

## **Introduction**

Vision for Tomorrow provides a guiding framework for the region based on emerging issues, opportunities, trends, and local values. The vision represents a shared ideal for how the region could function in 2035, moving beyond jurisdictional boundaries and encompassing the needs of rural, suburban, and urban areas alike.

Achieving the vision requires the cooperation and participation of all levels of government, numerous public and private organizations, and individuals across the 13-county area. The Houston-Galveston Area Council's mission is to serve as the instrument of local government cooperation, promoting the region's orderly development and the safety and welfare of its citizens. Vision for Tomorrow helps guide these partners by identifying specific priorities, actions, and available tools that can move the region toward its desired goals.

### **How to Read Vision for Tomorrow**

The document is organized into four topic areas: Natural Environment, Built Environment, Economy, and Quality of Life. Though each topic area documents a unique set of challenges and opportunities, it is important that they be considered together rather than in isolation, because when we can see the interconnections between these topics, we find the most opportunity for progress. Each topic area includes the following information:

- Challenges and Opportunities—a description of key issues that should be addressed and, conversely, the opportunities presented by such issues.
- Priorities—the most critical initiatives for achieving the vision.
- Action Steps—specific strategies that communities can pursue to make measurable progress toward achieving the vision.
- H-GAC Tools—implementation tools available through H-GAC in the areas of finance, policy and plans, and information and training.

### **The Transect**

Each of the main topic pages includes a “transect” of the region to demonstrate how various issues and strategies can be addressed throughout the diverse areas of our region—from small towns and rural areas to dense urban centers, and everything in between.

### **Vision**

The H-GAC Region will be noted for:

- Economic innovation and opportunity,
- Quality natural resources and open space,
- Healthy, safe and inclusive communities with ample housing and transportation choices, and
- Efficiency and strong intergovernmental coordination.

## **Natural Environment**

The Houston region contains a rich array of ecosystems that attract an equally diverse group of plant and animal communities. Numerous species inhabit these ecosystems, from the Prairies and Piney Woods to the Coastal Wetlands. Just as wild species have made this place their home, people from around the world have continually sought out the Houston region as a desirable place to live. While our environment is ideal for building communities and supporting economic activity, there is also great benefit from leaving key areas in their natural condition. Erosion control, water filtration, pollution clean-up, and habitat space for plants and animals are basic functions of land that serves both humans and wildlife.

## **Built Environment**

The residents of the H-GAC region have the freedom to enjoy a remarkable diversity in their natural environment, their recreational pursuits, their jobs, and their homes. Newly-built suburban developments, farm and ranch houses, multi-family structures, beachfront villas, and old Victorian homes are just a few of the residential building types that people call home. Whether living in an old or new home or in a rural or urban area, all residents expect access to basic utilities and services. By planning these services on a regional scale, we can ensure efficient water supply, waste disposal, and transportation systems to benefit every household. Even with a wide variety of residential living choices across our region, we can plan for all areas to receive adequate levels of public services.

## **Economy**

The Houston-Galveston region is privileged to have a diverse economy that fuels the growth of the area. From the region's ports, which serves as our gateway to the rest of the world, to the energy industry, which keeps us running, to our medical community, which tends to our health—these industries provide a solid foundation allowing other economic sectors to thrive. Continuing our region's economic success in an increasingly competitive global economy requires careful planning, programs that train local workers, and investments in our region's quality of life to attract talented workers from other areas.

## **Quality of Life**

In the region's center, the Houston Grand Opera gives a world-class performance to an inspired audience. An hour away, hundreds gather in a small town to celebrate the local culture and abundance of a farmer's market. This rich diversity offers residents and visitors the opportunity to pursue a variety of activities that create a high quality of life. Though residents of the region have different ideas about what specific elements contribute to a high quality of life, most will agree that it starts with safe neighborhoods, good schools, libraries, public facilities, and access to medical care.

## **Data and Trends**

Forecasters expect the 13-county H-GAC region to grow by 3.5 million people from 2005 to 2035.\* That is like adding the population of the City of Los Angeles to the region. This dramatic growth presents

both challenges and opportunities. How will growth and demographic trends impact the natural environment, the built environment, the economy, and our quality of life?

\*Forecasts used in this document are from the 2035 H-GAC Regional Growth Forecast unless otherwise noted. H-GAC serves a 13-county region for non-transportation regional planning and serves as the Metropolitan Planning Organization (MPO) for transportation planning in the 8-county region. Thus, some transportation data is available only at the 8-county level.

## **Transportation**

With the expected population growth in the region there will also be a significant increase in the number of vehicles on the region's roadways. The region cannot build itself out of traffic congestion and will need to expand its focus on alternative strategies, such as reducing the extent of driving by bringing jobs and homes closer together and providing alternatives to driving alone, such as transit, ride-sharing, bicycling, and walking.

