
FAA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HUD	\$ -	\$ -	\$ -	\$ 389,000	\$ -	\$ 389,000
ARRA	\$ -	\$ -	\$ -	\$ -	\$ 1,350,000	\$ 1,350,000
Other Local	\$ -	\$ 20,000	\$ 971,411	\$ 687,400	\$ -	\$ 1,678,811
<b>TOTAL</b>	<b>\$ 5,142,383</b>	<b>\$ 4,884,821</b>	<b>\$ 8,899,340</b>	<b>\$ 8,570,553</b>	<b>\$ 10,742,371</b>	<b>\$ 38,239,468</b>
<b>TRANSPORTATION PLANNING FUNDS (TPF) ONLY</b>						
Transportation Planning Funds (FHWA PL-112/FTA 5303) funding estimate:					\$ 17,398,516	
FHWA PL-112 Carryover from FY 2012-13:					\$ 5,796,300	
<b>TOTAL TPF AVAILABLE:</b>					<b>\$ 23,194,816</b>	
<b>TOTAL TPF PROGRAMED:</b>					<b>\$ 19,035,923</b>	
<b>UNDER (OVER) PROGRAMMED:</b>					<b>\$ 4,158,893</b>	
<p>By minute order, the Texas Transportation Commission authorizes the use of transportation development credits as TxDOT's non-Federal share for FHWA (PL-112) and FTA 5303 funds. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.</p>						

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# STATE & LOCALLY FUNDED PLANNING ACTIVITIES

## City of Missouri City

- The City will continue participating with H-GAC and other Fort Bend communities in the development of a Fort Bend Subregional Plan to help in the coordination of land-use and transportation and to develop future projects for the 2040 Regional Transportation Plan.
- Capital Improvement Program staff will complete a Bicycle and Pedestrian Mobility Plan that focuses on safely connecting neighborhoods by identifying specific treatments along preferred routes. The plan also incorporates a complete streets foundation that is already being designed into the next street rehabilitation design projects.
- The Traffic Signal group will be modifying the City's Intelligent Transportation System servers to allow for traffic counts to be taken on an annual basis. The ITS web-based traffic map will receive an upgrade with the addition of real-time traffic speeds and DMS messages for public viewing. The group will also continue to perform signal timing studies as needed, as well as ongoing signal maintenance.
- The City's Pavement Maintenance and Management Program will undergo an update with a complete survey of all city streets segment conditions. A concurrent survey of all city sidewalks will be performed creating a new asset feature in the City's asset management system. The Streets crews will continue to perform emergency repairs and routine maintenance on city roadways as needed.
- The City's Traffic Management Plan, which contains the Thoroughfare Plan, will continue to be assessed for any necessary updates.
- Traffic Engineering studies, including signal, stop sign, and cross walk warrants, will continue to be performed as needed.

## City of Pearland

- Constructing Citywide traffic signal improvements including communications and associated timing updates
- Conducting Major Thoroughfare Plan Updates including:
  - Max Rd Alignment Study
  - Dixie Farm Rd Alignment Study
  - Pearland Parkway Alignment Study
- Creating regional detention programs
  - Cullen Regional Detention (near southwest corner of Broadway and Cullen)
  - Lower Kirby District (Kirby Drive near Beltway 8)

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- Actively participating in the SH288 Managed lanes project
- Comprehensive Plan Update
- Grand Avenue Development Plan
- Lower Kirby Code Based Development Plan

### **Metropolitan Transit Authority of Harris County (METRO)**

#### ***Before and After Studies***

METRO currently has two federally funded light rail lines under construction. The North and Southeast Corridor light rail lines will open in 2014 with the help of Full Funding Grant Agreements (FFGAs) from the Federal Transit Administration (FTA) which will provide over 50% of the funding to build the two projects. FTA's Final Rule on Major Capital Investment Projects (December 2000) includes a provision whereby sponsors seeking an FFGA for their New Starts project must submit to FTA a plan for the collection and analysis of information leading to the identification of the impacts of the project and the accuracy of the forecasts which were prepared during project planning and development. As a condition of receiving an FFGA, METRO must commit to carrying out the defined elements of the aforementioned plan, resulting in the completion of a Before and After Study. The Before and After Study has two distinct and important purposes: (1) to expand insights into the costs and impacts of major transit investments; and (2) to improve the technical methods and procedures used in the planning and development of those investments.

In addition to the federally funded North and Southeast light rail lines, METRO will conduct the same analysis for the locally funded East End light rail project, which is also under construction and will open in 2014.

#### ***Station Area Planning***

As METRO focuses on increasing ridership on its system, station area planning has been identified as an opportunity to meet this challenge by encouraging dense transit oriented development at the light rail stations on the existing Red Line as well as the three lines (North, Southeast and East End) that will begin operations in 2014. METRO has committed to FTA as part of the federally Houston METRO 2 2014-2015 UPWP funded projects to look at station area development in an effort to ensure METRO achieves estimated ridership documented for the lines, as well as ways to improve upon those estimated ridership numbers. The study will look at the development potential around each of the stations in the corridors based on the 2013 market realities. The goal is to create station area plans that have the support of the neighborhoods they serve, the stakeholders, landowners and influencers/developers. The plans will demonstrate market potential of the local station areas in the current economic climate in Houston, TX.

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### ***Transit Facility Studies***

In order to meet growing demand for park & ride service to communities throughout its service area, METRO will assess existing capacity at existing park & ride facilities and evaluate them for expansion. In addition, METRO will evaluate the demand for new park & ride service and facilities. A site selection process as well as environmental clearance will be necessary in the event METRO needs to expand or build new park & ride facilities. A preliminary assessment indicated that the West Bellfort, Grand Parkway and Cypress Park & Ride locations require further analysis for expansion.

### ***METRO Bike and Ride Study and Implementation***

METRO will work with H-GAC to complete the recommendations through the awarded Subregional Planning Initiative grant for the Bike & Ride Access & Implementation Plan. In order to meet community needs and provide increased access to transit facilities and services, METRO will continue to evaluate and incorporate recommended biking accommodations projects into the agency's Capital Improvement Program (CIP) and long-term plan. The Bike & Ride projects will enhance METRO's ongoing sustainability efforts and long-term system planning.

### ***Uptown Houston Management District's Uptown Houston Mobility Project***

METRO has entered a working partnership with the Uptown Houston Management District (UHMD) to support their proposal to reconstruct and widen Post Oak Boulevard, build an exclusive transitway with direct connections to the Northwest Transit Center, and construct a proposed Westpark Transit Center with direct access to the Southwest Freeway. Through this partnership, METRO wishes to significantly upgrade the level of transit services to one of our most economically crucial communities, accelerate the construction of critical transit infrastructure, and leverage the resources of the Uptown District and METRO to accomplish the project in a more timely fashion.

