PROGRESS GALVESTON

City of Galveston Comprehensive Plan

PUBLIC HEARING DRAFT

OCTOBER 6, 2011

PROGRESS
GALVESTON

Plan prepared by HDR Engineering, Inc. for the City of Galveston, Texas.

Completed as part of Progress Galveston, a planning initiative led by the City's Department of Planning & Community Development with technical assistance provided by HDR Engineering, Inc., Kendig Keast Collaborative, Winter & Company, and the Law Offices of Kimberley Mickelson.

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Contact:
City of Galveston
Department of Planning & Community Development
823 Rosenberg | P.O. Box 779
City of Galveston, TX 77553
(409) 797-3660
progressgalveston@cityofgalveston.org

www.ProgressGalveston.com

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ACKNOWLEDGEMENTS

CITY COUNCIL

Joe Jaworski, Mayor

Rusty Legg, District 1

Linda Colbert, District 2

Elizabeth Beeton, District 3

Chris Gonzales, District 4

Steve Greenberg, District 5

Dianna Puccetti, District 6

COMPREHENSIVE PLAN STEERING COMMITTEE

Betty Massey, Chair
Bob Brown
Bonnie White
Brax Easterwood
Brenda Donaloio Lee
Cornelia Harris-Banks
Curtiss Brown
Damien Patrick
Dianna Puccetti
Dwayne Jones
Ennis Williams
Ernest Connor
Gina Spagnola
Holly Fortenberry
Jackie Cole
James Selig
Jeff Sjostrom
Jeri Kinnear
Jerry Mohn
Johnny Smecca
Ken McManus
Kristopher Benson
Lesley Sommer
Linda Strevell
Melvin Williams
Michael Culpepper
Michael Shriner
Pat Jakobi
Phil Newton
Rob Ruffner
Roger D. Soloway
Shane McDermott
Stephen Schulz
Susan Fennewald
William Merrell
Willy Gonzalez

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

Wendy O'Donohoe, Director

Lori Feild Schwarz, AICP, Assistant Director/Historic Preservation Officer

Catherine Gorman, Planning Mgr/Assistant Historic Preservation Officer

Dustin Henry, GIS Analyst/Urban Planner II

Pete Milburn, Urban Planner II

Elizabeth (Libby) Stone, Coastal Development Planner

Athena Petty, Planning Staff Assistant

Janice Norman, Zoning Administrator/Urban Planner I

CONSULTANT TEAM

HDR Engineering, Inc.

INTRODUCTION

PURPOSE

The Comprehensive Plan for the City of Galveston, Texas (the Comp Plan) is the official statement of long-range goals and policies affecting the City's competetiveness, livability, and sustainability. As an important guide for local decision-makers and stakeholders, the Comp Plan provides goals, objectives, and strategies for the community's long-term conservation, growth, and development and serves as the basis for important decisions affecting:

- the quality and character of the Island's commercial and employment districts, industrial centers, and key corridors such as Broadway Boulevard, Seawall Boulevard, and 61st Street;
- the conservation and improvement of neighborhoods citywide, including the rebuilding and renewal of neighborhoods damaged by Hurricane Ike;
- the protection and management of sensitive natural and cultural resources; and
- investments in the Island's transportation network, community facilities, utilities, and other support systems.

The Comp Plan offers a vision of what the City aspires to be in the future, a roadmap to guide decisions to achieve the vision, and a measuring stick to evaluate progress. As a statement of municipal policy, the Comp Plan is adopted by resolution of the City Council and implemented through the City's land development regulations, various public programs and initiatives, and local and regional capital improvement projects.

AUTHORITY

The legal authority for preparing a Comprehensive Plan is found in state statutes that provide municipal authority for comprehensive planning and for zoning. Chapter 213 of the Texas Local Government Code specifically empowers cities to "adopt a comprehensive plan for the long-range development of the municipality" and for "promoting sound development of municipalities and promoting health, safety, and welfare."

WHAT IS THE CITY'S COMPREHENSIVE PLAN?

... the official statement of long-range goals and policies affecting the City's competetiveness, livability, and sustainability

...important guide for local decision-makers and stakeholders

...vision of what the City aspires to be in the future, a roadmap to guide decisions to achieve the vision, and a measuring stick to evaluate progress

...implemented through the City's land development regulations, various public programs and initiatives, and local and regional capital improvement projects

WHY DOES THE CITY NEED A COMPREHENSIVE PLAN?

In Texas, a Comprehensive Plan is required for a city to adopt zoning regulations. Cities in Texas are authorized to adopt zoning regulations only if they are in accordance with a comprehensive plan. The Comprehensive Plan forms the basis upon which zoning decisions are made. With a Comprehensive Plan in place, zoning decisions consistent with the plan are presumed by the courts to be valid.

Under the Texas Local Government Code, municipalities are granted the power to define the content of a comprehensive plan, which may:

- include, but is not limited to, provisions on land use, transportation, and public facilities;
- consist of a single plan or a coordinated set of plans organized by subject and geographic area; and
- be used to coordinate and guide the establishment of development regulations.

Chapter 211 of the Local Government Code requires municipalities in Texas to adopt zoning regulations in accordance with a comprehensive plan. According to the state statues, the zoning regulations must be designed to:

- lessen congestion in the streets;
- secure safety from fire, panic and other dangers;
- promote health and the general welfare;
- provide adequate light and air;
- prevent the overcrowding of land;
- avoid undue concentration of population; or
- facilitate the adequate provision of transportation, water sewers, schools, parks and other public requirements.

PROCESS

This Plan represents an update to the 2001 Comprehensive Plan and is a culmination of work first initiated by City Council in 2007. To guide the process of plan development, City Council appointed a Comprehensive Plan Steering Committee to review the 2001 Comp Plan and make any necessary updates and modifications. The Steering Committee consisted of over 30 members who ensured that the Comp Plan was crafted to reflect the vision, values, aspirations, and priorities of the citizens of Galveston.

The Steering Committee created several subcommittees to focus on key strategic directions pertaining to the following existing and new Elements:

- Housing and Neighborhoods;
- Economic Development;
- Land Use and Community Character;
- Historic Preservation;
- Natural Resources;
- Transportation;

- Infrastructure;
- Disaster Response; and
- Human.

Visioning for the Comp Plan occurred in early 2008. The Steering Committee developed a vision statement that was presented to the public for feedback in a series of small-scaled public meetings held in February and March 2008. The Comp Plan's goals and objectives were drafted during summer 2008 and were about to be presented to the public in fall 2008 when Hurricane Ike interrupted the process.

In the weeks after the storm, the community's focus shifted to the Long-Term Community Recovery Plan (LTCRP) process and the development of "a vision, goals, and projects that would move Galveston along the road to full recovery from the devastation of Hurricane Ike." (Long-Term Community Recovery Plan, 2009) Many members of the Steering Committee joined other city residents as part of the Galveston Community Recovery Committee (GCRC) that led the development of the LTCRP.

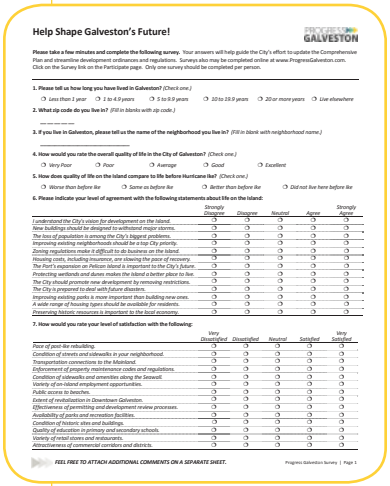
Following completion of the LTCRP, the Comp Plan update process was reinitiated in early 2010. Several members of the Steering Committee who no longer resided on the island resigned from the committee and many new members were added, including several who participated on the GCRC. During 2010, Steering Committee subcommittees began the process of updating existing Comp Plan Elements and drafting new Elements.

WHY DOES THE PLAN NEED TO BE UPDATED?

Although important progress has been made since the existing Comp Plan was adopted in 2001, life on the Island has changed dramatically in the past decade—population has declined, the local economy has struggled to keep pace with regional growth rates, and Hurricane Ike has reshaped the way Islanders thinks about their future.

Working drafts of the Comprehensive Plan were reviewed with the community during a series of stakeholder meetings and public workshops.

The Progress Galveston website was created to distribute information about the Comprehensive Plan update and other related plans.



Help Shape Galveston's Future!

PROGRESS GALVESTON

Please take a few minutes and complete the following survey. Your answers will help guide the City's effort to update the Comprehensive Plan and streamline development ordinances and regulations. Surveys also may be completed online at www.ProgressGalveston.com. Click on the Survey link on the Participate page. Only one survey should be completed per person.

1. Please tell us how long you have lived in Galveston? *(Check one.)*

❍ *Less than 1 year* ❍ *1 to 4.9 years* ❍ *5 to 9.9 years* ❍ *10 to 19.9 years* ❍ *20 or more years* ❍ *Live elsewhere*

2. What zip code do you live in? *(Fill in blanks with zip code.)*

_____

3. If you live in Galveston, please tell us the name of the neighborhood you live in? *(Fill in blank with neighborhood name.)*

_____

4. How would you rate the overall quality of life in the City of Galveston? *(Check one.)*

❍ *Very Poor* ❍ *Poor* ❍ *Average* ❍ *Good* ❍ *Excellent*

5. How does quality of life on the Island compare to life before Hurricane Ike? *(Check one.)*

❍ *Worse than before Ike* ❍ *Same as before Ike* ❍ *Better than before Ike* ❍ *Did not live here before Ike*

6. Please indicate your level of agreement with the following statements about life on the Island:

	Strongly Disagree	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*
I understand the City's vision for development on the Island.	❍	❍	❍	❍	❍
New buildings should be designed to withstand major storms.	❍	❍	❍	❍	❍
The loss of population is among the City's biggest problems.	❍	❍	❍	❍	❍
Improving existing neighborhoods should be a top City priority.	❍	❍	❍	❍	❍
Zoning regulations make it difficult to do business on the Island.	❍	❍	❍	❍	❍
Housing costs, including insurance, are slowing the pace of recovery.	❍	❍	❍	❍	❍
The Port's expansion on Pelican Island is important to the City's future.	❍	❍	❍	❍	❍
Protecting wetlands and dunes makes the Island a better place to live.	❍	❍	❍	❍	❍
The City should promote new development by removing restrictions.	❍	❍	❍	❍	❍
The City is prepared to deal with future disasters.	❍	❍	❍	❍	❍
Improving existing parks is more important than building new ones.	❍	❍	❍	❍	❍
A wide range of housing types should be available for residents.	❍	❍	❍	❍	❍
Preserving historic resources is important to the local economy.	❍	❍	❍	❍	❍

7. How would you rate your level of satisfaction with the following:

	Very Dissatisfied	*Dissatisfied*	*Neutral*	*Satisfied*	*Very Satisfied*
Pace of post-Ike rebuilding.	❍	❍	❍	❍	❍
Condition of streets and sidewalks in your neighborhood.	❍	❍	❍	❍	❍
Transportation connections to the Mainland.	❍	❍	❍	❍	❍
Enforcement of property maintenance codes and regulations.	❍	❍	❍	❍	❍
Condition of sidewalks and amenities along the Seawall.	❍	❍	❍	❍	❍
Variety of on-Island employment opportunities.	❍	❍	❍	❍	❍
Public access to beaches.	❍	❍	❍	❍	❍
Extent of revitalization in Downtown Galveston.	❍	❍	❍	❍	❍
Effectiveness of permitting and development review processes.	❍	❍	❍	❍	❍
Availability of parks and recreation facilities.	❍	❍	❍	❍	❍
Condition of historic sites and buildings.	❍	❍	❍	❍	❍
Quality of education in primary and secondary schools.	❍	❍	❍	❍	❍
Variety of retail stores and restaurants.	❍	❍	❍	❍	❍
Attractiveness of commercial corridors and districts.	❍	❍	❍	❍	❍

FEEL FREE TO ATTACH ADDITIONAL COMMENTS ON A SEPARATE SHEET.

Progress Galveston Survey | Page 1

Over 2,100 residents responded to a public opinion survey that was conducted online and distributed to City residents via water bills, GISD, and the Galveston Apartment Association.

In January 2011, the City embarked on a broad-based planning project designed to ensure public and private actions align to improve the community's livability, sustainability, and competitiveness. This planning effort, known as Progress Galveston, was organized in three parts: 1) completing an update to the Comprehensive Plan; 2) preparing a series of Specialized Plans addressing important issues such as historic preservation, mobility, parks and recreation, disaster recovery, and coastal management; and 3) rewriting and streamlining ordinances and regulations affecting the development of private property.

The final stage of work on the Comp Plan update began in February 2011, as the City staff and their planning consultants reviewed the draft Elements and met with the Steering Committee to discuss potential refinements and the public review process. The draft Elements were refined and presented to the City Council, Planning Commission, other city boards and commissions at a joint workshop in March 2011. A public review draft was released that included an introduction to the Comp Plan and minor revisions, corrections, and clarifications to the Elements.

Finalization of the Comp Plan was guided by an extensive public engagement process between April and June 2011. The process included the following activities:

- The draft Comp Plan was distributed online and presented during a series of workshops held with community stakeholder groups and the general public. The public were given numerous opportunities at these workshops, as well as at individual listening sessions, and online commenting, to review the Comp Plan and provide their comments and concerns.
- A public opinion survey was conducted online and distributed to City residents via water bills, GISD, Galveston Apartment Association during May and June 2011. Over 2,100 surveys were completed. Survey results were presented to the Steering Committee and used in the finalization of the Elements.
- The Center to Eliminate Health Disparities at UTMB Health conducted a series of six focus groups to solicit input on the draft Comp Plan from low- to low-middle income residents. Results from the focus groups were compiled into a report that identifies the participant's priorities and recommendations for the Comp Plan. A second report was prepared to analyze the health impacts associated with the draft plan's goals, objectives, policies, and recommended actions and offer recommendations to mitigate possible negative health consequences.

In July and August 2011, City staff and their consulting team worked with the Steering Committee to review public feedback; identify priorities for plan

objectives, strategies, and actions; and prepare a Public Review Draft of the Comp Plan that includes an Implementation Chapter with an Action Plan. The final draft was based on the Steering Committee's recommendations and public input, and will be presented to the Planning Commission, Landmark Commission, and City Council for consideration and action in fall 2011.

PLAN CONTENTS

Individual Elements of the Comp Plan are designed to cover a variety of citywide and neighborhood-specific issues and opportunities. Several of the 2011 Comp Plan Elements are updates to existing Elements from the 2001 Plan—Housing and Neighborhoods, Economic Development, Historic Preservation, and Natural Resource Elements. Two existing Elements—Community Character and Land Use—were combined into a consolidated Land Use and Community Character Element. The remaining Elements—Transportation, Infrastructure, Disaster Planning, and the Human Element—are new additions to the Comp Plan.

With the goal of enhancing livability, safety, sustainability, and quality of life in the City, the **Housing and Neighborhoods Element** presents strategies and actions to expand housing choices for all City residents including renter, elderly, low to moderate income, and middle-income households. This Element provides direction for promoting compatible infill development and improving the condition of the City's existing housing stock. The principal changes to this Element from the 2001 Plan include the incorporation of Long-Term Community Recovery Plan projects, developing a Neighborhood Master Plan implementation program, and establishing a rental housing licensing program.

The **Economic Development Element** focuses on promoting private investment and tactical job growth within the City's key corridors and districts. The Element focuses on promoting the City's historic strengths in tourism, Ports, and higher education; positioning for new economic strengths such as information technology; and gaining economic benefits from the Island's cultural and natural resources. The key changes to this Element include the addition of specific actions or strategies the City could take to support private investment through public initiatives to enhance intermodal transportation, schools, housing, workforce development, sustainable development and "green industry."

The existing Land Use and Community Character Elements were combined into a new **Land Use and Community Character Element** to consolidate sections addressing the future of downtown, commercial corridors, and mixed-use districts. Recommended actions and strategies are geared towards balancing

a desire to maintain neighborhood character, improve aesthetics and quality of life, and protect natural features by creating a future land use plan for the City, improving the City's development regulations, eliminating obsolescence and land use conflicts, and addressing pressing issues of public safety, such as concern over the ability to evacuate West End residents. The enhancement of the City's neighborhoods and key corridors (Seawall Boulevard, Broadway Boulevard, the Gateway Area, 61st Street, Harborside Drive, 25th Street) through public reinvestment and land development controls is the focus of this Element. Although the goals, objectives, and strategies contained in this Element do not constitute zoning regulations or establish zoning district boundaries, the Element provides important direction regarding the need to complete a Future Land Use Map and simplify and improve City ordinances and regulations affecting the use and development of private property.

The **Historic Preservation Element** offers recommendations for the preservation and management of the City's historic and cultural resources. This Element changed relatively little from the 2001 Plan, with the exception that priority projects from the *Long-Term Community Recovery Plan* were included.

The **Natural Resources Element** presents strategies designed to balance public interests in encouraging investment and protecting sensitive and unique natural resources. Specific direction is provided to improve water quality; protect the Island's beaches, dunes, bay, and wetlands; prevent land loss; and preserve open space. A major change to this Element is the addition of recommendations to develop local wetland protection regulations and a restoration plan, incorporate sustainable practices in government and land use and development, and minimize the impact of human interaction on open space and protected lands.

The **Transportation Element** addresses the need to not only expand access to the Island from the mainland for vehicular, passenger rail, air, and maritime transportation, but provide a safe and efficient thoroughfare system that offers residents and visitors a multitude of transportation options within the City. This new Element calls for increased participation in regional transportation planning, the development of comprehensive city transportation planning and investments, and other public realm improvements to improve connectivity, transportation choices, and quality of life.

At the heart of the **Infrastructure Element** is the need to provide resilient and adequate infrastructure that is closely linked with the City's hazard mitigation strategy to protect infrastructure in storm events to ensure quick recovery and use during emergency situations. The new Element calls for the alignment of

Comprehensive Plan elements address the full range of issues and opportunities related to the City's Island context.

land use decisions with public infrastructure investments determined by the City's carrying capacity, anticipated demands, and financial feasibility. At the same time, the City should work to minimize environmental impacts and protect important natural resources by making necessary improvements to address water supply and conservation, drainage, and sewer and septic systems and improving resiliency of the City's utilities and infrastructure.

The **Human Element**, a new Element, grew out of recommendations from the *Long-Term Community Recovery Plan*. The focus is on investing in the health, safety, and wellness of the citizens of Galveston by ensuring that residents have access to quality health care, education, human services, cultural and recreational resources while building a sense of self-reliance and community pride. A central recommendation addresses the need for City and local agencies to coordinate community-based services to address specific neighborhood issues and needs.

The **Disaster Planning Element** sets a direction for the City to integrate disaster planning into all realms of city function, including land use, transportation, and infrastructure planning. Specific recommendations emphasize the importance of addressing hazard mitigation, disaster preparation, response, and recovery planning in all City plans, programs, and regulations. This new Element also addresses issues related to historic properties, offers recommendations for increasing public awareness and preparedness, and provides direction for public investments and capital improvements.

KEY CONCEPTS FROM THE VISION

...a place where people who work here want to live here and have opportunities to participate fully in shaping the community

...accessible in the broadest sense of the term

...good quality, affordable homes in clean, safe neighborhoods

...enjoy cultural, educational, and recreational resources

...resilience to natural hazards

...mindful of preserving our historic resources, protecting ecosystems

...sustaining cultural amenities

VISION

In early 2008, the Steering Committee developed the following vision statement to provide a framework for the Comp Plan. The vision was presented to the public for feedback in a series of small-scaled public meetings held in February and March 2008.

Galveston, Today

- The City of Galveston is located on a sub-tropical island 32 miles long and 2 ½ miles wide surrounded by the warm waters of the Gulf of Mexico and Galveston Bay.
- The Island is on the edge of the metropolitan area that surrounds the fourth largest city in the United States.
- While the Island is subject to hurricanes, tropical storms, and natural coastal forces, its geographic location brings many advantages in terms of weather and climate.
- Galveston is a city rich in history and filled with historic, architectural, and archeological treasures.
- The city is home to three institutions of higher education, the University of Texas Medical Branch, Texas A & M at Galveston, and Galveston College.
- Galveston is an island with an abundance of environmental resources and a wealth of recreational opportunities and cultural amenities.
- Galveston is a community with a strong sense of place, mindful and protective of its distinct identity and unique character.
- Our community embraces diverse cultures and lifestyles.
- We are a resort city with an active non-resident population.
- Since its founding, Galveston's strategic location has encourages maritime commerce and related industry.
- The City's permanent population is slowly decreasing, and our school-age population is dropping rapidly.
- There is a wide disparity of household incomes with a low percentage of middle-income residents.

Galveston, The Future

- We want Galveston to have a range of educational and economic opportunities that can support generation after generation of Galvestonians.
- We want Galveston to be a city where people who work here want to live here.

- We want Galveston citizens to have the opportunity to participate fully in shaping our community, its character, its economy, and its governance.
- We want Galveston to be an accessible city in the broadest sense of the term…physically, politically, socially, and economically.
- We want all residents to be able to live in good quality and affordable homes in clean, safe neighborhoods of their choices.
- We want all our residents and visitors to enjoy cultural, educational, and recreational resources.
- We want to increase our resilience to natural hazards by reducing vulnerabilities, as well as planning our response.
- As the built infrastructure of our city expands, we must be mindful of preserving our historic resources, protecting important ecosystems, creating a diversity of neighborhoods, and sustaining cultural amenities that attract residents and visitors to the Island.
- Ultimately, we want to create a sustainable city on a sustainable island. We want to be a community that does not settle for anything mediocre.

A Vision for Galveston

Galveston is a livable city on a sustainable island, a community that demands excellence.

HOUSING & NEIGHBORHOODS ELEMENT

INTRODUCTION

Ensuring the provision of quality housing to meet diverse needs, strengthen neighborhoods, and enhance community character are among Galveston's greatest challenges. The City's older, historic neighborhoods contain a substantial inventory of housing, highly varied in condition and occupancy. Much of Galveston's housing stock was damaged by Hurricane Ike, as approximately 75 percent of the structures in the Urban Core experienced flooding. Some citizens have not been able to repair the damaged houses or have abandoned structures, which, in the years after the storm, places considerable strain on neighborhoods working through disaster recovery.

Conversely, extensive reinvestment is also occurring, bringing new life to the City's historic neighborhoods. Much of this positive momentum has come from the initiatives of community-based groups and individuals committed to improving the City's neighborhoods and older housing stock. The City has also expanded its role in promoting the preservation of Galveston's large inventory of historic structures. By establishing a Historic Preservation Officer (HPO) position within the Department of Planning and Community Development, the City has taken an important step forward but additional effort will be required to tackle challenges facing the City's neighborhoods. While new and appropriate infill housing is needed, the City's highest priority must remain the preservation of, and reinvestment in, the inventory of older buildings, not just those in designated historic districts. The City should take a more active role, not only in supporting these reinvestment efforts, but also by assuming its proper leadership role in guiding and integrating them.

Reinvestment in the City's existing housing stock promotes the community's sustainability goals. Existing housing is inherently sustainable because it is already constructed. Many of Galveston's houses were built prior to electricity and air conditioning and therefore were designed to take advantage of natural light and prevalent breezes for cooling. The City should promote the sustainable features of its existing housing stock and provide programs that improve energy efficiency in existing and new housing.

HOUSING & NEIGHBORHOODS GOAL

Expand the Availability of Quality Housing to Meet the Needs of a Diverse Population & Build Strong Neighborhoods to Enhance Community Character

OBJECTIVES

1. *Expand the Supply of Middle-Income Housing*
2. *Revitalize & Enhance the Livability, Sustainability & Safety of Urban & Historic District Neighborhoods*
3. *Expand Housing Choices for Low to Moderate & Workforce Income Households to Strengthen Neighborhoods*
4. *Encourage the Development of Housing Suited to the Unique Character of Galveston Island, Outside the Urban Core*
5. *Create New Organizational Structures to Mobilize City Housing Efforts & Create Expanded Community Housing Partnerships*

To prosper economically, the City must maintain and improve quality of life in existing neighborhoods and expand the supply of middle-income family housing.

With nearly three out of five households in the City renting, the community's disproportionate number of rental households remains a major impediment to building strong, stable neighborhoods, and should be reversed by encouraging increased homeownership. The City should also continue to marshal all available state and federal resources, as well as local corporate and institutional funding sources, to rebuild public housing and offer new housing choices to low-moderate and workforce income households in mixed-income neighborhoods.

To prosper economically, the City must maintain and improve quality of life in its existing neighborhoods and expand the supply of middle-income family housing. With limited suitable land resources, this may be most appropriate through redevelopment and infill. Outside the Urban Core at the West End and the East End Flats, new housing development should occur in unique planned developments which retain open space and scenic natural resources, while accommodating a diversity of housing needs.

GOAL

Expand the Availability of Quality Housing to Meet the Needs of a Diverse Population and Build Strong Neighborhoods to Enhance Community Character.

OBJECTIVES & STRATEGIES

OBJECTIVE HN-1. EXPAND THE SUPPLY OF MIDDLE-INCOME HOUSING

Housing suitable for middle-income families is in short supply on Galveston Island. The City's ability to compete for economic growth and achieve greater socio-economic balance is limited by the capacity to house middle-income employees. Because the area protected behind the Seawall is largely "built-out," opportunities for new middle-income housing exist in the form of infill within established residential areas and redevelopment of underutilized properties. Outside of the Urban Core, new housing development should occur in unique planned developments which retain open space and scenic natural resources, while accommodating a diversity of housing needs.

HN-1.1 Promote the Development of New Middle-Income Housing in Existing Neighborhoods

Through regulatory and financial incentives, the City should encourage the introduction of new single-family houses on vacant lots in existing, older and historic neighborhoods and promote the development of small subdivisions on larger properties comprising a block or more of land. Initially, incentives may be relatively passive in nature, including expedited development review, waivers of permit fees, and potentially short-term abatement of property taxes for new homeowners and developers in these areas. If necessary, more dramatic actions may be warranted, including capital improvements to infrastructure systems and neighborhood amenities, as well as land assembly of larger developable parcels for sale to willing housing developers and homebuilders.

HN-1.2 Promote Middle-Income Housing in Future Mixed Use Districts and Neighborhood Centers

While infill projects represent the best and most immediate opportunities to introduce additional middle-income housing units, such housing should also be planned for new development in areas west of the Seawall, in the East End Flats, and in places with larger-scale redevelopment potential like the North Broadway District. As recognized in the Land Use and Community Character Element, housing in mixed-use districts can be designed to appeal to broad segments of the market. The introduction of an expanded middle-income population in new and redeveloping areas will aid in the creation of mixed-income neighborhoods, spur commercial redevelopment in key locations, and support the growth of Downtown office and institutional employment. The City should take the initiative in demonstrating the feasibility of middle-income housing on the Island, and provide incentives and catalysts for development through actions such as investments in infrastructure and direct developer solicitation and selection.

OBJECTIVE HN-2. REVITALIZE AND ENHANCE THE LIVABILITY, SUSTAINABILITY AND SAFETY OF URBAN AND HISTORIC DISTRICT NEIGHBORHOODS

The substantial housing stock in urban and designated historic district neighborhoods is one of the prominent characteristics of Galveston Island. Not only does this represent a large percentage of the community's housing inventory, it also comprises the urban fabric and supports the community's socioeconomic and ethnic diversity. Within the Island's older neighborhoods, decline and revitalization are simultaneously in evidence. Reinvestment in the form of rehabilitation and reuse of older houses adds stability to these

neighborhoods while expanding homeownership and promoting sustainability. Conversely, many structures, divided into overcrowded apartment units, are poorly maintained and some are unfit for habitation. An aggressive code enforcement effort, coupled with investments in neighborhood amenities, will reverse deterioration, increase stability, raise resident and investor confidence, and accelerate the pace of revitalization.

HN-2.1 Develop a Master Neighborhood Plan Implementation Program

The City is developing a Master Neighborhood Plan that addresses conditions in existing neighborhoods across the Island. The plan, resulting from an intensive public outreach and engagement effort, presents goals and objectives for individual neighborhoods and identifies a range of strategies and actions to promote stabilization and conservation, encourage compatible infill development, and improve the condition of public and private facilities. The Master Neighborhood Plan should be used as tool to shape City actions, including the setting of priorities for capital improvements, code enforcement, and other actions affecting neighborhood livability.

The City should mount an aggressive and strategically targeted code enforcement effort to remove blight, protect historic structures, and reverse disinvestment trends.

HN-2.2 Support Blight Removal and Aggressive Code Enforcement

Limited resources to enforce building, health, and occupancy codes contribute to the erosion of the housing stock and discourage wide-spread reinvestment. The City should mount an aggressive and strategically targeted code enforcement effort to remove blight, protect historic structures, and reverse disinvestment trends. Habitable structures must be brought up to minimum code standards, while dilapidated structures should be removed when there is no other alternative. In addition, as recommended in the Historic Preservation Element, the City should intervene to curb demolition by neglect.

In the interest of public health, the City should continue to partner with the Galveston County Health Department and UTMB to address lead paint abatement. These initiatives should be considered an essential investment for which a direct return can be expected, in the form of accelerating private investment and a strengthened tax base, as investor confidence in these neighborhoods grows.

HN-2.3 Create Incentives to Promote Housing Infill, Reinvestment, and Homeownership

Positive financial incentives should be provided to encourage investment in infill and restored structures, as well as conversions of rental property to homeownership. Incentives should include tax abatement, particularly for infill

The City should adjust existing zoning requirements and prepare new Infill Design Standards to ensure new projects complement the character of existing neighborhoods

development, as well as direct financial assistance to first time homeowners. For tax delinquent structures and vacant lots, the City should institute a program similar to the New Orleans Tax Sale, whereby such delinquent properties are made available for infill development by the City to willing investors or first time homebuyers, at nominal cost.

HN-2.4 Ensure Standards Promote Compatible Infill Development

The City should adjust existing zoning requirements and prepare new Infill Design Standards to ensure new projects complement the character of existing neighborhoods. Standards should address such characteristics as site configuration, building form and scale, building materials, parking, and architectural features. To ensure standards accomplish objectives, the City should:

- Adopt standards to ensure the design of individual projects complements the pattern, form, scale, and character of neighborhood development.
- Adopt standards addressing appropriate site development for large parcels, including requirements that Galveston's grid pattern be maintained and the pattern of projects follows area building traditions related to lot sizes and orientation.
- Consider adjustments to base zoning standards to preclude the introduction of higher-density, large-lot multi-family development in areas with an established single-family character, particularly in areas zoned General Residence (GR) where large multi-family development is allowed by Specific Use Permit.

HN-2.5 Strengthen the Noise Ordinance to Improve Neighborhood Livability

Loud and sustained noises can have a negative impact on residents' quality of life. The existing noise ordinance, which is enforced by the Police Department, should be reviewed and updated as necessary. The updated noise ordinance should be clear and enforceable. The ordinance should address appropriate decibel levels for areas of the City and establish a monitoring and enforcement process.

HN-2.6 Support the Provision of Neighborhood Amenities

A quality neighborhood environment comprised of safe, walkable, well-lit and tree-shaded local streets and sidewalks will be necessary to promote neighborhood stabilization and renewal. To promote stabilization and renewal, and provide an attractive environment for private investment in the City's existing neighborhoods, the City should accomplish the following:

- Strategically target investments in sidewalks, street trees, street lights, paved alleys and other neighborhood amenities in areas where such improvements will produce the greatest return in the form of resident quality of life and investor confidence.
- Continue to partner with UTMB in the Neighborhood Completeness Indicator (NCI) project to quantify quality of life issues such as the accessibility of key services necessary for meeting the daily needs of neighborhood residents. (The NCI tool can be the basis for planning policies, implementing actions, or project design that would advance neighborhood completeness.)
- Support continuation of the Renaissance Zone program administered by the Family, Children and Youth Board to provide amenities such as sidewalks and ADA improvements in low-to-moderate income neighborhoods.

HN-2.7 Leverage Financial Tools and Incentives to Improve Housing Conditions and Promote Neighborhood Revitalization

As recommended in the Historic Preservation Element, the City should make use of all available local, state, and federal financial resources and incentives to support reinvestment in older and historic neighborhoods. The City should leverage federal funding sources, incentive programs, and tax credit programs; explore ways to take full advantage of State enabling legislation permitting local tax relief for reinvestment in historic properties; consider creating revolving loan and other financial assistance programs; explore the potential to waive permit fees and expedite reviews for reinvestment projects; and consider expansion

of the City's Receivership Program to recycle abandoned and tax delinquent properties.

HN-2.8 Ensure Housing Plays a Central Role in Downtown's Future

In recent years, Downtown Galveston has seen an increase in the rehabilitation of existing structures for middle- and upper-income housing. As Downtown's population has increased, the market for retail and entertainment uses has also improved. The City should help to support and accelerate such development, as well as ensure the retention of centrally-located rental housing to meet workforce needs.

To promote a wide range of housing Downtown and grow the market for housing, the City should work with the Historic Downtown Strand Seaport Partnership to implement Downtown Plan recommendations designed to expand the critical mass of office uses, expand and upgrade commercial and retail uses, and encourage entertainment and specialty retail uses that enhance the character of the Downtown.

The City should promote the sustainable features of its existing housing stock, provide programs that improve energy efficiency, and encourage the use of sustainable principles in new construction.