266,000,000 projected daily miles of travel in the 8-county region in 2035, a 72 percent increase from 2009 (155 million daily miles of travel).

3,962 new lane miles of projects identified in the 2035 Regional Transportation Plan (RTP) update. In 2009 there were 24,035 lane miles in the 8-county region.

89 miles of fixed guideway transit contained in METRO's 2035 Long Range Plan.

496,000 additional residents living in hurricane evacuation zones by 2035.

## **Land Use and Housing**

As the baby boomer population ages, the region will see an increase in the number of older residents. This will require careful planning to ensure that there is adequate access to health facilities and other resources. Another aspect of the region's changing demographics is that families with school age children will become a minority within the region's overall population resulting in more demand occurring in areas that provide access to employment centers, retail choices, entertainment facilities, and transit options.

272% - Growth rate from 2007-2035 for 80-84 year olds in the region.

24% - Growth rate in the same period for 35-39 year olds.

40.7 % - Percentage of respondents to the 2010 Houston Area Survey who would prefer to live in an urban, walkable neighborhood.

>80% - Percentage of population growth expected to occur outside of Beltway 8.

## **Economy**

The region's economic base is rapidly diversifying and positioning itself to maintain its competitive edge in the global economy with industries like agribusiness, nanotechnologies and alternative energy sources. Although the region has long been known as an energy center, this base is expanding thanks to investment in alternative energies such as solar, wind, biodiesel, clean coal, and nuclear energy.

1.5 million – Number of new jobs that will be added to the region by 2035.

The Houston region ranks first in the nation in the share (37%) of earnings coming from self-employment.

\$69 billion – Value of exports in 2008 from the Port of Houston, the second busiest in the nation.

25 - Number of *Fortune 500* firms headquartered in the Houston area.

### **Natural Environment**

Residents, governments, and businesses increasingly recognize the centrality of the natural environment to the region's overall quality of life. Taking steps to reduce the impact of the region's growth on natural resources and wildlife habitat will become increasingly important as the region's built footprint continues to grow. Green building, energy conservation, low impact development and the use of best management practices will help in these efforts.

6 – Number of ecotypes found in the region.

88% - Percentage of the major waterways in the Houston-Galveston region that have at least one water quality impairment.

306 – Number of square miles of currently undeveloped land that will be developed by 2035, 4% of all remaining undeveloped land.

>3,000 – Number of parks in the region, including pocket parks and larger city parks.

#### *Galveston Bay:*

Galveston Bay is the largest estuary on the Texas coast and the seventh largest in the United States. Not only does the bay provide wonderful habitats for fish and wildlife, it also provides ecological services and economic benefits.

- Ranks as the second most productive estuary in the United States in terms of seafood harvest, trailing only Chesapeake Bay;
- Accounts for one-third of the state's commercial fishing income, and for over half of the state's recreational fishing revenues; and
- Lost >3,000 acres of wetlands in the lower Galveston Bay watershed from 1996 to 2005.

### **Infrastructure and Facilities**

Trend: The region's growth will necessitate the expansion of infrastructure, including roads, transit, schools, and wastewater treatment plants to keep up with demand. The efficiency of some types of facilities can be improved through regionalization, as has largely already occurred with the region's solid waste landfills.

1,311,000 additional residents living in floodplains in the 8-county area by 2035, which will necessitate additional storm water infrastructure.

269,107,500 – Additional gallons of water that will be used in the region each day.

This additional water usage will also require the construction of new wastewater treatment plants. The number of new facilities required will vary greatly depending on their capacity. In order to meet the projected demand, the region could build:

538 Small, or

89 Medium, or

3 Large facilities.

#### *Why Regionalization?*

The region currently has over 1,050 wastewater facilities, nearly all of which are small to medium in size. Inspection and enforcement of such a large number of wastewater discharge permits is difficult, and many of the plants are not regularly staffed, meaning that malfunctions can go undetected for some time. With many of these plants nearing the end of their design life, opportunities for consolidation into larger facilities may exist. A wastewater regionalization initiative could potentially provide economies of scale for the rate-payers and also yield water quality benefits.

### **Natural Environment: Water and Air**

The region's inland and coastal water resources support recreation, tourism, industry, and commercial fishing, while also providing ecological and aesthetic benefits that enhance our quality of life. Combining regulations and best management practices helps to control many problems which can degrade water quality or reduce water availability.

Our air quality affects the health of plants, animals, and people. Thirty-eight million people use our airports each year, and it is estimated that in any given day we will drive almost 155 million miles on our region's roads. The Port of Houston is the second largest in the country, and our region is home to 38 percent of the nation's petrochemical industry. While this is a testament to our achievements, it also indicates the extent of air emissions our region must manage or seek alternatives to ensure acceptable air quality. Innovative solutions must be created to effectively manage our water and air resources and improve the quality of life for our citizens, both environmentally and economically.