METRO will assist UHMD in project development including planning, environmental review and clearance, and engineering. Once the project is developed and constructed, METRO will ultimately assume responsibility for operating and maintaining the facilities and service.

### ***Origin/Destination Passenger Survey***

In order to determine the transportation needs and appropriate solutions for a region, it is important to have an understanding of the underlying characteristics of travel. METRO has conducted multiple origin/destination passenger surveys since its inception (METROBus: 1985, 1990, 1995, 2001, 2007, 2011; METRORail: 2004, 2007, 2011). With the opening of new light rail lines in the North, East End, and Southeast rail corridors in FY2014 and FY2015, it would be expected that there could be significant demographic changes in customers and travel patterns. Origin/destination surveys allow METRO to collect pertinent information to better understand customers and travel patterns. These data are used for a multitude of planning purposes including travel forecasting, route realignment, and customer service initiatives.

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## ***Location Of New Bus Operating Facility***

Presently, METRO operates service from five METRO-owned operating facilities (Fallbrook, Hiram Clarke, Kashmere, Polk, and West) and two contract/purchased transportation facilities (MV, and Northwest). These bus operating facilities are located primarily in the eastern part of METRO's service area and have limited room for additional vehicles. A significant portion of METRO's ridership and ridership growth is occurring in the western part of METRO's service area. There will be a need for an additional bus operating facility with space for additional vehicles as bus service expands. A study to determine the optimal location for a new facility should be undertaken, beginning in the next two years.

## ***System Re-Imaging***

The METRO Board of Directors has committed to examining the existing fixed-route bus system structure. In an effort to be more efficient and effective, the Board has directed staff to undertake a process called System Re-Imaging. A consortium of external consultants led by Traffic Engineers, Inc (TEI) will be working in FY2013 and FY2014 to develop a top-to-bottom review of the existing system, identifying elements that should be retained, modified, changed, or discarded along with innovations which can be implemented to generate increased usage (ridership) through the application of a best practices examination of transit industry options.

## **Energy District**

The following is a list of The Energy Corridor District's possible 'locally-funded' transportation-related air quality or planning activities, which may be undertaken between October 1, 2013 and September 30, 2015

- IH 10 Intersections Enhancement Project
- The Energy Corridor CarShare Program expansion (includes NuRide and METRO RidePro)
- The Energy Corridor Bicycle Master Plan Update
- The Energy Corridor Bicycle Counts Study
- West Houston Trails Master Plan Update
- Eldridge Parkway and Memorial Drive ITS Study
- JARC 75 Eldridge bus service revisions
- 67 Dairy Ashford bus services extended to Texas Medical Center West
- Greater West Houston Subregional Planning Initiative CIP projects
- Memorial Drive Reconstruction SH 6 to Eldridge Parkway
- Park Row/N.Dairy Ashford Intersection Reconstruction
- Eldridge Parkway Widening Memorial Drive to Briar Forest Drive

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- The Energy Corridor Livable Centers Bridge over IH 10
- Addicks Park & Ride transit streets, mall and BRT station
- The Energy Corridor Livable Centers METRO/BP joint development RFP
- S. Mayde Creek Drive extension - Memorial Drive to Park Row with bridge over IH 10
- Patterson Eldridge Bike Trail connecting Cullen Park, Bear Creek Park and Terry Hershey Park to Addicks Dam Trail
- Addicks Howell Reconstruction and bike trail IH 10 to SH 6/Terry Hershey Park
- Grisby Square Woonerf Streetscape project

### **Fort Bend County Transit**

#### Rail Study

During FY 2014 and FY 2015, Fort Bend County will continue work that began in FY 2007 with the Gulf Coast Freight Rail District to determine the feasibility of a freight rail corridor bypass to enable commuter rail along the existing Glidden Subdivision. The general intent of the study is to determine the viability of an alternate freight route outside of the congested 90A corridor that realizes reliability and/or velocity improvements (with their quantitative benefits) for freight railroad movements.

#### Downtown Houston Transit Options Study

Fort Bend County Transit, Houston METRO, and Central Houston are working on developing a one-seat, seamless-fare ride for commuters from Fort Bend County to Downtown Houston. The Texas Transportation Institute (TTI) is providing technical assistance, analysis and stakeholder facilitation. Stakeholders include the City of Sugar Land and employers in the Central Houston area.

#### Alternative Fuel Study

Fort Bend County is considering initiating an Alternative Fuel Study to determine the feasibility of converting the fleet to alternative fuels. The study will include a comparison to similar transit agencies, analysis of different types of alternative fuels, associated costs, modal concerns and review of success/failures encountered by other agencies.

#### Rosenberg/Richmond Transit Studies

Fort Bend County is considering initiating transit feasibility studies for the Cities of Rosenberg and Richmond. Within Fort Bend County's demand response system, the City of Rosenberg continues to book the most trips. A previous study undertaken by Rosenberg had positive results for fixed route service. It is envisioned that implementation plans will be undertaken in 2014/2015. In 2012, the City of Richmond began discussions with Fort Bend County regarding feasibility for additional service in Richmond. Because of the connections between the Cities of Rosenberg and Richmond, discussions have since centered around development of a stand alone feasibility study specific to the City of Richmond and/or a combined study that considers implementation of route services in Rosenberg.

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## Sugar Land Commuter Study

Growth within Sugar Land has continued to increase ridership on Fort Bend County's existing park and ride services. With two park and ride lots located within the City limits nearing capacity, a comprehensive look at the current and future commuter needs for the City is needed. It is anticipated that study elements will consider all areas within the City, long term commuter parking needs, modal option considerations and public/private partnership opportunities.

## Fare Policy Study

Fort Bend County Transit has set aside local match funding to be used towards development of fare policy. The study will look at existing services and fares, consider planned services and provide options for policy documents and factors to consider when assigning fares.

## General Planning activities

Fort Bend County's Public Transportation Department employs a limited number of staff. Because routine transportation planning activities are limited in scope and/or complex in nature, these services are contracted to the private sector. Each fiscal year Fort Bend County undertakes general planning activities related to service decisions/design, budgetary decisions, and/or financial feasibility analysis, bid proposal analysis, etc. It is anticipated that contracting these activities will continue throughout 2014/2015.

## **Harris County Public Infrastructure Department (HCPID)**

***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.

***County Asset Management System.*** 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. HCPID has successfully defined the high level needs to develop a centralized system for recording all county owned infrastructure and land. HCPID has successfully released CAMS version 8.3 in the Fall 2012 in a map based environment with almost all known capital assets presented in the system. HCPID is continuing to work with the Auditor and Budget Management to meet current and future reporting needs.