HN-2.9 Promote Sustainability and Energy Efficiency

As called for in the Natural Resource Element, the City should promote the sustainable features of its existing housing stock, provide programs that improve energy efficiency, and encourage the use of sustainable principles in new construction. Future plans for sustainability should address housing issues such as green building standards for new residential construction, improved energy efficiency for existing houses, and sources of alternative energy. The City should partner with the private utility companies to provide incentives for homeowners to install more sustainable mechanical systems and energy producers such as solar panels and windmills.

OBJECTIVE HN-3. EXPAND HOUSING CHOICES FOR LOW TO MODERATE AND WORKFORCE INCOME HOUSEHOLDS TO STRENGTHEN NEIGHBORHOODS

While Objective HN-2 deals with the broad challenge of neighborhood stabilization and reinvestment, this objective focuses on the specific housing needs of Galveston's many low-moderate and workforce income households. The City partners with private and non-profit housing providers, such as the Galveston Housing Authority (GHA) and Community Housing Development Organizations (CHDOs), to create housing opportunities that promote independence and pride in community. The City should continue to aggressively pursue Federal and state funding sources, including disaster related funding.

HN-3.1 Aggressively Pursue Federal Housing and Redevelopment Funding

Success in winning federal housing and redevelopment grants is often decided by the degree of local commitment demonstrated both in the form of local matching dollars and in the number of public, private, and institutional sector partnerships. The City must demonstrate its full support of the effort and aid in achieving broad institutional and corporate participation.

HN-3.2 Promote Public-Private Partnerships

One approach to achieving broad community support is to create alliances with non-profits for specific housing development opportunities. One potential vehicle is the receivership program, through which the City may make available vacant, blighted or tax-delinquent properties to non-profit housing providers for the creation of quality infill housing. In addition, the City should expand its partnership with the Galveston Historical Foundation (GHF), with whom the City has active grants for housing services, and strengthen its relationship with the Galveston Alliance of Island Neighborhoods (GAIN) and other private organizations.

HN-3.3 Expand Assistance to First-Time Homebuyers

With City homeownership rates far below national averages, it is critically important to reverse the traditional imbalance of renters to homeowners. The City should continue its active role in complementing the efforts of GHA and non-profits to enable qualified low-moderate income families to purchase their own homes. The City has a Homebuyer Assistance Program that provides up to $14,500 in HOME funds for down payment and closing cost assistance. Funds may be used to buy-down the mortgage or interest rate and even pay up to a year in pre-pays for insurance and taxes. The City has complemented GHA's efforts by providing homebuyer funds for the housing developments at Cornerstone I & II and at The Oaks.

Through the receivership program and the creation of a subsidized loan pool or loan guarantees for first time home purchases, the City will accelerate neighborhood reinvestment and grow the local tax base. These programs will also aid disadvantaged families in moving toward sustainability.

HN-3.4 Expand Workforce Housing Assistance

The City should implement new housing assistance programs to ensure housing for the Island's workforce population. Assistance programs could target civil servants and key service providers. Such programs would help reduce the

number of people who work on the Island but do not live here and the high proportion of rental housing. Other incentives should be established to encourage businesses to increase their employment of Island residents.

While the Height and Density Development Zone provides bonuses for inclusionary housing (workforce and affordable housing units) on limited Island properties, the City should also consider an Inclusionary Housing Ordinance for other development. An Inclusionary Housing Ordinance would provide an increased supply of workforce and affordable housing units.

HN-3.5 Establish a Land Bank

A central depository for available infill development sites would assist developers in identifying potential project sits. Through an agency such as a Revitalization Authority as called for in the Economic Development Element, the City should create an inventory of City owned lots in established neighborhoods. The Finance Department should identify City-owned lots that may be made available to investors to rehabilitate existing structures or construct new houses. The City should partner with the Galveston Economic Development Partnership (GEDP) to create a database of developable parcels that could be made available to the public.

OBJECTIVE HN-4. ENCOURAGE THE DEVELOPMENT OF HOUSING SUITED TO THE UNIQUE CHARACTER OF GALVESTON ISLAND, OUTSIDE THE URBAN CORE

Although the bulk of the community's housing stock remains in the Urban Core, much of the Island's housing growth is occurring at the Island's West and East Ends. While such development helps to expand the community's tax base and its supply of quality housing, the West End has limitations on its ability to accommodate development and population growth. New housing development on the West End should be permitted where the City has the ability to provide for public safety and property protection for residents, and when the development is consistent with the protection of dunes, wetlands and scenic open space.

HN-4.1 Promote West End Housing in Planned Conservation Developments, Neighborhood Centers, and Village Centers

As called for in the Land Use and Community Character Element, neighborhood and housing development on Galveston's West End should be guided by Planned Conservation Development regulations that ensure protection of sensitive natural resources, conserve open space and scenic resources, and minimize loss

New housing on the West End should be included in the development of Traditional Neighborhood Centers and Traditional Village Centers.

to public facilities and private property as a result of major storm events. Open space retained by individual developments should be connected to maximize their value as linked greenways and habitat corridors. New housing on the West End should also be included in the development of Traditional Neighborhood Centers and Traditional Village Centers.

HN-4.2 Promote New Middle Income Housing in the East End Flats

Due to its proximity to the industrial and downtown business core of Galveston, the East End Flats represent an excellent opportunity to expand the supply of middle-income housing to accommodate the growing employment base. As recommended in the Land Use and Community Character Element, the City should encourage the development of this property for middle-income housing specifically targeted to meeting the housing needs of those employed in the urban core of the Island.

OBJECTIVE HN-5. ENCOURAGE THE DEVELOPMENT OF HOUSING AND PROGRAMS SUITED TO THE NEEDS OF THE SENIOR POPULATION

Community design, the availability of amenities, and ease of mobility have a tremendous impact on the aging population. Galveston should plan for the needs of older adults. The “baby boom,” the rise of the birth rate following World War II, has lead to an aging of the population. A national survey

conducted by AARP found that 89 percent of persons age 50 and older want to remain in their communities. This finding is consistent with actual migration patterns. During the past two decades, less than 10 percent of those aged 60 and older have actually changed their residence. The City should provide a framework supporting successful aging within our community.

HN-5.1 Adopt Programs and Policies to Support an Aging-Friendly Community

To ensure Galveston is an aging-friendly community, the City should support mixed-use neighborhoods that bring people of all ages closer together with the services and products they need. Home-repair programs could assist elders with upkeep of their homes. Employers should allow employees to reduce or modify their work hours and responsibilities without loss of health benefits or seniority. Aging-friendly communities can make technological interventions needed to support self-care affordable and widely available. Furthermore, home modification and rehabilitation services enable housing to better accommodate individuals with disabilities. Rehabilitation-oriented daycare and other in-home and out-of-home programs help older adults improve their functioning and capacity for self-care.

HN-5.2 Expand Senior Housing Choices

GHA currently provides housing for seniors at several facilities: the duplexes at The Oaks subdivision, Gulf Breezes, and Holland House. Providing developments or buildings for particular resident groups, including the elderly, is an objective of GHA's 5 year plan. The 5 year plan also calls for the provision of services to increase the independence of the elderly. The City should partner with GHA to help meet their goals. The City should develop a senior housing strategy that addresses a range of needs: assisted living, low-moderate income, and active retirees.

HN-5.3 Improve Mobility for Seniors

Access and independence for the City's older residents are facilitated by complete streets—streets that allow, and even encourage, multiple types of mobility, such as walking, self-propelled and electric wheelchairs, bicycles, public transit and automobiles. The City should time pedestrian crossings accordingly to allow enough time for all pedestrians to safely cross. In addition, elder-friendly sidewalks and other public spaces provide places to stop briefly and rest.

OBJECTIVE HN-6. CREATE NEW ORGANIZATIONAL STRUCTURES TO MOBILIZE CITY HOUSING EFFORTS AND CREATE EXPANDED COMMUNITY HOUSING PARTNERSHIPS

Ongoing activities of GHA, private housing investors, charitable organizations, and historic preservation activists promoting investments in housing and neighborhood revitalization have produced discernible positive results. This momentum of neighborhood reinvestment will further accelerate if the City expands its capabilities to promote reinvestment, enforce codes, and invest in streetscape and other neighborhood amenities. Simultaneous with internal restructuring, the City should join forces with other private and public entities to establish a shared agenda and active partnerships to promote housing development, redevelopment, and neighborhood revitalization.

HN-6.1 Adjust City Departmental Structure to Focus on Housing and Neighborhood Issues

The City should establish a Housing Director to act as a coordinator for all housing entities. The Housing Director should implement a tracking system for all housing projects in the City of Galveston. If federal funding for the City's existing housing programs should become unavailable, then the City should continue to provide said programs through other funding sources.

The City also should examine and adjust its departmental structure and budgeting to consolidate and expand resources in the areas of code enforcement, public works, parks and recreation, legal, police, and development permitting. This consolidated structure should have a defined housing and neighborhood mission statement, coordinated team leadership, and a blight removal action plan with defined responsibilities and performance benchmarks for enforcing codes, removing blighted structures, acquiring delinquent properties, and investing in neighborhood amenities.

HN-6.2 Strengthen and Expand Institutional and Public-Private Partnerships

The City should expand its partnership with local CHDOs including GHA, neighborhood and historic district organizations, and non-profits, such as Habitat for Humanity, to promote a shared agenda for action in housing and neighborhood revitalization. The City should consider a relationship with a nationally-prominent urban housing advocate, such as the Enterprise Community Partners, to be the catalyst and to assist in strategic planning for neighborhood revitalization and in executing, site-specific redevelopment projects, including but not limited to those identified herein.

To ensure the quality of rental units, the City should establish a process for maintaining a Rental Housing Licensing Program.

Specific actions the City should consider include the following:

- Support an organizational structure for CHDOs and encourage the establishment of more CHDOs.
- Develop infill design standards for new construction and rehabilitation design standards for existing structures to ensure quality housing and neighborhood compatibility.
- Encourage better communication between the CHDOs in order to capitalize on the specialization of each organization. For example, the Galveston Historical Foundation is the most appropriate CHDO to undertake the rehabilitation of -a historic property.

HN-6.3 Establish Rental Housing Licensing Program

To ensure the quality of rental units, the City should establish a process for maintaining a Rental Housing Licensing Program. The licensing program would provide for a reliable inventory of the City's rental units and improve substandard properties. By providing for yearly inspections of rental housing, the City will ensure conformance with life/safety regulations, including exterior lead based paint regulations. City Staff involved in the Rental Housing Licensing Program would include the Fire Marshal, Code Enforcement, Building Division, and Planning Division, as well as the Galveston County Health Department.

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ECONOMIC DEVELOPMENT ELEMENT

INTRODUCTION

The City recognizes local government has a crucial role and responsibility in making the direct investments in the community necessary to grow, strengthen, and diversify the local economy. The City also needs to be proactive in creating partnerships with private interests and local institutions to promote redevelopment and encourage more locally-employed households to live on Galveston Island. This may be achieved by increasing the supply of both workforce and middle-income housing as well as supporting new initiatives to enhance the quality of public education. Development and redevelopment should also emphasize the historic strengths of the community, including tourism, the Port, and the universities.

Although much of the emphasis of the Economic Development Element is on securing businesses, investment, and jobs, the City also recognizes the tremendous economic benefits of maintaining and reinvesting in the City's heritage. The benefits of revitalization and historic preservation extend to job creation, enhanced tourism, and an expanded property tax base, as well as an improved quality of life in the City's many older neighborhoods. Both the Historic Preservation and the Housing and Neighborhood Elements point to the need for the City to further expand its leadership role in promoting the preservation of historic buildings, commercial districts, and neighborhoods.

The City also recognizes the economic importance of the Island's natural resources. Preservation, protection and restoration of natural resources are crucial for continuing the viability of the community and the character of the Island. Economic benefits include ecotourism, commercial fishing, sport fishing, recreational opportunities, and quality of life for residents. Additionally, as a barrier island, the City has direct access to the Gulf of Mexico and shipping lanes providing opportunities for further development of waterborne commerce.

Pursuing all of these initiatives will require significantly-expanded financial resources. To meet the challenge, the City must overcome its fiscal limitations and develop broadened revenue sources. The City should provide transparency and make material and information available to the citizens on potential investment initiatives such as possible modification of the tax cap; greater use

ECONOMIC DEVELOPMENT GOAL

Diversify & Expand the Economy, Create and Retain Quality Jobs, Promote the Fiscal Health of the City & Enhance the Quality of Life in Galveston.

OBJECTIVES

1. *Reinvest, Redevelop, & Improve Galveston to Enhance Competitive Advantage & Encourage Private Investment*
2. *Focus Tactical Initiatives to Grow Traditional Strengths & Develop New Strengths In Information Technology Research*
3. *Support Businesses & Industrial Activities*
4. *Promote Development of a Quality Work Force to Meet Needs of Employers*
5. *Coordinate & Provide Leadership in Promoting Economic Development & Business Recruitment Through Knowledge Management*
6. *Promote and Maintain Leadership in Information Technology with Advanced Networks & Systems*

The City recognizes local government has a crucial role and responsibility in making the direct investments in the community necessary to grow, strengthen, and diversify the local economy.

of general obligation and/or revenue bonds, with associated steps to maintain and continue to enhance the City's bond rating; new structures for revenue allocation, such as tax reinvestment or tax increment financing; creative uses of City assets, including its land holdings; development impact fees; and, continuation of the "4b" sales tax revenues for economic development.

GOAL

Diversify and Expand the Economy, Create and Retain Quality Jobs, Promote the Fiscal Health of the City, and Enhance the Quality of Life in Galveston.

OBJECTIVES & STRATEGIES

OBJECTIVE ED-1. REINVEST, REDEVELOP, AND IMPROVE GALVESTON TO ENHANCE ITS COMPETITIVE ADVANTAGE AND ENCOURAGE PRIVATE INVESTMENT

Although in the past the City has neglected needed reinvestment, it is presently engaged in substantial efforts to rebuild basic infrastructure. Since 2001, the City has increased funding and focused its efforts in infrastructure improvements to reverse the decades-long trend of neglect. This work should be maintained and broadened in scope through continued funding and implementation of the Capital Improvement Program (CIP). The City has received substantial disaster recovery funds in the wake of Hurricane Ike. These funds have been utilized to repair/replace damaged infrastructure from the storm. Additional rounds of disaster recovery funding should maximize the City's ability to recover and repair damaged infrastructure.

The City has been more economically-active than in the recent past. However, additional strategic investments will be necessary to set the stage for private investment, with minimum standards for streets and utilities and an adequate provision of parking in key areas, as well as new initiatives in code enforcement to curb blight and obsolescence, provide for litter abatement and to upgrade the character and image of the City. The City should also continue to negotiate public-private partnerships for further expansion of the public infrastructure in conjunction with private development projects.

ED-1.1 Implement Actions to Enable the City to Meet its Long-Term Financial Needs

Although the City has made significant efforts in improving its overall financial standing, years of deferred maintenance of public infrastructure, as well as the need for continued expansion of service areas, has raised Galveston's financial obligations to provide the minimum basic service levels. Furthermore, continuing changes to federal and state regulatory requirements have also increased the City's financial responsibility. Therefore, the City must determine the best practices for maintained fiscal balance while providing the necessary services for existing residents as well as attracting new economic development opportunities. Actions that the City should consider include the following:

- Continue to maintain balanced annual City budgets.
- Diversify the City's revenue source.
- Consider modification of the tax cap as a means of generating needed revenues.
- Develop methodology to determine Cost of Service (COS) for various housing types to prepare for further residential development.
- Develop, publish, and maintain economic impact methodology that addresses the cost/benefit ratio relative to COS for proposed developments, in order for citizens to know the impact and cost of government activities.
- Maintain and, where possible, improve the City's general obligation bond rating through better ISO rating, minimum equipment standards, development of a safety plan, continued compliance with FEMA regulations, enhanced and more restrictive building codes, and development of appropriate mitigation strategies for sustainability.

ED-1.2 Carry Out Citywide Improvements Necessary to Support Economic Development Initiatives

To encourage economic investment in the community and improve its competitive position in the region, the City must make it a priority to improve existing infrastructure and the overall perception of conditions on the Island. In particular, focused funding of the CIP and expansion and enhancement of transportation options should be considered in order to reach Galveston's economic development objectives. As identified in other Elements of the Comp Plan, the following steps should be pursued:

- Identify and implement necessary infrastructure improvements, particularly as related to sewer service extension, stormwater drainage, and traffic/transportation as called for in the Transportation and Infrastructure Elements.

The City should take an expanded leadership role in promoting reinvestment and improvement Downtown and along key commercial and mixed use corridors.

- Identify and implement necessary city beautification improvements, as recommended in the Land Use and Community Character Element.
- Continue to implement a CIP tied to reasonable funding expectations.
- Educate and coordinate with developers and the private sector regarding CIP implementation.
- Identify and aggressively pursue all potential public and private funding sources available to the City.

ED-1.3 Support the Ongoing Revitalization of Downtown and Key Commercial and Mixed Use Corridors

As called for in the Land Use and Community Character Element, the City should take an expanded leadership role in promoting reinvestment and improvement Downtown and along key commercial and mixed use corridors. Specifically, the City should support the following:

- Revitalization of Downtown, including support for the implementation of the *Downtown Master Plan.*
- Improvements in conditions along Broadway Boulevard, the Gateway at I-45, Seawall Boulevard, 61st Street, Harborside Drive, and 25th Street.
- A new mixed use neighborhood in North Broadway.
- Mixed use development of the East End Flats.
- Clustering of commercial uses on the West End to create neighborhood and village centers to meet the needs of West End residents.

ED-1.4 Explore Establishment of Revitalization Authority

The City should establish a Revitalization Authority to implement recommendations for the long-term development of neighborhoods, commercial corridors, downtown, and the Port. Through public/private partnerships, the City can create the infrastructure that will enable it to take advantage of disaster relief funds and other federal funding opportunities. The Revitalization Authority should build capacity to support housing, commercial, and economic development opportunities through partnerships and leveraged resources.

ED-1.5 Facilitate Development of Workforce and Middle-Income Housing

As recommended in the Housing and Neighborhoods Element, the ability of Galveston to attract economic growth is hampered by the lack of affordable, competitive workforce and middle-income housing. The City has seen significant growth in second home and long-term rental properties in the last few years. However, this growth has raised property values and made it more difficult for

full-time residents to pursue quality housing options. Further, many people working on the Island have chosen to relocate to the mainland to pursue less expensive housing options.

The City has an important role to play in ensuring that the supply of middle-income housing is expanded. Further, housing choices for workforce income households must also be expanded. Because the area protected behind the Seawall is largely "built-out," opportunities for new workforce and middle-income housing exist in the form of infill within established residential areas and redevelopment of underutilized properties.

Specific actions to implement this strategy may include:

- Coordinate with the Galveston Economic Development Partnership (GEDP) and developers to minimize and/or remove regulatory and other types of impediments to these housing developments.
- Establish public-private partnerships to identify, pursue, and create specific development and redevelopment opportunities for workforce and middle-income housing that is in conformance with the Housing and Neighborhood Element recommendations.
- Investigate homeownership/investment incentives, such as tax abatement and first-time home buyer programs, to encourage investment in infill and restored structures, as well as conversions of rental property to homeownership.
- Create a central depository, or land bank, for available infill development sites;
- Continue to support and encourage planned conservation developments for the undeveloped east and west end areas of the Island.
- Explore additional opportunities to encourage redevelopment of existing properties or infill development through similar incentives for development as the Height and Density Development Zone community benefits.
- Develop a rental housing licensing program, as identified in the Housing and Neighborhoods Element.
- Support the Housing Market Study, Galveston Housing Rehabilitation and Infill, and the Sally Abston Housing Program projects, as called for in the *Long-Term Community Recovery Plan*.

ED-1.6 Encourage the Galveston Independent School District (GISD) to Continue Improving Educational Opportunities for Island Youth

The City should take all available actions to support GISD in continued improvement of the community schools on the Island. The school system has routinely been the subject of much debate regarding the quality of education

provided to the Island's children. However, in May 2008, Newsweek Magazine recognized Ball High School as one of the top 5 percent of public high schools in the nation. The ranking was determined by the number of Advanced Placement, International Baccalaureate, and/or Cambridge tests taken by all students at a school in 2007 divided by the number of graduating seniors.

Since Hurricane Ike, GISD's total number of students has diminished. Several schools were heavily damaged and have been closed. Other schools were closed due to shifting of the existing school populations. GISD continues to repair damaged facilities and implement new educational programs for the students.

Economic development of both commercial and residential uses is often linked to the community's school system. Many companies review the performance of the school district in determining to relocate to particular areas. Further, existing business employees often choose to live where the best school district is available for their children. Therefore, it is a high priority of the community to reverse any negative perception of GISD, in order to continue to improve the economic viability of the Island.

The City should consider the following steps to assist GISD in improving the educational opportunities for Island youth:

- Foster a routine working relationship with GISD to facilitate long-range planning for schools.
- Assist GISD in implementing improvements.
- Support educational programs that teach students skills, which will be in demand in the workplace – particularly businesses and industries present on Galveston Island.
- Participate in the planning process with GISD.
- Explore volunteer program with City employees for mentoring GISD students;
- Explore internship program for GISD students at the City.
- To assist with the P-16 Council's plan to provide college funding for GISD students, support the Galveston Promise project, as called for Long-Term Community Recovery Plan.

ED-1.7 Promote and Maintain Galveston as a Leader in Sustainable Development and Economic Growth

The City should become a leader in promoting sustainable development and economic growth. Specifically, the City should:

- Explore opportunities to attract "green industry" businesses to Galveston.
- Develop incentives for more energy-efficient and sustainable buildings for new business development.
- Encourage businesses to become more resilient and adopt sustainability practices.
- Prepare cost-benefit studies to demonstrate the value of private investment and relocation.

OBJECTIVE ED-2. FOCUS TACTICAL INITIATIVES TO GROW TRADITIONAL STRENGTHS IN TOURISM, PORT, INDUSTRIAL DEVELOPMENT AND HIGHER EDUCATION, AND DEVELOP NEW STRENGTHS IN INFORMATION TECHNOLOGY RESEARCH

The economy of Galveston Island should be strengthened and diversified by improving the competitive strength of traditional mainstays of the local economy, while developing new strengths by capitalizing on its assets of regional location, and its institutional and human resources. These include efforts in:

The economy of Galveston Island should be strengthened and diversified by improving the competitive strength of traditional mainstays of the local economy, while developing new strengths by capitalizing on its assets of regional location, and its institutional and human resources.

- Tourism, with an enhanced image, an improved Seawall corridor, a greater array of activities and amenities and a new convention center, to compete at a higher level for quality, year-round, family tourism and greater business visitation.
- Activities related to the Oil/Gas Industry at both the Port and Airport, including effective use of properties adjacent to the Port and Airport, diversification as a cruise port, and a complementary relationship with the Port of Houston.
- Higher Education, with efforts to support the enhancement and strategic repositioning of the University of Texas Medical Branch (UTMB), Texas A&M University at Galveston (TAMUG), and Galveston College (GC).
- Research, Technology, and Information-Based Businesses, taking advantage of the presence of major institutions and the specialized knowledge they bring to Galveston Island.

ED-2.1 Expand Galveston's Attraction as a Quality, Year-Round, Tourist Destination

The City has traditionally been a tourist destination due to its beaches and natural areas. However, in recent years, the City has expanded its offerings as a tourist attraction to include private recreational areas such as Moody Gardens and Schlitterbahn, large special events, cruise ship terminal, as well as a new convention center on Seawall Boulevard. In order to continue to see growth in

the tourism industry, the City must provide the necessary framework to attract additional investments and visitors to the Island. This includes the following:

- Direct the Park Board of Trustees to develop an Island-wide, community-based Tourism Master Plan as called for in the *Long-Term Community Recovery Plan*.
- Facilitate the continued development of a cruise port at the Port of Galveston to include day port cruises and reclassification of Galveston as a destination city/port of call.
- Develop an upgraded intermodal transportation system as recommended in the Transportation Element.
- Support the development of a Gateway Visitors' Center.
- Develop new quality visitor attractions, including public areas such as Stewart Beach and East End Lagoon.
- Continue to promote, host, and support events that draw visitors to the Island, which benefit the community and are in coordination the with City's special events policy.

In recent years, the City has expanded its offerings as a tourist attraction to include private recreational areas such as Moody Gardens and Schlitterbahn, large special events, cruise ship terminal, as well as a new convention center on Seawall Boulevard.

Furthermore, the City also needs to focus on further development of specialized tourist activities including eco-tourism, heritage and cultural tourism, conference/convention activities and beach/bay recreational opportunities. Specific actions include:

Eco-tourism

- Sensitively utilize the natural resources of the Island to support increased eco-tourism.
- Implement the Beach and Bay Access Plans as called for in the Natural Resources Element.
- Support the development of the East End Lagoon Nature Park and Preserve.
- Seek public-private partnerships for sustainable eco-tourism activities.
- Incorporate eco-tourism needs, including but not limited to parking, traffic flow and signage, in future infrastructure projects and the Capital Improvement Program.

Heritage and Cultural Tourism

- Support the continued revitalization of Downtown Galveston.
- Encourage further interpretation of aviation heritage at Scholes International Airport.
- Implement the Heritage Tourism goals of the *Progress Through Preservation: Historic Preservation Plan*.
- Encourage the further development and promotion of the visual and performing arts.

Conference/Convention Activities

- As recommended in the Land Use and Community Character Element, continue to support public realm improvements along Seawall Boulevard.
- Continue to facilitate the development of additional amenities consistent with supporting the growth of the conference and convention industry.
- Direct the Convention and Visitor's Bureau to create a Conference Awareness Program, including cross-marketing efforts among various attractions.
- Maintain an incentive fund for conferences.

Recreational Tourism

- As recommended in the Natural Resources Element, continue to improve the quality of beaches, improve beach access, and enhance beachfront amenities in conjunction with the Beach Access Plan.
- Review the requirements for development that ensures compatible recreational tourist developments Island-wide.
- Support the continued development of the Galveston Master Sports, Arts, and Recreation Complex to attract regional or state sports activities and tournaments.
- Support the completion of a Casino Gambling Feasibility Study, as called for in the *Long-Term Community Recovery Plan.*

The City needs to focus on further development of specialized tourist activities including eco-tourism, heritage and cultural tourism, conference/convention activities and beach/bay recreational opportunities.

ED-2.2 Enhance Galveston Island as a Premier Maritime Facility and as a Hub for Support Services to the Offshore Oil and Gas Industry

Continued expansion of port facilities on both Galveston and Pelican Island increases the need for complimentary maritime and industrial activities. The City should continue to encourage development of industrial businesses that support the Port and off-shore industry but do not detract from the other goals of the City. Additionally, the City provides many valuable support services to the offshore oil and gas industry. It is possible that concerns regarding dependence on foreign oil sources and high gas prices may lead to expansion of oil production in the Gulf of Mexico. However, even with the current level of facilities, significant support services are needed. Galveston's proximity to the Gulf offers a unique opportunity for specialized businesses to locate on the Island and support these off-shore facilities.

The following City actions will help realize this objective:

- Support the continued development of the master plans for the Port of Galveston and the Scholes International Airport as major centers of support, service, and distribution for the offshore oil industry and other maritime activities.

- Encourage environmentally-responsible industrial development that addresses concerns including but not limited to renewable water sources and sustainable energy use.
- Facilitate opportunities to attract quality primary job providers within Galveston's industrial corridor (Harborside Drive, Pelican Island and the Port of Galveston).
- Participate in regional planning activities.
- Assist with identification of industrial and commercial development sites needed by the offshore oil industry utilizing land at the Port of Galveston and Scholes International Airport.
- Support the Galveston Port Improvement Project, as recommended in the *Long-Term Community Recovery Plan.*
- Ensure a more cohesive dialogue between the Port and the City as it relates to further development.

ED-2.3 Expand Galveston's Position as a Center for Higher Education, Particularly for Biotechnology, Medical, and Maritime Training and Research

The City is fortunate to have several institutions of higher education, including UTMB, TAMUG, and GC. The universities provide not only educational opportunities for Island residents but also bring in students from across the world. These institutions serve an important economic purpose within the community and the City should support their efforts to continue to develop their programs and expand facilities as necessary. Key actions the City should pursue are as follows:

- Support the continued cooperative working partnerships (P-16 Council) with UTMB, TAMUG, and GC.
- Continue to provide the support services and amenities needed by UTMB, TAMUG, and GC to retain their competitive advantage.
- Encourage ongoing collaboration between the City and institutional partners (UTMB, TAMUG, and GC) to support maximum development potential and compatibility with adjoining residential neighborhoods.
- Continue to support the Galveston National Laboratory and encourage technology transfer within the City.
- Develop a strategy for articulating economic impact of Galveston's educational partners on a bi-annual basis.
- Develop and implement short- and long-term strategies that will enable these higher education institutions to accomplish mutual and complimentary goals.
- Effectively communicate the strengths of UTMB as a regional and national academic medical center as it relates to education, research, and patient care including support for the *Long-Term Community Recovery Plan*

project: UTMB Public Information Campaign – "Here for the Health of Texas."
- Support Galveston Promise and Galveston Center for Technology and Workforce Development projects, as called for in the *Long-Term Community Recovery Plan*.

ED-2.4 Position Galveston as a Center for Technology Development, by Supporting the Establishment of Additional Incubator/Accelerator Facilities

New technology and research companies often need additional assistance in establishing their business, and incubator or accelerator facilities may aid in this development. Also known as "smart parks," which are defined as industrial parks where high-tech research takes place, these accelerator facilities are key to successful economic development. In many cases, the City must take the lead in the development of these parks, through the creation of public/private partnerships focused on the establishment and marketing of this type of facility. In order to assist in the development of this type of facility in Galveston, the City should implement the following actions:

- Explore and prepare for the development of a "smart park," which may include City acquisition of land and placement of infrastructure.
- Facilitate development of facilities needed to support research and development projects and that support new start-up technology transfer businesses.
- Investigate the feasibility of establishing a non-profit corporation to promote the technology transfer of commercial applications from the research done at UTMB and TAMUG.
- Develop and implement a strategy to encourage entrepreneurial development of information technology businesses by local talent through an economic summit.
- Explore opportunities to work with the Johnson Space Center/NASA for the development of space-related technology industries.
- Encourage development of a comprehensive communication technology strategy that utilizes public and private resources.
- Support the GEDP Technology Task Force that encourages development of emerging technology entrepreneurs including green industries, bio-technology, mari-technology, and information technology.

OBJECTIVE ED-3. PROVIDE DIRECT CITY SUPPORT TO EXISTING AND NEW BUSINESSES AND INDUSTRIAL ACTIVITIES

There are a number of ways in which the City can support institutional and private sector investment to create new jobs and opportunities that will grow

The City should Investigate the use of management districts and other development tools to provide focused area improvements and maintenance.

the City's tax base and improve its fiscal health. These range from basic city responsibilities such as expediting development permitting, enforcing codes to remove blighted conditions, and providing basic infrastructure services. The City should make available the budget resources necessary to meet these minimum responsibilities, and go beyond them to enhance the City's character, image, and its commitment to a high quality of life.

ED-3.1 Support Existing Businesses and Industries through Infrastructure Improvements, Uniformly Applied Code Enforcement, and Beautification Activities

As described more extensively in the Housing and Neighborhoods, Land Use and Community Character, and Historic Preservation Elements, the City needs to expand current initiatives to provide basic infrastructure services to address code enforcement, blight removal, and enhancement of the Island's visual character. Such investments, by improving quality of life and enhancing civic pride, will greatly improve the likelihood that institutions, businesses, and development interests will be willing to make major investments in the community.

Programs and public investments may include the following:

- Lead by example in code enforcement activities with maintenance and improvement of municipal owned properties.
- Provide more City cleaning crews for streets and trash removal, including staff and resources.
- Increase funding for infrastructure improvements including hike/bike access roadways, new transportation technologies such as Intelligent Transportation Systems (ITS), rail lines/access bridge, water and sewer capacity, and other transportation issues as referenced in the Transportation and Infrastructure Elements.
- Develop an aggressive strategy for expanded code enforcement efforts and blight removal that includes improved input and communication with business and residential property owners.
- Develop an aggressive strategy for removal or remediation of blighted and abandoned properties using all legal tools available to the City.
- Support and fund further beautification efforts for the City within public rights-of-way, medians, City-owned facilities, as well as corridor improvements.
- Creation of design standards in key redevelopment areas to ensure compatible infill of new buildings.
- Investigate the use of management districts and other development tools to provide focused area improvements and maintenance.

ED-3.2 Support Development of New Businesses and Industries at Well-Located Industrial Sites through Infrastructure Funding Initiatives

The City should strategically focus infrastructure investments in close proximity to sites and locations that are underutilized and where new private investment is likely to take place if properly encouraged and supported by the City. Actions should include:

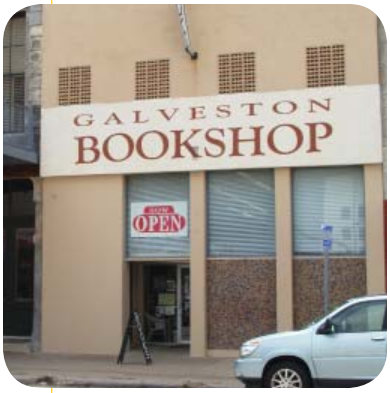
- Continue to explore public-private partnerships through the consideration of equitable performance-based incentives for business development of primary jobs, and
- Evaluate the CIP and current Zoning Standards as they relate to supporting both quality industrial development and environmentally responsible implementation within Galveston's city limits.