#### **Facts**

- From 2009 to July 2010, H-GAC's AirCheckTexas program replaced 15,000 polluting vehicles.

- The Houston-Galveston-Brazoria region is a non attainment area for air quality, which means it does not meet the federal ozone standard. The region must follow a legally binding schedule in order to show progress toward and, in time, meet the standard through a State Implementation Plan.
- Galveston Bay is the largest estuary on the Texas coast and the seventh largest in the United States.
- Ship channel-related business supports more than 785,000 jobs in Texas, worth about \$118 billion per year.
- Only 2 villages and 15 cities in the region currently participate in the National Flood Insurance Program's Community Rating System, a voluntary incentive program to encourage flood management activities that exceed minimum requirements.
- Despite improved technologies in identifying flood risk, approximately one-third of flooded homes are outside the regulatory floodplain affecting homes that do not have flood insurance.

## **Challenges & Opportunities**

### Water Quality

- Challenge: Insufficient staff and resources exist for maintenance of sanitary and storm sewer systems , as well as the monitoring and enforcement of associated discharges.  
Opportunity: Local governments have the opportunity to enhance current practices with the assistance of public participation, such as water quality monitoring and reporting
- Challenge: The water quality benefits provided by wetlands and other riparian habitats are lost when these habitats are developed.  
Opportunity: Education about the water quality benefits of these habitats can lead to additional effort to protect, create, and restore wetland habitat.

### Water Supply

- Challenge: Cost and environmental considerations make it increasingly difficult to build new reservoirs for expanded surface water supply and distribution. Groundwater is constrained by subsidence concerns.  
Opportunity: Local governments can expand programming and public education to implement water conservation and water recycling practices more widely across the region.

### Flood Risk Reduction

- Challenge: The rainfall volume in the region requires significant land resources to store and carry flood waters.
- Opportunity: Joint use of drainage facilities for recreation and water quality features can provide necessary infrastructure as well as quality of life benefits.
- Challenge: The region is vulnerable to hurricanes and tropical storms, as well as localized flooding from heavy rain.  
Opportunity: Recent hurricanes and tropical storms provide an opportunity to develop and rebuild communities that are better able to sustain themselves during future storm events.

- Challenge: The region’s wetlands, that provide valuable flood protection, are being lost, both through natural and man-made processes.  
Opportunity: Increased awareness regarding the ecological services provided by wetlands, including flood protection, can help increase protection of this environmental resource.
- Challenge: As growth continues in the region and the extent of impervious surfaces increases, the risk of flooding may also increase.  
Opportunity: The region has an opportunity to employ best management practices, such as low impact development, and restoration and protection of wetlands, which may minimize the impact of increased flooding.

#### Air Quality

- Challenge: Though sources of air pollution fall into three categories—stationary, area, or mobile— H-GAC only has authority to help with mobile sources through voluntary programs.  
Opportunity: There are a variety of strategies that can significantly reduce mobile sources of air pollution including HOV lanes, arterial traffic flow improvements, park and ride lots, transit infrastructure and service improvements, bicycle facilities, ridesharing, and clean vehicle programs.

#### **Priorities**

- Achieve and maintain safe and clean waterways.
- Ensure a sustainable water supply for the region’s needs.
- Encourage use of best management practices and low impact development techniques for development in floodplains.
- Invest in necessary stormwater infrastructure that both manages flood risk and creates recreation opportunities.
- Work toward safe and clean air, even with rapid growth.
- Broaden availability of funding for regional flood control measures.

#### **Action Steps**

##### Water Quality

- Prioritize impaired waterways to focus resources and future studies.
- Develop standards for proper maintenance of sanitary and storm sewer systems.
- Promote the use of source protection techniques, such as wellhead protection areas and watershed management.
- Implement stricter permit controls and pollution prevention best management practices for streams with elevated bacteria levels.
- Protect, create, and restore wetlands.

##### Water Supply

- Provide support to communities in coordinating long range water supply planning.

- Create community awareness and education programs that promote water conservation and rainwater harvesting.
- Invest in infrastructure and develop incentives to utilize greywater for appropriate uses such as irrigation.
- Protect recharge zones, water sources, and riparian and wetland buffer areas.

#### Flood Risk Reduction

- Utilize land use planning and best management techniques, such as low impact development, to reduce potential for flood damage.
- Strengthen and enforce local ordinances to regulate land use and construction in flood-prone areas.
- Educate floodplain administrators about incentives that exist for improved floodplain management through the National Flood Insurance Program's Community Rating System.
- Improve coordination among drainage districts and floodplain administrators and help create appropriate entities where they do not exist.