## **Architecture & Engineering**

***Traffic Signal Operation and Maintenance Program.*** Harris County will continue to



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provide for routine, emergency, and annual preventive maintenance of over 1,250 traffic signals, emergency and school zone flashers that are maintained and operated within Harris County. The annual contract amount for maintenance in FY 12-13 was \$1,150,000.

***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

***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

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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) and [www.eng.hctx.net/watershed](http://www.eng.hctx.net/watershed).

**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.

**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. 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.

### **Flood Control District**

**Multi-Use Opportunities:** The mission of the Harris County Flood Control District (Flood Control District) is to provide flood damage reduction projects that work, with appropriate regard for community and natural values. As part of that mission, the Flood Control District manages and maintains more than 2,500 miles of bayous, creeks and streams in the county. These waterways not only serve as the county's primary stormwater drainage infrastructure, but also offer unparalleled opportunities for greenbelt recreation and open space. While the Flood Control District does NOT build trails and recreation areas, it is a proponent of multi-use trails and recreational facilities on Flood Control District right-of-way as long as the facilities are compatible with District facilities. Through successful partnerships with Harris County, the City of Houston and other entities, many miles of recreational trails already have been built on Flood Control District

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property. The trails connect neighborhoods, schools and parks, and provide an important form of transportation and recreation. Expanded development of trails along our bayous is an important part of Harris County's future. These trails support three of the most popular recreational activities in Texas – walking, bicycling, and running.

How it works: The Flood Control District enters into agreements with sponsors, which include cities, utility districts, and other legal entities, that allow them easements on District property for specific use of a recreational amenity. Under these agreements, the sponsor agrees to construct, operate and maintain the proposed trail and/or recreational facility and to repair or replace them should they become damaged through use, flooding or maintenance operations. Please see [www.hcfcd.org](http://www.hcfcd.org) for more information.

***FloodWise (Formerly the Urban Stormwater Management Study)*** This ongoing 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 Flood Control 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 (TSARP), questions raised during the development of the Flood Control 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 and stormwater runoff, development and mitigation, and flooding and drainage.

This 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 this technical component. The technical component also will help support watershed master plan updates, layout and design of future land developments, and future capital improvement programs for local governments.

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

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

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The Harris County FWS is operated and maintained by the Flood Control District and consists of 353 sensors at 132 gage stations throughout the county. Rainfall, water level elevation, weather and road flooding sensors from nine other partner agencies in the region add data to the receiving and reporting network. The total Regional Warning System consists of 859 sensors at 252 locations, including from the Texas Department of Transportation, METRO, the City of Houston and others.

***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 Flood Control District's projects, trends, 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 Flood Control 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 Flood Control District's Capital Improvement Plan.
- Provide a means to improve the aesthetic, environmental, and recreational quality of Harris County's waterways and flood control facilities.

***Harris County Flood Control Geographic Information System (GIS)*** The Harris County Flood Control District utilizes its Geographic Information System (GIS) extensively in many aspects of the Flood Control District's mission and operations. Once projects are built and become part of Harris County's 2,500-mile stormwater drainage system, GIS is used to inventory the system. The inventory is regularly available and updated, 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 Flood Control 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. 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.

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The plan currently includes expanding the capacity of the existing system, ramp and mainlane plaza improvements, and existing system improvements.

## **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 (OTS). Information on all programs is available at [www.harriscountyttransit.com](http://www.harriscountyttransit.com)

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 throughout 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 is a coordinated program that provides taxi and shared rides services for seniors, low income individuals, and people with disabilities. These services are county-wide. RIDES also coordinates with over 18 local social service and human service agencies. OTS currently operates one Park and Ride Services in the City of Baytown. The Pasadena Park and Ride was discontinued in 2012 due to the non-renewal of the Inter-local Agreement between Harris County and City of Pasadena at the request of City of Pasadena. The City of Baytown Park and Ride 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 the needs of Harris County citizens. 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) such as the Regional Transportation Plan; Transportation Improvement Program; Regional Transit Coordination; and Transportation Air Quality Sub-committees. OTS also works closely with Houston METRO, Fort Bend Transit and Connect Transit of Galveston County to implement federally required planning procedures. OTS will continue to work

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closely with H-GAC and other area transportation providers to develop and implement policies and programs in a coordinated environment.

***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 2014-2015, and we will continue to collect operational data on a monthly basis. Data collected includes but is not limited to daily/monthly/yearly ridership, boarding location trends, revenue hours and miles, service interruptions, peak traffic patterns and bus stop requests. 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 2014-2015 years:

***Park and Ride Service & Lot*** – OTS operates one park and ride lot in Baytown, Texas. This project is operated from the San Jacinto shopping mall parking lot under five year use agreements. There is no charge for the use of the lot. Due to the temporary nature of this location OTS will undertake a review and analysis of an alternative location in the spring of 2014. It is anticipated that OTS will complete this review by August 2014. Estimated local funding will be approximately \$20,000.

In the spring of 2009, The City of Pasadena and OTS began Park and Ride service from the Pasadena Town Square Mall. In early 2011 they opted to not renew the agreement between Harris County for the Park and Ride service and the service was terminated in May of 2011 due to lack of local match and budgetary constraints.

OTS will continue to seek other regional opportunities to promote Park and Ride service to eastern and northwest Harris County. This would include conducting feasibility studies to determine the long term viability of present locations or seeking new locations within the region. OTS will begin studying the feasibility of park and ride or “park and pool” service in the State Highway 249 corridor (Tomball Parkway). This effort will begin in the fall of 2013 and be completed by the summer of 2014.

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***Fixed Route Services*** – In July 2008, OTS began fixed route service in the City of Baytown, Texas in eastern Harris County. In January 2010, OTS began additional fixed route service to The Highlands, McNair, Barrett Station, Crosby, Pasadena and La Porte as a demonstration project. Services were also provided to the Cities of Webster, Nassau Bay and Seabrook. The funding for this service was through a Social Services Block Grant which expired in October 2011. The cities of Webster, Nassau Bay and Seabrook have opted out of the program due to budgetary issues after Hurricane Ike. The Cities of La Porte and Pasadena opted to continue service however the City Of Pasadena withdrew from the program in October 2012 citing budgetary issues. The City of La Porte has continued service on its own with connecting service to the Strawberry Clinic in the City of Pasadena and a connection to the City of Baytown. The City of Baytown has purchased and installed 20 bus passenger shelters through OTS utilizing FTA 5307 Capital funds requiring a 20% match. Additional shelters are planned for expansion in Baytown and in the La Porte service area.