ED-3.3 Facilitate the Development Approval and Permitting Process for New and Expanding Businesses

In the last few years, the City has taken steps to significantly improve the development approval and permitting process. These include the addition of key planning and building personnel, streamlining the permit review process and the availability of pre-development meetings with multiple senior City staff. One of the most significant changes is the implementation of a multiple department property management database, which will expedite the permitting process and allow citizen access via the City's website.

However, the City should continue to improve the process for development approval and processing. The Houston-Galveston area is experiencing persistent growth and Galveston must remain competitive with surrounding jurisdictions. In order to further this objective, the City should consider the following:

- Expedite the permitting process with allocation of appropriate staff and resources.
- Prioritize IT resources and staff to make the City competitive with surrounding communities and current technology.
- Ensure that the City remains committed to providing the necessary personnel to facilitate continued growth in the community. Dedicate resources on an annual basis for the City to stay up-to-date with current technology in order to accommodate development pressures, including but not limited to: Geographic Information System (GIS), updated software programs, further integration of the property management software, and other related technology needs.



The City should support the development and retention of small businesses within Galveston.

ED 3.4 Promote Small Business Development and Retention

The City should support the development and retention of small businesses within Galveston. The Chamber of Commerce has noted that 80 percent of new jobs will be created by existing businesses. City services to small business should be prioritized to support their success in the community. Additionally, the City should encourage the diversification and retention of non-profit entities. The City should also investigate a micro-loan program to assist both established and new small businesses.

Furthermore, to establish Galveston as a destination for business expansion and location, the City should support the Galveston Business Incubator project called for in the *Long-Term Community Recovery Plan*.

OBJECTIVE ED-4. PROMOTE DEVELOPMENT OF A QUALITY WORK FORCE THAT WILL MEET THE NEEDS OF EMPLOYERS

One of the City's key assets in promoting growth and diversification of the local economy is its people; those who live, work, teach, and study in Galveston. Second only to affordable quality housing and neighborhoods, in attracting people to want to live and work on Galveston Island, is the quality of elementary, secondary, higher, and continuing adult education. Likewise, the availability of a trained, motivated workforce with appropriate technical skills is a key factor in investment and locational decisions by private industry. While the City is not an education provider, it should enter into new partnerships with such providers at all educational levels.

ED-4.1 Work Cooperatively with GISD and Charter and Private Schools to Strengthen Galveston High School Programs

GISD and other private educational organizations should be encouraged to provide both vocational and college tracks for their students. Students should be prepared to provide a variety of work levels within the community. Therefore, the high schools should prepare those students for entry level work in the community. As discussed previously, the City should explore mentoring and internship programs with students to expose Island youth to additional career path opportunities. The City should also encourage youth participation in the City's public processes to foster long-term community interest.

Furthermore, the City should encourage more interactive recreational opportunities and training programs that work with the unique Island environment. This can include natural resources, habitat restoration, historic preservation, tourism industry, medical industry, and port activities.

ED-4.2 Support Galveston College as the Community's Life-Long Learning Center

As technology changes, Galveston residents should have the opportunity for further development of their skills available on the Island. This may include vocational or professional skills such as electrical or mechanical training, office technology/computer proficiency, medical services, culinary arts and hospitality. The College should also be encouraged to periodically review the programs available, and consider implementing new programs, to further support emerging workforce opportunities in the community.

ED-4.3 Encourage the Development of Workforce Training Programs Related to Technology Development Opportunities

The City should encourage educational institutions to develop programs that teach students skills, which will be in demand in the workplace – particularly businesses and industries present on Galveston Island. With the increased importance of technology and research industries, and the City's goal to develop a "smart park," the community's workforce should be prepared to fill the employment opportunities presented by these new businesses. All of the educational institutions in Galveston should be encouraged to assess their programs and expand their course offerings as the economic development prospects increase in the community.

ED-4.4 Support Additional Vocational Training Centers

The Long-Term Community Recovery Plan recommended two vocational center projects: Vocational-Technical Center and the Galveston Center for Historic Preservation. The Vocational-Technical Center will provide training and a curriculum that reflects the needs of business and industry in Galveston, as well as the employers that the community wishes to attract. Galveston College is already offering technical training focused on hospitality, tourism and medical care. The new center will provide training for oil and gas, maritime industries, industrial trades and environmentally friendly/green collar jobs.

The Galveston Center for Historic Preservation will provide training and workshops for trades that work with historic buildings. Galveston buildings will serve as outdoor classrooms while rehabilitation occurs. The Center will also produce skilled craftsmen necessary for both of the community and the nation in preserving our architectural heritage.

OBJECTIVE ED-5. COORDINATE AND PROVIDE LEADERSHIP IN PROMOTING ECONOMIC DEVELOPMENT AND BUSINESS RECRUITMENT THROUGH KNOWLEDGE MANAGEMENT

To improve its effectiveness in recruiting new businesses, residents, and related investment, the City must have certain basic requirements in place: available developable sites; structures available for adaptive reuse; sufficient access and utilities; and a regulatory system that not only permits, but actively facilitates desired new investment. Further, the City must make available to prospective businesses, residents, and investors key information regarding opportunities for relocation to Galveston. The City should pursue an initiative in knowledge management, marshalling and making available user-friendly data on available development sites and structures and the full array of supporting services and facilities. This includes existing and planned infrastructure and transportation services, zoning and permitting procedures, available incentives, workforce educational and training opportunities, as well as information concerning the quality of life advantages of Galveston Island.

ED-5.1 Create a Centralized Information Storehouse for Use in Business Recruitment

In 2006, the City invested in the development of a multi-departmental, property management software program. The program tracks permits, contractor data, and compliance issues as well as storing information for individual parcels such as zoning, historic significance, and land use. The program is also integrated with the City's GIS program, which tracks information related to transportation and infrastructure.

The City should pursue continued development of the property management system and extend the use by departments city-wide. This includes utilizing all wireless options for field inspections, further development of the Citizen Access capabilities via the internet and the City's website, and maximizing the functionality of the disaster response module. Further, it must be a priority to ensure systems integration between all software applications utilized by the City.

ED-5.2 Accelerate Development and Expansion of the City Website to Incorporate and Make Available the Knowledge Management Database

The City must focus on creating a "virtual city hall" for ease of access by developers, citizens, and visitors and to improve the availability of information from the internet. Most businesses have this type of resource available for their customers and expect similar services for their community government.

Nationwide, many municipalities have significantly expanded their web capabilities to provide zoning information, GIS maps, and permitting online.

The City is currently completing configuration of the parcel management software's Citizen Access module, which will permit prospective businesses and residents to research properties via the City's website. As Citizen Access further develops, the City should consider expanding the information available to the public. The City should continue to provide this information through continued development of the City's GIS program, which serves to integrate and relate all data with a visual map reference.

ED-5.3 Dedicate Resources and Personnel to Become a Regional Leader in GIS Technology

Most governmental and educational entities utilize GIS to map important infrastructure and track data that relates to land. The City has pursued further development of a GIS program for the last several years. Although the City has much of the base-level technology required for the GIS program, personnel has not been dedicated to ensure further development and maintenance of the City's foundational information. Staff currently utilizing and maintaining GIS are only able to dedicate a portion of their time due to other job responsibilities. The City should consider development of positions dedicated to the GIS program.

Furthermore, the City should investigate the feasibility of developing a separate GIS department with a senior staff level GIS Coordinator to facilitate interaction between all departments currently utilizing GIS. These departments include: Fire, Grants and Housing, IT, Planning and Community Development, Police, and Public Works. Participation by these departments in the City's GIS Group should continue until a more formal GIS program structure can be created. The City should also continue to participate in the regional GIS Consortium to facilitate sharing information with other agencies and organizational partners.

Lastly, the City should continue to dedicate funding and resources to ensure the GIS program is current with the available technology. Once the base of information is created, additional analysis programs can assist with the City's programming needs and planning for future growth. GIS has become a standard data management tool among both public and private entities and therefore, the City cannot afford to fall behind in this technology if it is to compete for economic growth regionally.

OBJECTIVE ED-6. PROMOTE AND MAINTAIN GALVESTON AS A LEADER IN INFORMATION TECHNOLOGY WITH AN ACCESSIBLE FIBER OPTIC NETWORK AND ADVANCED INFORMATION SYSTEMS

The availability of suitable development sites and structures, with adequate access and utilities, and a user-friendly regulatory system, are necessary. To compete effectively, an advanced Information Technology (IT) infrastructure system should be in place, or at minimum, readily available to provide an added value for those considering locating in Galveston. This IT infrastructure should comprise a high-speed fiber optic network providing connectivity for voice, video, and data services, to be available throughout the City, but particularly in the downtown and industrial areas adjacent to the Port, Airport, educational campuses, and elsewhere where business expansion is best suited. Such businesses will expect prospective development sites to have in place high-speed connectivity systems including wireless access, satellite transmission capability and alternative connectivity paths from Galveston Island.

This infrastructure should provide a broad range of services including bandwidths for data transmission on private network segments, virtual private network access, and cable television linked to development sites with wireless or underground fiber optic systems. Vendors should be encouraged to provide bundled services with dry fiber connectivity between facilities and major communications centers on and off the Island, two-way video, reliable voice communications, and associated voice services. Additionally, vendors should be encouraged to pursue opportunities to link existing and planned incremental service expansions to move toward wider, more efficient service delivery networks.

In the last five years, the availability of data infrastructure has greatly increased. Currently, there are significantly more options available for organizations that desire modern communications than have been available in the past. Previously, the only available vendor for Internet bandwidth or point-to-point bandwidth was Southwestern Bell Co. (SBC), which was primarily composed of older ISDN and T-1 / T-3 technologies. Comcast and AT&T are now the primary sources with a variety of available Internet bandwidth and point-to-point options. The older T-1 / T-3 connections are still available at appreciably reduced rates but now there is the option of more robust fiber options. Additionally, a multitude of wireless options are now available, to create local Hot Spots in specific, organizationally directed sites. Each of these options is available for purchase or lease from several different vendors that are well-established in the Galveston area.

ED-6.1 Develop Long-Term 2-, 5-, and 10-Year Plans for a Comprehensive IT Infrastructure Initiative

The City has begun a fiber-optic project on Broadway Boulevard to connect the signals for enhanced traffic flow. However, further integration between City, Galveston County, GISD, UTMB, and other major institutions facilities should be pursued in order to provide the dedicated lines for increased efficiency as well as for disaster planning purposes. This includes the need for a fiber optic project to the new City Annex on the West End, as well as any police substations and fire stations. To ensure the dedication of funds and personnel to manage this project, the City needs to develop a comprehensive IT infrastructure plan with milestones at two (2), five (5), and ten (10) years. The plan should also address redundant methods of information flow from the Island to the Mainland, adequate cellular service Island-wide, Wi-Fi options, bandwidth growth, and hardened data center off-Island.

ED-6.2 Develop a Working Committee for IT Infrastructure Development to Pursue Network Expansion Opportunities

The City's IT department should provide the lead to pursue network expansion opportunities Island-wide. The working committee should include not only City staff but local technology partners and business users. The committee should investigate means to:

- Challenge existing IT providers to upgrade systems to meet current and future needs.
- Negotiate with new providers to explore IT infrastructure partnership opportunities.

LAND USE & COMMUNITY CHARACTER ELEMENT

INTRODUCTION

The Land Use and Community Character Element is designed to describe the preferred pattern, character, form, and intensity of development on the Island and identify policies, regulations, programs, and initiatives to achieve the community's vision. Although the Land Use and Community Character Element does not, in itself, constitute zoning regulations or establish zoning district boundaries, it provides important guidance for City decision-makers as they consider development proposals, capital investments, and other actions affecting the future of the Island's built and natural environments.

The pattern of development on the Island is historically well-established and strongly influenced by the barrier island setting. In the urbanized core, well-served by roads and infrastructure and protected behind the Seawall, planning and land use policy focuses on the stabilization and revitalization of residential, commercial and industrial areas, as well as targeted redevelopment to remove blight and introduce needed new activities and amenities. Significant actions are required to ensure the long-term stabilization of older neighborhoods and retention of the City's inventory of older structures. The recommendations below call for revisions to zoning and development standards to protect neighborhoods from development that may be incompatible or out-of-scale, and to maintain the integrity of the City's historic sites, buildings, and districts.

On the Island's east and west ends, with large tracts of undeveloped land but significant constraints, including wetlands and dune systems, scenic and open space resources, and limited infrastructure, City plans and policies are designed to balance interests in responsible growth and resource conservation. The future intensity and pattern of development in these areas will be affected by several factors, including decisions regarding planned street improvements and sewer service, the management of commercial and residential development, and the need to balance demands for development with desires to retain natural and scenic resources.

Overall, concerns about protecting the City's unique character, quality of life, disaster resilience, and competitive position in the region guide discussions regarding planning and public investment.

LAND USE & COMMUNITY CHARACTER GOAL

Provide for a Balance of Land Uses and Associated Regulations to Enhance Quality of Life and Community Character, Protect Public Safety and Natural Resources, Support Sound Economic Growth, and Promote Functional Efficiency.

OBJECTIVES

1. *Revise the Future Land Use Map*
2. *Promote Revitalization, Enhancement & an Appropriate Intensity & Mix Of Uses in Downtown, Commercial Corridors & Mixed Use Districts*
3. *Protect, Stabilize & Revitalize Existing Neighborhoods & Promote the Creation of New Neighborhoods That Offer a Wide Range of Housing to Meet Resident Needs*
4. *Encourage Responsible Development & Mitigation Planning*
5. *Promote Industrial & Employment Intensive Land Uses in Appropriate Locations*

Galveston's reputation as a good place to live, visit, and do business is strongly influenced by conditions Downtown, along the City's major commercial and mixed use corridors, and in existing and potential mixed use centers.

GOAL

Provide for a Balance of Land Uses and Associated Regulations to Enhance Quality of Life and Community Character, Protect Public Safety and Natural Resources, Support Sound Economic Growth, and Promote Functional Efficiency.

OBJECTIVES & STRATEGIES

OBJECTIVE LU-1. REVISE THE FUTURE LAND USE MAP

Updating the Future Land Use Map is among the City's highest priorities. An updated map—the last map was prepared in 1988—will provide a guide for future growth and development on the Island, helping ensure Galveston's population will have adequate housing, employment, and recreation opportunities in the future. As a planning tool, the map will help public officials, property owners, and residents make well-informed investment decisions.

The Future Land Use Map is intended to provide long-term guidance for the next 20 years and beyond. The map will cover all areas within the City of Galveston's jurisdiction and designate the location, type and intensity of future residential, commercial, industrial and institutional development. Galveston Island has numerous natural features and established development patterns of existing residential neighborhoods as well as commercial and industrial corridors. The overall goals of the Comprehensive Plan should be taken into account in creating the Future Land Use Map. The map, or the accompanying text, should be sufficiently detailed to provide guidance for re-zonings and development decisions.

The City of Galveston is in the process of updating the development code, including zoning standards and subdivision regulations. In conjunction with this project, the Future Land Use Map will be created. An existing land use study was completed in May 2010 by the Applied Planning Students at Texas A&M University that will serve as a base map for future land use planning.

The Future Land Use Plan should focus on compatible land uses to the existing built environment and consider the sensitive environmental areas of the Island. Additionally, the recent Comprehensive Housing Market Study and

the adopted Comprehensive Plan policies for future growth and development should be referenced in the development of the Future Land Use Map. Further data analysis should include current density, infrastructure such as water and sewer lines, level of service for roadways and other criteria that will affect development. The most appropriate method to create this map is through the City's GIS. The GIS-based map will also facilitate periodic updates and allow sharing of the information with other organizations.

Prior to adoption of the Future Land Use Map, the community should review and comment on the draft document. The City should ensure significant involvement of the public during the process and allow for comments to be incorporated. The Future Land Use Map will need to be adopted as an addendum to the Comprehensive Plan upon final approval by City Council.

OBJECTIVE LU-2. PROMOTE REVITALIZATION, ENHANCEMENT, AND AN APPROPRIATE INTENSITY AND MIX OF USES DOWNTOWN AND IN EXISTING AND POTENTIAL COMMERCIAL CORRIDORS AND MIXED USE DISTRICTS

Galveston's reputation as a good place to live, visit, and do business is strongly influenced by conditions Downtown, along the City's major commercial and mixed use corridors, and in existing and potential mixed use centers. These areas strongly influence the Island's livability and competitiveness. In prominent places across the Island, piecemeal planning, overly-permissive standards, and uneven public investment have compromised the City's competitiveness, attractiveness, and accessibility. The City has worked to address conditions such as these, as well as ensure new commercial and mixed centers develop in more sustainable, safe, and resilient ways. Commercial and mixed development Downtown, along major corridors, and in existing and potential activity centers should be guided by clear goals and objectives, market responsive plans, capital investment strategies, and development standards and guidelines that promote quality private investment.

LU-2.1 Promote Continued Revitalization and Reinvestment in Downtown Galveston

As a premier regional destination for commerce, culture, education and entertainment, Downtown plays a central role in shaping the perception of residents, visitors, and prospective investors. Preserving Downtown's special qualities, promoting quality reinvestment and infill development, and improving the public realm are critical to attract a wide range of use and activity.

Downtown Galveston's CBD, its shopping and entertainment areas, historic Strand, wharves, medical, educational, governmental, and cultural activities, are all experiencing a rebirth and an encouraging level of reinvestment. Great opportunities exist to expand Downtown housing into converted lofts and infill multifamily development. Further growth of UTMB, and the addition of cruise passengers at the Port, will add to this momentum and build support for retail and entertainment activities. In particular, the corridor between the CBD and the UTMB campus, especially along the Strand, offers excellent opportunities for reinvestment and appropriately-scaled infill development.

Growing the critical mass of office uses can further reinforce Downtown as the City's business and civic center. All the various components of the downtown activity have unique requirements for parking, access, and infrastructure, as well as specific timetables for their growth. While the City cannot directly plan the growth for each of these entities, the City can and should plan to accommodate their growth. Such planning should adjust the CBD's edge and permitted use definitions; provide appropriate, flexible development guidelines; a well-designed street pattern with wayfinding signage; an adequate, convenient, shared parking system serving multiple uses; and, a pedestrian environment that makes visiting, working, living, and shopping in Galveston's historic Downtown a unique and enjoyable experience.

Although each of Downtown's subdistricts has unique characteristics and require tailored, place-specific strategies to spark reinvestment and improvement, it is critical that plans for individuals areas are closely coordinated and ultimately integrated into an overall CBD plan. An integrated CBD plan will provide direction and consistency of efforts to meet community objectives to strengthen the role and function of Downtown as the City's multifunctional center of activity.

The City should encourage mixed use development through-out Downtown to enhance pedestrian activity, especially with ground floor retail and restaurant uses.

To promote appropriate reinvestment Downtown and ensure its position as a regional employment, entertainment, learning, and living district is improved, the City will accomplish the following:

- Support the intensification of office, entertainment and specialty retail, and residential uses.
- Encourage mixed use development throughout Downtown to enhance pedestrian activity, especially with ground floor retail and restaurant uses.
- Investigate the use of management districts and other development tools to provide focused area improvements and maintenance.
- Support efforts to market Downtown nationally and to cruise ship passengers.

- Support implementation of the Downtown Redevelopment Plan.
- Prepare and support implementation of streetscape and public space improvement plans for 25th Street/Rosenberg and Harborside Drive to provide lighting, trees, pedestrian amenities, and safe crosswalks.
- Support mixed use redevelopment of the subdistrict linking Downtown/ CBD and UTMB.

LU-2.2 Enhance Conditions along Broadway Boulevard and the Gateway area by Adjusting Permitted Uses, Updating Development Standards, and Improving the Public Realm

As Broadway Boulevard and the Gateway area provide the first image of Galveston to residents and visitors, public improvements and private development should occur on this corridor in ways that support an overall message of quality, history, and vitality. To guide private development along Broadway Boulevard, an overlay district has been in effect since 1991. The Broadway Overlay Zone sets higher standards for the design of projects specifically pertaining to landscaping, setbacks, signage, and lighting. Within the last five years, subsequent zoning amendments have adjusted the desired land use mix and divided the zone into smaller character areas.

The City has also taken important steps to encourage redevelopment of the Gateway area. In conjunction with the Tax Increment Reinvestment Zone (TIRZ) 12, the City adopted the Gateway Development Zone regulations for properties located to the north of I-45 between Harborside Drive and 51st Street. These regulations modified permitted land uses in specific development zones, landscaping standards, as well as fencing and signage specifications. Additionally, in 2008, the Height and Density Development Zone (HDDZ) Overlay was included for properties to the south of I-45. As noted previously, the HDDZ Overlay included height and density requirements, design guidelines for all new construction, and enhanced landscaping standards.

Other initiatives affecting conditions along Broadway Boulevard and in the Gateway area include the Broadway Beautification Project and the *Cultural Landscape Rehabilitation and Maintenance Plan.* The City's Broadway Beautification Project, supported with a grant from the Texas Department of Transportation (TxDOT), includes installation of an irrigation system and landscaping in all medians from 6th to 59th Street and placement of a fiber-optic linkage to synchronize traffic signals to improve traffic flow. The *Cultural Landscape Rehabilitation and Maintenance Plan* for the corridor addresses the restoration of the historic trees that were destroyed in Hurricane Ike and assist in the development of further transportation projects.

The City should maintain and strengthen controls such as the Broadway Overlay Zone, Gateway Development Zone, and Height and Density Development Zone to guide appropriate development.

The City should develop more comprehensive design guidelines and standards to enhance the different character areas of the highly visible Broadway Boulevard corridor.

The following identifies strategies and actions needed to guide the reinvestment of this community asset:

Development Regulations and Design Guidelines

- Maintain and strengthen controls such as the Broadway Overlay Zone, Gateway Development Zone, and Height and Density Development Zone to guide appropriate development.
- Consider the application of amortization requirements for non-conforming properties to accelerate the pace of change along the entire corridor or in key locations.
- Encourage commercial redevelopment along the western-most segment of Broadway Boulevard up to approximately 61st Street. This area should be planned as a new commercial area to provide the commercial development desired by medium-income residents, who are a focus of the plan.
- Revise permitted land uses in the Gateway area to include support resources for visitors to the Island as well as a welcome center designed to enrich and enhance visitors' experience of Galveston's unique character.
- Permit a mix of land uses in the Broadway corridor between 61st and 6th Streets to provide retail, restaurant, gallery, museums, cultural and historical experiences, as well as residential redevelopment.
- Enhance the character of the area and support the preservation of the historical structures.
- Address the condition and use of municipal properties in this area such as the old City incinerator and consider relocating the 61st Street recycling center to a less visible area.

- Investigate the expansion of the TIRZ to the south side of Broadway Boulevard and the development of a welcome center in this area.
- Actively seek improvements to properties through code enforcement and during the review process of land uses that require a Specific Use Permit.
- Reevaluate standards for access, parking, and cross-parcel pedestrian and vehicular connections.

Streetscape and Public Realm Improvements

- Ensure implementation of the Comprehensive Management and Preservation Plan for Broadway Boulevard, including long-term maintenance of the median landscaping, city right-of-way, and public amenities.
- Develop more comprehensive design guidelines and standards to enhance the different character areas of the highly visible Broadway Boulevard corridor.
- Continue to work with TxDOT to improve landscaping, reduce weeds and maintain the grassy areas adjacent to the Causeway, improve highway signage, and explore the feasibility of constructing a 61st Street overpass.
- Develop a design theme for the entire family of features, including special pedestrian paving, pedestrian lighting, benches, landscaping, street trees, trash and recycling receptacles, and special signage.
- Investigate the use of management districts and other development tools to provide focused area improvements and maintenance.
- Explore one or more of the following funding sources for the improvements: TIF District, Special Taxing District, and public/private partnerships.

LU-2.3 Improve Conditions along Seawall Boulevard to Promote Quality Development and Support its Function as an Attractive Visitor Destination

Seawall Boulevard is the most well-known and traveled area by visitors to the City, and as the primary feature tying together destinations along the beach—hotels, restaurants, entertainment venues, shops, and services—the boulevard has a powerful influence on resident quality of life, the vitality of Seawall businesses, and visitor perceptions of the community. Although still auto-oriented in places, recent projects have been designed to promote pedestrian activity, encourage strolling and people-watching, and improve connections among related destinations. To continue this positive momentum, and build on an initial round of improvements on the beach side of the corridor, significant support for additional public and private investment will be required for the corridor to achieve its full potential as a lively, safe, scenic, and memorable place in the City.

As the primary feature tying together destinations along the beach—hotels, restaurants, entertainment venues, shops, and services—the Seawall Boulevard has a powerful influence on resident quality of life, the vitality of Seawall businesses, and visitor perceptions of the community.

In the last several years, the City has undertaken significant review of the development of the Seawall corridor. The Seawall Development Zone (SDZ) was adopted in 2001, which included regulations relating to signage, fencing and setback requirements. The SDZ also identified the desired land use mix and the permitted uses were adjusted accordingly. In 2007, the City began development of the Height and Density Development Zone, which included Seawall Boulevard from Beach Drive to 11-Mile Road. In May 2008, the City Council adopted regulations that included height and density requirements, design guidelines for all new construction, and enhanced landscaping standards. As the City continues to implement these regulations, continued monitoring and assessment will be required and adjustments to the regulations should be pursued, if determined necessary, to achieve the goals of the Height and Density Development Zone. The City should now focus on public improvements such as right-of-way beautification, enhanced amenities, and traffic improvements, as determined necessary.

To achieve objectives for improvements along Seawall Boulevard, the City should accomplish the following:

<u>Development Regulations and Design Guidelines</u>

- Promote redevelopment of suitable land uses, as outlined in the Seawall Development Zone guidelines and monitor the desired land use mix and adjust permitted uses accordingly.
- Implement and adjust as necessary the standards and guidelines the Height and Density Development Zone regulations for Seawall area.
- The City should maintain a code enforcement presence on the Seawall and perform occasional compliance sweeps to ensure all City codes are being followed.
- Reevaluate standards for access, parking, and cross-parcel pedestrian and vehicular connections.

<u>Streetscape and Public Realm Improvements</u>

- Pursue funding to combine various Seawall Plans into a single Seawall Master Plan document establishing 1) a phasing plan defining a long-term program for improvements and 2) design standards supporting a consistent design theme addressing the full complement of improvements and furnishings, including restroom and shower structures, transit shelters, special pedestrian paving, pedestrian lighting, intersection and crossing improvements, benches, interpretive and wayfinding signs, landscaping, and recycling and trash receptacles
- Coordinate development of Seawall Master Plan with the Park Board of Trustees and land owners of private property south of the Seawall.

- Investigate the use of management districts and other development tools to provide focused area improvements and maintenance.
- Explore the long-term potential of possible funding sources for the construction and maintenance of improvements, including parking revenues, TIF district, special taxing district, and public/private partnerships.

LU-2.4 Encourage Improvements Along the 61st Street Corridor to Continue to Serve Local Needs, Minimize Impacts, and Enhance Attractiveness

The 61st Street corridor is ideally located to serve the basic convenience shopping needs of Galveston residents and is an important evacuation route. However, the current form of development is fragmented, proximate uses are poorly connected, pedestrian linkages are limited, and landscape and streetscape improvements are minimal. Additionally, as this corridor experiences redevelopment of older, less competitive shopping centers, care must be taken to ensure that the land use mix serves local resident needs and does not overburden the roadway network. Planning for improvements also should recognize distinctions between the character of areas north and south of Heards Lane. The area north of Heards Lane is characterized by less dense development and extensive water views, especially where 61st Street crosses Offat's and English Bayous. The area south of Heards Lane is developed along standard suburban patterns with large areas of surface parking and pole signage.

The following identifies the actions needed to support the 61st Street enhancement objective:

<u>Development Regulations and Design Guidelines</u>

- Adjust development standards to support high-quality commercial and retail development and reflect the different character of areas north and south of Heards Lane.
- Change zoning to narrow the range of uses permitted by existing commercial and retail zoning districts, and to impose limits on commercial building footprints, to avoid the impacts which could occur with the introduction of big box commercial uses.
- Revise standards to provide guidance regarding surface parking areas, pole signage, cross-access vehicular circulation, landscaping requirements (buffers, screens, etc.), lighting, residential compatibility, and pedestrian circulation.

With the increase in cruise ship activity, the Harborside Drive corridor has become a gateway for visitors and an important entrance into Downtown and UTMB.

Streetscape and Public Realm Improvements

- Design and implement streetscape and pedestrian improvements for the 61st Street corridor.
- Develop a design theme for the entire family of features, including special pedestrian paving, pedestrian lighting, benches, landscaping, street trees, trash and recycling receptacles, and special signage.
- Explore one or more of the following funding sources for the improvements: TIF District, Special Taxing District, and public/private partnerships.

LU-2.5 Enhance Harborside Drive as a Highly Visible Entrance Corridor to the Cruise Ship Terminal, Downtown, and UTMB

The character of Harborside Drive is unique to the Island. With the increase in cruise ship activity, the corridor has become a gateway for visitors and an important entrance into Downtown and UTMB. Although Harborside Drive does not accommodate the magnitude of development or traffic that exists along the three principal corridors of Broadway Boulevard, Seawall Boulevard, and 61st Street, this corridor along Galveston's working waterfront is an essential part of the City's history and identity. It also remains an important traffic artery, particularly for industrial truck traffic, cruise ship passengers, and as an alternative access route into Downtown and UTMB.

As this area evolves from its historic function as a wharf-related industrial corridor, it is important to maintain consistency with the corridor's historic scale and character. While creative and complimentary new uses and adaptive reuse of older structures for non-wharf-related industrial, as well as office, residential, and retail/entertainment uses are to be encouraged, the area will likely retain its heavy industrial use orientation through the Plan horizon. Therefore, the primary purpose of additional development standards along this extended corridor is to improve the visual character of an area in which the predominant views are of industrial operations, materials and machinery storage, and an otherwise bleak industrial character.

The following identifies the actions needed to support the Harborside Drive enhancement objective:

Development Regulations and Design Guidelines

- Adjust development standards to support high-quality commercial, retail, tourist- and cruise-related services, and industrial development.
- Implement controls to allow only land uses that are appropriate to this corridor. Recommended land uses should be of the following general types: commercial, retail, industrial, office, civic, and public park.

- Revise standards to provide guidance regarding surface parking areas, pole signage, cross-access vehicular circulation, landscaping requirements (buffers, screens, etc.), lighting, residential compatibility, and pedestrian circulation. Basic guidelines for building materials, massing, and the placement and screening of outdoor industrial operations and storage should also be adopted.
- Consider designing standards to address different character zones since areas of Harborside Drive differ greatly in use and scale.
- Consider the use of amortization policies in order to bring all properties into compliance with new regulations.

Streetscape and Public Improvements

- Design and implement streetscape and pedestrian improvements for the Harborside Drive corridor.
- Design elements, based on a planned theme, should include: special pedestrian paving, pedestrian lighting, benches, landscaping, street trees, trash and recycling receptacles, and special signage.
- Explore one or more of the following funding sources for the improvements: TIF District, Special Taxing District, and public/private partnerships.

LU-2.6 Enhance 25th Street as an Important Link Between Downtown and the Seawall Corridor

25th Street, also known as Rosenberg Avenue, is a north/south corridor that is both a commercial and residential street and serves as a connection between the Downtown and the Seawall. While some areas of 25th Street are located in special districts that carry some specific regulations (historic districts, the Seawall Development Zone, and the Height and Density Development Zone), the remainder of the corridor is not protected from inappropriate development. Development should occur on this corridor in a manner that will support the overall message of quality, history, and vitality.

Standards along 25th Street should provide guidance regarding building design and placement, surface parking areas, pole signage, cross-access vehicular circulation, landscaping requirements (buffers, screens, etc.), lighting, residential compatibility, and pedestrian circulation.

The following strategies and actions are needed to guide the reinvestment along 25th Street:

Development Standards and Design Guidelines

- Adjust development standards to support high-quality commercial and retail development.
- Revise standards to provide guidance regarding building design and placement, surface parking areas, pole signage, cross-access vehicular circulation, landscaping requirements (buffers, screens, etc.), lighting, residential compatibility, and pedestrian circulation.

- Implement controls to allow only the land uses that are appropriate in this corridor. Recommended land uses should be of the following general types: commercial, office, residential, civic, and public parks.

Streetscape and Public Realm Improvements

- Design and implement streetscape and pedestrian improvements for the 25th Street corridor.
- Design elements should include: special pedestrian paving, pedestrian lighting, benches, landscaping, street trees, trash and recycling receptacles, and special signage. A design theme must be developed for the entire family of features.
- Include parking controls as a part of the corridor plan.
- Explore one or more of the following funding sources for the improvements: TIF District, Special Taxing District, and public/private partnerships.

LU-2.7 Encourage the Creation of a New Urban Neighborhood in North Broadway

Located along the northern edge of the Broadway corridor is a substantial area of vacant land and obsolescent industrial and heavy commercial uses that has the potential to transition into a new mixed-use district with higher-density urban housing and supportive commercial uses. Market-rate housing in this new urban neighborhood could be designed to appeal to young professionals, empty nesters, and others who may prefer quality townhouse, condominium or apartment/loft dwellings in a more urban setting.