#### Air Quality

- Reduce emissions from on-road mobile sources.
- Plant and preserve trees for shade and pollutant removal.
- Utilize alternative transportation and trip reduction programs to reduce traffic congestion and vehicle emissions.
- Encourage land use patterns that reinforce walking, bicycling, and transit use.

### **H-GAC Tools**

#### Funding Opportunities

- Clean Cities/Clean Vehicles Program
- AirCheckTexas

#### Plans and Programs

- Clean Rivers Program
- Water Quality Management Plan
- Watershed Protection Plans
- Total Maximum Daily Load (TMDL) Implementation Plans
- Regional Transportation Plan

#### Information and Training

- GIS Data Clearinghouse
- Texas Stream Team
- Clean Waters Initiative
- Regional Flood Management Handbook



- Technical assistance to local governments on flooding, stormwater management, on-site septic systems, and water quality management practices
- Commute Solutions

## **Natural Environment: Land and Energy**

The H-GAC region encompasses many different ecotypes, including tidal wetlands, bottomlands, other riparian areas, coastal prairies, water bodies, upland forests, agricultural lands, post oak savannah prairies and protected lands/parks. These ecotypes provide many types of value to the communities within our region. Therefore, it is prudent to manage growth to protect our landscapes and ecological integrity. By safeguarding and preserving these natural features, open spaces, and agricultural lands, we benefit from wildlife habitat, economic opportunities associated with farming and tourism, flood control, pollution prevention, and recreational opportunities. Innovative waste management practices can help preserve and restore the land and help to prevent non-point source pollution.

In addition, our region's ample natural resources allow us to develop a broader energy portfolio. Texas is one of the top producers of wind energy and leads the nation in renewable energy potential. The H-GAC region has a great assortment of energy options available to power its future, including renewable energy alternatives such as solar, wind, geothermal, and biofuels. As the region's population and economy evolves, providing reliable and affordable energy supplies will be important.

### **Facts**

- Within the H-GAC region, 21 cities have adopted tree and landscaping ordinances to protect existing trees, increase the number of new trees, and beautify their communities.
- The region has over 3,000 parks ranging in size from small local neighborhood parks to large regional parks.
- More than 80 municipal recycling drop-off facilities and 23 landfills are available throughout the region.
- The region hosts 6 large-scale biodiesel plants, including two of the largest in the country. We also have more than 10 fossil fuel power plants and 1 nuclear power plant.
- Plans are in place to develop clean coal and cellulosic ethanol facilities, and expand the Matagorda nuclear power facility.
- In 2010, H-GAC conducted energy purchasing through the H-GAC Energy Purchasing Corporation for over 200 local governments, saving an estimated \$58 million.

### **Challenges & Opportunities**

#### Resource Conservation

- Challenge: Relatively low landfill tipping fees, compared to other parts of the U.S., often eliminate financial incentives to find alternative uses for recyclable materials.
- Opportunity: With regional coordination, local governments can pool their recyclable materials to create a viable market for recyclable materials within the area.

- **Challenge:** Infrastructure for handling special waste (household hazardous waste, electronic waste, tires) does not exist in all parts of the region, and there are many underserved areas.  
**Opportunity:** Communities throughout the region have the opportunity to anticipate future growth and plan for solid waste facilities that will provide safe and convenient access for citizens.
- **Challenge:** Growth in previously undeveloped areas may jeopardize environmental resources that provide a variety of ecological and quality of life benefits to the region.  
**Opportunity:** Preservation of high priority environmental resources, in conjunction with growth in areas already served by infrastructure, can help the region grow in a more sustainable manner.

### Energy

- **Challenge:** There is a geographic disconnect between areas where energy is produced and areas where energy is needed.  
**Opportunity:** As energy options expand, the region can consider prospects for local production, including biofuel, wind or solar.
- **Challenge:** Developing renewable energy sources can adversely affect the natural and built environments, including visual impacts and potential disruption of bird migration.  
**Opportunity:** The H-GAC region has the potential to develop renewable energy sources in an environmentally sensitive way to serve as a model for other parts of the state and nation.

### Park Development

- **Challenge:** Costs for park development or enhancement can be expensive.  
**Opportunity:** Many local governments in the region have passed parkland dedication ordinances that require developers to include park space in residential developments or pay a fee in-lieu to contribute to local parkland development. There may also be opportunities for flood management facilities to provide recreation opportunities.

### **Priorities**

- Conserve natural resources and create a sustainable future.
- Preserve high priority environmental resources.
- Reduce energy consumption.
- Develop strategies to proactively plan for increased open space and parks.

### **Action Steps**

#### Conservation

- Elevate natural resource protection as a key criterion for site selection in development planning.
- Adopt local government zero-waste policies by 2035.
- Develop incentives that encourage the development of infill sites rather than greenfields.
- Implement a Buy Recycled policy.
- Promote proper recycling and disposal of household hazardous and electronic wastes.