OTS will continue to pursue other opportunities in eastern and northwest Harris County to provide fixed route bus service to communities who desire to provide services. Preliminary planning and feasibility studies are being conducted to determine expansion of services in the State Highway 249 and FM 2920 corridors of Harris County. This would allow Transit services expansion in north west and northern Harris County. The effort to date has consisted of preliminary data gathering, population analysis, discussions with local governmental agencies, institutions of higher learning and potential coordination partners in the area. Anticipated completion of the review and design phases of this service is January 2014.

***Medical Delivery Services*** – CSD will continue to operate the Harris County Medical Delivery Services program. This program is a 50 year old social services lifeline to the community and serves seniors, people with disabilities and low income individuals for medical trips such as dialysis and doctors' appointments. These residents must also meet income guidelines and live in the unincorporated areas of Harris County or the following communities: Barrett Station, Channelview, Deer Park, Galena Park, Highlands, Jacinto City, La Porte, McNair, Morgan Point, Shore Acres, South Houston, Seabrook and Webster.

***Harris County RIDES*** – a county wide Non-emergency Transportation program has been in operation within Harris County since 2003. The program serves the needs of seniors, people with disabilities and low-income residents of the County that are either not served or underserved by Houston METRO.

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. It brings together the client, local providers and local agencies in a coordinated approach. RIDES fills in the gaps to provide non-emergency transportation service that is curb-to-curb demand response service. The program is a

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subsidized voucher program that allows eligible customers and participating agencies to purchase transportation services at a discount. Customers are able to select shared ride providers or taxi cabs to meet their transportation needs. Taxi cabs offer RIDES clients the flexibility to have service 24 hours per day, seven days a week. It is an effort to provide seniors and people with disabilities independence in their communities for as long as possible.

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.

In October of 2011, Harris County Transit deployed an electronic debit fare card and data collection system to offer improved access and more efficient services to RIDES clients. This solution replaced paper tickets and uses swipe card technology and provides interface with both Taxi Cab companies, shared-ride providers and the fixed route contracted service in Pasadena. This implementation also provided other services such as Global Positioning Service (GPS) for shared ride providers by use of electronic readers for the fare card. Taxi system terminals by interface with the fare card provide the same trip information. Real time data for trip management and monitoring is available in the RIDES EZ- Transport system. Subsequently, the fixed route portion of the fare card system was suspended when the Pasadena and Lee College routes were terminated. Phase II of the fare card implementation project is currently underway and will provide enhanced services to clients in the form of Integrated Voice Response (IVR) and the ability to load funds on cards using credit card processing. IVR will allow clients to access card balances via telephone and add value to cards.

Under the RIDES program, other inter local agreements were entered in 2012 with The Harris County Healthcare Alliance and Gulf Coast Center. These special contracts allow for expansion of coordination efforts in the Gulf Coast Region using the existing RIDES provider infrastructure.

***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 2011-2014 Transportation Improvement Program (TIP). OTS intends to



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expend local and federal 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) and the Regional Transit Framework and Transit Plan. 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.

***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. Feasibility analysis and studies will be conducted in the following areas: Baytown (permanent location analysis of Baytown Park and Ride location); planning and feasibility studies to determine expansion of services in the State Highway 249 and FM 2920 corridors' of Harris County and could include a connection to the Exxon/Mobil Campus at FM 2920 and Interstate Highway 45.

***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 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, Training and Planning Administration*** – These tasks supports OTS planning activities related to grant development and management, financial management and transit operations and participation in regional planning activities.

***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. Non-traditional marketing is used such as community outreach, participation in exhibits and conferences and word of mouth.

***Customer Surveys*** – Customer surveys are conducted at least semiannually. The surveys are designed to determine the satisfaction OTS riders with the various services provided and to determine origins and destinations of passengers. 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 pin point areas for improvement.

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***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.

***County Staging Area (CSA)***- In 2013, OTS was identified as the operations administrator of the County Staging Area for Harris County in coordination with the Office of Homeland Security and Emergency Management (OEM). The County CSA and Point of Distribution (POD) operations are for jurisdictions within Harris County (to include City of Houston). The CSA location is pre- identified and must be capable of receiving resources within 24 hours post disaster event. The CSA operates in accordance with National Incident Management Systems (NIMS).

The role of OTS for the CSA is to coordinate state resources between the Regional Staging Area (RSA) and POD sites; **Communicate** with OEM, PODs and RSA, **Document** resources shipped to PODs, **Evaluate** POD locations and their commodity use rates. The major levels of responsibility for the CSA TEAM is CSA Operations, Logistic Operations, Planning and Administration/Finance tracking. The CSA Team consists of 16 people who are NIMS certified and will be mobilized in the event of natural or other events that require the deployment of PODS.

### **Port of Houston Authority**

The Port Authority plans to undertake significant infrastructure improvements in the next few years to ensure that the Port of Houston can accommodate the advent of larger vessels and increased cargo resulting from the pending Panama Canal expansion in 2015, as well as the expected future demographic growth in the region. Maintaining and improving efficiency at the public terminals through more modern facilities and equipment is essential to meeting one of their mandates – to promote and facilitate commerce to benefit not only local partners, but also Texas and the nation. In 2013, the Port Authority expects to seek approval for \$220 million in capital improvement projects. Approximately \$142 million will be allocated to container terminals for continuing development of Bayport and modernization at Barbours Cut. In addition, as local sponsor of the Houston Ship Channel, they will reserve about \$9 million for maintenance dredging and related improvements. The remaining 2013 capital budget will be used primarily for projects at the general cargo and bulk terminals in the Turning Basin area and port security.

### **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:

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- Coordinate and maintain 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 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.

### **Harris County 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 that 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 Spatial Data Committee**

The Harris County Spatial Services Committee was established by Commissioners Court in 2009 to collect, maintain, and distribute Harris County geographical data. This committee represents the needs of Harris County, its residents, and other regional agencies who have interests in creating and maintaining maps, databases, and overlays of information related to geographical analysis. The committee is currently developing a centralized repository to allow for viewing interfaces and mapping solutions for the services provided by Harris County.

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# **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. The Gulf Coast Rail District was included in 2010.

## **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.

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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-Air Quality (TAQ) Subcommittee** - The TAQ 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. It also assists MPO staff with the development of on-road transportation emission reduction measures.