The introduction of this expanded workforce and middle-income population would aid in the creation of a new, close-in neighborhood supporting the revitalization of existing housing and neighborhoods, encouraging redevelopment along Broadway Boulevard, and supporting the growth of Downtown office and institutional employment. The City should assemble a package of incentives for such development, including density bonuses, flexibility for mixed uses, as well as assistance in land assembly, utility upgrading, and potentially short-term tax abatement. Any new projects within this area should be compatible with the existing housing stock and support overall redevelopment in this area.

LU-2.8 Promote the Mixed-Use Development of the East End Flats

Due to its proximity to the educational, industrial, and Downtown business core of Galveston, the East End Flats represent an excellent opportunity to expand Galveston's tax base. The City should encourage the development of this

property for mixed-use purposes specifically targeted to meeting the housing and support needs of those employed and pursuing education in the Urban Core of the Island. Furthermore, the development should consider a continuum of housing for senior citizens and middle income residents due to the proximity to UTMB and employment centers. Currently, the land is under management and jurisdiction of the United States Army Corps of Engineers (USACE) as a dredge disposal site. The City should continue to aggressively pursue a transfer of ownership from the USACE to the City of Galveston for future development.

Due to its proximity to the educational, industrial, and Downtown business core of Galveston, the East End Flats represent an excellent opportunity to expand Galveston's tax base.

LU-2.9 Create Neighborhood and Village Centers on the West End to Provide for the Needs of West End Residents

To provide neighborhood-serving commercial services and facilities on the West End to meet the needs of existing and future residents, the City should explore ways to promote the clustering of uses in compact, conveniently-located Traditional Neighborhood Centers and Traditional Village Centers. Clustering uses in a series of such centers, generally on the north side of FM 3005, can serve multiple objectives—strip commercial development can be avoided, auto trips can be limited, and impacts to scenic and natural resources can be minimized.

To promote commercial and mixed use development on the West End in compact centers, the City should accomplish the following:

- Prepare standards and incentives to encourage the creation of a series of uniquely planned mixed-use centers along FM 3005 and Stewart Road.
- Prepare design guidelines to help development integrate into the natural environment and avoid impacts to scenic resources.
- Explore opportunities to integrate new centers in larger districts with traditional neighborhoods, recreational amenities, scenic areas, and natural preserves.
- Prepare land use and design controls for properties along FM 3005 to ensure quality development and to provide aesthetic relationships between the sensitive environment and new structures.
- Identify strategies to connect the proposed commercial centers to pedestrian and bicycle facilities along FM 3005 and Stewart Road, and by designing such centers to be pedestrian-friendly.
- Encourage the creation of scenic corridor buffers, particularly along the northern edge of new centers, with the setback area planted with a palette of landscape materials typically found on the Island.

Potential locations for designated commercial centers should be considered in the vicinity of, but not limited to, the following locations:

- 7-Mile Road at FM 3005 and Stewart Road intersections;
- 10-Mile Road (Pean Road)/ FM 3005 intersection (or to coincide with future bridge/causeway to mainland);
- FM 3005 west of Jamaica Beach;
- Sea Isle Subdivision;
- FM 3005 west of Bermuda Beach;
- Pointe San Luis;
- 12 Mile Road/Pirates Beach;
- Sunset Cove Subdivision; and
- Sites corresponding to neighborhood support services on Stewart Road/ FM3005.

OBJECTIVE LU-3. PROTECT, STABILIZE AND REVITALIZE EXISTING NEIGHBORHOODS AND PROMOTE THE CREATION OF NEW NEIGHBORHOODS THAT OFFER A WIDE RANGE OF HOUSING TO MEET RESIDENT NEEDS

The City's older and historic neighborhoods are among its greatest assets and the City's highest priority should be the protection of its existing neighborhoods and stock of historic and older housing. The character, quality, and diversity of housing types, the walkable pattern of streets and blocks, the convenience of corner stores and services, and proximity to the Island's traditional centers of activity combine to create high levels of livability for Island residents. The City's focus on protecting the unique qualities of existing neighborhoods and providing a wide range of housing choices is reflected in the goals, objectives and actions presented in the Housing and Neighborhoods Element of the plan.

As recommended below and in the Housing and Neighborhoods Element, the City must continue to maintain and improve neighborhood quality of life, preserve and reinvest in historic buildings, and attract new and appropriate infill housing development. Coupled with the use of incentives for reinvestment and home ownership, the City should focus on aggressive code enforcement, restrictions on commercial encroachments, and the creation of strategies to promote historic preservation, revitalization, and compatible infill development. To ensure the availability of workforce and middle-income family housing near jobs and services in the urban core, the City should encourage infill development on single lots and in small subdivisions; promote the construction of new market-rate, high-density urban housing; and identify locations like North Broadway and the East End Flats as places where a wide range of housing can be provided through redevelopment and new development.

LU-3.1 Develop a Master Neighborhood Plan Implementation Program

As called for in the Housing and Neighborhoods Element, the City is developing a Master Neighborhood Plan that addresses conditions in neighborhoods across the Island. The plan, resulting from an intensive public outreach and engagement effort, presents goals and objectives for individual neighborhoods and identifies a range of strategies and actions to promote stabilization and conservation, encourage compatible infill development, and improve the condition of public and private facilities.

LU-3.2 Target Blight Removal through Aggressive Code Enforcement

In the last decade, the City has taken two important steps to promote the stabilization and reinvestment in older neighbors: the City has expanded staffing levels for building and code enforcement and adopted the 2009 International Property Maintenance code, which includes better provisions for affirmative maintenance. As recommended in the Housing and Neighborhoods Element, the City should support an aggressive and strategically targeted code enforcement effort to remove blight, protect historic structures, reverse disinvestment trends, and accelerate homeownership. Habitable structures should be brought up to minimum code standards and dilapidated structures should be removed when no feasible alternative to demolition exists. The City also should work in close coordination with neighborhood and civic organization partners to identify priority areas for targeted code enforcement focused on areas with the greatest recent or anticipated future reinvestment activity and intervene to reduce the extent of properties suffering from demolition by neglect.

LU-3.3 Promote Infill Housing throughout the Urban Core

Properly planned infill housing, the construction of new housing on vacant sites within existing developed areas served by roadways and infrastructure, is an effective, resource-efficient way to reinforce existing neighborhoods and older commercial districts. As recommended in the Housing and Neighborhood Element, the City should create incentives for the introduction of new housing in older neighborhoods and the creation of small subdivisions on larger properties comprised of a block or more of land. Initially, incentives may include expedited development review, waivers of permit fees, and potentially, short-term abatement of property taxes for new homeowners and developers in these areas. More intensive actions may be warranted, including capital improvements to infrastructure systems and neighborhood amenities as well as land assembly of larger developable parcels for sale to willing housing developers and homebuilders.

LU-3.4 Develop Guidelines for Compatible Infill Housing

As called for in the Housing and Neighborhoods and Historic Preservation Elements, the City should develop Infill Design Standards for compatible infill housing. These standards should ensure infill structures complement the character of existing neighborhoods and, in historic districts, historic structures in site configuration, building scale, materials, and architectural features.

LU-3.5 Support Provision of Neighborhood Amenities

The removal of blighting influences through code enforcement, coupled with incentives for reinvestment, will be vital but not fully sufficient to promote neighborhood stabilization and renewal. A quality neighborhood environment comprised of safe, walkable, well-lit, tree-shaded local streets and sidewalks will also be necessary. As called for in the Housing and Neighborhoods Element, the City should strategically target investments in sidewalks, street trees, street lights, and other neighborhood amenities in areas where such improvements will produce the greatest return in the form of resident quality of life and investor confidence.

The City should undertake a survey of vacant corner stores and uses along neighborhood main streets and prepare plans to facilitate the development of neighborhood service uses.

LU-3.6 Promote Reinvestment in Corner Stores and along Neighborhood "Main Streets"

Historically, older residential areas of Galveston were interspersed with retail and commercial services, often located at corner locations or along a few blocks of a prominent north-south street. Over time, many of these areas were zoned for residential use, thus restricting small-scale commercial uses. To explore the potential for reuse of vacant corner stores and reinvestment in neighborhood commercial districts, the City should do the following:

- Undertake a survey of vacant corner stores and uses along neighborhood main streets and prepare plans to facilitate the development of neighborhood service uses.
- Work with neighborhood associations to appropriately change zoning for non-residential structures to be utilized as neighborhood service.
- Identify public improvement and management strategies, perhaps based on the Main Street model developed by the National Trust for Historic Preservation, to support the revitalization of existing neighborhood commercial districts.

LU-3.7 Provide Adequate Buffering Between Residential and Commercial Activities

Throughout Galveston, the edges of commercial districts along major traffic corridors often disrupt and destabilize adjacent neighborhoods, particularly

where commercial uses encroach into neighborhoods and where unscreened rear service yards and parking lots create undesirable edge conditions. The City should modify its development standards to strengthen landscape screening for all such commercial edge conditions. In areas such as the Teichman Road neighborhood, the introduction of commercial uses should be avoided when such uses are determined to generate traffic, excess parking, signage, noise, and lighting into established residential neighborhoods. Rezoning of properties from residential to commercial use should only be approved upon demonstration of adequate impact minimization or appropriate mitigation, including conditions on hours of commercial operation and standards for screening, landscape buffering, lighting, and commercial signage.

LU-3.9 Review Feasibility of Additional District Designations

At present, the greatest degree of protection to Galveston's stock of historic housing exists within the three residential Designated Local Historic Districts. Outside the boundaries of these districts, the bulk of the City's older housing lacks such protection. As recommended in the Historic Preservation Element, the City can increase its effectiveness in curbing the deterioration of older housing stock by taking the following actions:

- Examine the potential for additional local historic district designations, such as an expansion to the East End and Strand/Mechanic Districts, and the establishment of new districts covering the Denver Court and Cedar Lawn neighborhoods and a Factory District.
- Encourage designation of Neighborhood Conservation District or application of neighborhood conservation standards in areas where demolition, deterioration, or inappropriate infill has altered the overall historic integrity of a neighborhood, but action is required to maintain the district's character.
- Establish Buffer District designations through a zoning overlay or other means to avoid inappropriately-scaled or high intensity uses and ensure effective transitions from commercial to residential buildings.

LU-3.10 Consider Zoning Changes in Areas Where Development Standards do not Match the Existing or Intended Character of the Neighborhood

To enact guidelines for more compatible infill, and to preclude commercial intrusions into established neighborhoods, it may be necessary to change underlying zoning designations. In many cases, neighborhoods that remain single-family in orientation nevertheless permit multi-family or commercial development, as well as development out of scale with surrounding patterns.

The City should identify the most critical natural resources for protection and develop a "toolbox" that includes both regulatory and incentive-based options.

OBJECTIVE LU-4. ENCOURAGE RESPONSIBLE DEVELOPMENT AND MITIGATION PLANNING TO PROTECT AREAS THAT ARE ENVIRONMENTALLY-SENSITIVE AND SUBJECT TO STORM DAMAGE

As it works to balance development opportunities with the interests of residents, businesses, tourists, and protection of the natural environment, Galveston has the potential to become a model of resiliency and sustainability for communities along the Texas Gulf Coast. The most effective way for the City to strike a balance among goals to protect human life and property, expand the tax base, improve quality of life, and promote sustainability is to ensure the Island's most sensitive resources and unique qualities are protected and preserved. To accomplish this, the City should identify the most critical natural resources for protection and develop a "toolbox" that includes both regulatory and incentive-based options. The City also must provide a predictable process for development to occur in areas with sensitive resources. By developing a matrix of incentives and regulations, the City can guide property owners in designing future projects.

LU-4.1 Perform Assessments of Sensitive Environmental Areas Island-Wide

As called for in the Natural Resources Element, the City should conduct an assessment of sensitive environmental areas on the Island, including dunes, fresh and saltwater wetlands, wetland buffers, saltwater marshes, seagrass beds, oyster reefs, and contiguous eco-system habitats. Using reference materials such as the Trust for Public Land's *West Galveston Island Greenprint for Growth*, the City should develop mapping resources highlighting areas for conservation, preservation and protection, and a system to prioritize protection. Priority areas should be considered in the development of the proposed future land use map, as described previously.

LU-4.2 Create Matrix of Development Incentives and Regulations to Protect and Preserve Sensitive Environmental Areas

To provide a predictable process for development, the City should create a matrix of incentives and regulations to guide property owners in designing future projects. Incentives and regulations can include but are not limited to: density bonuses, transfer of development rights (TDR), purchase of development rights (PDR), easements, cluster zoning, and wetlands or habitat preservation ordinances.

LU-4.3 Encourage Alternative Methods to Further Protect Dunes, Wetlands, Scenic Open Space, and Community Character on the West End

The City should investigate smart growth policies and development models for the West End that allow for responsible and sustainable economic growth while protecting Galveston's sensitive natural resources. The unique characteristics of the West End require a development framework that promotes the protection of sensitive lands, mitigates the effects of hurricanes and major storms, protects open space and scenic resources, and provides for safe hurricane evacuation.

To promote Planned Conservation Development on the West End the City should do the following:

- Review existing development regulations providing for Planned Conservation Development and ensure standards and incentives are effective in achieving conservation objectives and promoting appropriate forms of economic growth and development.
- Continue to engage West End stakeholders, including owners of large undeveloped tracks, in discussions regarding goals for West End conservation and development.
- As called for in the Natural Resources Element, use information regarding natural hazards, resource significance, and resource sensitivity to guide development decision-making and focus resources on the conservation of priority sites and natural systems.

OBJECTIVE LU-5. PROMOTE INDUSTRIAL & EMPLOYMENT INTENSIVE LAND USES IN APPROPRIATE LOCATIONS

The City of Galveston has been built on the tradition of industrial uses, such as the Port of Galveston, off-shore oil/gas and related industries. For the local economy to grow, the City must promote industrial expansion in appropriate areas that do not detract from surrounding land uses. In considering such industrial land uses, the City should judge the overall benefit to the community while protecting other traditional strengths such as natural resources, historic preservation, and tourism-related activities.

The City should actively partner with the Port of Galveston in planning and accommodating this beneficial expansion.

LU-5.1 Promote Industrial Expansion Associated with the Port of Galveston and Development of a Wharves Areas Specific Plan

Historically the backbone of the local economy, the Port of Galveston is geared for expansion. This will occur particularly through a growing presence on Pelican Island and increased attraction for cruise line business, enabling cruise

passengers to add their support to retail and entertainment activities along the Downtown waterfront and Strand. The City should actively partner with the Port in planning and accommodating this beneficial expansion. Any industrial expansion must be designed to have minimal impact on the livability of the City and the visitor experience to the Island.

It may be useful for the City to review its development regulations, as well as the adequacy of vehicular and pedestrian access, utilities, and parking, to serve Port expansion both at Pelican Island and along its wharves. In particular, the environment surrounding the cruise ship docks should be examined to identify opportunities for ensuring convenient and pleasant access to local businesses, as well as creating an engaging, memorable experience for cruise passengers as they discover what Galveston has to offer.

Key issues to be addressed in the plan include access, environmental factors, compatibility among existing and proposed uses, and impact on the community. As described in the Transportation Element, the Plan should also address access improvement strategies, the need to replace the Pelican Island Bridge, provision of future rail access, and relocation of Seawolf Parkway to unify the TAMUG campus and improve safety for students, faculty, and visitors. Additional issues include the need to expand sewer capacity on the Island and the mitigation of potential environmental hazards derived from heavy industrial operations.

LU-5.2 Promote Compatible Industrial Development at Scholes International Airport

Galveston's Scholes International Airport is a major, though underutilized, Galveston asset. Although it serves only the general aviation needs of businesses and residents, it has become a major hub of activity for air links and businesses in support of the offshore oil/gas industry. Because the airport also controls excess property, the City is able to accommodate these and other revenue producing businesses. However, the airport lies in close proximity to several of the City's premier attractions, including Moody Gardens and Schlitterbahn. Although development of airport property is beneficial to the local economy, the property has thus far developed in a largely opportunistic manner, leading to its present, somewhat fragmented pattern of uses. Outbuildings, storage yards, and parking lots have become prevalent—all with an appearance of visual clutter and confusing circulation patterns.

The current effort to update the Airport Master Plan provides an opportunity to promote a more orderly, efficient pattern of land use, address access and circulation challenges, and plan for the future of the area not only as

a transportation hub but also as an important employment district and visitor destination. Connectivity related to the Airport is described in the Transportation Element. As part of the master plan update process, the City should work with the airport to accomplish the following:

- Plan for the highest and best use of excess airport property.
- Prepare design standards for roadway and parking design, landscaping, lighting, and for the siting and design of industrial buildings and grounds.
- Engage Moody Gardens and Schlitterbahn representatives in the planning process, particularly regarding issues of access management, roadway design, orientation signage, and other factors that influence the quality of the environment and the visitor experience.
- Explore ways to further interpret aviation heritage at the airport.

LU-5.3 Identify Industrial Redevelopment Target Properties and Encourage Redevelopment of Transitional Industrial Areas

A primary area of focus for the City is the need for economic diversification and new well-paying jobs (particularly in the technology, medical, and information-based sectors), as well as support functions for the region's oil/gas and space-related industries. This expected growth in new industries coincides with a decline in traditional wharf-related heavy industries. Although Pelican Island may open up new opportunities for industrial growth related to the Port, Galveston has little land appropriate for technology office/research/industrial parks similar to those developing in many mainland communities. Consequently, Galveston must rely largely on the transformation and redevelopment of its existing inventory of industrial land.

A primary area of focus for the City is the need for economic diversification and new well-paying jobs (particularly in the technology, medical, and information-based sectors), as well as support functions for the region's oil/gas and space-related industries.

Although Galveston has a history of industrial activity related primarily to its Port and wharves, there is growing interest and opportunity to diversify the industrial base with clean, technology-oriented uses. As described in the Economic Development Element, the introduction of such uses requires appropriate sites to be identified and actively promoted. Likewise, an Information Technology (IT) infrastructure system comprised of fiber optic and other networks, must be made more widely available. The City can take a leadership role in this recruitment effort, starting with the identification of appropriate industrial redevelopment target sites. Criteria for site identification include vacant sites and buildings capable of adaptive re-use and of sufficient size, adequately served by utilities, including information network service.

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HISTORIC PRESERVATION ELEMENT

INTRODUCTION

Preservation is a strong economic development tool and has proven effective in many communities for revitalization, heritage tourism, and community building. The City of Galveston has one of the largest intact collections of late nineteenth and early twentieth-century buildings found in any American city. The significance of the City's historic resources is best demonstrated by the extensive number of buildings and districts that have been nominated to the National Register of Historic Places (National Register). The City is distinguished by having three National Historic Landmarks – the Strand/Mechanic National Historic Landmark District, the East End National Historic Landmark District, and the 1877 Tall Ship Elissa. National Historic Landmarks comprise only 3 percent of all nationally designated properties. To date, there are 68 individual properties that have been nominated to the National Register and six National Register Historic Districts. The large number of National Register properties that have already been documented are only a portion of the potentially significant structures. Neighborhood surveys have identified thousands of properties as potentially significant. In total, at least 16,000 of Galveston's 30,000 houses are over fifty years old, meeting the age threshold preservationists apply for considering structures historically significant.

For over a hundred years, Galveston's residents and business leaders have recognized the importance of preserving the City's many cultural and historic resources. Through the continued efforts of these concerned citizens—first organized in 1871 as the Galveston Historical Society, and, subsequently, as the Galveston Historical Foundation (GHF)—a number of historic preservation projects have had a major positive economic impact on the City. These projects began in 1954, when the Galveston Historical Society reincorporated as GHF and expanded its original manuscript and paper collecting mission to include, among other goals, the preservation of the City's historically significant structures. Since that time, the successful preservation efforts of GHF and a number of other local non-profit groups have collectively created one of the most effective local historic preservation programs in the country.

In the late 1960s, the first citywide comprehensive architectural and historical inventory of properties was completed, leading to the designation of the Strand/

HISTORIC PRESERVATION GOAL

Promote the Island's Heritage & Encourage the Preservation & Revitalization of Historic Resources for the Educational, Cultural, & Economic Benefit of All.

OBJECTIVES

1. *Integrate Historic Preservation at All Levels of City Government & Functions*
2. *Enhance & Expand the Use of Local Historic District Designation & Preservation Tools*
3. *Protect the City's Historic Resources & Neighborhoods*
4. *Increase Collaboration with the City's Preservation Partners*
5. *Promote Public Awareness & Understanding of Cultural History & Importance of Preserving The Island's Heritage to the Social & Economic Well-being of the Community*
6. *Incorporate Historic Preservation Into Disaster Planning & Recovery Actions*

Galveston's historic preservation successes have had a powerful positive economic impact on the City.

Mechanic and East End Historic Districts by the mid-1970s. In 1972, efforts to revitalize the Strand moved forward when GHF received financial support from the Moody Foundation and the Kempner Fund to establish a revolving fund for the preservation and redevelopment of buildings on the Strand. In 1976, residential rehabilitation efforts were extended to include the creation of the Silk Stocking Historic District and, in 1994, to the Lost Bayou Historic District.

Complementing the activities of preservation groups, the City took a number of significant steps. In 1971, the City adopted an ordinance to allow the creation of local historic districts and the Neighborhood Historic District Review Board. The East End Historic District became the first local historic district in Galveston the same year. In the early 1980s, the City dedicated one cent of the hotel/motel bed tax to the Arts and Historic Preservation Commission and established tax reinvestment zones throughout the City. The City consistently used a portion of its Community Development Block Grant (CDBG) and federal revenue sharing monies to fund streetscaping and economic development in the Strand and obtained a number of Urban Development Action Grants (UDAG) for special projects. To accomplish this, the City worked cooperatively with the Moody Foundation, which provided many of the matching funds required as a condition of obtaining several grants.

In 1980, the City adopted a set of design guidelines to assist landowners and the Historic Review Board with administering the City's historic preservation regulations. The Strand/Mechanic Historic District became the first commercial historic district in Galveston in 1988, and the Strand/Mechanic Review Board was also established. In 1999, the City consolidated the two review boards to create the Galveston Landmark Commission, which oversees the protection of structures within both commercial and residential local historic districts through administration of the Special Historical District Regulations found in Section 29-80 of the City of Galveston Zoning Standards. This same year, the Special Historical District Regulations and the design guidelines were updated to reflect the City of Galveston's increased support for historic preservation. In addition, the Landmark Commission recommended designation of local landmark status for the protection of structures outside of locally designated historic districts.

Galveston's historic preservation successes have had a powerful positive economic impact on the City. A 1996 study revealed a number of major conclusions regarding the economic impacts of historic preservation efforts in Texas, including the City of Galveston and other Texas communities with historic preservation projects:

- Historical designations improve property values;
- Incentives for historic properties attract reinvestment;
- Historic building rehabilitation rebuilds communities;
- Preservation of historic properties creates jobs;
- Texas heritage attracts tourists; and
- History museums draw tourists and economic vitality to communities.

An earlier study by the National Trust for Historic Preservation (NTHP) also looked at the impacts of historic preservation activities in Galveston. Since the completion of this report, these trends have continued in the City of Galveston, emphasizing the positive effects of historic preservation on the community. An update of the report should be undertaken to provide further documentation of preservation-related economic benefits. In the future, as the City faces new challenges to further preservation and revitalization in the Strand and as it seeks to enhance the preservation successes in its historic neighborhoods, it must address a number of significant historic preservation issues and needs:

- The City must act in a consistent, coordinated fashion to promote and preserve its historic resources;
- The City should expand its preservation efforts, as appropriate, to protect historic resources throughout the City;
- Blighted conditions must be eliminated;
- Broader protection of the City's historic neighborhoods should be pursued through the use of additional historic preservation tools;
- Incentives are needed to encourage voluntary actions by private property owners to preserve historic properties;
- Preservation requires effective partnering by public, private, and non-profit organizations;
- Public education is needed to enhance local appreciation of the need for, and benefits from, preserving historic resources; and
- Attracting middle-income households and second home ownership to Galveston's historic neighborhoods will provide a source of capital investment needed to rehabilitate historic homes.

GOAL

Promote the Island's Heritage and Encourage the Preservation and Revitalization of Historic Resources for the Educational, Cultural, and Economic Benefit of All.

The City must take an aggressive role in historic preservation, leading by example through its actions and by raising the historic preservation expectations and standards throughout the general community.

OBJECTIVES & STRATEGIES

OBJECTIVE HP-1. INTEGRATE HISTORIC PRESERVATION AT ALL LEVELS OF CITY GOVERNMENT AND FUNCTIONS

Preservation has been used in many U.S. communities, including Charleston, Savannah, New Orleans, and San Antonio as a means to improve quality of life. While Galveston has experienced a high degree of success as a result of the rehabilitation of the Strand and the East End community, considerable benefit remains to be achieved by using historic preservation initiatives as tools to create safer, healthier, more livable communities. To accomplish this, the City must take an aggressive role in historic preservation, leading by example through its actions and by raising the historic preservation expectations and standards throughout the general community.

HP-1.1 Ensure Elected Officials and City Boards Promote Preservation Goals

Galveston's Mayor and City Council should provide leadership for the City's historic preservation ethic. The ethic should be embraced by all City boards and departments. The importance of historic preservation should be a routine part of decision-making at all levels of government. Historic preservation should be a tenet of doing business to which all City boards and departments are sensitive. In the eyes of the public, authority for historic preservation must clearly rest with the City.

HP-1.2 Support and Strengthen the Landmark Commission

The Landmark Commission is the City's administrative board charged with a wide array of historic preservation functions. The Commission is principally responsible for administering the City's locally-designated historic district regulations. Secondarily, it is responsible for conducting surveys, recommending historic district designations, educating the public concerning historic preservation, identifying preservation funding sources, and generally coordinating the preservation functions of the City's departments and boards. As such, the Landmark Commission is essential to the City's historic preservation program and must be recognized for the important function that it provides in enhancing the City's quality of life.

- Support the Landmark Commission so that it is able to efficiently and effectively accomplish its mission.
- Make City staff available to assist with and support the Commission's efforts both technically and in terms of administrative support.

- Provide training as needed to Landmark Commission members to address the complex set of preservation issues facing Galveston.
- Keep City departments and boards abreast of the policies and actions of the Landmark Commission and seek to act in a mutually supportive fashion.

HP-1.3 Continue Support for the Historic Preservation Officer (HPO) Position

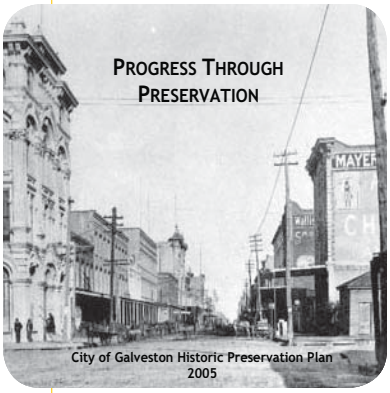
To maintain the focus and momentum needed to sustain the City's Historic Preservation Program, it is essential that the City maintain the full-time staff position in the Department of Planning and Community Development of a Historic Preservation Officer (HPO). A historic preservation professional should fill this position, charged with directing the City's efforts to achieve its historic preservation goals, supporting the Landmark Commission, completing long-range historic preservation planning, ensuring code enforcement in the locally-designated historic districts, contributing to neighborhood planning efforts, and coordinating special projects with the City's historic preservation partners. The City has an Assistant HPO to help share the duties of the Historic Preservation Program. The City should continue to expand the Historic Preservation Program as appropriate.

HP-1.4 Maintain and Leverage Certified Local Government Status

Galveston is eligible to receive federal Historic Preservation Funds and Certified Local Government Grants from the Texas Historical Commission (THC) because of its Certified Local Government (CLG) status. The National Historic Preservation Act established a nationwide program of financial and technical assistance to preserve historic properties. A local government can participate directly in this program when the State Historic Preservation Officer (SHPO) certifies that the local government has established its own historic preservation commission and a program meeting state and federal standards. A local government that receives such certification is qualified to receive grant funds from the SHPO that are set aside to fund local historic preservation projects. These funds come from the Historic Preservation Fund, a federal grants program appropriated by Congress and administered by the National Park Service. The City should continue to apply for the grant programs. In order to take advantage of grant opportunities, the City should establish a grant writer position.

HP-1.5 Leverage Preserve America Community Status

Galveston was designated as a Preserve America Community in 2005. Preserve America is a national program that recognizes communities for protecting and



An update to the City's Historic Preservation Plan, Progress Through Preservation, will be completed in 2011.

celebrating their heritage; using their historic assets for economic development and community revitalization; and encouraging people to experience and appreciate local historic resources through education and heritage tourism programs. In addition to national recognition, Preserve America status provides another source of grant funds. The City should take advantage of all grant funding sources and the required matching monies should be budgeted for by City Council.

HP-1.6 Develop and Implement the Historic Preservation Plan

To help manage Galveston's historic resources, the City has adopted a Historic Preservation Plan, *Progress Through Preservation*, which provides more specific actions to help implement the policies set forth in this Element. The plan was developed through partnerships with the THC, GHF, and local citizens. The City should continue to implement the plan and update and revise every five to ten years.

HP-1.7 Integrate Preservation Principles into City Land Use and Development Plans

Given the extent of the historic resources on the Island, the City should ensure that historic preservation and conservation principles are considered when developing plans, policies, and programs related to land use and development. Preservation should be an important topic of consideration in the drafting of public improvement plans, land use plans, master plans for specific districts and corridors, and development regulations.

HP-1.8 Use CDBG and HOME Funds for Improvements in Historic Districts

The federal CDBG and HOME Investment Partnership programs provide grants to the City of Galveston each year that finance housing, community development, and social service activities for low and moderate income families and neighborhoods. In the past, grants from these two programs provided 99 percent of the $5.6 million used by the City for housing and neighborhood services. Expenditures of these funds are guided by a Strategic Plan and Priorities presented in the City's three-year *Consolidated Plan* and one-year *Consolidated Action Plan*. The program is administered by the City Grants and Housing Department.

The City clearly recognizes the need to maximize the funding secured under these two programs. They provide needed social benefits, as well as support the City's historic preservation efforts by improving neighborhoods and

housing conditions. The City Grants and Housing Department should generally coordinate on a regular basis with the HPO and Planning Department to ensure that the actions of each department are mutually consistent and supportive. Specific coordination should occur as needed when the *Consolidated Plan* and one-year action plans are being completed. When funds are expended in historic neighborhoods for streetscape improvements, the design of improvements should be historically appropriate including to the extent possible period street lighting, signage, and sidewalks.

HP-1.9 Streamline City Review of Permit Applications Affecting Historic Areas

City staff and the Landmark Commission continue to streamline the process so that projects in historic districts move quickly. The Design Standards for Historic Properties of Galveston, Texas provides for a significant amount of administrative approval authority. The increase in the number of administrative approvals has reduced the number of projects that must be reviewed by the Landmark Commission. The staff should continue to streamline the application process and ensure that the process is user friendly.

The City should implement appropriate treatments, preservation, rehabilitation, maintenance, or restoration for the historic buildings that it owns.

HP-1.10 Maintain City-Owned Historic Buildings

The City of Galveston owns a number of buildings that are historic. Currently, only City Hall, Garten Verein, Fire Station #3 and Ashton Villa, are designated Galveston Landmarks. If the City is to be the proponent of historic preservation calling for citizens to do the right thing to preserve and maintain their historic properties, it is essential that it lead by example. The City should implement appropriate treatments, preservation, rehabilitation, maintenance, or restoration for the historic buildings that it owns. Specifically, the City should have a priority of affirmative maintenance for City-owned historic buildings.

HP-1.11 Continue to Pursue Landmark Designation of City-Owned Structures

The City of Galveston owns a number of historically significant buildings. To date, four city-owned building have been designated as Galveston Landmarks. The City should continue to pursue Landmark designation of eligible city-owned structures. Designation affords special protection to these structures requiring review of all proposed improvements by the Landmark Commission, and demonstrates the City's support of historic preservation efforts.

Actions by City departments to improve streets, sidewalks, and utility rights-of-way should be sensitive to their historic preservation implications.

HP-1.12 Maintain Public Street, Sidewalk, and Utilities in Accordance with Historic Neighborhood Character

Actions by City departments to improve streets, sidewalks, and utility rights-of-way should be sensitive to their historic preservation implications. Routine coordination should occur between department heads and the HPO to review maintenance policies and functions. Supervisors and city work crews should be sensitive to the possible impact their actions may have on the historic character of the neighborhoods where they are working.