- Utilize recycled materials as an alternative to other materials.
- Reinvest in existing recycling infrastructure.

#### Preservation

- Re-develop closed landfills for recreational spaces.
- Implement local development regulations, especially to protect valued resource areas.
- Identify high priority environmental resources for preservation.

#### Energy

- Create community awareness and education programs that promote responsible energy decisions.
- Adopt ordinances and building codes that require and reward energy efficiency.
- Increase awareness of renewable energy options.

### **H-GAC Tools**

#### Funding Opportunities

- Community Trees Grant Program
- Solid Waste Management Grant Program
- Debris removal and clearance service contracts

#### Plans and Programs

- Solid Waste Management Plan

#### Information and Training

- Shoreline Protection Ordinances
- Urban Forestry Program
- Cooperative Purchasing Services Program – HGACBuy /Green Procurement and Energy Purchasing Corporation
- Regional Recycling and Conservation Guide
- Eco-logical Regional Decision Support System
- Green Schools Program
- Regional roundtables on environmental enforcement, recycling, and public outreach
- Regional contracts for special wastes (household hazardous waste, electronic waste)

### **Best Management Practices (BMPs)**

- Adopt green building practices.
- Promote waste-to-energy systems at landfills.
- Conduct energy audits.
- Establish conservation easements.
- Preserve land through public and private acquisition programs.

## Built Environment: Land Use

Whether we're preserving agricultural land to produce local food for the region or adding homes to major employment centers to improve the jobs-to-housing balance, the pattern in which we build on and use our land will be a key to sustainability. The way we use our land directly impacts our daily lives and how we are able to utilize our infrastructure. Building in areas that are already served by infrastructure—also known as infill development—can reduce costs to government. Local governments can also invest in and encourage the development of Livable Centers, which are safe, convenient, and attractive areas where people can live, work, and play with less reliance on their cars.

### Facts

- The 13-county H-GAC region covers over 12,313 square miles of land and is home to 6.0 million people as of 2009.
- There are 134 incorporated cities in the region, with 65% of the total region's population living in these cities.
- 40 percent of the region's jobs are found in employment centers (areas that contain more than 5,000 jobs per square mile). Five of these employment centers contain more than 20,000 jobs per square mile and account for more than 250,000 jobs in the region.

### Challenges and Opportunities:

- Challenge: Low-density development patterns leave few alternatives to driving cars. Retrofitting to improve connectivity and allow for alternate travel modes can be expensive.  
Opportunity: Demographic trends suggest that a larger share of future housing demand may be satisfied through infill, mixed-use, or transit-oriented developments.
- Challenge: A large share of the region's growth is occurring in areas that have minimal land use and planning tools available to them.  
Opportunity: Coordination among developers, neighboring cities, and county officials can help ensure that growth in these areas is efficient and ties into existing or planned public utilities and infrastructure, including wastewater treatment plants and waste disposal facilities.
- Challenge: There is a perception of land use development that larger lots and single-family homes are preferable to mixed-use developments and increased density.  
Opportunity: Education about the trade-offs of different development types and technical assistance in appropriate siting can accommodate preferences for a wide variety of development patterns.
- Challenge: As growth pushes the boundaries of urban development outward, agricultural land, open space, and other natural resources may disappear.  
Opportunity: Growth in rural areas presents opportunities to foster local economic development, which can be balanced with programs to strategically preserve ecologically significant lands.

### Priorities

- Create attractive, walkable, mixed-use places.
- Reinvest in existing downtown areas and other pedestrian-friendly neighborhoods.

- Encourage development patterns that support walking, biking, and transit for daily trips.
- Preserve green space, agricultural lands, and sensitive ecotypes.
- Adopt policies to encourage a range of housing types to meet the diverse preferences and needs of all residents.
- Increase the efficiency and safety of utilities and infrastructure.
- Educate citizens and developers regarding accommodating changing land use preferences.

#### **Action Steps:**

- **Forecasts:** Ensure land use forecasts reflect changes in demand for detached single-family housing.
- **Funding:** Leverage public investments in infrastructure and streetscaping to serve as a catalyst for private investment and development.
- **Livable Centers:** Encourage local jurisdictions to adopt policies and ordinances that promote well-designed, walkable, mixed-use places.
- **Transportation:** Coordinate land use planning with transportation project planning, including light rail lines and other non-auto investments.
- **Downtowns:** Identify incentives that local jurisdictions can provide to spur infill development, redevelopment, and reinvestment in downtown areas.