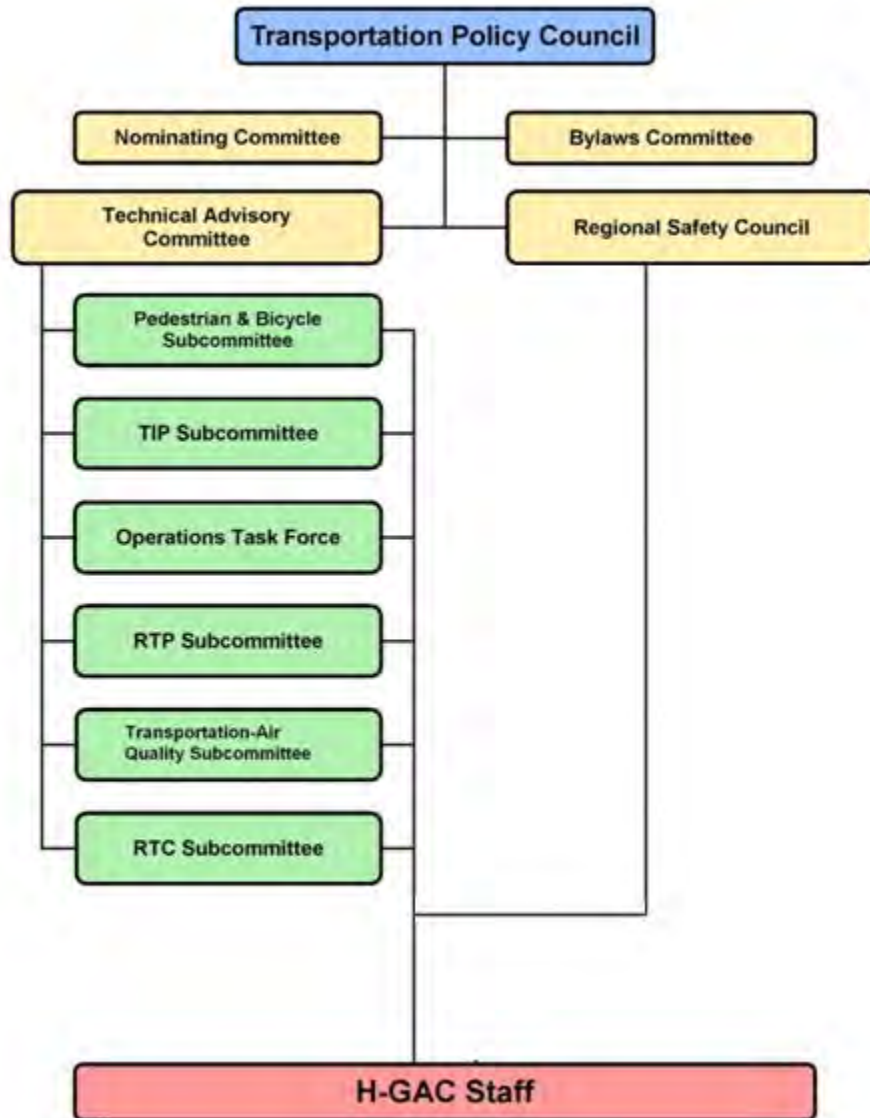
**Regional Transit Coordination (RTC) Subcommittee** - The RTC Subcommittee provides guidance regarding the implementation of regional transit coordination pilot projects. The subcommittee also assists with development of initiatives that expand and improving the efficiency and effectiveness of the current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

### **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.



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



**TRANSPORTATION POLICY COUNCIL (TPC) – 2013**

**TPC Officers - 2013**

*Harris County*  
**Hon. Ed Emmett**  
CHAIRMAN  
County Judge  
**Alternate: Richard Zientek**  
Director of Transportation Issues

*City of Houston*  
**Hon. Stephen C. Costello**  
1ST VICE CHAIR  
Council Member, At-Large 1  
**Alternate: Hon. Jerry Davis**  
Council Member, District B

*Brazoria County*  
**Hon. Matt Sebesta, Jr.**  
2nd VICE CHAIR  
County Commissioner, Pct 2  
**Alternate: Hon. Larry Stanley**  
Commissioner, Pct. 4

*City of Pearland*  
**Hon. Tom Reid**  
SECRETARY  
Mayor, City of Pearland  
**Alternate: Hon. Susan Sherrouse**  
Mayor Pro Tem

*Fort Bend County*  
**Hon. James Patterson**  
PAST CHAIR  
**Alternate: Paulette Shelton**  
Transit Director  
Public Transportation Dept

**TPC Members - 2013**

*TxDOT Houston District*  
**Michael W. Alford, P.E.**  
District Engineer  
**Alternate: Quincy Allen, P.E.**  
Deputy District Engineer

*Liberty County*  
**Hon. Norman Brown**  
Commissioner, Pct. 4  
**Alternate: Hon. Craig McNair**  
County Judge

*City of Conroe*  
**Larry Calhoun**  
Executive Director  
**Alternate: Hon Guy Martin**  
Council Member, Place 4

*City of Houston*  
**Daniel Kruger**  
Director of Public Works & Engineering  
**Alternate: Jeff Weatherford, P.E. PTOE**  
Deputy Director

*City of Pasadena*  
**Hon. Darrell Morrison, P.E.**  
Council Member, District H  
**Alternate: Sarah Benavides, P.E.**  
Planning Director

*Montgomery County*  
**Hon. James Noack**  
County Commissioner, Pct. 3  
**Alternate: Mark Mooney, P.E.**  
*County Engineer*