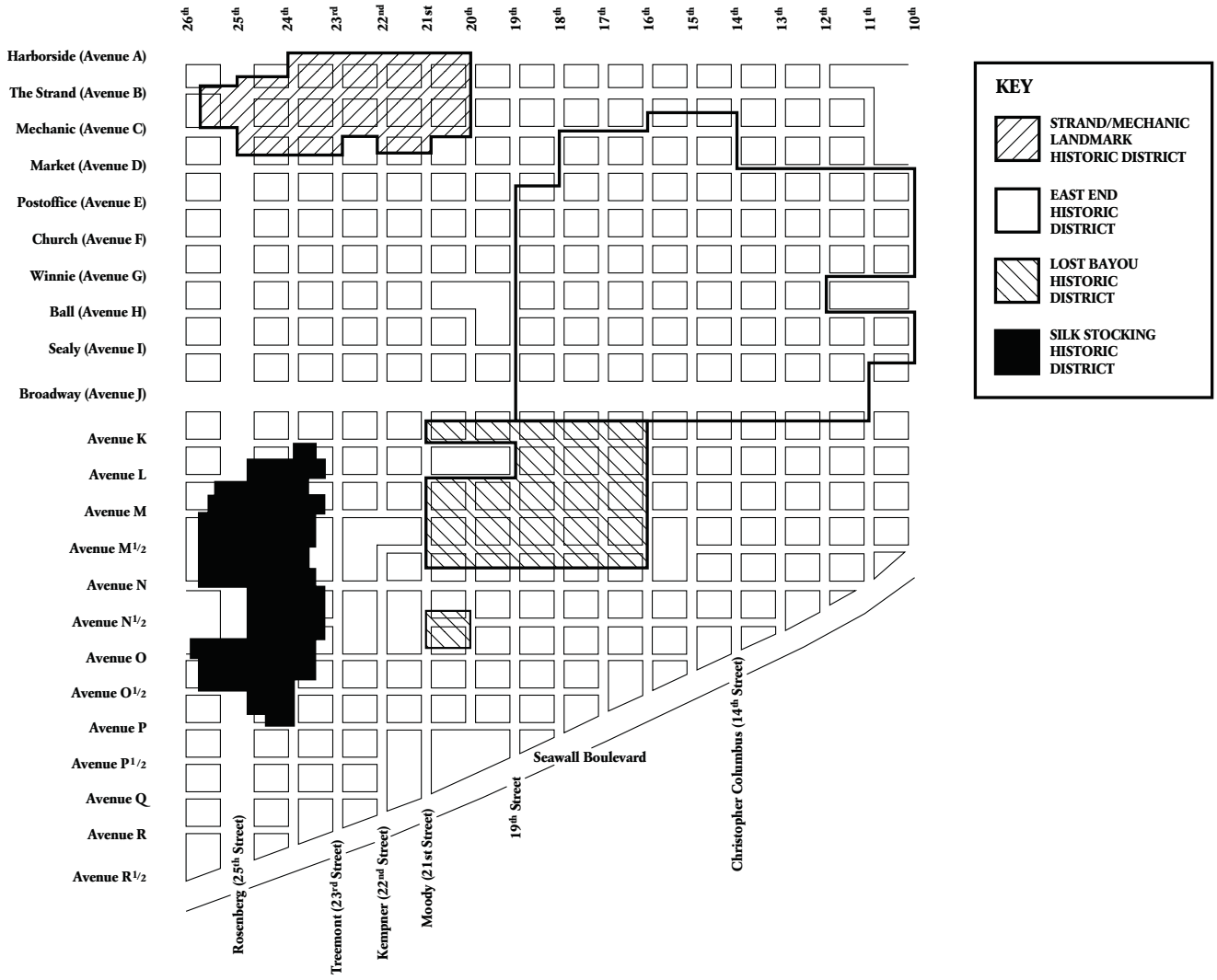
OBJECTIVE HP-2. ENHANCE AND EXPAND THE USE OF LOCAL HISTORIC DESIGNATION AND ADDITIONAL PRESERVATION TOOLS TO PRESERVE AND PROTECT THE CITY'S CULTURAL HERITAGE AND HISTORIC RESOURCES

Currently, the City has achieved local historic district designation for four local areas shown in the following map:

- The East End National Historic Landmark District;
- The Strand/Mechanic National Historic Landmark District;
- The Silk Stocking National Historic District; and
- The Lost Bayou Historic District.

These historic districts provide special protection to only a small number of the more than 16,000 potentially historic buildings and many older neighborhoods. Presently, in order for an area to be granted a local historic district designation, more than fifty percent of the property owners must support designation. Public education is needed to market the historic designation, focusing upon the positive impacts of designation on property values, the stability afforded by the additional code enforcement and special regulations. Some neighborhoods have considered the potential benefits of local historic district designation and may seek such in the future. Other neighborhoods, for a variety of reasons, have rejected designation for the time being. There are many neighborhoods that have yet to be comprehensively evaluated.

The City of Galveston currently relies upon its locally designated historic district regulations in the Zoning Standards as its primary tool for historic preservation. While this is effectively protecting the City's four locally designated historic districts, this tool has no effect in preserving the character of many of the City's neighborhoods that are not designated as local historic districts. To better address the range of conditions and preservation needs in the City, consideration should be given to a number of additional preservation tools that will promote protection of historic resources.



HP-2.1 Continue to Complete a Citywide Survey of Historic Properties

As a condition of its CLG designation described previously, the City is required to maintain a system for surveying and inventorying historic properties. Using funding from THC grant programs, the City completed a systematic, citywide survey of all potential historically significant buildings in the City and is working to integrate the survey data into the GIS system. To date, the City has surveyed a significant number of properties west of 61st Street. As part of the preparation of the *Prepare-Protect-Preserve Plan*, the City completed the *Picture This*! project, a windshield survey of those areas of the City not documented by a

To address the evolving needs of the Design Standards, the Landmark Commission should review and revise them on a regular periodic basis, at least every five years.

survey in order to provide photo documentation of any historic resources. As described later in this Element and in the Disaster Planning Element, this information is also important for post-disaster recovery and the City should continue to update the survey information, work to fully integrate the survey into the City's GIS system, and ensure historic survey data is available for disaster mitigation, response, and recovery activities.

HP-2.2 Explore Potential for Additional Local Historic District Designations

The City should systematically examine the potential for additional local historic district designations, such as a Factory District and an expansion to the East End and Strand/ Mechanic Districts. The Denver Court and Cedar Lawn neighborhoods are designated as National Register Historic Districts and should seek designation as local historic districts. National Register Historic District designation, while a significant honor and achievement, does not provide protection for the neighborhoods from demolition or inappropriate alterations. The City's Historic Preservation regulations should be revised to allow for City-initiated historic district designation.

The City should support GHF's efforts to establish a National Register Historic District for the Urban Core. The area to be considered for nomination would be approximately five square miles, roughly bounded by 61st Street on the west, Harborside Drive on the north, 6th Street on the east, and the Seawall on the south. A successful nomination would increase the potential for preserving Galveston's historic buildings, structures, and sites through awareness of Galveston's rich history.

HP-2.3 Review and Update Design Standards for Historic Properties

The *Design Standards for Historic Properties of Galveston, Texas (Design Standards)* provide for an expanded administrative review process that has reduced the number of projects that require review by the Landmark Commission. To address the evolving needs of the Design Standards, the Landmark Commission should review and revise them on a regular periodic basis, at least every five years.

HP-2.4 Consider Zoning Changes in Areas Where Development Standards do not Match the Existing or Intended Character of the Neighborhood

Existing zoning regulations in many of the City's historic neighborhoods may allow new development that is inconsistent with historic preservation goals.

As called for in the Land Use and Community Character Element, to enact guidelines for more compatible infill and to preclude commercial intrusions into established neighborhoods, it may be necessary to change underlying zoning designations. In many cases, neighborhoods that remain single-family in orientation nevertheless permit multi-family or commercial development, as well as development out of scale with surrounding patterns.

To address mass and scale compatibility in historic districts, the City should consider adjusting base zoning and explore use of overlay tools, some described later in this Element, to supplement refinements in the base zoning. This may include creation of new zone districts that more closely address established character. The City should also evaluate the appropriate mix of uses in some traditional neighborhoods, which can also create incompatibility issues in historic neighborhoods.

HP-2.5 Protect Neighborhood Integrity through Designation of Neighborhood Conservation Districts

The City has adopted an enabling ordinance that provides the ability to designate Neighborhood Conservation Districts (NCD). The purpose of NCD designation is to provide protections for those neighborhoods that choose not to seek historic district designation but that possess character defining features. The specific regulatory components of individual NCDs would evolve from the goals and policies of the specific neighborhood. Currently, the San Jacinto Neighborhood is the only designated NCD. The City should continue to pursue the designation of other neighborhoods as NCDs or application of neighborhood conservation standards in areas where demolition, deterioration, or inappropriate infill has altered the historic integrity of a neighborhood, but action is required to maintain the district's character. Additionally, NCDs should also be considered for historic neighborhoods that are eligible for local historic district designation, but there is limited support and newer neighborhoods that have integrity of character, but do not have currently have historic significance.

HP-2.6 Ensure Effective Residential to Commercial Transitions through Use of Buffer Districts

Land use activities in areas adjacent to the City's locally designated historic districts and residential neighborhoods have the potential to adversely affect historic and neighborhood residential character. The City recognized the potential for adverse impacts of commercial uses on adjacent areas when it designated a Buffer District along a portion of the Broadway frontage in the vicinity of the East End Historic District. The goal of the Buffer District, as stated

in the Zoning Standards, is to promote development of commercial uses that are compatible with historic neighboring residential uses. However, the Buffer District allows for a highly limited number of commercial uses. The City should review and expand the permitted land uses or restructure the Buffer District to more closely mirror the Neighborhood Services zoning district.

After an evaluation of base zoning, the City should consider additional Buffer District designations through use of additional zoning overlays or other means to avoid inappropriately-scaled or high intensity uses and ensure effective transitions from commercial to residential buildings in the City's historic neighborhoods. The City should consider extending some type of regulatory controls adjacent to all of its Special Historic Districts, as well as to neighborhoods that may become Neighborhood Conservation or Historic Districts in the future.

HP-2.7 Continue to Periodically Review and Update City Development Regulations to Increase Protection of Historic Resources

The City should continue to periodically review development regulations affecting historic resources. Upcoming updates should address the following:

- Expansion of authority to allow for City designation of historic districts and sites without owner consent, a tool used in similar communities to protect districts from inappropriate demolition and unsympathetic renovations and infill construction.
- Strengthen the demolition by neglect regulations, as described in more detail later in this Element.
- Amendment of regulations to provide for the protection of archaeological sites, as identified in an archaeological sites inventory completed in partnership with THC and GHF.
- Establishment of standards for the mitigation and protection of archaeological sites both on land and under water.

OBJECTIVE HP-3. PROTECT THE CITY'S HISTORIC RESOURCES AND NEIGHBORHOODS THROUGH ACTIONS THAT WILL IMPROVE CONDITIONS AND ENHANCE LIVABILITY

The historic preservation community in Galveston has consistently identified blighted conditions and deterioration of historic structures as major threats to the City's historic neighborhoods. A number of conditions exist that contribute to blight. Most of Galveston's houses are wood structures that are susceptible to termite and moisture damage and require constant maintenance.

Private participation and investment in preservation is critical to the City's historic preservation program. Many owners of historic properties have a negative perception of the costs and burden of rehabilitation of historic buildings, especially when subject to the review requirements and *Design Standards* that are applicable in the City's locally designated historic districts. Through incentives that are financially attractive to property owners, it is possible to foster private participation and investment in preservation. Owners, who may otherwise not be active or interested in preservation, may be encouraged to rehabilitate their properties when incentives are available. Incentive programs are widely recognized to have three important purposes:

- To generate systematic rehabilitation of historic buildings.
- To enable rehabilitation projects to better compete with new construction.
- To compensate owners who may be significantly burdened by local historic preservation regulations.

HP-3.1 Support Aggressive Code Enforcement in Historic Neighborhoods

To protect its historic neighborhoods, the City must have consistent and predictable code enforcement. Property owners must be made aware that if buildings are not maintained the City will bring legal action, as needed, to force repairs. Enforcement is hampered by the large number of absentee landlords, many of whom live outside of Galveston. To address this problem, the City should take the following measures to increase its code enforcement actions:

- Hire and maintain an appropriate level of code enforcement officers to handle the work load.
- Pursue options for bringing legal actions against non-resident absentee landlords. Also, the Legal Department staff should be sufficient to support the Code Compliance efforts.
- Address enforcement of regulations pertaining to signage (particularly on the Strand), placement of tables and outdoor furniture on sidewalks in the Strand/Mechanic District, the location of satellite dishes and related equipment, and parking in front, side and rear yards.
- Dedicate at least one Compliance Officer especially to handle the code enforcement in the historic districts. The regulation of the Historic Districts is a specialized task that requires specific training.

HP-3.2 Address Demolition by Neglect

Demolition by neglect occurs when a property owner fails to adequately maintain a building and it deteriorates to the point that rehabilitation is no

Citywide, deliberate demolition by neglect is a direct threat to the integrity of the historic fabric of the community.

longer practicable. When a building is judged by a structural engineer to be 80 percent deteriorated, the City considers it to be no longer practicable to attempt rehabilitation. In those instances the structure is typically condemned and torn down. For some property owners, there is a deliberate decision to let a property deteriorate, rather than make the necessary investment in repairs, either because there is no perceived market for the property or because the owner believes it will be more financially advantageous to demolish the building.

Citywide, this deliberate demolition by neglect is a direct threat to the integrity of the historic fabric of the community. While properties within local historic districts are protected from the affects of demolition by neglect, some strengthening of the ordinance is necessary. The Historic Preservation regulations provide the City with the ability to seek legal action against property owners. Outside of historic districts, the City has limited protection against demolition by neglect. Current procedure requires that deteriorated structures be reviewed by the Building Standards Commission and, when applicable, the Landmark Commission. Beyond that, the challenge faced by the City is to catch properties that are not being maintained, well before they deteriorate to the 80 percent point. This will enable intervention for rehabilitation possible, without the need for major reinvestment that, in many instances, is likely to be beyond the financial resources of the property owner or considered a reasonable burden on the property owner.

As discussed previously, increasing the ability of the City to designate properties and Galveston Landmarks without owner consent would allow the HPO to review additional demolition permits and identify threatened structures. The review of demolitions is already in place in the Height and Density Development Zone which does not allow the demolition of structures that are listed on, or eligible for the National Register of Historic Places. This same level of protection should be afforded to the community as a whole.

As part of a strategy to address demolition by neglect, the City should take the following actions:

- Establish clear public policy setting forth the City's position regarding demolition by neglect.
- Review and strengthen the demolition by neglect provisions of the City's development regulations.
- Ensure that all property owners of historic buildings (50 years or older) are aware of the City's policies.
- Establish a clear process for identifying properties in risk of demolition by neglect.

- Once a property is identified as deteriorating, enter into a dialogue and negotiation process with the property owner designed to assist with evaluating and implementing rehabilitation options.
- Explore a number of rehabilitation options, depending upon the situation, such as the use of CDBG funds, low interest loans, grants through the City and its historic preservation partners, or sale of the property to a party interested in the rehabilitation of the structure.

HP-3.3 Dealing with Contamination

Major concerns regarding potential contaminants in Galveston's older homes include lead-based paint, lead in drinking water, and building materials that contain asbestos, primarily asbestos shingles. Increasingly, these concerns must be addressed as part of any rehabilitation project. The primary concern is for the protection of human health during and after the treatment and/or removal of contaminants. A major adverse effect on the efforts to preserve the City's historic properties is the cost of addressing contamination concerns. Secondarily, are the challenges of educating homeowners regarding the health risks, ensuring that contractors in the City who are involved in abatement have the knowledge and skills to do so safely, and ensuring that the City adequately inspects construction sites for proper procedures. To adequately protect public health, the City must ensure that the activities involving the rehabilitation of older buildings are conducted in accordance with best management practices. The City should continue to partner with UTMB and other agencies to continue to reduce the impact of lead contamination.

HP-3.4 Leverage Financial Tools and Incentives to Encourage Redevelopment of Historic Properties

The City should make full use of all available local, state, and federal financial resources and incentives in support of, and reinvestment in, older and historic neighborhoods. From federal funding sources, the incentives available include tax credits for historic preservation and affordable housing, as well as Community Development Block Grant (CDBG) funds for capital improvements such as the Neighborhood Amenities Program, or to provide a revolving fund and low-interest loan program for qualified rehabilitation efforts.

In addition, the State of Texas allows for tax relief aimed at encouraging rehabilitation of historic structures: property tax abatement, which decreases or delays taxes for a fixed time period; property tax credit which decreases the tax bill in proportion to the renovation investment; and property tax exemption which avoids increased assessments due to property improvements. The City's present tax exemption program encourages rehabilitation of commercial

structures within designated historic districts. In 1999, the City adopted a tax exemption program to encourage rehabilitation of large-scale (greater than 10,000 square feet in floor area) historic commercial structures that are designated as a Galveston Landmark or are contributing structures in a Galveston Historic District. The City should consider extending this exemption (along with tax credits or tax abatements) to apply to historic residential properties, particularly those in designated historic or proposed conservation districts.

Used frequently in similar communities, historic preservation revolving funds have been extremely successful historic preservation tools. By providing a pool of capital, the revolving fund enables a local government to purchase distressed or threatened historic properties sometimes on an emergency basis and resell them to a sympathetic buyer with protective covenants and restrictions. Revolving funds also enable local government to offer a low-interest loan program to private investors for rehabilitation and repair of historic buildings. It is a revolving fund by definition, as loans made from the capital are returned to the fund to be reused for other similar historic preservation projects.

Refund or exemption of sales tax paid on construction materials is an incentive that some communities, such as Wichita, Kansas, have found effective in facilitating home repairs and renovations. Sales tax abatement effectively reduces the cost of construction materials by the percentage of sales tax. The City should also continue to expand the existing receivership program and designate funds for capital improvements in historic neighborhoods.

In developing a comprehensive set of financial tools and incentives to support historic preservation goals, the City should consider the following:

- Consider extending the current tax exemption option or add some type of tax abatement or tax credit incentive to residential properties that are rehabilitated or undergo major maintenance/repairs. The duration of the benefit should be for a minimum of five years, but preferably ten years. In implementing this incentive, the community must understand the extent to which the deferred increase in tax revenue will be offset by the general improvement of the surrounding area that will ultimately increase property values.
- Consider creation of a Historic Preservation Revolving Fund for use in qualified housing renovation efforts, using the existing Cast Iron Façade Restoration Grant program as a template for a permanent fund for building restoration.

- Explore the following potential funding sources to establish a revolving fund: CDBG money, general funds, and interest from repaid loans. Typically, low-interest loans are provided on a matching basis in which the property owner's investment is matched dollar-for-dollar by local government money.
- Explore local sales tax exemption on construction materials used in rehabilitation of historic buildings to make rehabilitation financially attractive to property owners.
- Promote an existing State Sales Tax Exemption program that exempts the sales tax on labor associated with the remodeling or restoration of a historic structure.
- Make funds available for capital improvements and other efforts to support revitalization in specified districts.
- Expand existing program to recycle abandoned or tax-delinquent properties as described in the Housing and Neighborhoods Element.

The City should continue to encourage appropriately designed infill development on vacant properties in the older neighborhoods, including within and adjacent to historic districts.

HP-3.5 Encourage Appropriate Infill Development in Historic Neighborhoods

As recommended in the Housing and Neighborhoods Element, the City should continue to encourage appropriately designed infill development on vacant properties in the older neighborhoods, including within and adjacent to historic districts. By initiating marketing, land-banking, and other programs, the City can attract investment on individual sites as well as larger developers with the capital and commitment to support a specialized approach to development of housing on larger vacant sites or scattered sites in historic neighborhoods.

The appropriateness of infill development in the City's historic districts should continue to be evaluated through Landmark Commission review. Outside historic districts, the City should explore the designation of additional Neighborhood Conservation Districts or related standards, or Infill Design Standards, as described in the Housing and Neighborhoods Element.

OBJECTIVE HP-4. INCREASE COLLABORATION WITH THE CITY'S PRESERVATION PARTNERS TO ACCOMPLISH THE COMMUNITY'S HISTORIC PRESERVATION GOALS

Past historic preservation successes in Galveston have been the result of the efforts of individuals, philanthropic organizations, private organizations in the City, and aesthetic regulations designed to preserve historic character. The most important tools for success, particularly for the revitalization of the Strand, have been direct public and private sector expenditure, federal tax credits, and the revolving fund created by GHF with foundation and bank support. In the

Neighborhood organizations offer a powerful opportunity to assist the City with achieving its historic preservation goals.

future, the City and its preservation partners must continue to work together to address the many historic preservation needs in the City.

HP-4.1 Continue Partnership with Galveston Historical Foundation

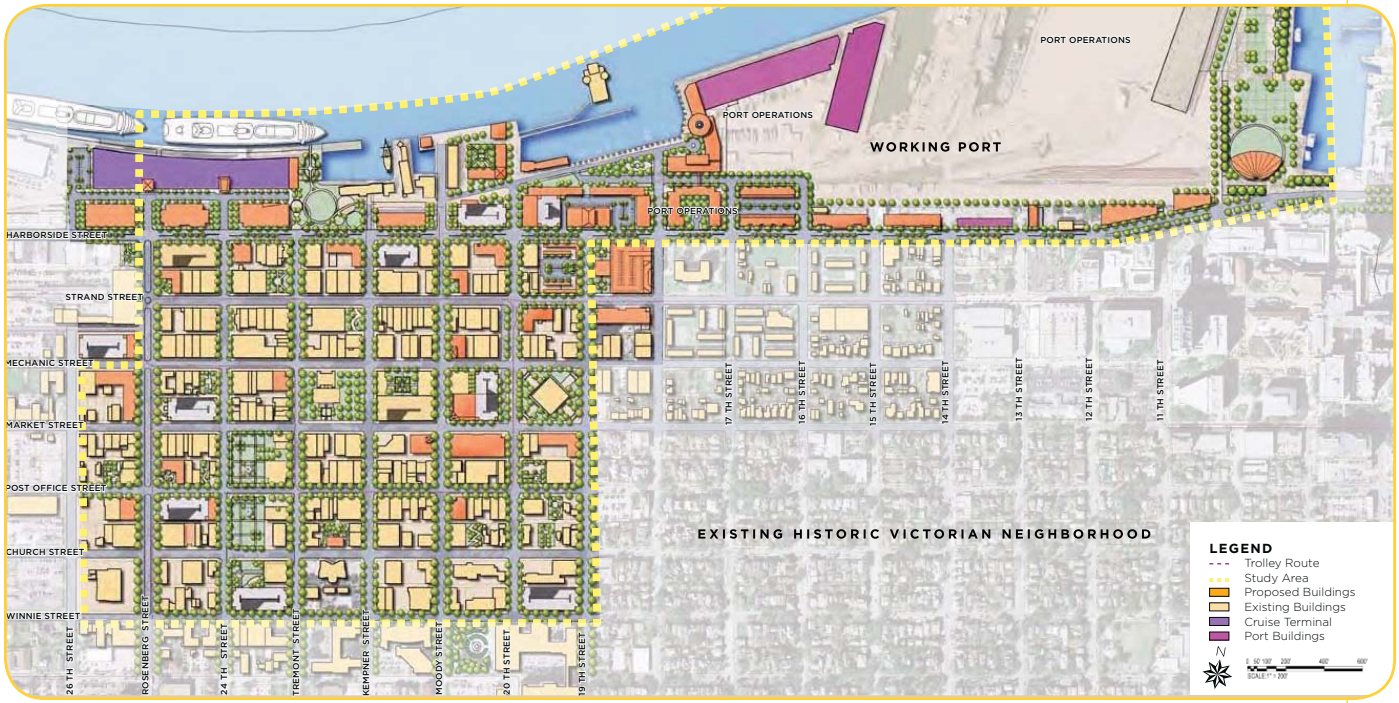
Since 1954, the Galveston Historical Foundation (GHF) has been the City's primary non-profit engaged in preserving, rehabilitating, and restoring the City's historic properties and recognized as a national leader in the use of innovative historic preservation tools. GHF has been a major player in the rehabilitation of the Strand, holds deed restrictions on historic buildings, is actively involved in planning to preserve historic neighborhoods, operates several historic museums and venues, organizes the highly successful Dickens on the Strand Festival and the Historic Homes Tour, and is involved in community education. GHF recognizes that the three principal historic preservation challenges facing the City are: a need for incentives to promote voluntary preservation activity, removal of blighted conditions, and public education to enhance appreciation of the City's heritage and the economic benefits of historic preservation. In the future, the City of Galveston should expand its coordination with GHF, with the HPO acting as the main point of contact. GHF should participate in initiatives identified in the Comp Plan that are related to historic preservation.

HP-4.2 Work with Galveston County Historical Commission

The Galveston County Historical Commission (GCHC) provides a number of important historic preservation functions throughout the County. The City and GCHC should coordinate routinely to mutually support one another's activities as they relate to the City of Galveston. The City should work with the GCHC to help with development of a Heritage Trail through the County and City, and should assist GCHC with developing information on the City's historic preservation activities that can be placed on the GCHC website. In addition, the City and GCHC should develop the documentation needed to secure a City of Galveston Marker from the THC and place it on the City Hall lawn.

HP-4.3 Strengthen Relationships with Neighborhood Association Partnerships

Neighborhood organizations offer a powerful opportunity to assist the City with achieving its historic preservation goals. The Galveston Alliance of Island Neighborhoods (GAIN) serves as a liaison between the City and Neighborhood Associations. Planning Division staff attends the monthly GAIN meetings in order to discuss issues and answer questions from the community. Following each meeting, staff pursues solutions to the issues identified and neighborhood representatives report back to residents. These regular meetings between



The City should support and encourage the implementation of the Downtown Redevelopment Plan.

neighborhood groups and City staff have led to greater accountability and the resolution of issues. The City should continue its relationship with GAIN and other neighborhood organizations.

HP-4.4 Support the Historic Downtown Strand Seaport Partnership

The Partnership promotes, enhances and sustains the economic vitality, physical attractiveness and quality of life in historic downtown Galveston. The Partnership is an invaluable partner in achieving the community's historic preservation goals in the downtown area. The City should support and encourage the implementation of the *Downtown Redevelopment Plan*.

HP-4.5 Enhance Communication with UTMB

The University of Texas - Medical Branch (UTMB) is a major landowner whose management and development activities have the potential to impact the adjacent East End National Historic Landmark District. It is imperative that the City and UTMB work cooperatively to enhance mutual communication of needs, recognizing the important role that the University plays in the City's economy as well as the importance of historic preservation to the welfare and stability of the East End Neighborhood community. Action is needed immediately to work with the University regarding its expansion needs and the various options for mitigating potential adverse effects on historic resources.

HP-4.6 Improve Livability and Attractiveness of Historic Neighborhoods through Enhanced Public Safety and Partnership with GISD

In order to attract residents to the City's historic neighborhoods, the City should work to change the perception that these neighborhoods have poor public school performance and public safety issues. The City should work with the Galveston Island School District (GISD) to make improvements in the performance and perception of Galveston's public schools in historic neighborhoods. Realtors consistently indicate that homebuyers are looking for Recognized Schools and typically gravitate to the City's neighborhoods where high levels of school performance have occurred in recent years. The City should also address the factors that lead to a perception of public safety risks. This includes the broader issues of reducing blight and deterioration, increasing the sense of pride in the community, and promoting home ownership, particularly among lower income families. Secondarily, there is a need to increase police presence, promote community policing and neighborhood watch programs, deal with issues related to the transient population, and create a safer street environment through lighting and general cleanup of vacant lots and buildings.

HP-4.7 Support the Provision of Neighborhood Amenities and Increase Beautification Efforts

Enhancing the character of the City's historic neighborhoods will attract middle-income homebuyers. As called for in the Housing and Neighborhoods Element, the City should make targeted investments in sidewalks, street trees, street lights, paved alleys, and other neighborhood amenities. Additionally, the City needs to promote neighborhood beautification through streetscape enhancements, litter cleanup, assisting neighborhood groups with sponsoring periodic cleanups, and support for activities of the non-profit group Clean Galveston.

HP-4.8 Identify and Address Issues Related to Absentee Landowners

Many of Galveston's older neighborhoods have a high percentage of absentee landowners whose properties are either rented or remain vacant for long periods. In general, when a property is owned by an absentee landlord it is more likely to suffer from poor maintenance. Tenants may not have the same level of neighborhood pride and commitment to caring for property as homeowners. As a result, where there is a high degree of absentee landowners, the neighborhood typically suffers.

The City needs to identify the various factors that contribute to absentee landowner issues and then systematically begin to work on solutions to each.

Many are quite complicated, such as clouded titles, resulting from handing down property from generation to generation with multiple heirs. Currently the City is unable to serve papers to absentee landowners outside of the Galveston County and Houston Metropolitan Area. Many absentee owners purchased properties at very low prices and do not have the financial resources for rehabilitation, so instead leave the structure vacant or rent it very cheaply to low income tenants.

OBJECTIVE HP-5. PROMOTE PUBLIC AWARENESS AND UNDERSTANDING OF THE CULTURAL HISTORY AND IMPORTANCE OF PRESERVING THE ISLAND'S HERITAGE TO THE SOCIAL AND ECONOMIC WELL-BEING OF THE COMMUNITY

In general, there is a perceived need to get information out to the public and, in particular, to the owners of historic properties regarding the City's historic preservation programs, the availability of rehabilitation funding, and historic preservation regulations. Many of the City's residents and business owners are unaware of the economic benefits of historic preservation. Many have the misperception that historic preservation and economic development are incompatible. Lack of public appreciation of Galveston's historic character contributes in part to the blight that threatens many of the City's historic areas. There is a particular need to increase minority and ethnic participation in the City's historic preservation efforts.

HP-5.1 Increase Public Awareness of Applicable Historic Preservation Regulations and Design Guidelines

A focused public education effort is needed to ensure that owners of properties that have been designated as Galveston Landmarks or within locally designated historic districts are aware of the benefits of designation as well as the requirements that are placed upon them as property owners. It is not uncommon for owners in historic districts to have a misperception that there is an unfair and harsh set of regulations in historic districts. The City has experienced many situations in which an owner violates existing regulations, and then claims ignorance when the City takes an enforcement action. Past experience supports a conclusion that it takes many years to establish public understanding of historic preservation regulations in new historic districts. Numerous public education techniques are available to meet this challenge and should be implemented as part of the City's Historic Preservation Program.

HP-5.2 Develop a Historic Preservation Public Relations Program

The City should consider developing a Public Relations Program to build public support for historic preservation. Preservationists in both the public and

The City should regularly update the Prepare-Protect-Preserve Plan to ensure accuracy of the information and to incorporate new procedures and plans.

non-profit communities are well aware that building public support for historic preservation is generally a challenge. Through an effective public relations program, it is possible to promote goodwill and productive relationships needed to generate community support and awareness of the value of historic preservation. Good public relations requires planning and is most successful through implementation of a carefully constructed, ongoing, public relations campaign involving a variety of techniques. These activities should flow from a Public Relations Plan that establishes goals, identifies the actions needed, assigns responsibilities, and establishes timetables for implementation.

OBJECTIVE HP-6. INCORPORATE HISTORIC PRESERVATION INTO DISASTER PLANNING AND RECOVERY ACTIONS

Galveston's vulnerability to disasters from hurricanes, fires, flooding, terrorism, and other events places key historic resources, as well as the local economy, at risk. The sooner Galveston recovers from the effects of a disaster, mitigates the damage, and rehabilitates its historic infrastructure, the more quickly its local economy can rebound. Previous disasters have highlighted the need for more effective pre-disaster planning and post-disaster recovery related to historic resources. The City of Galveston's historic resources contribute significantly to Texas' character and economic base. Landmark buildings and structures, historic districts, and archaeological sites reflect the community's distinct heritage and are a source of pride for Galveston's residents. Furthermore, Galveston relies substantially on cultural and heritage tourism dollars to support the economic base and provide employment and business opportunities.

A lack of preparedness can lead to the inadvertent loss or increased damage to historic resources. Insufficient damage assessments, unsuitable debris management, inappropriate repair, and limited input from knowledgeable state and local preservation professionals can exacerbate a disaster event.

In May 2007, the City of Galveston adopted the *Disaster Response Plan for Historic Properties: Prepare-Protect-Preserve* (*Prepare-Protect-Preserve Plan*) to address the specific disaster planning issues related to historic preservation. Over the course of twelve months, a City Council appointed committee developed this plan and organized three "Picture This!" events, which utilized volunteers to photo-document all historic resources east of 61st Street. Informational public forums were held to assist homeowners in preparing their buildings to withstand the effects of a disaster. The City should continue to take a pro-active role in disaster planning, response, and recovery efforts that address the unique challenges related to the large number of historic resources in the community.

HP-6.1 Ensure Historic Preservation Issues are Addressed in City Disaster Planning Programs and Processes

As discussed in the Disaster Planning Element, the City's disaster planning programs and processes should be closely coordinated with ongoing efforts to preserve and protect historic resources. The City's disaster plans and programs should incorporate recommendations from the *Progress Through Preservation* and *Prepare-Protect-Preserve Plan* and City staff should monitor ongoing actions to ensure preservation issues are fully addressed in preparedness, mitigation, response, and recovery efforts.

HP-6.2 Continue Implementation of *Prepare-Protect-Preserve* to Mitigate Damage to Historic Properties

The *Prepare-Protect-Preserve Plan,* the result of numerous hours of work by concerned citizens, staff, and elected officials, is designed to protect the City's historic resources from the effects of disasters. The plan outlines mitigation measures for protecting historic resources, including preparation of informational brochures to help building owners prepare properties to withstand the effects of storm events, inclusion of architectural surveys into the municipal GIS, establishment of debris management contractors with experience handling historic properties, and education of staff on historic preservation principles.

The City should regularly update the plan to ensure accuracy of the information and to incorporate new procedures and plans. As part of the next update,

Properties determined eligible for listing on the National Register of Historic Places require additional assessments and care during response and recovery processes.

the plan should be changed to include projects called for in the *Long-Term Community Recovery Plan* that address mitigation and response measures for historic properties, including:

- Raising Standards: Hazard Mitigation Guidelines for Historic Structures;
- Saving Faces in the Strand/Mechanic Historic District: Cast Iron Façade Restoration Grant Program;
- GHF/GHA Preservation Partnership;
- Galveston Island Historic District; and
- Galveston Center for Historic Preservation.