#### **H-GAC Tools**

##### Funding Opportunities

- Livable Centers Program
- Pedestrian-Bicycle Special Districts Program

##### Plans and Programs

- Regional Transportation Plan
- Regional Bikeway Plan
- Subregional Planning Initiative
- Livable Centers Program

##### Information/Training

- **Socio-Economic Modeling:** Growth forecasts for population and employment in the H-GAC region
- **GIS and Aerial Imagery:** Land use and land cover data for the region
- **Technical assistance** to local governments on visioning processes and long range and strategic planning

### **Built Environment: Transportation**

Transportation is a basic component of our everyday lives, allowing us to get to work, school, home, and all activities in between. The ability to get around (mobility) and to reach our desired locations

(accessibility) are key contributors to quality of life, and mobility issues consistently rank high on the list of concerns for those in the Houston region.

Widely scattered destinations—the prevalent development pattern in the Houston-Galveston region—reduce overall accessibility and require many people to devote more time to commuting and other trips. Changes in land use and community design can reduce automobile dependency by making some trips possible by walking, bicycling, or transit and by improving accessibility to jobs, homes, and services. Satellite cities, town centers, and mixed-use developments enhance accessibility by bringing various destinations and services together.

### **Facts**

- The current 8-county transportation system includes 947 miles of bikeways, 8 miles of light rail, 149 miles of HOV and managed lanes, and 24,430 lane miles of highways and roads.
- Approximately 15 million vehicle trips are made in our region every day.
- Fixed-route and on-demand transit services are provided by 8 entities in the region.
- Transportation is a major driver of the economy, with the ports being a leading provider of jobs in the region. Transportation is also the number one household cost in the region.

### **Challenges and Opportunities**

- Challenge: The regional growth forecast shows demand for vehicle travel will double by 2035. Additionally, the movement of goods may triple in volume during this same period.  
Opportunity: Reducing the demand for vehicle travel requires shifting strategies from policies and investments that primarily accommodate expanded vehicular travel to those that seek to provide more—and practical—alternatives to vehicle trips.
- Challenge: Traditional transportation finance mechanisms are eroding. Meanwhile an ever increasing share of available funding is needed just to maintain the current system.  
Opportunity: A greater emphasis on land use planning, subregional planning, and coordination may be more cost efficient and yield development outcomes that more closely align with the region’s vision.
- Challenge: High fuel costs, plus safety and air quality issues increase the need for creative solutions to mobility challenges.
- Opportunity: Shifting variables will encourage local jurisdictions and regional agencies to work together more closely to use resources efficiently. Ideally, this collaboration will produce lasting partnerships and joint solutions that will strengthen the region’s commitment to transportation innovation and excellence.

### **Priorities**

- Improve access to jobs, homes, and services.
- Increase transit options throughout the region.
- Improve mobility and reduce congestion.
- Coordinate transportation and land use, increasing pedestrian and bicycle opportunities.

### **H-GAC Tools**

### Funding Opportunities

- Transportation Improvement Program
- Clean Cities/Clean Vehicles Program
- Drayage Loan Program

### Plans and Programs

- Regional Transportation Plan
- Regional Bikeway Plan
- Transportation Safety Program
- Livable Centers Program
- Houston-Galveston Area Emission Reduction Credit Organization
- Clean Air Action Program
- Regional Aviation System Plan
- Eco-logical Regional Decision Support System
- Subregional Planning Initiative

### Information and Training

- Access Management Studies
- Mobility Studies
- County Transit Plans
- Commute Solutions
- Regional Commuter Rail Connectivity Study

### **Action Steps**

- Multi-modalism: Offer greater travel choices by promoting street connectivity, creating pedestrian and bicyclist facilities, and filling transit gaps inside and outside the METRO service area.
- Mobility: Support policies that reduce demands on the transportation system, especially peak period travel and single-occupancy vehicle trips.
- Operation Management: Maintain roadways, selectively increase road system capacity and focus on operation management, such as traffic light synchronization.
- Land Use: Connect existing and planned centers and promote roadway designs appropriate for the context of the surrounding community.
- Funding: Align local plans and priorities with regional transportation funding.
- Safety: Promote access management measures along corridors to improve safety.

## **Economy**

More than 120,000 employers currently provide jobs for over two million workers. With regional population forecasts showing a doubling of the workforce by the year 2035, we will need to recruit, retain, and expand industries and employers that provide quality jobs for the growing population. At the

same time, the region will need to ensure it has a skilled workforce to meet the changing demands of existing and emerging businesses and industry.

To maintain a vital and sustainable economy in the future, the region must focus on recruiting and retaining a diverse suite of industries, which will strengthen our competitiveness in the global arena. Understanding our region's unique strengths, capitalizing on subregional economic clusters, and collaborating on workforce development are critical elements of enhancing our region's economic prospects and attractiveness for new investment.

### **Facts**

Job growth affects the built environment.

It takes:

1.3 jobs to fill one housing unit.

1 job to fill 300 square feet of office space.

1 job to fill 500 square feet of retail space.

1 job to fill 625 square feet of industrial space.