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<p><i>Galveston County</i> <b>Hon. Kenneth Clark</b> Commissioner, Pct. 4 <b>Alternate: Hon. Kevin O'Brien</b> County Commissioner, Pct. 2</p> <p><i>Gulf Coast Rail District</i> <b>Bert Keller</b> Chairman <b>Alternate: Maureen Crocker</b> Executive Director</p> <p><i>City of Missouri City</i> <b>Scott Elmer, P.E.</b> Assistant City Manager <b>Alternate: Valerie Marvin</b> CIP Administrator</p> <p><i>TxDOT Beaumont District</i> <b>Tucker Ferguson, P.E.</b> District Engineer <b>Alternate: Phillip Lujan, P.E.</b> Director Transportation Plng &amp; Dev.</p> <p><i>Smaller Cities, Harris County</i> <b>Hon. Robert A. Fry, Jr.</b> Mayor, West University Place <b>Alternate: Hon. Pat McLaughlan</b> Councilman, City of Bellaire</p> <p><i>Chambers County</i> <b>Robert L. Hall, Jr.</b> County Engineer <b>Alternate: Hon. Rusty Senac</b> Commissioner, Precinct 4</p> <p><i>City of Sugar Land</i> <b>Hon. Harish Jajoo</b> Council Member <b>Alternate: Hon. Joe Zimmerman</b> Council Member</p>	<p><i>City of Houston</i> <b>Hon. Melissa Noriega</b> Council Member, At Large 3 <b>Alternate: Hon. Larry Green</b> Council Member, District K</p> <p><i>City of League City</i> <b>Hon. Dennis O'Keeffe</b> Council Member <b>Alternate: Linc Wright</b> Director of Engineering</p> <p><i>Other Transportation Interests</i> <b>Steve Phelps</b> Commissioner Port of Houston Authority <b>Alternate: Glenn Carlson</b> Executive Director Port of Freeport</p> <p><i>City of Galveston</i> <b>Hon. Marie Robb</b> Council Member <b>Alternate: Hon. Lewis Rosen</b> Mayor</p> <p><i>Waller County</i> <b>Orval Rhoads, P.E.</b> County Engineer <b>Alternate: Hon. Stan Kitzman</b> Commissioner, Pct. 4</p> <p><i>City of Baytown</i> <b>Hon. Terry Sain</b> Council Member, District 4 <b>Alternate: Hon. Stephen Don Carlos</b> Mayor</p> <p><i>H-GAC At-Large</i> <b>Jack Steele</b> Executive Director, H-GAC <b>Alternate: Jeff Taebel, AICP</b> C &amp; E Director of Planning</p>
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<p><b><i>METRO</i></b> <b>Dwight Jefferson</b> Member, Board of Directors <b>Alternate: Thomas Lambert</b> Interim President &amp; CEO</p> <p><b><i>City of Texas City</i></b> <b>Hon. Doug Kneupper, P.E.</b> City Engineer <b>Alternate: Vacant</b></p>	<p><b><i>Harris County</i></b> <b>Arthur L. Storey, Jr., P.E.</b> Executive Director Harris County Public Infrastructure <b>Alternate: Jackie Freeman, P.E.</b> Deputy Executive Director</p>
<p><b>Ex-Officio Members</b></p>	
<p><b><i>Freight Rail Interests</i></b> <b>Joseph Adams</b> Vice President, Public Affairs Union Pacific Railroad <b>Alternate: Hugh McCulley</b> BSNF Railroad</p>	<p><b><i>8-County Region Representative</i></b> <b>Hon. Allen B. Fletcher</b> Texas State Legislator</p>

**TECHNICAL ADVISORY COMMITTEE (TAC) – 2013**

**TAC Members - 2013**

**Chairman**

**Yancy Scott, P.E.**

Waller County

**Alternate: John Isom**

Waller County

*Environmental/Planning*

**2nd Vice Chair**

**Richard Stolleis, P.E.**

County Engineer

**Alternate: DeWayne Davis, P.E**

Engineer III

*Fort Bend County*

**Sarah Benavides, P.E.**

Planning Director

**Alternate: Robin Green**

Director of Public Works

*City of Pasadena*

**Kelly Carpenter, AICP**

Director of Planning & Development

**Alternate: Jose Pastrana**

Director of Engineering

*City of Baytown*

**Maureen Crocker**

Gulf Coast Rail District

**Alternate: Dr. Carol Lewis**

Texas Southern University

*Intermodal Interests*

**Charles Dean, P.E.**

Planning Manager

**Alternate: David Goldberg, P.E.**

Manager of General Services

*Harris County*

**First Vice Chair**

**Mark Loethen, P.E.**

City of Houston

**Alternate: Tim Lincoln**

City of Houston

*Environmental/Planning*

**Clark Martinson**

Energy Corridor

**Alternate: Eddie Miranda**

Greater Houston Partnership

*Intermodal Interests*

**Miles McKinney**

The Woodlands Township

**Alternate: Don Norrell**

The Woodlands Township

*Environmental/Planning*

**Reid Mrsny, P.E.**

Texas Medical Center

**Alternate: Brian Fielkow**

Jetco Trucking

*Intermodal Interests*

**Hon. Kevin O'Brien**

Commissioner, Pct. 2

**Alternate; Mike Fitzgerald, P.E.**

County Engineer

*Galveston County*

**Hon. Marie Robb**

Council Member

**Alternate: Hon. Lewis Rosen**

Mayor

*City of Galveston*

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**Bill Drohan**

Assistant City Manager

City of Katy

**Alternate: Sal Aguirre**

City Engineer

City of Lake Jackson

*Smaller Cities*

**Perri D'Armond**

Greater Fort Bend Economic

Development Council

**Alternate: Irma Sanchez**

Westchase District

*Citizen & Business Interests*

**Scott Elmer, P.E.**

Assistant City Manager

**Alternate: Valerie Marvin**

CIP Administrator

*City of Missouri City*

**Bob Eury**

Central Houston District

**Alternate: David Crossley**

Houston Tomorrow

*Citizen & Business Interests*

**Ken Fickes**

Harris County Transit

**Alternate: Vernon Chambers**

Harris County Transit

*Urban Transit*

**Clint Harbert**

Sr. Director

Systems Planning & Development

**Alternate: Edmund Petry**

Manager, Environmental & Capital Plng.

**METRO**

**Mike Hodge, P.E.**

Assistant City Manager

**Alternate: Trent Epperson**

Director, Capital Projects & Engin.

*City of Pearland*

**Gerald Roberts, P.E.**

County Engineer

**Alternate: Michael Shannon**

Assistant County Engineer

*Brazoria County*

**Rusty Senac**

Commissioner, Pct. 4

**Alternate: David Abernathy**

Commissioner, Pct. 2

*Chambers County*

**Paulette Shelton**

Fort Bend County

**Alternate: Vastene Olier**

Colorado Valley Transit District

*Rural Transit*

**Nancy Stephens**

Port of Freeport

**Alternate: Diane Falcioni**

Port of Galveston

*Intermodal Interests*

**Jeff Taebel, AICP**

H-GAC At-Large

**Alternate: Brenda Trevino, P.E.**

Port of Houston

*Regional Planning*

**John Tyler, P.E.**

Harris County Toll Road Authority

**Alternate: David Gornet**

Grand Parkway Association

*Intermodal Interests*

**Patrick Walsh, P.E.**

Transportation Director

**Alternate: Robert Valenzuela**

Assistant City Engineer

*City of Sugar Land*

## H-GAC 2014-15 Unified Planning Work Program

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**Jeff Johnson, P.E.**  
Transportation Manager  
**Alternate: J. Ross McCall, P.E.**  
Engineer III  
*Montgomery County*

**Stan Kitzman**  
County Commissioner, Pct. 4  
**Alternate: Orval Rhoads, P.E.**  
County Engineer  
*Waller County*

**Doug Kneupper, P.E.**  
City Planner  
**Alternate: VACANT**  
*City of Texas City*

**James Koch, P.E.**  
Director of Transportation  
Planning & Development  
**Alternate: William Brudnick**  
Director of Design  
Advanced Transportation Planning  
*TxDOT-Houston District*

**Mike Kramer**  
City of Houston  
**Alternate: Amar Mohite**  
City of Houston  
*Environmental/Planning*

**Phillip Lujan, P.E.**  
Director of Transportation  
**Alternate: Scott Ayres, P.E.**  
Planning Engineer  
*TxDOT Beaumont District*