Since many of the City's historic properties are not adequately maintained or further strengthened utilizing appropriate mitigation activities, the City should establish a policy as part of the Plan update to address the repair and rehabilitation of its housing stock to reduce the damage related to storm events.

HP-6.3 Establish Inter-Local Agreements with Other Local Governments to Provide Key Personnel

As described in the Disaster Planning Element, the City should seek inter-local agreements for specialized personnel in other jurisdictions following a catastrophic disaster event. This includes agreements to secure temporary historic preservation staff. Due to the large number of historic resources, Galveston faces special challenges that will require trained historic preservation personnel to assist with recovery efforts. The City should identify other jurisdictions with appropriate historic preservation personnel and commit to a reciprocal aid agreement in disaster events. The framework for these agreements should be in place prior to any significant recovery activity.

HP-6.4 Ensure Preservation Issues are Addressed in Disaster Response and Recovery Activities

As discussed in the Disaster Planning Element, properties determined eligible for listing on the National Register of Historic Places require additional assessments and care during response and recovery processes. Resources should be carefully identified prior to storm events and in the immediate aftermath of events, programs should be in place to ensure damaged buildings are stabilized and historic materials are salvaged. Because many historic buildings were not stabilized immediately in the aftermath of Katrina and Rita, important buildings that could have been saved were lost, and in cases where significant damage did occur, historic materials that might have been salvaged and used in rebuilding were removed.

In the development of the Disaster Recovery Plan and future updates to the *Prepare-Protect-Preserve Plan*, the City should identify methods to expedite emergency stabilization and debris removal in historic areas, while meeting local and state objectives to protect resources. To meet federal requirements in disaster response efforts and ensure full federal reimbursement of funds, the City must comply with the Section 106 review process that assesses actions affecting historic properties. As addressed in previous sections of this Element, the City must continue efforts to maintain its inventory of approximately 16,000 historic properties and integrate survey data into the GIS system. To further ensure 106 compliance, the HPO should be an active member of the Emergency Operations team, the Debris Management Plan should address historic resources, and staff involved with response activities should be trained to understand special considerations for historic properties and areas.

HP-6.5 Develop Public Communication and Education Strategy for Historic Preservation

As noted in the Disaster Planning Element, an effective public comprehensive public strategy program is vital for the City for disaster planning, but is particularly important in historic areas. To ensure residents receive timely information, the City should improve the effectiveness of preservation-related public communication. The City should continue the biannual forum to educate property owners regarding mitigation measures to protect historic properties. The forums should stress the importance of maintenance of historic buildings to mitigate damage, protection of historic interiors, and remediation actions. In areas with historic resources, debris removal and recovery efforts may take significantly longer due to specific actions required by the federal government, so it is imperative that the City develop a comprehensive public information program to keep citizens informed of response and recovery efforts.

NATURAL RESOURCES ELEMENT

INTRODUCTION

Galveston Island is one of about 300 barrier islands lining the coast of the United States. Barrier islands are long and narrow, and separated from the mainland by either open water, as in the case of Galveston, or by wetlands. Barrier islands, formed mostly by accretion, typically support important, highly inter-related ecological systems, which may include scrub, low-lying grasslands, beach dunes, and wetland habitats. These habitats, particularly tidal marsh wetland areas, are critical to the survival of many native and migratory land and marine species. Wetland areas in barrier islands perform other critical functions as well. For instance, filtering sediment and pollutants from water draining off upland areas helps to maintain water quality. Barrier islands also act as a natural buffer for coastal and mainland areas, protecting these from the full force of ocean waves, winds, and storms, and often providing secluded bodies of water that serve as harbors and ports. In addition to sharing the above characteristics, Galveston Island offers residents and visitors important benefits, including opportunities for recreation, scientific knowledge and education, economic development, and aesthetic enjoyment. As Galveston's tourism, fisheries, and other commercial and industrial activities are tied to the health and wealth of its natural resources, such resources must be protected and carefully managed and, when necessary and appropriate, restored to ensure their sustainability.

GOAL

Preserve and Protect the Sensitive Natural Resources of Galveston Island, the Galveston Bay Estuary, and the Gulf of Mexico.

OBJECTIVES & STRATEGIES

OBJECTIVE NR-1. MAINTAIN AND IMPROVE THE WATER QUALITY OF GALVESTON BAY TO SUPPORT A HEALTHY ECOSYSTEM AND MINIMIZE RISK TO HUMAN HEALTH

NATURAL RESOURCES GOAL

Preserve & Protect the Sensitive Natural Resources of Galveston Island, the Galveston Bay Estuary & the Gulf of Mexico.

OBJECTIVES

1. *Maintain & Improve the Water Quality of Galveston Bay to Support a Healthy Ecosystem & Minimize Risk to Human Health*
2. *Protect the Integrity & Function of the Beaches, Dunes & Bay Wetlands*
3. *Preserve & Protect the Wetlands*
4. *Respond Proactively to Land Loss on Galveston Island*
5. *Preserve & Protect Sensitive Natural Resources By Creating Open Space Network*
6. *Protect Natural Resources from the Effects of Human Interaction & Recreational Use*
7. *Incorporate Sustainable Practices to Improve Livability & Protect the Integrity of the Island's Natural Resources*

Water draining from Galveston Island largely discharges to Lower Galveston Bay and West Bay. Water quality management efforts of the past two decades have greatly improved the condition of these waters, focusing upon the elimination of point sources of pollution that had seriously impacted bay waters in the 1960s and 1970s. In recent years, dissolved oxygen levels have increased and there has generally been a decreasing trend for nutrients. Ambient levels of mercury and copper, while lower than twenty years ago, remain elevated. In addition, failing septic systems are a significant non-point source (NPS) of water quality contamination causing contamination by fecal coliform bacteria and nutrients. As a result, waters of the West Bay and Lower Bay are classified as water quality limited and do not support the state's designated uses for Oyster Water Use and Aquatic Life. This restricts or prohibits growing and harvesting of oysters in a number of areas.

NR-1.1 Reduce Non-Point Source Contamination of Bay Tributaries and Near-Shore Waters

The Galveston Bay Estuary Program has documented that over half of the sediment, phosphorus, fecal coliform bacteria, and oxygen-demanding substances contaminating bay waters originate from non-point sources found in the local watershed. Non-point source loads are creating notable problems in urbanized bayous and enclosed areas with poor circulation throughout the bay estuary. In fact, about half of the bay has been closed to oystering due to low dissolved oxygen and high concentrations of fecal coliform and polynuclear aromatichydrocarbons that bioaccumulate in seafood. Non-point source contamination of water bodies occurs when rainfall transports contaminants on the surface of the land into adjacent water bodies, and when groundwater is contaminated by pollutants carried by water percolating through soil, such as wastewater in a septic system.

In Texas, local government action to manage pollution from non-point sources is guided by the Texas Pollutant Discharge Elimination System, Phase II (TPDES) program. The City has issued a Notice of Intent to participate in the TPDES program and committed to undertake activities to reduce stormwater pollutant discharge into the Waters of the State of Texas and the United States. As all stormwater discharge in Galveston is to such waters, the TPDES program will represent the guiding principles for the City in stormwater quality matters.

In many areas of Galveston Island, wastewater disposal is accomplished using on-site disposal systems or septic systems. These types of systems are considered an acceptable means of waste disposal when properly located, installed, and maintained. Unfortunately, many areas of the Island are not

suitable for on-site disposal systems due to poor soil conditions and a high groundwater table. Failing systems on the Island have been identified as a significant non-point source of water quality contamination. For example, poorly functioning systems have contributed to low dissolved oxygen levels and the presence of fecal coliforms in the West Bay in the vicinity of Isla Del Sol and Sea Isle.

The City will continue to work to reduce water quality contamination as a result of failing on-site wastewater disposal systems through expansion of the central sewer system.

To achieve state and local goals to reduce non-point source contamination, the City will accomplish the following:

- Identify policy, ordinance, and public investment strategies to implement water quality improvement objectives.
- Apply TPDES program requirements to the entire Island, not just the "Urbanized Area" defined as the area roughly bounded by the Seawall, the Port, Ferry Road, and 81st Street.
- As called for in the Infrastructure Element, revise the *Master Drainage Plan* to include a fiscally implementable plan to address stormwater quantity and quality, integrate stormwater quality best management practices, ensure storm sewers are maintained and cleaned on a regular basis, require new or replacement storm sewers to be designed to facilitate ease of cleaning and maintenance, institute a program to limit debris entering the system, and ensure enforcement of standards to control erosion at construction sites.
- Conduct a study to determine the effects of industrial traffic on stormwater pollution.
- Work to reduce water quality contamination as a result of failing on-site wastewater disposal systems through expansion of central sewer system and new regulations addressing the construction of new systems and maintenance of existing systems.

Refer to the Infrastructure Element for policies and strategies addressing wastewater treatment and stormwater management.

NR-1.2 Reduce Water Quality Impacts of Recreational Boating

Water quality in the vicinity of marinas and marina maintenance facilities is affected by general marina operations as well as by discharges from vessels docked in marina slips, particularly when live-aboards are present. Many boaters discharge raw sewage from marine heads directly in the waters of Galveston Bay, causing potential problems with nutrients and bacteria. Where people are living on vessels, as many as 100 gallons of sewage may be discharged raw per boat per day. Metal corrosion and oxidation represents an additional source of metal contamination due to the widespread use of zinc

to protect boat hulls. Bilge waste is a source of oils, coolants, lubricants, and cleaners.

Several actions would help to reduce the degradation of water quality in and around marinas from boat sewage and introduction of dockside wastes:

- Develop an ordinance and related regulations for marina facilities.
- Require marinas and dockside operations to implement wash-down controls and containment measures.
- Require all marinas with two or more slips to have pump-out facilities for marine toilets.
- Implement an enforcement program designed to ensure compliance with state and federal regulations pertaining to adequate spillage prevention, containment, and clean-up of fuel or hazardous material at marina sites and fueling facilities.

OBJECTIVE NR-2. PROTECT THE INTEGRITY AND FUNCTION OF GALVESTON ISLAND'S BEACHES, DUNES, AND BAY WETLANDS

Galveston Island's beaches, dunes, and bay wetlands are sensitive natural resources providing a number of well-recognized benefits. Beaches and dunes are an integral part of the coastal landscape, lending beauty to the shoreline. As natural coastal barriers, the Island's dunes absorb the force of winds and high waves during major storms and help prevent or delay inland flooding and resulting property damage. Dunes also function as a source for natural beach renourishment after storms. The bay's marsh wetlands provide critical area for native and migratory land and marine species and act as natural buffers from the full force of waves, winds, and storm surges. Additionally, these wetland areas filter sediments and pollutants from the water draining from upland areas thus helping to maintain water quality.

The Island's beaches, dunes, and bay wetlands play critical roles in protecting the Island from the effects of the coastal forces, and the health of these sensitive, inter-related ecosystems plays a key part in ensuring the City's long-term resiliency and sustainability.

The Island's beaches, dunes, and bay wetlands play critical roles in protecting the Island from the effects of the coastal forces, and the health of these sensitive, inter-related ecosystems plays a key part in ensuring the City's long-term resiliency and sustainability.

NR-2.1 Strengthen Regulations Designed to Protect and Restore the Island's Dune Systems

Protecting the Island's dune systems should remain a high priority for the City. Outside of the construction of major man-made structures such as groins and seawalls, the protection and enhancement of dune systems represent the best opportunity to stabilize the Gulf shoreline. In recent years, the City has taken

action to preserve its beaches and dunes through adoption of regulations establishing standards for the protection of sand dunes for the expressed purpose of protecting the public health, safety, and welfare and minimizing losses due to flood, storm, waves, and shoreline erosion. Current standards were developed to comply with the minimum requirements of the Texas Open Beaches Act and the Dune Protection Act. Recently, the State adopted new regulations encouraging coastal jurisdictions to develop Erosion Response Plans (ERP) which, once adopted, will provide the basis for the funding of coastal restoration, beach renourishment, and related projects under the Coastal Erosion Planning and Response Act (CEPRA) Program.

In complying with the new regulations and adopting an ERP, Galveston will accomplish the following:

- Review current rules affecting beachfront construction.
- Evaluate annual erosion rates and natural dune conditions.
- Explore alternative methods to establish coastal construction setbacks and guidelines for the development of coastal properties.
- Prepare more specific standards for dune restoration projects.
- Prepare an update of the beach public access inventory.
- Maintain and update the ERP on a regular basis.

NR-2.2 Review and Update Zoning and Subdivision Regulations to Protect the Integrity and Function of Galveston's Natural Resources

With the exception of the Dune Protection and Beach Access regulations, the City of Galveston Zoning Standards and Subdivision Regulations do not specifically address the special environmental issues related to the City's barrier island context. Although the Island's unique sensitive resources are well documented in such studies as the *Galveston Island Geohazards Map* undertaken in 2006 by Dr. Jim Gibeaut of the Bureau of Economic Geology at the University of Texas at Austin, the City's existing development standards offer little direct guidance regarding ways to protect sensitive resources and mitigate the effects of geological processes such as sea-level rise, land subsidence, erosion, storm-surge flooding, and wash-over.

To promote more resilient and resource-sensitive development on the Island, the City will accomplish the following:

<u>Resource References & Mapping</u>

- Use resources such as the Galveston Island Geohazards Map as public information tools and references during the review of development proposals.

- Continue to incorporate data layers provided by the City's environmental partners as part of the City's geographic information system (GIS) database and make available to the public for review.
- Use geohazard and sensitive resource information as resources in the development of future specialized plans and policies.

Regulatory Strategies

- Investigate regulatory strategies, including cluster zoning, Low Impact Development (LID), and others, to promote more sustainable and resilient development, especially in areas with sensitive environmental resources.
- Reference recently completed plans and land use studies such as the City's Hazard Mitigation Plan, the Trust for Public Land's (TPL) West Galveston Island Greenprint for Growth and the Urban Land Institute's (ULI) Sustainable Neighborhoods for Galveston in the process of crafting new development regulations.
- Address the effects of common development practices on the Island's natural resources, such as the practice of filling sites to meet elevation requirements.

NR-2.3 Develop a Bay Access Plan

Numerous opportunities exist to improve access to and public enjoyment of Galveston Bay and associated waterways such as Teichman Point, Offat's Bayou, and English Bayou. Although a Bay Access Plan is not required per state law, the City should prepare a plan to improve public access to the bay shoreline. Building on access recommendations provided in TPL's *West Galveston Island Greenprint for Growth*, the plan should include the following:

- An inventory and evaluation of the following:
  - public access points to the bay shoreline through public lands;
  - public access points to the bay shoreline through private lands;
  - parking facilities for bay shoreline access;
  - pedestrian and Americans with Disability Act (ADA) compliant access;
  - marinas;
  - boat ramps and parking;
  - public docks;
  - fishing piers/wade fishing/kayak access; and
  - traditional bay shoreline areas.
- Estimates of the capacity and need for various types of public access facilities.
- Plans for improvement of existing facilities, including 103rd Street ramp and County Pocket Park 4.
- Standards for public and private transportation and parking facilities for bay shoreline access.

The City should prepare a plan to improve public access to the bay shoreline.

- Recommendations for the enforcement of public access to the bay shoreline.
- Recommendations for regulations and capital improvements to implement recommendations.

NR-2.4 Maintain and Implement the City's Beach Access Plan

The City's existing *Beach Access Plan*, completed in 2004 following a two-year planning public process, addresses public access along the Gulf shoreline. The plan documents existing vehicular and pedestrian access areas and provides a review of improvements at more developed beach access facilities such as Apffel Park, Dellanera Park, Seawolf Park, various pocket parks, as well as the State Park. The plan is incorporated into the City's Zoning Standards and describes the specific location of these areas and the type of access provided.

To address changes to conditions post-Hurricane Ike and ensure adequate access is provided and maintained, the City should do the following:

- On an ongoing basis and following major storm events, the City should review and update the *Beach Access Plan*.
- Ensure funding for continued implementation of the plan and maintenance of existing improvements is provided on an annual basis. This includes replacement of signs and bollards, installation of amenities and improvements to access areas, and improvements to comply with ADA access requirements.
- Provide funding for the enforcement of the *Beach Access Plan* by the Planning and Community Development, Public Works, and Police Departments.
- Coordinate efforts with the Park Board of Trustees to ensure efficient use of staff and equipment.

On an ongoing basis and following major storm events, the City should review and update the Beach Access Plan.

NR-2.5 Develop and Implement a Dune Management and Restoration Program

Galveston Island's dune system was seriously damaged as a result of Hurricane Ike, and only a handful of dunes currently exist on the Island. To address the lack of a protective dune system with sufficient vegetation, the City should pursue funding for the development of a Dune Management and Restoration Program. This Program should provide a management framework to bring about the long-term restoration and protection of dune vegetation. By restoring dunes and related vegetation, there will be a greater opportunity for the dunes to trap and hold sand, thus reestablishing the natural barrier island defenses against coastal erosion forces.

The Dune Management and Restoration Program should include a long-term strategy for dune restoration and re-vegetation that addresses appropriate uses, planting specifications, and treatments for walkover structures and fencing.

The Dune Management and Restoration Program should include the following:

- Documentation of existing condition of the Island's dunes.
- A long-term strategy for dune restoration and re-vegetation that addresses appropriate uses, planting specifications, and treatments for walkover structures and fencing.
- A strategy for working with private property owners to accomplish desired dune restoration and management goals.
- Definition of potential joint public/private financing opportunities for dune restoration projects.

NR-2.6 Develop a Bay Restoration Plan

A restored natural bay environment, with healthy marsh and wetland systems, can provide significant benefits to the City. A healthy system of marsh and wetland areas can serve as a buffer from wave action, help protect against coastal erosion forces, absorb stormwater runoff, and provide flood control by holding water and releasing it slowly to the bay. Healthy wetland and marsh systems also improve water quality—as runoff is stored in wetlands, suspended solids settle out and pollutants are filtered and trapped in bottom sediments, resulting in enhanced quality as runoff reaches near shore waters. Wetlands and marshes also provide vital habitat for many species of plants, fish, birds, and wildlife and are an important source of nutrients and organic matter, which becomes food for organisms throughout the estuary.

To ensure sustainability of the bay environment, the City should pursue funding for a Bay Restoration Plan that incorporates the following:

- A management framework to bring about the long-term restoration and protection of the marshes and bay wetlands.
- Documentation of the existing condition of the Island's coastal wetlands and marshes and a long-term strategy for their restoration that addresses appropriate uses, planting specifications, and public access.
- The appropriateness of further marina and canal development adjacent to the bay.
- The effects of coastal erosion and mitigation issues as related to the bay shoreline.
- Strategies for working with private property owners, neighborhood associations, special interest groups, as well as state and federal agencies, to accomplish desired marsh and wetland restoration and management goals.
- Potential for joint public/private financing of bay restoration.

To support the planning effort, the City should seek funding from the Federal Emergency Management Agency (FEMA) and CEPRA and engage local partners, such as the Galveston Bay Foundation (GBF), in the planning effort.

OBJECTIVE NR-3. PRESERVE AND PROTECT THE WETLANDS OF GALVESTON ISLAND

Wetlands serve a vital purpose on Galveston Island that can affect economic development, the fishing industry, natural character and the ecology of the community. The Island's freshwater and coastal wetlands provide a number of natural functions vital to the health of the Galveston Bay Estuary. These functions include flood control, filtering pollutants from the Bay, and providing vital habitat for many species of plants, fish, birds, and wildlife. Wetland loss is a major threat to the Galveston Bay Estuary. Losses on Galveston Island have been the result of man-induced subsidence and related sea level rise, erosion, filling, and dredge-and-fill activities.

A number of actions should be taken by the City of Galveston in order to preserve and protect its wetlands in the future. These actions should focus on expanding and enhancing staff capabilities; more effective enforcement of existing wetland regulations; and instituting a process for considering protective buffers adjacent to all wetlands.

NR-3.1 Maintain City Participation of USACE Review of Section 404 Permit Applications

Development activities in Texas wetlands are regulated by the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) in accordance with Section 404 of the Clean Water Act. The USACE has primary responsibility for issuing permits to mitigate wetlands, after notice and opportunity for a public hearing. In issuing permits, the USACE also considers comments received from the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service, and state and local resource agencies.

In responding to USACE notifications of potential wetland development, the City should do the following:

- Remain actively involved in the permitting process and provide comments to USACE as early as possible, preferably before the mitigation site has been selected and the design completed.
- When permit applications are circulated to state and local agencies, review each carefully and respond with comments.

- Continue to attend Joint Evaluation Meetings (JEM), which includes USACE and other governmental entities, for projects located within the City limits and the Extra-Territorial Jurisdiction (ETJ).

NR-3.2 Minimize and Mitigate Development Impact to Wetlands

Although the Galveston District of the USACE currently allows applicants for Section 404 permits to mitigate wetland impacts off of Galveston Island, recent City excavation ordinance revisions prohibit mitigation off-Island. To further facilitate on-Island mitigation, the City should:

- Strengthen or revise the existing excavation ordinance to encourage mitigation to occur within the drainage basin or within the same, or neighboring, watersheds.
- Develop a layer within Galveston's GIS to coordinate with the USACE, Galveston Bay Estuary Program, and other conservation partners to identify, in advance, potential mitigation sites on the Island. Additionally, the feasibility of an on-Island wetland mitigation bank should be considered. However, for any new development the impact to existing delineated wetland areas should be minimized or eliminated; mitigation measures should only be considered if avoidance of wetland areas is not feasible.

NR-3.3 Develop Local Wetland Protection Regulations

The City is currently investigating the feasibility of adopting a wetland ordinance that would protect both tidally-influenced and non-tidal wetlands from direct disturbance and provide for the filtration of stormwater runoff prior to entering the wetland system. Best practices from other coastal communities, barrier islands, and Texas jurisdictions should be considered in development of local regulations, as should the potential benefits of requiring protective buffers limiting such activities as the placement of impervious surfaces and installation of septic systems.

Consistent with the general goal of preserving and protecting wetlands, the City should prepare an ordinance including the following provisions:

- Guidelines and standards aimed at minimizing impacts to wetlands through either buffer areas or on-Island mitigation.
- Requirements for the establishment of a setback from wetlands for new development to create wetland buffers. (A minimum fifty-foot (50') buffer area should be considered for all delineated wetlands and incentives should be created for greater setbacks.)

- A prohibition on the placement of impervious surfaces and septic systems in buffers but allowances for other uses, such as landscaping, fencing, and recreational areas.

NR-3.4 Encourage Wetland Restoration on Galveston Island

The Galveston region includes a number of successful wetland restoration projects, many with the potential to serve as models for an expanded program of projects and investments to improve the health of the bay ecosystem. Although City policy favors avoidance and minimization of further wetland impacts, encouraging wetland restoration projects, particularly along the Island's northern shoreline, can further regional goals to improve bay water quality and wildlife habitat.

The City should pursue funding to complete the Galveston Island Ecosystem Restoration from the Gulf to the Bay project called for in the Long-Term Community Recovery Plan.

To further the City's goals for the restoration of wetlands, the City should:

- Maintain policies favoring avoidance and minimization of impacts to Island wetlands, but where mitigation is deemed an appropriate solution, favor projects along the Island's northern shoreline that offer the greatest potential to improve the bay ecosystem.
- Pursue funding to complete the Galveston Island Ecosystem Restoration from the Gulf to the Bay project called for in the *Long-Term Community Recovery Plan*. As defined in the plan, the project is designed to achieve large-scale habitat restoration of dunes, saltwater marshes, seagrass beds, and oyster reefs.
- Consider creation of incentives for interior wetland restoration projects in areas identified during the development of an Open Space Preservation Program described later in this Element.

OBJECTIVE NR-4. RESPOND PROACTIVELY TO LAND LOSS ON GALVESTON ISLAND

Land loss associated with shoreline retreat along the Island's beach and bay, resulting from a combination of regional subsidence, erosion, and relative sea level rise, has increasingly challenged government agencies and coastal communities. Over the years, man-made projects that influence the near-shore system such as the construction of dams and levees in riverine systems have reduced the sources of sediment to the Gulf Coast. Likewise, the construction of jetties and navigation channels has interrupted the littoral flow of sediments (long-shore drift) at coastal passes. Upland development also affects the natural migration of sediments.

As a result, while East Beach accretes due to eddies in the long-shore current interrupted by the jetties at Bolivar Roads, most of Galveston's beachfront

shoreline from Stewart Beach westward is eroding at rates that have averaged between 5-10 feet per year for the last fifty years. Without continued intervention, land loss on Galveston Island will not be reversed in the life span of this document. The impact of global sea level rise is anticipated to be greatest on low-lying barrier islands, such as Galveston Island. The City of Galveston did not create these regional or global circumstances, but given the disproportionate impact they have on this community, it is incumbent on the City to continue to respond proactively. The City has taken important first steps toward such a response, but much remains to be done to ensure that any future development on the Island is sustainable and resilient.

NR-4.1 Participate with other Governmental Agencies and Expand Intergovernmental Coordination Efforts to Mitigate Coastal Land Loss

The City should continue to work with the Texas General Land Office (GLO) to complete an update to the City's Dune Protection and Beach Access Plan, develop an ERP, and address future state requirements for coastal protection and management.

As a result of damage caused by recent coastal storms, most notably Hurricane Ike in 2008, there has been increased local interest in finding environmentally sustainable and affordable approaches to mitigating coastal land loss. Following Tropical Storm Frances in 1998, the Galveston County Beach Erosion Task Force was formed, with representation from the following entities and communities: Galveston County, the City of Galveston, the Park Board of Trustees, the City of Jamaica Beach, Bolivar Peninsula, and other smaller communities in Galveston County. This group has been effective in providing a coordinated forum for better understanding the coastal erosion challenge, identifying and evaluating alternative erosion control measures, and seeking potential sources of funding for beach renourishment and erosion control projects.

To ensure effective intergovernmental coordination related to the mitigation of coastal land loss, the City should:

- Continue to work with the Texas General Land Office (GLO) to complete an update to the ***Dune Protection and Beach Access Plan***, develop an ERP, and address future state requirements for coastal protection and management.
- Continue to participate in regional and Gulf coastal planning activities. These include but are not limited to: the Coastal Coordination Council, Houston-Galveston Area Council, West Galveston Island Marsh Restoration Program, the Gulf of Mexico Alliance (GOMA), and the U.S. Army Corps of Engineers Regional Sediment Management Program.

NR-4.2 Partner to Promote Beach and Bay Shoreline Stabilization

Although significant resources have been invested in beach renourishment projects, funding challenges, difficulties obtaining and transporting beach

quality sand, and the ongoing effects of longshore transport of sediments and storm events have greatly limited the effectiveness of individual interventions. As new and alternative strategies are considered, including living shoreline projects, dune restoration and construction efforts, and others, establishing effective partnerships with local, regional, state, and federal entities and property owners will be critical to achieve success.

The City needs to evaluate and implement options for a sufficient permanent source of local funds to enable its participation in federal and state erosion control projects.

To improve efforts to stabilize the Island's shoreline, the City, working with regional, state, and federal partners, should:

- Support and engage in continued implementation of shoreline stabilization techniques, including: beach renourishment, dune construction, beneficial use of dredged material, and bayside offshore stabilization.
- Investigate the use of appropriate beachfront offshore stabilization techniques.
- Identify and use suitable locally-available material whenever possible for shoreline stabilization.
- Continue to coordinate with USACE so that all possible sources of suitable material generated by Corps projects can be made available for shoreline stabilization.
- Participate in the Regional Sediment Management program with USACE.
- Continue to educate and enforce its existing excavation ordinance, which requires any dredged material to remain on the Island. (Every effort should be made to avoid excavation on the Island for the purpose of shoreline stabilization.)

NR-4.3 Establish and Dedicate Local Funding for Shoreline Stabilization

While the majority of funding for shoreline stabilization is likely to come from federal and state sources, a local match or contribution will be needed for most projects. The City of Galveston currently does not have a sufficient dedicated source of funding to provide the local dollars needed. Lacking a sufficient permanent source of local funds, the comprehensive stabilization program cannot be implemented, leaving only the option of minor repairs, which some feel could actually exacerbate the problems. As a result, the City needs to evaluate and implement options for a sufficient permanent source of local funds to enable its participation in federal and state erosion control projects.

Funding must come from a variety of sources and should be a constant revenue stream. Potential funding methods the City should investigate for shoreline stabilization projects include:

- Development Impact Fees;
- Beach User Fees, including parking fees from Seawall Boulevard;
- 4b sales tax;
- Convention Center overflow funds;
- Annual grants from non-profit or private organizations; and
- Community benefit requirements for new development such as the Natural Resources Preservation for Beach Renourishment option in the Height and Density Development Zone.

NR-4.4 Research and Implement Innovative Projects to Promote Shoreline Stabilization

Methods to respond to coastal erosion are continuing to evolve and improve and the City must monitor the availability of new methods to protect the Island's coastline. Projects should be considered and implemented where scientific research supports feasible projects for coastal erosion control.

Examples for projects to be considered include, but are not limited to, the following:

- Continued beach maintenance;
- Investigate potential sand sources, such as northeast of San Luis Pass and off-shore;
- Wetland restoration projects for bay;
- Climate adaptation strategies for sea level rise;
- Regional sediment management (mechanisms to bypass obstructions on rivers or at coastal passes, etc.); and
- Other stabilization projects, such as horizontal breakwaters.

OBJECTIVE NR-5. PRESERVE AND PROTECT GALVESTON ISLAND'S SENSITIVE NATURAL RESOURCES BY FACILITATING CREATION OF A NETWORK OF PERMANENTLY PROTECTED OPEN SPACE

As new development occurs on Galveston Island, sensitive natural resources will be directly and indirectly threatened. To protect the Island's sensitive resources from encroachment, the City should implement several related initiatives to create a connected network of permanently protected open space. This includes open space preservation and acquisition programs, regulatory and incentive programs, partnerships with conservation organizations, and appropriate maintenance and management strategies.

The City has already started a project that can serve as a model for future preservation efforts. The City has begun to permanently protect the sensitive

natural resources of the Island with the 686-acre, East End Lagoon project. Along with a few tracts on the West End, the East End Lagoon area is one of the last remaining tracts exhibiting the barrier island's natural coastal environment. By restoring and enhancing the wide array of wildlife habitats that currently exist on the property, the City will be protecting these valuable natural resources as well as making them accessible for the public to enjoy. Hiking and biking trails, fishing, swimming, interpretive signage, wildlife viewing amenities, educational center and programs, and other recreational opportunities have been identified as attractive public features the final park could include. The City plans to manage this area for public use in perpetuity. The East End Lagoon project should be noted as an example for the City to preserve open space Island-wide.

NR-5.1 Develop and Implement an Open Space Preservation Program

The first step in developing an Open Space Preservation Program should be identification of the open space resources to be protected. These should include sensitive natural resources important to the Island's ecosystem and to the Estuary. It should also include important linkages and buffers adjacent to existing sensitive resource areas and public parks. These open space areas can also be an "energy buffer" in the event of natural disaster. In addition, the City should define the types of open space, including: public, private and collective.

In developing an Island-wide Open Space Preservation Program, the City should accomplish the following:

- Work with local stakeholders and partners to identify protection areas and linkages with greatest potential to preserve natural functions, protect the character of the Island, and protect the Galveston Bay Estuary. Once these lands have been identified, move forward with a planned conservation strategy, using a variety of preservation tools which could include a combination of land purchase, incentives and regulations.
- Collate and evaluate reference and supplemental information presented in the Galveston Island Geohazards Map, West Galveston Island Greenprint for Growth, the Texas Coastal Communities Planning Atlas prepared by Texas A&M, and other studies that have documented and evaluated natural resources on the Island.
- Make the development and utilization of a comprehensive GIS system a priority including data sharing, independent GIS studies, and its availability to the citizens to the greatest extent possible.
- Document, through GIS, the following: wetlands; bird rookery areas; dunes; beaches; live oak mottes; wooded areas; major views from public roads and parks/view corridors/viewsheds; protective buffers; City parks; tidal swales; heritage trees; and wildlife corridors.

The City should identify its priorities for acquisition, evaluate methods available to purchase land or development rights, and explore funding options to acquire land or development rights to land.

- Focus inventory and documentation efforts Island-wide, not just the far-east end or the undeveloped areas of the west end. Sensitive environmental areas are located behind the Seawall, including but not limited to Teichman Point, Scholes International Airport, and the area near the Galveston County Justice Center. Mapping should include information regarding ownership of the parcels that contain open space.
- Identified priority sites for protection or acquisition considering the following: existing level of protection (public lands and lands with perpetual conservation easements); level of significance and threat; and potential to serve multiple functions—resource protection, passive recreation, view protection, etc.
- Form an advisory committee to guide the effort of staff and volunteers.