### **Challenges & Opportunities**

- Challenge: Meeting the demand for skilled workers and a better educated workforce, coupled with the need to expand and upgrade facilities, such as ports, is a challenge for the industrial engines of the region, particularly manufacturing, health care, education and petrochemical industries.  
Opportunity: By elevating quality of life as a fundamental priority, the region can remain competitive and attract the workforce needed to sustain the regional economy.
- Challenge: The region's economy will need to adapt to a world-wide transition toward alternative energy resources, such as fuel cells, wind energy, natural gas and solar.  
Opportunity: The region's internationally recognized energy sector is in a prime position to develop and export alternative energy products and technologies. Promotion of natural gas as an alternative energy resource is another opportunity.
- Challenge: The region's ability to sustain and grow a skilled workforce is compromised when school drop-out and performance rates exceed national levels.  
Opportunity: Decreasing school drop-out rates will not only create a high-quality future workforce but improve the quality of life in the region.

### **Priorities**

- Support existing businesses and retain workforce.
- Grow a diverse economy and tax base.
- Raise awareness of the links between quality of life and the ability to attract and retain talented workers and leading-edge employers to the region.
- Foster and retain an adequate supply of well-educated and skilled workers.
- Coordinate economic development efforts in the region.
- Promote fuel flexibility.



## Action Steps

- Labor Demand: Partner with the region's businesses, educational institutions, civic organizations, and community leaders to find solutions to current and future education and labor needs of the region's vital economic sectors.
- Balanced Growth: Promote rural economic development to ensure balanced regional growth.
- Information: Provide relevant economic and business data to support economic development activities.
- Education: Provide access to education and workforce training opportunities to all segments of society.
- Infrastructure: Provide adequate and reliable infrastructure (housing, transportation, energy, water supply, wastewater treatment, and waste disposal) to support emerging and existing economic sectors.

## H-GAC Tools

### Funding Opportunities

- Small Business Administration 504 Loan Program
- Community Investment Grants
- Rural Enterprise Revolving Loan Fund
- Workforce Solutions

### Plans and Programs

- Gulf Coast Economic Development District
- Houston-Galveston Area Local Development Corporation
- Workforce Solutions - Gulf Coast Workforce Board

### Information and Training

- Regional Industry Cluster Analysis for the Gulf Coast Economic Development District
- Monthly Economic Digest
- H-GAC Regional Review Committee - Texas Community Development Program
- Workforce Solutions Education and Training and Provider Network

## Quality of Life

Quality of life involves everything in our natural and built environments that contributes to our well-being, including access to safe neighborhoods, schools, parks, hospitals, cultural and recreational facilities, and social and emergency services. Quality of life is also about building good human relationships that value participation, communication, collaboration, and partnership. Regions perceived as having a high quality of life are able to attract jobs, people, and economic investment. Our development decisions can shape our communities, the local environment, and overall quality of life.

## Facts

- The region is served by 126 (includes short-term acute, long-term acute and psychiatric) hospitals, and all except psychiatric hospitals have formal emergency departments.
- Of the 126 regional hospitals, 25 are designated as trauma centers (3 Level I, 7 Level III, 15 Level IV).
- Approximately 80 9-1-1 EMS providers serve the entire region.
- In 2009, the Houston-Galveston Area Agency on Aging delivered 654,977 meals to 3,997 older Texans.
- H-GAC's Workforce Services aims to directly place 47,500 applicants in jobs every year.
- In 2009, H-GAC provided more than 48,000 contact hours of law enforcement training to 4,273 peace officers.
- The 8-county Transportation Management Area contains a bikeway network of 947 miles, and H-GAC anticipates a 64 percent increase in bicycle lane miles by 2035.
- The H-GAC region is home to 6 diverse ecotypes that provide green space, nature viewing, and recreation opportunities.
- The H-GAC region is one of the most diverse metropolitan regions in the country with distinct communities based on identity, geography, interests and language.
- There are over 150 languages spoken in the region with the primary languages being English, Spanish, Vietnamese, Mandarin Chinese, French and Urdu.

### **Challenges and Opportunities**

- Challenge: As growth continues, public safety and homeland security must be improved.  
Opportunity: Sharing of resources and information, such as 9-1-1 regional communications planning and law enforcement training, can bolster public safety and security efforts.
- Challenge: Providing safe, affordable, and attractive housing for all residents is increasingly difficult, especially in rural communities where an adequate supply of workforce housing is essential to the local economy.  
Opportunity: Providing quality housing that meets the needs of residents will improve quality of life and result in economic benefits to the community.
- Challenge: As the baby boomer generation ages, local governments will need to provide quality aging services. Particular needs include a diversified housing stock and adequate health care facilities.  
Opportunity: Investment in the services needed to support an aging population will provide economic development opportunities for communities.
- Challenge: As development pressure increases in the region, natural resources and important historical structures are at a greater risk of being adversely impacted or lost entirely.  
Opportunity: As more communities recognize the importance of natural and historic resources for quality of life, these assets will be identified as factors for promotion and preservation in long-range planning strategies.
- Challenge: Even after the implementation of health reform through the Patient Protection and Affordable Care Act, it is estimated that 600,000 persons in the Gulf Coast Region will remain uninsured.