**Charlotte Warner**  
County Commissioner, Pct. 2  
**Alternate: David Douglas**  
Dayton City Manager  
*Liberty County*

**Jeffrey Weatherford, P.E., PTOE,**  
Deputy Director Traffic &  
Transportation  
**Alternate: Carol Haddock, P.E.**  
Senior Assistant Director  
*City of Houston*

**Thomas Woolley**  
Project Manager, Engineering  
**Alternate: Luis Nunez**  
City Planner  
*City of Conroe*

**Jack Whaley**  
Houston TranStar  
**Alternate: Marlene Gafrick**  
City of Houston  
*Environmental/Planning*

**Linc Wright, P.E.**  
Director of Engineering  
**Alternate: John Baumgartner**  
Director of Public Works  
*City of League City*

**Bill Zrioka**  
Houston Airport System  
**Alternate: Carlos Ortiz**  
Houston Airport System  
*Intermodal Interests*

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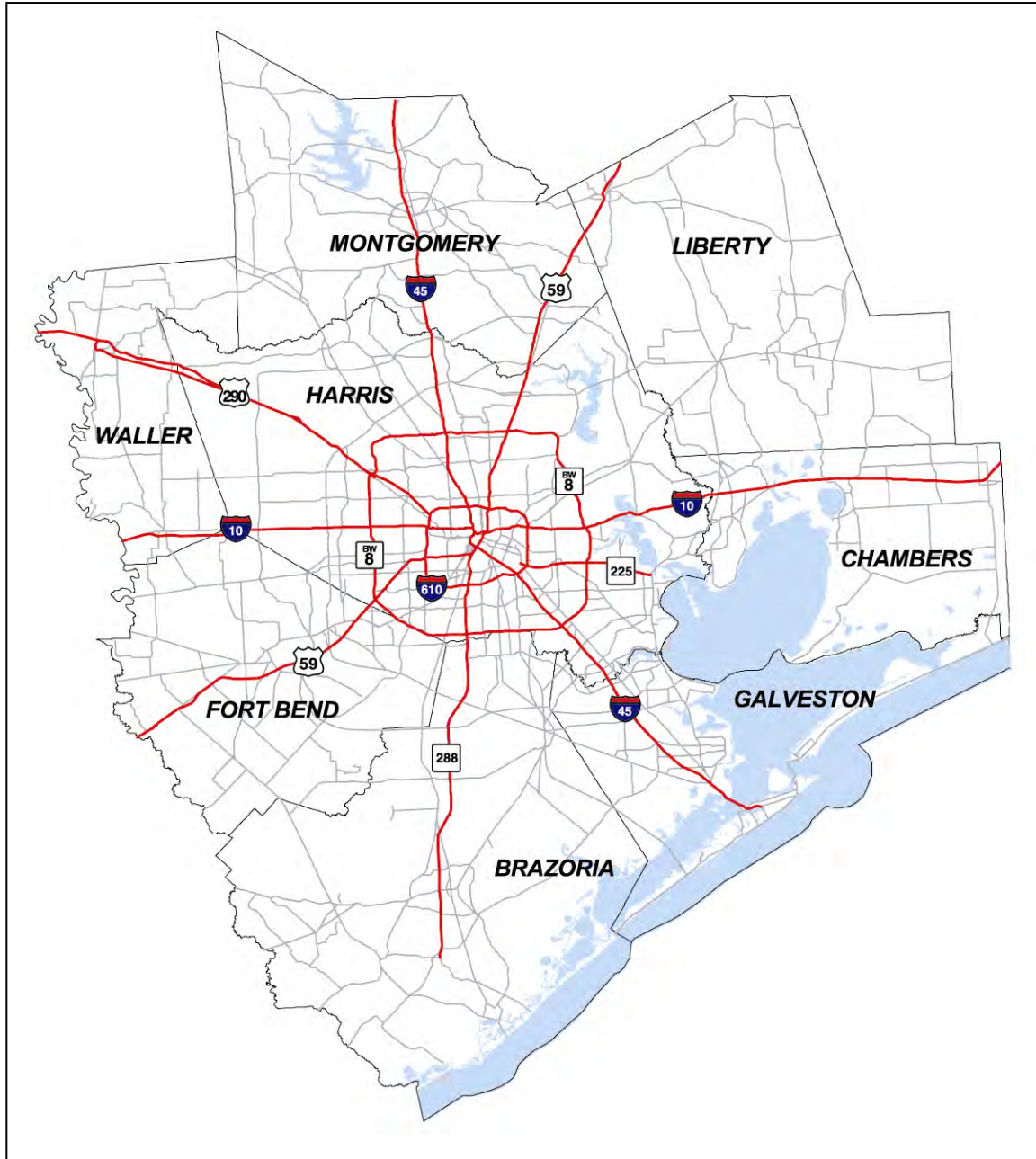
# **Appendix B**