NR-5.2 Develop a Citywide Open Space Acquisition Program

The ideal means of preserving open space is to buy it outright. It is essential that the City identify its priorities for acquisition, very realistically evaluate the methods available to purchase land or development rights, and explore funding options to acquire land or development rights to land. As defined below, funding may be available through a combination of public, private, and public-private sources:

- Public funding sources, federal, state and local, to acquire open space are quite limited in the City of Galveston. There are limited federal funding programs available, and those that do exist typically require local matching funds. Funding sources from the State of Texas are currently quite limited. The Texas Parks and Wildlife Department (TPWD) has created the 2010 Land and Water Resources Conservation and Recreation Plan, but there is not a statewide conservation program, as in some states, where there are substantial dollars available on an annual basis for land conservation.
- Local support for open space acquisition and purchase of development rights could come from public and private sources such as community benefits' development incentives, planned giving, grants, general obligation bonds, sales taxes, and/or other dedicated taxes. Ideally, the City of Galveston should continue to encourage public-private partnerships to maximize open space. Bonds are desirable as they offer a method of long-term funding for a long-term program. A less costly alternative would be to include open space acquisition as an expense item in the annual budget, although this option requires annual reauthorization and does not constitute a clear commitment to the program.
- Another alternative action could be purchase of development rights, also known as a conservation easement. Usually a land trust, or another organization linked to the local government, offer to buy development

rights on a parcel. Since the program will be voluntary, the property owner may choose to accept, refuse or negotiate price. If an agreement is made, a permanent deed restriction is placed on the property in perpetuity that restricts the types of activities that may take place on the land.

- Additionally, under a new Erosion Response Plan and associated CEPRA funding, the City may be able to receive grant funds for acquisition of properties that are wholly or partially on the public beach easement. This will not only provide additional opportunities for open space but also allow for large-scale restoration of dunes and beach renourishment projects. However, development of this type of a beachfront acquisition program may prove controversial and funding may prove to be very competitive.

NR-5.3 Promote Preservation and Creation of Open Space through Development and Planning Tools

Open space can most successfully be retained and protected if the City actively promotes planned conservation development for larger tracts and proactively encourage developers who embrace this philosophy. The City should require new development to provide generous public and natural resource open space dedications and promote habitat restoration and resource conservation Island-wide. In urban areas, plans and regulations should consider the historic and traditional form, character, and pattern of development, and focus on the creation of biking and walking trails linking open spaces, pocket parks, larger community parks, and open space corridors in less developed areas. Outside of the Urban Core, using tools such as Planned Conservation Development regulations, the City should encourage open space to be aggregated, interconnected, and offer multiple benefits, including ecosystem function and view corridors to the beach and bay. Incentives can be provided for dedicating land as parks, scenic areas, natural preserves, and trails.

To encourage conservation of private lands and promote more resource sensitive forms of development, the City should:

- As called for in the Land Use and Community Character Element, include new Planned Conservation Development regulations within the land development regulations and reference the resource inventory prepared as part of the Open Space Preservation Program.
- Encourage participation in the Texas Wildscapes certification program offered by the TPWD. Texas Wildscapes is a habitat restoration and conservation program for rural and urban areas that encourages residents to contribute to wildlife conservation. The program offers advice on

Illustration from East End Lagoon Preserve Master Plan depicting the proposed Environmental Education Center.

planting and maintaining native vegetation, creating water sources such as birdbaths and ponds, and other actions designed to create places for birds, small mammals, and other wildlife to feed and drink, escape from predators and raise their young.

NR-5.4 Implement the East End Lagoon Preserve Master Plan

The City has completed the master planning process to for the 686-acre East End Lagoon Preserve. Located on the eastern tip of the Island, the 686-acre preserve is situated along the Houston Ship Channel at the mouth of Galveston Bay. The site is home to a wide array of wildlife habitats such as salt marshes, intertidal flats, coastal prairie, and beach dunes that support a diverse collection of plant and animal species. The area boasts historical, cultural, and natural significance to the Island. The City should implement and continue to update the *East End Lagoon Preserve Master Plan* as necessary.

NR-5.5 Work with Non-Profit Conservation Partners

To accomplish its open space goals, it is critical for the City to establish and maintain a cooperative working relationship with one or more non-profit organizations involved in land conservation on the Island or in the region. There are a number of reasons why the City should consider working with such non-profits to preserve open space. First, non-profits can bring speed, flexibility, and creativity to negotiations with landowners, while being perceived as friendly negotiating participants without the stigma of government. Non-profits also provide vehicles for donors to make gifts of land or cash to facilitate an acquisition. Finally, non-profits can provide manpower to accomplish preservation, such as drumming up public support for projects, launching a successful campaign for acquisition funds, or maintaining preserved properties.

Several non-profit organizations, including those listed below, could become the City's partners in open space preservation, depending upon the resources involved:

- Scenic Galveston has experienced considerable recent success in protecting and managing natural habitat areas in the John M. O'Quinn I-45 Estuarial Corridor.
- The Nature Conservancy of Texas could perhaps have a conservation interest in lands that are important habitat areas, or that buffer such areas, such as critical habitat or important bird nesting or wintering grounds.
- The Trust for Public Land (TPL), which has protected over 18,000 acres of land in Texas, works with landowners, government agencies and

community groups to create open space systems. TPL has also recently completed the West Galveston Island Greenprint for Growth study, which the City should review and consider for further implementation.

- The Galveston Bay Foundation (GBF) was founded to preserve, protect and enhance Galveston Bay. GBF's nationally-recognized, community-based habitat restoration program, called "Marsh Mania," has involved thousands of citizen volunteers and restored hundreds of acres of wetlands over the last nine years.
- Other groups include but are not limited to: the Artist Boat, the Galveston Island Nature Tourism Council, West Galveston Island Property Owners Association (WGIPOA), the Lafitte's Cove Nature Preserve, Friends of Galveston Island State Park, the Coastal Beach and Bay Foundation, the Cabeza De Vaca Center, and Audubon Texas.

NR-5.6 Align Existing Plans and Programs with Open Space Preservation Program

The City has various plans and programs that incorporate open space initiatives into their goals, including the Height and Density Development Zone, Tax Increment Revinvestment Zone #12 (TIRZ #12) Master Plan, the H-GAC/City of Galveston hike and bike plan, and the Renaissance Zone walking trails. As the Open Space Preservation Program is developed, the City should integrate the open space areas identified in these existing and future plans, as well as the overall adopted goals.

NR-5.7 Determine Appropriate Maintenance and Management of Open Space

As part of its Open Space Preservation Program, the City must consider the appropriate long-term maintenance and management of the Island's open space network. The City should take the following actions:

- Evaluate the options for management responsibility of open space in planned conservation developments and the City's open space network, including homeowners' associations; one or more individual landowners; the City of Galveston; or a non-profit land trust.
- Develop long-term strategies for open space management that consider the following issues: possible user fees; partnerships with non-profit organizations; open space responsibility by developers; cost/benefit analysis for maintenance of open space; and planned giving.
- Designate a City staff member to coordinate and oversee the management and maintenance of properties located within the identified open space network. This staff member will organize all maintenance efforts between the varying entities.

- Commit adequate maintenance staff and budget to properly maintain the existing open space as well as any potential site for City acquisition.
- Clarify joint maintenance agreements between the City's Parks and Recreation Department, the Park Board of Trustees, and the Galveston Independent School District (GISD) for maintenance of public areas.

OBJECTIVE NR-6. PROTECT NATURAL RESOURCES FROM THE EFFECTS OF HUMAN INTERACTION AND RECREATIONAL USE

The City of Galveston is fortunate to have numerous natural areas available for recreational use, including beaches, bay marshes, parks, trails, and various waterways. However, some users to do not respect the Island's natural areas, leaving behind trash or damaging the sensitive environmental resources. This can include destroying dunes, using motorized watercraft through sensitive wetland areas, or disturbing the natural habitats of island wildlife.

To educate the public on the importance of the barrier island environment, a large, public educational campaign should be pursued.

Currently, the City's Parks and Recreation Department oversees public parks and right-of-way areas. The Park Board of Trustees oversees beaches and pocket parks. Other natural resources managers include the federal and state governments, non-profit organizations, and private property owners. The City should work cooperatively with partners to ensure that all of Galveston's natural resources are protected from any negative effects of human interaction and are available for future generations to enjoy.

NR-6.1 Create Educational Programs to Teach the Importance of a Barrier Island's Natural Environment

Barrier islands have unique ecosystems that are very different from other mainland areas. The different natural resource areas are dynamic and responsive to one another. To educate the public on the importance of the barrier island environment, a large, public educational campaign must be pursued. The campaign should consider the following methods to educate the residents and visitors to the Island:

- University/public/private school interaction;
- Public/private projects with conservation non-profit groups;
- Information fliers and brochures;
- Continued attendance at neighborhood association meetings, as requested;
- City website;
- Special broadcasts on Channel 16;
- Information videos with tour companies and the cruise lines;
- Public signage program; and
- Partnerships with existing educational programs.

NR-6.2 Improve Coordination Between Various Public and Private Entities for Management of Natural Areas

As mentioned previously in this Element, the City must work cooperatively with its natural resources partners to maximize efforts to manage and maintain natural areas. It may be appropriate to develop a task force or special interest working group to determine the various jurisdictions for responsibility and coordinate efforts to maintain the natural areas of the Island. The City should take a leadership role in pursuing this cooperation between the various entities and developing a coordinated management plan for natural and recreational areas.

NR-6.3 Improve Litter Control and Code Enforcement in Publicly-Managed Natural Areas

One of the greatest challenges for the management of natural recreation areas and use by the public is litter. Although trash bins may be provided, many visitors to these areas choose not to utilize these facilities. The trash is then transported via wind or water into the Island's natural system, which can prove very damaging to the resources themselves as well as any wildlife in the area. The City must actively seek to provide adequate receptacles for these areas, as well as enforcement personnel to ensure adherence to regulations.

Actions the City should consider are as follows:

- Increase enforcement of existing codes.
- Fund additional staff and vehicles, including the Parks and Recreation, Police, Public Works, and Code Compliance departments.
- Explore public-private partnerships for clean-up in sensitive areas.
- Determine federal and/or state jurisdictions relating dumping/trash in water.
- Consider adding recycling facilities to City parks and recreation areas.
- Pursue additional resources from Park Board of Trustees, federal and state marine debris programs, and the Wharves Board.
- Add trash facilities at bus stops and other public areas.
- Review ordinances to include public trash receptacles in all public open space areas.

NR 6.4 Encourage and Maintain a Sustainable Urban Ecosystem

Cities, towns, and other developed areas form dynamic ecosystems that mimic the functions, interactions, and behavior of natural ecosystems. However, unlike natural ecosystems, urban ecosystems are a hybrid of natural and artificial elements on a regional scale. Urban ecosystems usually incorporate

remnants of the natural systems into parks and waterways. The interaction of the natural and built environment is also affected by culture, personal behavior, politics, economics, and social organization.

Unhealthy urban ecosystems can lead to environmental degradation, social problems, economic decline, human health problems, and a further disconnection from nature. To create a sustainable urban ecosystem, a dynamic balance and integration of the natural, built and socio-economic functions must be achieved. A sustainable urban ecosystem will have a reduced impact on the environment and will be a pleasing place to live with controls to prevent overbuilding. As part of a Sustainability Plan described later in this Element, the City must address local issues to support a healthy urban ecosystem.

OBJECTIVE NR-7. INCORPORATE SUSTAINABLE PRACTICES TO IMPROVE LIVABILITY AND PROTECTION OF THE INTEGRITY OF THE ISLAND'S NATURAL RESOURCES

To further the community's sustainability goals, the City should evaluate and consider implementation of a wide range of conservation, energy efficiency, greenhouse gas reduction, and low impact development practices. Incorporating sustainable practices in City programs and initiatives can help advance objectives to improve livability, encourage resource conservation, improve environmental and public health, increase resilience, and bolster efforts to improve the economy. While full implementation may take time, through a few simple changes, the City can make great strides in reducing the community's carbon footprint as well as vulnerability in the event of a natural disaster. The actions and strategies described below focus on measures the City can pursue to produce more sustainable practices.

NR-7.1 Develop and Implement a Sustainability Plan

As recommended in the *Hazard Mitigation Plan*, the City should create a Sustainability Plan that provides goals and objectives for City government and all sectors of the community to achieve a sustainable community. The Sustainability Plan should provide a framework for decision-making and provide measurable objectives to monitor success. Santa Monica, CA and Charleston, SC have well-established and successful plans that could serve as examples. The Sustainability Plan should address:

- Local issues related to healthy urban ecosystems including conservation development standards, promoting green roofs, increasing community parks and open space, encouraging backyard habitat development, and methods to increase the urban tree canopy;

- Financial incentives, such as waived permit fees or expedited permit review, for sustainable development as described in the Housing and Neighborhoods Element; and
- Housing issues such as green building standards for new residential construction, improved energy efficiency for existing houses, and sources of alternative energy sources as described in the Housing and Neighborhoods Element.

NR-7.2 Modify City Policies and Regulations to Promote More Sustainable Practices

The City should assess all existing policies and regulations to determine their compatibility with the sustainability-related goals of the Comp Plan. Actions the City should consider include the following:

- Consider adopting a policy that all new City buildings meet minimum "green buildings" and sustainability requirements, such as those defined under the following or similar certification programs or standards: Leadership in Energy and Environmental Design (LEED), U.S. Green Building Council's Green Building Certification Institute (GBCI), and American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).
- As called for in the Infrastructure Element, implement more sustainable practices for waste disposal and promote water conservation by establishing programs that reward water conservation, minimize water use for irrigation purposes, and build awareness of the importance of conserving water.
- Continue enforcement of the light pollution ordinance and consider requiring the use of more energy-efficient fixtures.
- Review and consider amending City development regulations to incorporate best practices set forth in the American Planning Association (APA) Policy Guides relating to Sustainability, Smart Growth, and Energy.
- Continue updating local building codes to require healthier consumer products, materials for construction and more energy efficient buildings.
- Seek Best Practices from other coastal communities.

NR-7.3 Improve Landscape Regulations

Increased landscaping provides both aesthetic and environmental benefits. Improved landscaping would enhance Galveston's image as a sub-tropical island. By cooling and shading parking lots, the "heat island" effect of impervious surfaces can be reduced. The City should continue to update the landscaping requirements to emphasize the preservation of established native vegetation and the use of locally native or naturalized, non-invasive plants. The landscaping

To address the loss of trees, including historic trees in the Urban Core, and ensure the preservation of the remaining tree canopy, the Hazard Mitigation Plan recommends that the City should develop a Tree Management Plan and Program.

requirements should create a balance between the desired lush landscaping and water conservation. The City should carry out the following actions:

- Amend commercial landscaping regulations to require low water use, coastal environment plant species, and prohibit invasive species as defined by the TPWD.
- Encourage conversion of existing high- to medium-water demand plants to low-water demand plants through incentives.
- Develop a program to increase public awareness of the benefits of using locally native or naturalized, non-invasive plants.

NR-7.4 Develop a Tree Management Plan and Program

Tree canopy improves air quality, provides shade, protects against erosion, lessens the impact of stormwater, and serves as wildlife habitat. The storm surge associated with Hurricane Ike in September of 2008 resulted in the death and removal of approximately 35,000 trees, which represents an estimated 47 percent loss in Galveston's tree canopy. To address the loss of trees, including historic trees in the Urban Core, and ensure the preservation of the remaining tree canopy, the Hazard Mitigation Plan recommends that the City should develop a Tree Management Plan and Program.

The Tree Management Plan and Program should address the following:

- Provide guidance for Galveston's reforestation and ensure the best possible care for the remaining trees.
- Address tree preservation on the West End and in the Urban Core.
- Establish a clear set of priorities and objectives and address the control and care of trees in the rights-of-way, especially along the City's most important corridors, such as Broadway and 25th Street.
- Identify historic trees to aid in the disaster planning and response process.
- Provide for the development of a Tree Ordinance to address maintenance of existing trees, including those that may be classified as heritage trees, as well as planting additional trees to assist with removal of carbon dioxide and reduction of heat islands.
- Establish an Arborist position to develop and manage the Tree Management Plan as well as the City's replanting efforts.
- Explore participation in national programs such as "Tree City" to help build support for the importance of the City's tree canopy.

NR-7.5 Develop Programs to Educate Citizens on the Importance of Sustainability for the Community

To further support sustainability goals of the community, the public should be better educated about opportunities for "going green." This can include changes to energy use, recycling, water conservation, alternative energy sources, use of public transportation, and alternative choices for consumer products. Through an intensive public awareness program, citizens can be made aware of ways their household can reduce energy and water use, contribute to the improvement of air and water quality, and reduce waste through reuse and recycling. The City should consider similar methods described in NR-6.1 to inform the public of ways the residents and visitors can support the sustainable initiatives of the Island.

NR-7.6 Determine Natural Resource Management Best Practices and Facilitate Better Coordination between City Departments

The City should evaluate the current practices affecting the acquisition and management of open space. The City should consider the following actions:

- Dedicate staff to oversee an Open Space Preservation Program and work with associated departments, such as Public Works, Parks and Recreation, and Planning and Community Development, to determine the best practices for open space acquisition, parks areas, hike and bike trails, and other publically managed natural areas.
- Consider additional staff to help manage and plan for natural resources areas. This may include a landscape architect or arborist in the Parks and Recreation Department, as well as environmental planners in the Public Works and/or Planning and Community Development departments. These staff members should work cooperatively to determine the best management practices for the City and ensure that the acquisition and maintenance of any additional natural resources areas by the City are coordinated.

GALVESTON
TROLLEY
ONE WAY

TRANSPORTATION ELEMENT

INTRODUCTION

With ever rising gas prices, a greater awareness of the importance of sustainability, and rising concerns with air quality, the country as a whole is moving towards less dependence on the private automobile. Galveston is in a better position than other mid-sized cities to respond to decreased automobile use. The City has an established public transportation system, which includes a fixed rail trolley circulator and bus service. The Island is laid out for easy pedestrian access and our terrain and climate make for efficient bicycle transportation.

While Galveston has an existing transportation network and a range of available transportation options, there is room for improvement. There are limited transportation options to the West End and on to and off of the Island. The City should work to ensure mobility for all members of the population and strive to reduce dependency on the private automobile by continuing to increase the number and efficiency of transportation options.

Galveston currently has significantly less dependence on the private automobile when compared to the region, state, and country. Compared to Galveston County as a whole, Galveston has 10 percent fewer commutes by single occupancy automobile. Galveston has 4.4 percent more commutes by foot than Galveston County. Table T-1 compares the modes of transportation used for commuting to work for workers 16 years old or older according to the 2006-2008 American Community Survey by the U.S. Census Bureau:

Table T-1. Commuter Modes of Transportation, 2006-2008.

MODE	CITY	COUNTY	TEXAS	USA
Car, truck, or van -- drove alone	70.1%	80.1%	78.6%	75.3%
Car, truck, or van -- carpooled	12.1%	10.5%	12.4%	10.6%
Public transportation (including taxicab)	2.7%	0.9%	1.7%	4.9%
Walked	6.8%	2.4%	1.8%	2.8%
Other means	5.7%	4%	1.9%	1.7%
Worked at home	2.7%	2.2%	3.6%	4%
Mean travel time to work (minutes)	17.6	25.4	24.9	25.3

SOURCE: U.S. Census Bureau, American Community Survey 2006-2008.

TRANSPORTATION GOAL

Establish the City of Galveston as a Model City for Connectivity, Mobility & Accessibility through Expanded Transportation Links & Choices.

OBJECTIVES

1. *Improve Access to the Island for Our Residents, Commuters & Visitors by Providing Transportation Options*
2. *Improve Mobility & Connectivity of the Island's Intermodal Transportation System*
3. *Partner with Regional Municipalities & Transportation Entities to Further Regional Transportation Goals & Fund Improvements to Develop an Intermodal Transportation System*
4. *Improve Internal City Organization, Policies & Planning to Provide Better Transportation Opportunities*

Table T-2 compares the mode of transportation utilized within the City of Galveston broken down by zip code, using information from the 2000 Census, which is the most current information available at this level of detail. This information shows a significant difference in modes of transportation within the City. The 77550 zip code, located from the eastern tip of the Island to 45th Street, has the greatest variety of transportation modes. The 77550 zip code is the most urban environment and the most conducive to alternative forms of transportation. Transportation choices could be improved west of 45th Street in order to reduce the number of automobile trips.

Table T-2. Transportation Modes by Zip Code, 2000.

MODE	77550	77551	77554
Car, truck, or van -- drove alone	57.6%	73.1%	78.5%
Car, truck, or van -- carpooled	17.7%	18.8%	14.9%
Public transportation (including taxicab)	5.5%	1.5%	1%
Walked	10.4%	2.9%	0.6%
Other means	6.4%	2.2%	1.4%
Worked at home	2.5%	1.6%	3.6%
Mean travel time to work (minutes)	18.2	18.5	27.8

SOURCE: U.S. Census Bureau, 2000 Census.

GOAL

Establish the City of Galveston as a Model City for Connectivity, Mobility, and Accessibility through Expanded Transportation Links and Choices.

OBJECTIVES & STRATEGIES

OBJECTIVE T-1. IMPROVE ACCESS TO THE ISLAND FOR OUR RESIDENTS, COMMUTERS, AND VISITORS BY PROVIDING TRANSPORTATION OPTIONS

As an island community, Galveston has unique transportation challenges including limited access from the mainland for both public and private transit. Currently, there are three points of access to Galveston Island for automobile traffic: the I-45 Causeway, the San Luis Pass Bridge, and the Bolivar Ferry. The only access to the Island for pedestrians or cyclists is by the Bolivar Ferry. Access is also provided by private airplanes and boats. There is limited public

transportation to the Island. The Island is accessible by private car, limited park-and-ride service, and by commercial bus service, including airport shuttles. The City should work to establish a regional transit system, including passenger rail and park-and-ride facilities, to move tourists, business visitors, and residents to and from regional destinations.

T-1.1 Explore Regional Passenger Rail Service

One of the City's highest transportation priorities should be the creation of a public transportation link to the mainland in the form of passenger rail. Galveston should lead the region in promoting passenger rail service. Rail service would reduce vehicle congestion and provide transportation options for residents of the Houston-Galveston region.

Historically, Galveston was connected to Houston and the mainland by passenger rail, but service was halted in 1967. The City and the Houston-Galveston Area Council (H-GAC) have completed several studies to evaluate the potential for reestablishing passenger rail between Galveston and the other Galveston County communities and Houston. In the early 2000s, the Galveston Intelligent Transportation System (ITS) Rail Passenger Demonstration program provided passenger rail service on several holiday weekends from League City to Galveston. The ITS demonstration project was primarily a feasibility study and was used to evaluate the track condition, public acceptance, and logistical issues. The demonstration project was successful in building local and regional support for rail service between Galveston and Houston.

Development patterns that support transit ridership are an essential part to making rail service feasible. Transit-oriented development (TOD) is a development pattern that is designed to specifically support transit and increase ridership of publicly funded transit investments. Key features often include: moderate- to high-density, pedestrian orientation, mixed use, and strong transit connections.

To encourage future development of a regional rail link to Galveston, the City should:

- Ensure City representation at any agencies, such as the Gulf Coast Rail Authority, that are involved in passenger rail.
- Continue to improve and expand the local public transportation system, bicycle paths, and explore the establishment of car-sharing programs. A key component of regional passenger rail service will be providing transportation options for the passengers traveling to and from the rail stations.

- Incorporate TOD regulations into the Zoning Standards. TOD regulations provide a tool for ensuring appropriate development in the vicinity of transportation nodes.
- Support completion of the Galveston-Houston Commuter Rail project.

T-1.2 Expand Park and Ride Facilities

Galveston has a large number of commuters that travel by automobile to the City from the mainland. To reduce the number of automobile trips, air pollution, parking demand, and traffic on our streets, the City should expand its Park and Ride facilities. Currently, the Island Connect service provided by Island Transit offers a transit connection from the Park and Ride facility at the Mall of the Mainland in Texas City and the Island's major employers, such as University of Texas Medical Branch (UTMB) and the Justice Center. The City should partner with other Galveston County municipalities to ensure the success of a Park and Ride program. Other services, such as the STAR vanpool program administered by the Metropolitan Transit Authority of Harris County (METRO), should be promoted and expanded.

T-1.3 Focus on Linkages to Local and Regional Airports

Scholes International Airport (Scholes) is the municipal airport on Galveston Island and primarily serves the off-shore industry, fractural ownership of private planes, the medical community, and the second home market. Helicopter traffic serving the off-shore industry accounts for 80 percent of air traffic at the airport, making Scholes Texas' busiest heliport. Scholes has an *Airport Master Pla*n that outlines the future growth of the airport. William P. Hobby Airport (Hobby), located 42 miles north of Galveston, is the closest commercial airport and handles domestic service and service to Mexico. The City should take the following actions to expand the use of Scholes and improve linkages to local and regional airports:

- As described in the Land Use and Community Character Element, work with Scholes during its update to the *Airport Master Plan* to address development in the overall Airport area and increasing linkages to the overall City of Galveston transportation system.
- Encourage better linkages with Hobby and work to change the name of the airport to include Galveston. Potential visitors to the Island may be deterred by the distance from George Bush Intercontinental Airport to Galveston while not being aware that Hobby is a possible arrival point.
- Ensure that there is a connection to Hobby from the proposed Galveston/ Houston passenger rail. The connection may be by shuttle from the airport to the closest train depot.

› Work with Scholes to develop opportunities to commence passenger service from regional commuter airlines. Other coastal communities, such as Hilton Head Island and Myrtle Beach, have experienced significant growth in quality tourism with the introduction of commuter air service. Commuter airline service is particularly beneficial in competing for higher-spending resort visitors, and it may be even more critical in marketing the Galveston Island Convention Center.

T-1.4 Manage Port, Industrial, and Cruise Ship Traffic

To reduce conflicts between industrial and port-related traffic and other types of traffic, the City should promote transportation improvements that provide separation and sufficient, attractive parking options. The City should anticipate required traffic improvements associated with future industrial and port development, including development on Pelican Island (example: the proposed Port of Houston container terminal). The City should work to identify and plan for the preferred mode of transportation for the associated container traffic-–barge verses trucking verses rail-–well in advance of development proposals.

As called for in the Land Use and Community Character Element, the City should also work to improve conditions and accommodate cruise ship related vehicular and pedestrian traffic along Harborside Drive. The increase in the cruise ship industry has driven a need for associated parking lots surrounding the cruise ship terminal. The parking lots are located along Harborside Drive and have an impact on the appearance of the area. The amount and speed of the traffic coupled with narrow sidewalks on Harborside Drive act as impediments to

The City should also work to improve conditions and accommodate cruise ship related vehicular and pedestrian traffic along Harborside Drive.

comfortable pedestrian movement across Harborside Drive, which is currently a barrier between Downtown and the waterfront.

The City should:

- Explore feasibility of an additional bridge crossing from Pelican Island to the mainland. A new crossing would reduce the amount of industrial traffic on Galveston Island and provide an additional evacuation route. The construction of any new bridge should incorporate pedestrian and bicycle traffic and be of quality design. The new bridge could be funded as a toll road facility.
- If a new crossing is determined not to be feasible, then the City should make improvements to Harborside Drive to accommodate the increased truck load, provide a direct connection from the port to I-45 via Harborside Drive, and raise the roadway to alleviate flooding problems.
- Develop a coordinated plan to provide adequate, attractive and efficient parking for the cruise ship terminal. Surface parking lots should be discouraged in favor of parking structures.
- Work with the Texas Department of Transportation (TxDOT) to improve pedestrian access across Harborside Drive.

T-1.5 Strengthen the Role of the Bolivar Ferry

Connecting Galveston Island to the Bolivar Peninsula, the Bolivar Ferry is a critical transportation link that also serves as a tourist attraction and provides for an interesting gateway to the Island. The ferry provides the only pedestrian and bicycle access to the Island. Historically, there has been a discussion of a possible bridge crossing to replace the Bolivar Ferry. The City should recognize and encourage the varied roles of the Bolivar Ferry and build on its strength by taking the following actions:

- Encourage connectivity with other existing transportation systems.
- Improve access to the ferry by ensuring that Island Transit provides bus service to the ferry landing, extending sidewalks, and establishing bicycle routes.
- Continue to improve land side logistics and efficiency, including increasing service levels to respond to demand.

OBJECTIVE T-2. IMPROVE MOBILITY AND CONNECTIVITY OF THE ISLAND'S INTERMODAL TRANSPORTATION SYSTEM

With greater numbers of workers, students, tourists and residents, plus greater activity in and out of the port and airport, additional demand on the City's transportation system will increase problems of congestion and traffic

conflicts on the Island. The existing transportation options on the Island should be improved and expanded to serve the needs of all residents, commuters, and visitors. By building on the City's strengths of an established public transportation system and efficient street grid pattern, the City of Galveston could encourage increased use of alternatives to the private automobile.

The City should take an active role in coordinating planned roadway improvements with TxDOT to address the access and parking needs of existing and prospective major employers. Additionally, the City should seek to link all modes of transportation with appropriate multimodal opportunities and actively promote transit and other alternatives to vehicular circulation. The City's public transportation system, headed by Island Transit, could be expanded and marketed to all Islanders. By implementing a Complete Street Program and other streetscape improvements, the existing street network could be made friendlier to pedestrians and bicyclists, while reducing automobile congestion.

The City should seek to link all modes of transportation with appropriate multimodal opportunities and actively promote transit and other alternatives to vehicular circulation.

T-2.1 Establish a Complete Streets Program

In an effort to make the City more accessible to residents and visitors and accommodate different transit types, the City should establish Complete Streets policies and an implementation program to retrofit City streets and avenues. Complete Streets principles reinforce the active, intermodal transportation choices made by Galvestonians historically. Walkability, integrated multimodal systems, context sensitivity, safety, and clear paths of travel should be requirements for appropriate streets. The City should set goals to reduce single-occupancy vehicle trips, with a 15 percent modal shift over the next 10 years. As described later in this Element, the City should develop a Thoroughfare and Mobility Plan that identifies potential locations for Complete Street improvements. The City could also update the Subdivision Regulations to provide design standards for new street systems and links on the Island.

T-2.2 Mitigate Congestion

Galveston's roads typically experience heavy daily traffic from residents and commuters, but they are also subject to significant load increases from visitor traffic during the summer months, weekends, and holidays. The City's most heavily trafficked thoroughfares are Seawall Boulevard, Broadway Boulevard, and 61st Street. Seawall Boulevard provides an east/west connection for Island residents and experiences heavy tourist-related pedestrian and vehicular traffic. Broadway Boulevard is the primary access corridor into the Downtown from the mainland. 61st Street serves as the conduit for travel from I-45 to the West End, and can experience significant traffic in the summertime and on holiday weekends. 61st Street is also a major evacuation route for the West End.

Congestion on these streets during peak tourism times can cause difficulties for the mobility of Galveston residents. Facing growing development pressures and providing a safe and efficient thoroughfare system to adequately serve the daily, seasonal, and emergency needs of Galveston Island is a priority.

To reduce or mitigate increased congestion, the City should undertake the following actions:

- Expand the use of ITS to ease congestion and improve the flow of traffic. ITS technologies help manage traffic through surveillance, signal control, lane management, parking management, information dissemination, and enforcement.
- Identify streets that serve as alternatives to Seawall Boulevard to provide efficient circulation and reduce the local perception of Seawall as a transportation thoroughfare, thereby allowing the redevelopment and beautification of the coastal boulevard.
- Consider reducing the speed limit on Seawall Boulevard to increase pedestrian safety while further reducing the local perception of the Seawall as a thoroughfare.
- Reinforce goals of the Broadway Overlay Zone and Broadway Boulevard beautification projects to demonstrate the importance of this corridor as the primary entry to the Island and improve the experience of traveling along this historic avenue by making traffic modifications. The City should study improvements that could remedy the disconnect between Broadway and Downtown, such as modified turning scenarios and signage.
- Identify and make beautification and traffic efficiency improvements along other north-south corridors to stimulate appropriate development and ease pressure on 61st Street and Seawall Boulevard. Some north/south streets could be candidates for this focus because of historic precedence for commercial development.
- Explore options for alleviating traffic on 61st Street, separating local and through traffic, and providing an additional evacuation route. Short-term improvements could include a flyover to connect 61st Street and I-45. Long-term options include additional access points to the West End including a new bridge or water transportation. The connection to the mainland should focus on the Highway 288/35 corridor and the Grand Parkway, rather than I-45.
- Study the feasibility of public or private water transportation between the mainland and Galveston Island, as well as within the Island. For example, a water taxi could provide a link between Moody Gardens and Downtown.

T-2.3 Improve Efficiency and Access to Public Transit

Many Galveston residents depend on public transportation provided by Island Transit. As the City's public transit operator, Island Transit provides fixed route trolley circulator and bus service, a demand-response service, and a park and ride service connecting Galveston and the Mall of the Mainland in Texas City previously described. Island Transit Dial-a-Ride provides curb-to-curb transit service to individuals who cannot, due to disabilities, ride the fixed route service. The current lead time to reserve a Dial-a-Ride trip is one week. The trolley service was halted by Hurricane Ike as the original trolleys were severely damaged and will need to be repaired or replaced. This is an opportunity to increase efficiency by making them lighter and faster than the original trolleys.

The City should study the specific needs of Galveston's population and tailor the programming of transit service to meet those needs.