- Opportunity: Encourage development of primary care medical homes through multiple sources including private non-profit, governmental and private initiatives.

### **Priorities**

- Strengthen communities through greater emphasis on parks, services, and quality neighborhood design.
- Protect natural, historic, and cultural amenities.
- Plan effectively for growth and an aging population.
- Provide ready access to primary care and preventive health services for all persons.
- Ensure that the region is adequately prepared for natural and man-made disasters.

### **Action Steps**

- **Historic Preservation**: Protect historic resources through creation of historic districts, preservation ordinances, and public/private partnerships.
- **Parks and Open Spaces**: Create park standards for new residential developments, requiring set-asides for future parklands. Encourage partners to collaborate on park and open space planning, including coordination with floodplain management agencies to take advantage of potential joint-use opportunities.
- **Aesthetics**: Create design standards and designate roads as scenic highways to protect views and limit visual degradation (e.g., from sign proliferation.)
- **Safety/security**: Apply design principles in the planning process which emphasize safety.
- **Emergency Management**: Develop, execute and evaluate regional emergency management plans and standard operating procedures.
- **Trauma/Health Care**: Coordinate emergency dispatch and response between jurisdictions.
- **Aging**: Provide housing and supportive services specifically designed for older persons.
- **Primary Care**: Promote workforce development and clinical sites for adequate and accessible primary and preventive health care.

### **H-GAC Tools**

#### Funding Opportunities

- Livable Centers Program
- Downtown Public Spaces Grants
- Community Trees Grants

#### Plans and Programs

- Area Agency on Aging Program
- Regional Health Services Policy Council
- Regional Criminal Justice Community Plan
- Homeland Security Program
- Transportation Safety Program

- Workforce Solutions

#### Information and Training

- Parks and Natural Areas Best Management Practices
- River, Lakes, Bays 'N Bayous Trash Bash®
- Sustainability Workshops
- Regional Law Enforcement Training
- Technical assistance to local governments on 9-1-1 and Regional Emergency Communication, Homeland Security, and Criminal Justice planning
- Workforce Solutions Education and Training and Provider Network

## Conclusion

### Vision

The vision for the H-GAC region builds on where we are today and reflects hopes for how our future can be even better as we continue to add more people, jobs, vitality, and amenities.

The H-GAC Region will be noted for:

- Economic innovation and opportunity
- Quality natural resources and open space
- Healthy, safe and inclusive communities with ample housing and transportation choices
- Efficiency and strong intergovernmental coordination

This document has laid out priorities that will help guide the region, its leaders, and its many local communities prosper and benefit from growth while managing its less desirable effects.

### Bringing it all together—Galveston Bay

As the region prepares for significant growth over the next several decades, the priorities and action steps highlighted in this document can help local governments foster regional growth in a way that sustains the basic values we all share. While the document is divided into four elements (natural environments, built environments, economy, and quality of life), we hope it illuminates the benefits of a holistic planning approach that ties together all these fundamental traits of a successful region.

Galveston Bay offers a great example of our region's multi-faceted approach to managing a unique resource that benefits so many. This expansive and resilient bay is the largest estuary on the Texas coast and the seventh largest in the United States, making it a crown jewel of the area's **natural environment**. It supports recreation, tourism, industry, commercial fishing, and trade through shipping. At the same time, it provides substantial ecological and aesthetic value, which promotes a sustainable and healthy **quality of life** for residents both close by and many miles from its shores. Our region's **built environment** is also greatly impacted by the proximity of Galveston Bay, whether through the development of attractive communities nearby, the transportation and recreational paths that offer public access to it, or the infrastructure that is necessary to handle storm drainage and cleanse urban

discharges into the bay. Significantly, the ecological value of Galveston Bay contributes directly to a vital **economy** when considering the array of jobs and businesses it supports, as well as eco-tourism and recreational pursuits that bolster local tax bases.

#### **H-GAC Tools for Future Planning/Matrix**

Through H-GAC's various programs, local governments have access to many tools that may benefit planning for future growth. The planning matrix lists these tools under the categories of funding opportunities, policies and plans, and information and training.

*(Matrix to be included in formatted version)*

#### **Next Steps**

With proper planning, the H-GAC region can enter the future with renewed vigor, ready to capitalize on fresh opportunities. Through partnerships and a commitment to translate plans into reality, our communities and the entire region can achieve the priorities that this document has laid out. We must be flexible enough to adapt and succeed within an environment that is constantly in flux, while maintaining a steady aim at reaching our vision.