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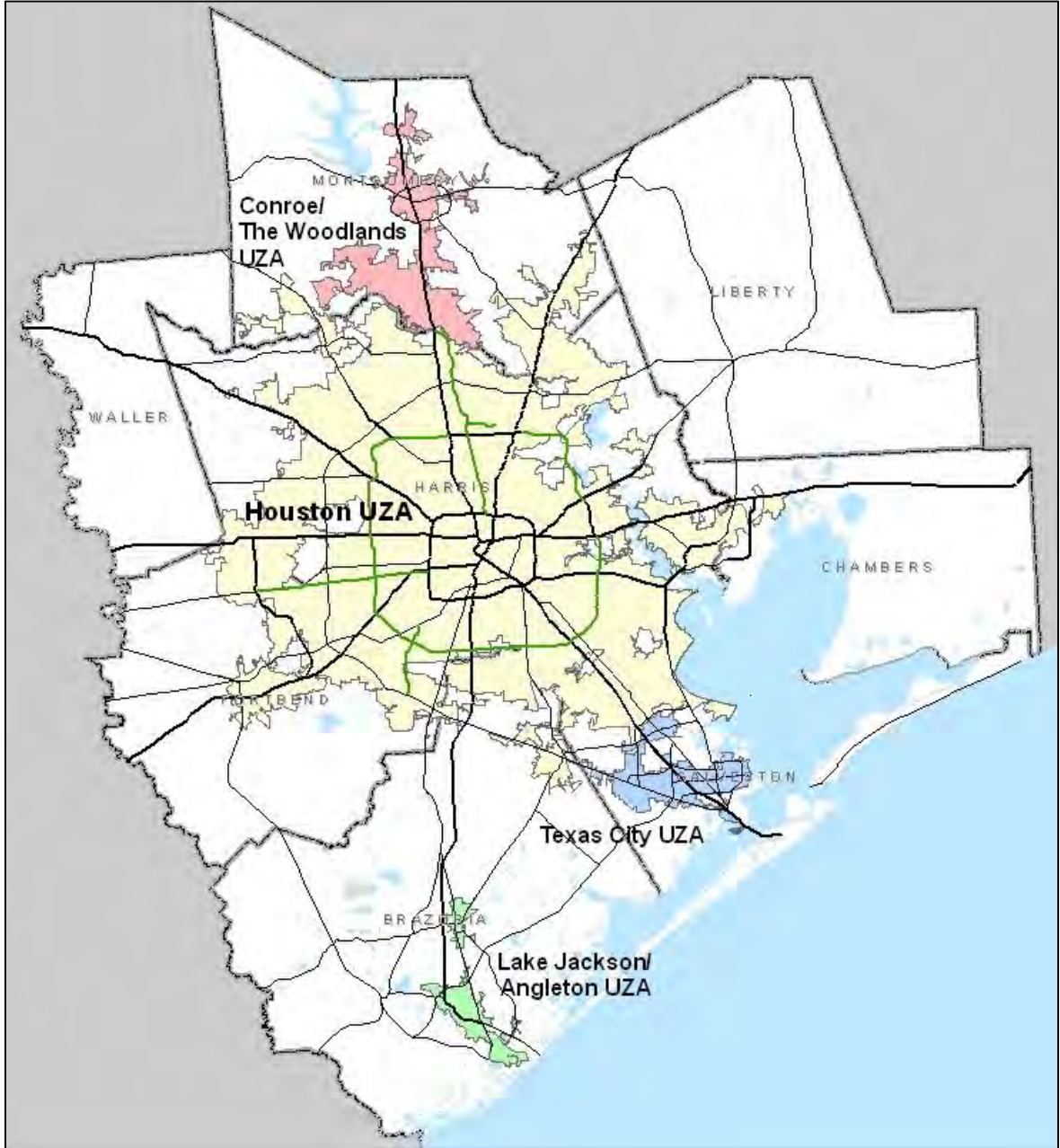
**Maps of the  
Houston-Galveston  
Transportation Management Area (TMA)  
And  
Urbanized Areas (UZA)**

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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

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# Transportation Policy Council

For the Houston-Galveston Transportation Management Area

3555 Timmons Lane  
Houston, Texas 77027

P.O. Box 22777  
Houston, Texas 77227-2777

Telephone: 713 627 3200  
Fax: 713 993 4508

## 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 department 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 for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the 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.

Signature - Ed Emmett

Chairman, Transportation Policy Council

Title

Houston-Galveston Area Council

MPO

July 25, 2014

Date

Signature - Jack Steele

Executive Director

Title

Houston-Galveston Area Council

Fiscal Agent

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# **Appendix D**

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## **Lobbying Certification**

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# Transportation Policy Council

For the Houston-Galveston Transportation Management Area

3555 Tidmore Lane  
Houston, Texas 77027

P.O. Box 22777  
Houston, Texas 77227-2777

Telephone: 713-627-3200  
Fax: 713-693-4508

## 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 disclosure 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 - Ed Emmett

Signature - Jack Steele

Chairman, Transportation Policy Council

Title

Executive Director

Title

Houston-Galveston Area Council

MPO

Houston-Galveston Area Council

Fiscal Agent

July 25, 2014

Date

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# **Appendix E**

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## **Certification of Compliance**

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# Transportation Policy Council

For the Houston-Galveston Transportation Management Area

3555 Timmons Lane  
Houston, Texas 77027

P.O. Box 22777  
Houston, Texas 77221-2777

Telephone: 713-627-3203  
Fax: 713-993-4508

## CERTIFICATION OF COMPLIANCE

I, Ed Emmett, Chairman, a duly authorized officer/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 - Ed Emmett

Signature - Jack Steele

Chairman, Transportation Policy Council

Title

Executive Director

Title

Houston-Galveston Area Council

MPO

Houston-Galveston Area Council

Fiscal Agent

07/25/2014

Date

ATTEST:

Alan Clark  
MPO Director

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# **Appendix F**

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## **Public Outreach Efforts for the 2014-15 Unified Planning Work Program**

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# H-GAC 2014-15 Unified Planning Work Program

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## **Public Outreach Efforts for the 2014-2015 Unified Planning Work Program**

The Draft 2014-2015 Unified Planning Work Program (UPWP) was made available to the public on June 2, 2013, which began the 30-day comment period scheduled to end officially on July 2, 2013. A public meeting was held on June 20, 2013 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:** Wednesday May 29, 2013

**Advertised:** Sunday, June 2, 2013

**Meeting alert/Press Release emailed to other interested persons (481), TAC members (66), TPC members (56), and RAQPC members (27) & RAQPC alternates (10):** June 3, 2013

### **Document Distribution**

A draft of the 2014-2015 UPWP was sent to TxDOT prior to June 1, 2013 as requested. A copy of the draft 2014-2015 UPWP was placed on the H-GAC webpage on May 17, 2013. Printed copies of the draft UPWP were distributed to all Technical Advisory Committee members on May 15, 2013 and to the Transportation Policy Council members on May 24, 2013.

### **Public Meeting – June 20, 2013**

The public meeting was held on June 20, 2013 in Conference Room A at the offices of the Houston-Galveston Area Council at 5:30 p.m. There were five persons present, including H-GAC staff. The agenda of the public meeting included a brief introduction and PowerPoint presentation. An audio tape of the open-house exchange is on file in the H-GAC offices. During the presentation, the audience was encouraged to ask questions and provide comments. No comments were provided.

### **Other Comments Received**

No other comments were received from the public.

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# **Appendix G**

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

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# H-GAC 2014-15 Unified Planning Work Program

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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>AMPO</b>	Association of Metropolitan Planning Organizations
<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>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 Federal law
<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>

# H-GAC 2014-15 Unified Planning Work Program

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<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>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

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<b>GCRD</b>	Gulf Coast Rail District
<b>GCHSR</b>	Gulf Coast High Speed Rail



# H-GAC 2014-15 Unified Planning Work Program

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<b>GCSPR</b>	Gulf Coast State Planning Region
<b>GHG</b>	Greenhouse Gas
<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

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## K

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## 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>MAP-21</b>	Moving Ahead for Progress in the 21st Century
<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

# H-GAC 2014-15 Unified Planning Work Program

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<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

<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

<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

<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

# H-GAC 2014-15 Unified Planning Work Program

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## R

<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

<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

<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)

# H-GAC 2014-15 Unified Planning Work Program

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<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 A&M 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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