To enhance Galveston's transit system, including bus and trolley service, and move tourists, business visitors, and residents among local destinations, the City and Island Transit should:

- Ensure that there are regular route schedules and well-designed transit stops.
- Reestablish a Downtown trolley loop to provide service to the Strand and Post office Street.
- Reduce lead time for Dial-A-Ride service to provide more flexibility for riders.
- Study the expansion of bus service to the underserved Pelican Island, West End, and Bolivar Peninsula, and trolley service to the Seawall and East Beach neighborhoods.
- Partner with current and future developers to finance the needed lines, stops, and other initial costs associated expanded service.
- Study the specific needs of Galveston's population and tailor the programming to meet those needs. For example, Island Transit should study how to provide efficient transportation to grocery stores for those neighborhoods that do not have ready access to a full-service grocery store.
- Develop a comprehensive public outreach program that includes printed materials, an enhanced website, more informative signage, and improved shelters. A public education component is critical to the future of Island Transit.
- Expand marketing to visitors and provide multi-day passes that could help to increase revenues, provide safe and reliable transportation to Island attractions, and alleviate traffic around destinations.
- Increase ridership on the trolley through an expanded education program, increasing reliability, and reducing fees.
- Encourage use of alternative fuel vehicles as the fleet ages and needs replacing. The use of hybrid, electric or natural gas vehicles should be

considered for future phasing of fleet vehicles for all City departments, especially those that serve as public transportation.

- Continue to work with partners like UTMB and Island Connect to provide public transportation links to the mainland.
- Work with major employers to encourage alternative forms of transportation for City employees through incentive programs to encourage public transportation, carpooling, walking, and bicycling.

T-2.4 Management of Pedestrian and Vehicular Traffic in Natural Areas

The City needs to determine the jurisdiction by City staff in the Parks and Recreation, Public Works, and Police departments; the Park Board of Trustees; and Galveston Island Beach Patrol for management of pedestrian and vehicular traffic issues in natural areas. Access to sensitive environmental areas should be monitored for compliance with local regulations and to best protect the Island's natural resources. All management groups should determine the most efficient methods to jointly manage traffic issues. Additionally, the City should review and strengthen ordinances to include protection of natural resources from pedestrian and vehicular traffic, including watercraft. Investigate and pursue federal and state programs for managing pedestrian and vehicular traffic in sensitive natural areas.

T-2.5 Protect Neighborhoods from Excessive Cut-Through Traffic

Among the older neighborhoods in Galveston's Urban Core, the intensification of through-traffic is creating safety concerns, contributing noise, and otherwise compromising quality of life. The City should take a leadership role in reducing these factors by directing through-traffic away from neighborhoods, by careful placement of directional and orientation signage, by designation of no truck zones, and by using traffic calming methods to slow traffic speeds in neighborhood areas. As described later in this Element, the City should provide leadership in carefully addressing neighborhood traffic impacts in the Thoroughfare and Mobility Plan.

The City should work to create an Island-wide hike and bike network to provide safe pedestrian and bicycle transport for the length of the Galveston Island and a connection to Pelican Island.

T-2.6 Establish Gateway Treatments at Key Locations

Gateway treatments should be established to provide upgraded development controls at significant intersections and portals, such as I-45, Broadway Boulevard, Harborside Drive, Seawall Boulevard, 61st Street, Ferry Road, and FM 3005. In additional phases, gateway structures can be designed and built that give presence to a district, entrance, or significant place. The City should partner with other civic organizations to develop and install gateway treatments. The Gateway treatments should project an image that the City is clean and well-maintained and be inviting to residents and visitors.

T-2.7 Create a Connected Hike and Bike System

One of the goals identified in the Trust for Public Land's *West Galveston Island Greenprint for Growth* was the creation of an interconnected system of trails, particularly on the West End, where private vehicle transportation is the only option available. The City should work to create an Island-wide hike and bike network to provide safe pedestrian and bicycle transport for the length of the Galveston Island and a connection to Pelican Island. Actions the City should take include the following:

- Reinforce recommendations made in West Galveston Island Greenprint for Growth, through development of a Trail Master Plan and through demonstration of a model pilot project. Initiating the effort towards a goal of cross-island linkage could stimulate interest in further development, and serve as an example of trail construction.
- Seek planning and funding partners to aid in the development of a Trail Master Plan and provide resources for implementation and construction.
- Establish standards for the planning and construction of trails that clearly describe intent, trail placement, impacts, and preferred materials.
- Explore additional trail dedication requirements or incentives for large-scale development projects in addition to the Height and Density Development Zone density bonuses for projects located on a limited number of Island properties that provide improved public trails.

The City should review the current program of public infrastructure to improve and bring up to standard pedestrian sidewalks and street crossings and boost handicap accessibility.

T-2.8 ADA Improvements

The City should review the current program of public infrastructure to improve and bring up to standard pedestrian sidewalks and street crossings and boost handicap accessibility and compliance with the Americans with Disabilities Act (ADA). As a part of this program, the City must aggressively target state and federal funding sources. Also, partnerships with other organizations should be developed to share improvement costs and promote relationship-building.

T-2.9 Wayfinding Signage Program

The City needs to establish a master plan to identify a wayfinding network for visitors and tourists on the Island, while deflecting through-traffic from residential neighborhood streets. This network should be unified for all attractions and eliminate the need for individual signage. The network should be designed around color-coding elements and provide clear directional information. Appropriate sign locations should be coordinated with the respective neighborhood associations. Any new signage program should include a comprehensive review of existing signs and the identification of signs that can be consolidated or removed.

The City should encourage the development of mixed-use, structured parking with active, ground-floor uses when possible to avoid the construction of surface parking lots or overload curbside parking.

T-2.10 Review Parking Requirements

The City should encourage the development of mixed-use, structured parking with active, ground-floor uses when possible to avoid the construction of surface parking lots or overload curbside parking. Paid parking projects can be regulated and required of developers, or constructed by the City to provide service to visitors. Green technologies should be implemented to provide for environmentally safe run-off and to reduce nonpoint source pollution.

The Department of Planning and Community Development should review the parking requirement for new and existing land uses in the Zoning Standards. The number of required spaces should be reduced when appropriate and a maximum number of spaces should be established. The code should be amended to provide an administrative process for parking space sharing and flex programs. The City should add a requirement for bicycle parking spaces as well as automobile parking spaces and a requirement for clear pedestrian pathways within project sites.

T-2.11 Sponsor Special Events to Promote Transportation Choices through Public Education Initiatives

The City should sponsor special events, such as a Ciclovía and Car Free Day, to increase education of the public regarding transportation choices. Ciclovía is a Spanish term, meaning “bike path,” and refers to the temporary closing of a street to automobile traffic to allow use by pedestrians and bicyclists. The movement began in Columbia and has spread around the world. The Seawall or the Causeway would be highly visible locations for a Ciclovía. Car Free Day is another international event that promotes alternatives to car dependence. Car Free Day is held annually on September 22.

OBJECTIVE T-3. PARTNER WITH REGIONAL MUNICIPALITIES AND TRANSPORTATION ENTITIES TO FURTHER REGIONAL TRANSPORTATION GOALS AND FUND IMPROVEMENTS TO DEVELOP AN INTERMODAL TRANSPORTATION SYSTEM

The City must partner with regional municipalities and transportation entities to further the transit goals of all parties. This may include public/private partnerships with such organizations as H-GAC, Bay Trans, and METRO. Galveston has a significant number of state highways located throughout the community. This requires TxDOT funding of projects, which is a very competitive process for the Houston-Galveston region.

T-3.1 Partner with TxDOT

TxDOT manages many of Galveston's main roadways – including Broadway Boulevard, 61st Street, Harborside Drive, Ferry Road, FM 3005, and some portions of Seawall Boulevard. The City should continue to partner with TxDOT on transportation improvements for these important corridors. The City should also work with TxDOT in the exploration of additional projects on Galveston Island, including the 61st Street and Harborside Drive connections with I-45 and a Pelican Island connection to the mainland, described earlier in this Element. The City should seek TxDOT funding for multimodal transportation projects that will facilitate more pedestrian and bicycle traffic.

T-3.2 Partner with Houston-Galveston Area Council

H-GAC is the regional, voluntary association of local governments in the 13-county Gulf Coast Planning region of Texas. H-GAC'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. As the regional Metropolitan Planning Organization (MPO), one of H-GAC's key governmental services includes transportation planning and development of the region's *Long Range Transportation Plan* (LRTP).

H-GAC provides invaluable assistance with transportation issues to local governments and it is important that City staff and City Council continue to have an active role with H-GAC. The City should maintain and staff a seat on the MPO's Transportation Policy Council. The City should take advantage of all appropriate H-GAC programs, including the Subregional Planning Initiative (SPI). H-GAC's SPI process would provide the City and surrounding communities with an integrated land use and transportation plan. The planning process integrates local plans, creates an implementation toolbox, and aligns projects with funding sources.

T-3.3 Partner with Galveston County

Galveston County provides services in the unincorporated areas of the county and is a valuable transportation partner for the City. The County and City should work together to provide more transportation options between Galveston Island and the other areas of Galveston County. The City should continue to work with the newly-formed Galveston County Urban and Rural Transit District to expand transit choices county-wide.

The City should also partner with the County to encourage alternative forms of transportation for their employees through incentive programs to encourage

the use of public transportation, carpooling, walking, and bicycling. By reducing the number of automobile trips generated by its own employees, the County would be reducing air pollution and traffic.

T-3.4 Partner with METRO

METRO is the public transportation entity for the Houston region and evolved from providing only bus service to today's multimodal transportation system. METRO has implemented successful bus, park-and-ride, and light-rail systems that can serve as a models for Galveston. The City and Island Transit should partner with METRO to achieve the region's transportation goals. The City should actively work with METRO to achieve its goals, while maintaining its authority over Galveston Island transportation.

OBJECTIVE T-4. IMPROVE INTERNAL CITY ORGANIZATION, POLICIES, AND PLANNING TO PROVIDE BETTER TRANSPORTATION OPPORTUNITIES

While there are physical changes that the City of Galveston could implement that would improve the transportation system, there are also organizational changes and new policies that could have a positive impact. The City of Galveston should be setting an example for other employers by encouraging alternative modes of transportation for its employees. By strengthening the role of City boards such as the Intermodal Transportation Committee (ITC), the City would be providing the public with a voice in making sound transportation decisions.

The City must also continue to develop and implement plans for transportation system improvements. This includes continued funding and implementation of the Capital Improvement Program, with specific emphasis on roadway and infrastructure improvements. Additionally, the City should consider the development or updates to specific plans focused on transit and transportation related programs.

T-4.1 Improve City of Galveston Structure

There are several opportunities within the City's organizational structure for changes related to transportation planning. The City's ITC should be restructured to provide the citizens of Galveston with an opportunity to provide their input into transportation related decisions. Currently, the ITC serves as the review board for the Mobility Plan and other Department of Public Works' projects. The City should expand the role of the ITC and clarify the specific roles of other City committees and City departments in the transportation planning

and implementation process. Actions the City should take include:

- Clarify and expand the role of ITC to include the review of proposed transportation-related Tax Increment Reinvestment Zone (TIRZ) projects and other public/private partnership infrastructure improvements. The ITC should review projects to ensure that the projects conform to the transportation goals of the community.
- Clarify the roles of the individual TIRZ committees regarding traffic decisions.
- Hire a Traffic Engineer in the Public Works Department who would oversee the development and implementation of the Thoroughfare and Mobility Plan described later in this Element, coordinate with the ITC, and implement a Complete Streets Program described previously.

T-4.2 Ensure Appropriate Use of Public Rights-of-Way

The City is the steward of our public rights-of-way, which include streets and sidewalks. The Planning Commission serves as the review body for requests from the public to purchase (called abandonment) or use the right-of-way through a lease agreement called License to Use (LTU). The City Council has final decision-making authority for abandonment requests. Often these requests are driven by a desire to use the right-of-way for personal gain. The City has a duty to balance the desires of private individuals with the protection of the public land.

For abandonment requests in the Urban Core, the Planning Commission and City Council should consider the importance of retaining Galveston's grid pattern. The grid pattern was established in 1838 by the Galveston City Company and has been the most important factor in shaping the City's physical appearance. Due to the importance of the grid, the Landmark Commission should explore protection of the grid through the Galveston Landmark program. The ITC has passed a Resolution recognizing the importance of the grid as a component of the City's transportation system. The grid provides views and access to Gulf breezes for Urban Core residents. Continued public access to bodies of water should be a consideration in the abandonment process. No rights-of-way that provide public access to bodies of water should be abandoned.

As part of the land development regulation update, the LTU process should be reviewed and streamlined. Uses of the right-of-way that serve a clear public purpose should be handled through an administrative process, similar to the current Temporary LTU processes. An example of clear public purpose would be the addition of street furniture, such as outdoor restaurant seating, in the downtown area. The addition of outdoor seating can help enliven the

streetscape and improve the quality of life. The City should help facilitate such appropriate use of the public right-of-way by establishing citywide design and placement standards that may be administered by staff.

T-4.3 Develop a Thoroughfare and Mobility Plan

To ensure that Galveston's transportation system best serves our current and future needs, the City should develop a coordinated Thoroughfare and Mobility Plan that provides analysis of background conditions and possible alternatives necessary for informed decision-making.

The Thoroughfare Plan would be a planning document that guides the City's departments and City Council in the decision-making process for transportation-related issues of the present and into the future. The purpose and intent of a Thoroughfare Plan is:

- To create a functional classification system of roadways;
- To identify transportation problems and recommendations;
- To anticipate future growth in coordination with the proposed land use map and recommend necessary roadway connections;
- To review other modes of transportation; and
- To review public and private funding sources that may be used to fund transportation system improvements.

Galveston's Thoroughfare Plan should address all of the above as well as the following areas:

- Multimodality – all modes of transportation should be considered, not just the private automobile;
- Complete Streets policies, as described earlier in this Element;
- Sidewalk improvements;
- A technology component to address Intelligent Transportation Systems;
- Tourism areas;
- Special event traffic issues;
- Consolidation of the existing Seawall plans into one document; and
- Hazardous materials routes.

Last updated in 2004, the Galveston Island Five-Year Mobility Plan provides a framework for decision makers and planners to pursue funding, and implement priority transportation improvements to enhance access to and mobility within Galveston. In conjunction with the development of the Thoroughfare Plan, the City should update the Mobility Plan, which should function as the implementation portion of the Thoroughfare Plan. The ITC should continue to implement the Mobility Plan and update both plans as necessary.

T-4.4 Update the Capital Improvement Program

Prepared by the City's Department of Public Works, the City's Capital Improvement Program (CIP) provides a work plan for capital improvement needs based on current knowledge of infrastructure and basic utility system needs. The CIP outlines proposed projects and related cost estimates and funding sources. As required by the City Charter, the City should continue to update the CIP on a yearly basis.

T-4.5 Develop Traffic Design Standards

To ensure that all traffic projects, including new signage programs, new signals, and infrastructure improvements, are done to the highest aesthetic standard, the City should develop a Street Design Manual. The Manual should outlines technical design details for roadways, sidewalks, trees, lights, and benches to help make the City friendlier to pedestrians and bicyclists. Other cities with such guides that could serve as models include Chicago, Portland, New York, San Francisco, and Washington, D.C.

FREIGHTLINER
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INFRASTRUCTURE ELEMENT

INTRODUCTION

To sustain the existing development and support future needs within the City of Galveston, adequate infrastructure must be provided. The City operates and maintains the systems which provide potable water, sanitary sewer, solid waste disposal, and stormwater management. Private utility agencies provide electrical, natural gas, cable, internet, and cellular communication services. All of these systems need to be hardened to improve resistance and resiliency for future disaster events. Any improvements to the City's infrastructure must be done in a sustainable and environmentally-sensitive manner.

GOAL

Ensure that All Infrastructure Elements Meet Existing and Projected Demands in a Manner Which Will Minimize Environmental Impacts.

OBJECTIVES & STRATEGIES

OBJECTIVE I-1. PROVIDE POTABLE WATER SERVICES TO MEET THE NEEDS OF CURRENT USERS AND FUTURE DEMAND IN A MANNER WHICH WILL MINIMIZE ENVIRONMENTAL IMPACTS

Ensuring sustainable sources of potable water to serve long-term needs is a growing challenge for Texas communities. Currently, the City receives its potable water from the Gulf Coast Water Authority's (GCWA) Thomas A. Mackey Water Treatment Plant in Texas City, Texas and holds water rights to the Chocolate Bayou System in addition to those held on the City's behalf by GCWA. The City also owns wells on the mainland, in the Alta Loma/Santa Fe area. However, significant capital investments will be required to fully utilize these sources. Potable water is brought to the City through two existing waterlines that run in and on the railroad bridge that connects Galveston Island to the mainland. A third water main, constructed in 1894, crosses the West Bay underground, but is not currently in service. The City must ensure that it

INFRASTRUCTURE GOAL

Ensure that All Infrastructure Elements Meet Existing & Projected Demands in a Manner Which Will Minimize Environmental Impacts.

OBJECTIVES

1. *Provide Potable Water Services to Meet Needs & Minimize Environmental Impacts*
2. *Protect the Health & Welfare of the City by Improving the Functionality & Dependability of the Storm Drainage System Throughout the Island & Minimizing Flooding*
3. *Provide Sanitary Sewer Services to Meet Needs & Minimize Environmental Impacts*
4. *Develop Innovative & Proactive Programs to Promote Reduction of the Solid Waste Stream*
5. *Ensure Adequate, Sustainable Services Exist to Support Planned Development*
6. *Enhance & Strengthen Infrastructure to Ensure Continuity of Service & Quick Recovery from Disasters*

has sustainable water sources and an adequate distribution system to support future demand.

Prior to Hurricane Ike, the City of Galveston's usage of water during non-peak months was approximately 15 million gallons per day (MGD) and approximately 22 MGD during the peak months. Water usage was reduced after Hurricane Ike to a non-peak usage of approximately 10 MGD. The public drinking water system is, in parts, over 100 years old. The system provides drinking water to the entire Island including approximately 25,000 residences.

The City has several existing plans related to water supply, distribution, and conservation. In 1999, the City prepared a *Water Master Plan* to address supply, storage, and transmission for the future of the Island. Many of the recommendations have already been implemented. The City adopted a Water Conservation Plan in 2009 to plan for ways to reduce water consumption, explore reuse of gray water, and implement a drought contingency plan. Recently, the City commissioned a consultant to prepare an Alternate Capacity Requirements Study that meets the requirement of the TCEQ. The City should continue to explore ways to reduce dependency on mainland water sources and explore alternative sources for the City's water supplies in times of emergency.

I-1.1 Maintain City's Water Sources

Water is becoming a scarce commodity. As previously described, the City of Galveston owns few of its own sources of water. The majority of the City's potable water is purchased from the GCWA, which is the major supplier of water to all of Galveston County. The City of Galveston owns very old (senior) water rights in the Brazos River. These rights were conveyed to the GCWA for oversight when the City transitioned from the City of Houston to the GCWA in 2002. With the increased demands on the region's water supply from development pressures on the mainland, the City should take the following actions:

- Maintain long-term water contracts to ensure Galveston's continued water availability.
- Continue serving on the board of the GCWA to ensure Galveston's interests are represented. The City should continue to make the GCWA representative a City employee in order to ensure continuity between administrations.

I-1.2 Encourage Water Conservation

Given its dependence on off-Island sources for potable water, the City should take a strong leadership role in establishing water conservation goals and promoting public and private conservation programs and initiatives. Simple changes in the ways Island residents use water can result in significant reductions in consumption. For example, according to published estimates, if residential consumers were to install efficient water fixtures and inspect for leaks regularly, daily per capita water use could be reduced by up to 35 percent.

The City should take a strong leadership role in establishing water conservation goals and promoting public and private conservation programs and initiatives.

To reduce overall demand and limit reliance on off-Island sources, the City should focus resources in the following areas: 1) promoting conservation among Island consumers; 2) reviewing City water use practices and preparing conservation measures; 3) exploring alternative methods for obtaining potable water rather than solely relying on mainland facilities.

Actions the City should take to achieve water conservation goals include the following:

<u>Water Conservation Policies and Incentives</u>

- Continue implementation of the City's Water Conservation Plan that was modeled from state guidelines.
- Revise the City's water and sewer rate structure to more equitably distribute system costs based upon standby demand. Prepare an ascending block rate such that reasonable usage with appropriate conservation restraint is financially rewarded and overuse requires higher payment.
- Evaluate water rates to ensure that they are sufficient to encourage water conservation and maximize water use efficiency.
- Consider instituting peak usage rates and develop programs that reward water conservation.
- Further refine the existing TCEQ-required Water Conservation Ordinance to reflect the variable nature of the City's population by requiring more strict guidelines for weekends, including Fridays.
- Establish a water quantity budget for City water use and, facility-by-facility, convert to low water use plants, extend treated effluent where possible, switch plumbing fixtures to low consumption fixtures, and install rainwater catchment systems for primary irrigation.
- Consider full-time voluntary water conservation measures from the 3rd Monday in May to the 2nd Monday in September. If this provision is determined to be less than optimally effective, consider implementing full-time first-stage required conservation for this period.
- Consider requiring new construction to have adequately-sized rainwater catchment systems to serve as the primary source of irrigation water.

- Where practical, the City should maximize beneficial use of treated sewage effluent in lieu of appropriate potable water usage such as irrigation and wash-down water.
- Explore direct reuse of wastewater treatment plant effluent for irrigation. This would require the installation of the distribution system enabling the use of 5 to 10 million gallons of water per day.

Public Education and Awareness

- Create and implement a water conservation awareness program. Such a program should include a public relations campaign using informational brochures, the City website, and the municipal TV channel to promote best practices.

I-1.3 Explore Alternative Water Sources

The City should identify new water sources to serve growing demands and secure emergency sources of water. Potential sources include desalination of seawater from the Gulf of Mexico or brackish ground water from below the bay, or aquifer storage and recovery (ASR) wells.

A Galveston desalination plant could have several advantages. First, a desalination plant would provide a safe, secure water source for Galveston, allowing relief from increasing water costs, shortages due to drought, and increased upstream demand. Second, the additional water provided by the facility will allow Galveston to become an exporter of potable water, generating a stable income for the Island. Coupling this project with its own solar or wind generator could reduce the long-term operating costs and help Galveston meet sustainability goals. The creation of a desalination plant supports the community vision of a resilient, sustainable water source that will create an independent Galveston.

However, the cost and feasibility of open sea water desalinization remains a challenge. Desalination costs approximately $2.85-3.00 per 1,000 gallons compared to current City costs of $0.61 per 1,000 gallons. Additionally, estimates in 2010 for facility construction costs ranged from $5.50 and $7.00 per gallon of capacity. This would equate to a construction cost ranging from $137 million to $175 million. Another possible challenge includes potential legal challenges to the City using open sea water for desalinization. A viable option might be the desalinization of brackish ground water from wells that could be drilled in the bay between Galveston and the mainland.

The City is also looking at aquifer storage and recovery (ASR) as another option for an emergency source of water. This process entails taking the excess water

that is produced in Texas City and placing it in the aquifer for retrieval at a later date. ASR requires well fields to be in operation. This is a relatively new technology to Texas but has been used extensively in other parts of the country. Texas City currently has a test ASR well.

At this time, the City should take the following actions:

- Investigate the future use of water desalination technology for future potable water needs.
- Consider supporting a regional planning effort to explore water desalination.
- Continue to explore ASR as a possible water potable source.

OBJECTIVE I-2. PROTECT THE HEALTH AND WELFARE OF THE RESIDENTS OF THE CITY BY IMPROVING THE FUNCTIONALITY AND DEPENDABILITY OF THE STORM DRAINAGE SYSTEM THROUGHOUT THE ISLAND MINIMIZING FLOODING DURING ROUTINE STORM EVENTS

The City is currently exploring ways to better manage stormwater run-off, minimize localized flooding, improve surface water quality, and incorporate best practices to comply with state and federal requirements. The City's proposed program will address stormwater retention systems that collect runoff from specific sites, store run-off in retention systems, and manage discharge into the storm sewer system. Well-designed stormwater retention systems, composed of "soft" structures such as ponds, swales or wetlands or "hard" drainage structures, such as pipes and concrete channels, can reduce the demand on the storm sewer system during rain events.

The City completed a Stormwater Master Plan (SWP) in 2003 that provides baseline data citywide with conceptual recommendations. Subsequently, in 2004, the City was divided into four areas and more detailed studies and Master Plans were developed. The City should continue to implement the Stormwater Master Plan and address stormwater discharge, ensure the storm sewers are maintained, and appropriate drainage and fill placement strategies are utilized.

I-2.1 Finalize and Adopt Ordinance Addressing Stormwater Discharge

The City should finalize and adopt an ordinance to regulate discharges to the municipal separate storm sewer system as required by federal and state law. A draft ordinance has been prepared that establishes methods for controlling the discharge of pollutants into the municipal separate storm sewer system

The City should address factors such as a wind driven sand, yard debris, lack of curbing, unpaved alleys, erosion at construction sites, and the cleanliness of the gutters.

in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) and Texas Pollutant Discharge Elimination System (TPDES) permit process. The ordinance is designed to: regulate the discharge of pollutants to the municipal storm sewer system; prohibit illicit connections and discharges to the municipal system; and establish legal authority to ensure compliance. Refer to Natural Resources Element for additional information regarding compliance with TPDES program requirements.

I-2.2 Ensure Storm Sewer System Maintenance

As a result of Hurricane Ike, significant deposits were left in the storm sewer system causing a reduction in the capacity of the pipes and creating greater recurrences of flooding problems. As described in the Natural Resources Element, debris is also a source of non-point source contamination and affects water quality. In 2010, the City undertook a system-wide cleaning of the storm-related deposits with assistance from FEMA. The City continues to clean the system on a recurring basis. It takes City staff approximately five years to clean the system. While the flooding associated with Hurricane Ike deposited debris in the storm sewer system, there are other ongoing factors that allow debris to enter the system. The City should address these factors such as a wind driven sand, yard debris, lack of curbing, unpaved alleys, erosion at construction sites, and the cleanliness of the gutters.

The City should take the following actions:

- Allocate funding to ensure that the newly-cleaned storm sewers are maintained and regularly cleaned.
- Design any new or replacement storm sewers to facilitate the ease of maintenance.
- Ensure new projects and maintenance of projects identified in the Stormwater Master Plan meet the water quality objectives identified in the Natural Resources Element.

1-2.3 Regulate Drainage and Fill Placement

Raising property using fill materials can have an adverse impact on surrounding properties. If the area to be filled is at an elevation that is the same as the adjacent area, then there are generally no drainage issues. However, if the fill elevation is higher than the adjacent properties, then care must be taken to minimize drainage issues. The City has recently adopted new standards regarding retaining walls, but additional regulations regarding private stormwater retention systems and fill placement are needed. The City should:

- Consider new regulations to require stormwater retention systems and to address the impact of fill on surrounding properties.
- Encourage the use of "rain gardens," (landscaped areas that hold water until it can be absorbed into the ground and rainwater harvesting systems.
- Continue to investigate solutions for properties that have been raised using fill.

OBJECTIVE I-3. PROVIDE SANITARY SEWER SERVICES TO MEET THE NEEDS OF CURRENT USERS AND ANTICIPATED FUTURE DEVELOPMENTS WITHIN THE CITY LIMITS IN A MANNER WHICH WILL MINIMIZE ENVIRONMENTAL IMPACTS

The majority of the Island served by water service is also served by sanitary sewer service. The City of Galveston operates five wastewater treatment plants: the Main Wastewater Treatment Facility, the Airport Wastewater Treatment Facility, the Terramar Treatment Facility, the Pirates Beach Wastewater Treatment Facility, and the Seawolf Park Wastewater Treatment Plan. The wastewater plants have a treatment designed capacity of approximately 15 (MGD).

Prepared in 1999, the City's Wastewater Master Plan plans for the provision of wastewater collection, pumping, and treatment facilities to serve the future growth and development of the Island. Area specific planning was later completed to plan for specific expansion of service to unserved areas of the Island. A major program to plan and construct wastewater facilities on the far west end of the Island was underway prior to Hurricane Ike and many of the unserved areas were provided with service with the exception of an area from Jamaica Beach to approximately 4 miles west.

The remaining unserved portions of the Island utilize on-site disposal systems that can fail and affect water quality. The City should take measures to reduce the number of failing systems. To reduce the costs associated with wastewater treatment and increase the potable water supply, the City should explore potential uses for gray water, including irrigation and industrial purposes.

I-3.1 Reduce the Use of On-Site Disposal Systems

As described in the Natural Resources Element, failing on-site wastewater disposal systems, or septic systems, are significant non-point source of water quality contamination. The City should continue to expand the sanitary sewer system to cover the entire Island. The total elimination of on-site disposal systems on the Island should continue to be one of the City highest priorities.

The City should develop and adopt policies that clearly outline the approach to the elimination of on-site disposal systems, including extension of central sewer service.

The City should take the following actions to help to reduce water quality contamination as a result of on-site disposal systems:

Policy Clarification and Regulatory Authority

- Develop and adopt policies that clearly outline the City's approach to the elimination of on-site disposal systems.
- Take required steps to get the Texas Commission on Environmental Quality (TCEQ) to switch regulatory authority over on-site disposal systems from the Galveston County Health District to the City.
- Consider a moratorium on the use of on-site disposal systems for new residential units (exclusive of new residences on previously platted lots).
- Develop policies to prohibit the subdivision of property where City sewer service is not available, prohibit the issuance of any city permit to a structure in violation of system permits, or add requirements to switch to City sewer service.

Central Sewer Service Extension and Connection Requirements

- Extend central sewer service where practicable to existing developed areas that currently rely upon on-site wastewater treatment and disposal.
- For on-site disposal systems installed before 2002, the City should require owners to transfer service to City sewer within 90 days of central sewer service availability and should terminate water service to customers who do not connect within one year after central sewer service availability.
- For on-site disposal systems installed after 2002, the City should encourage owners to immediately switch to City service. For systems less than 20 years in age that meet applicable performance standards, owners should not be required to switch to City sewer for ten years.

- Require, at a minimum, owners of lots vacant at the time sewer becomes available to pay a "pro-rata" share of the sewer installation cost at the time a building permit is requested for construction. Consider requiring those receiving sewer that already have existing homes to pay their pro-rata share of sewer installation.

Registration and Maintenance of Existing Systems

- Establish a program that requires the registration and annual permitting of septic systems and includes standards for routine maintenance, minimum performance, and inspection.
- For systems not meeting minimum performance standards, require repair or replacement in accordance with required guidelines.
- Explore the feasibility of requiring on-site disposal system certification and upgrades (if necessary) upon sale or transfer of a property.

Alternative Designs for New and Replacement Systems

- Work with the state and county to identify innovative waste disposal systems that could be used for marginally suitable home sites in rural areas of the Island.
- For existing homes that are determined to be at a distance from the City's sewer service area where it is not fiscally feasible to extend sewer service, develop a minimum on-site disposal systems standard to maximize the protection of surrounding water quality.

I-3.2 Explore Other Uses for Wastewater

To reduce the demand on the sewer system, the City should explore the beneficial uses of wastewater, including gray water reclamation. Gray water is tap water used in washing machines, tubs, showers, and sinks. Gray water reclamation is the process by which households make use of gray water's potential, usually for irrigation. The City should explore other uses for gray water besides irrigation such as industrial uses, the use of chill water for HVAC systems, and process water for the Port of Galveston. The City should establish incentive systems for the installation of gray water systems, especially for new construction. Incentive programs can lead to a reduction in the need for increased infrastructure.

OBJECTIVE I-4. DEVELOP INNOVATIVE AND PROACTIVE PROGRAMS WHICH WILL PROMOTE REDUCTION OF THE SOLID WASTE STREAM WITHIN ITS SERVICE AREA

A key component of creating a sustainable Island is to reduce waste and reuse as much as possible. The City's recycling programs are successful, but additional efforts to increase participation and reduce the costs are needed. Construction

and demolition debris create an additional burden on the solid waste stream, and additional efforts to reduce that debris, potentially through deconstruction practices and reuse of building materials.

I-4.1 Investigate and Implement More Sustainable Options for Waste Disposal

Residential and commercial waste collection service is provided Island-wide and residents can bring a variety of recyclable materials to the City's Recycling Center. The City's Recycling Center accepts many more materials than surrounding recycling programs. While the existing recycling center has been successful, the City should continue to explore upgrading the current facility and increase the variety of recyclable materials that are accepted.

The City should continue to evaluate the economics of curbside recycling. Although the recycling program is costing the City of Galveston between $200,000 and $300,000 per year, a curbside recycling program should be the ultimate goal to encourage more residents to recycle. The ease of such a program, with all items placed in one container, separate from their regular household trash, should encourage increased participation in recycling efforts.

The City should pursue more sustainable practices with regards to waste disposal, including the following:

- In evaluating alternatives trash disposal and recycling, consider appointing a citizens' committee to explore options for pricing of recycling and trash pick-up.
- Establish recycling requirements for commercial businesses, apartments, and multi-family dwellings.
- Provide recycling containers adjacent to trash receptacles in the areas of heavier pedestrian traffic, such as the Strand and along the Seawall.
- Seek funding to further develop the recycling center at 61st Street to a 24-hour facility that includes recycling of Styrofoam and household hazardous waste. The center should continue to be a drop-off facility.
- Work with local and regional stakeholders to determine effective methods for hazardous waste removal from the Island. (As the closest hazardous waste site is in Pearland, Texas and the disposal of commercial and industrial hazardous waste is the responsibility of local businesses, compliance with environmental regulations is challenging.)
- Fund a public awareness campaign about appropriate usage of curbside and drop-off recycling services and enforce fines for placing trash in recycle carts. The educational campaign should also cover other alternatives to waste reduction such as composting.

- Continue the partnership between the compliance division and the police department to enforce littering regulations and illegal dumping activities. As part of the public awareness campaign, the City should provide a 24/7 method for citizens to report these activities.

I-4.2 Reduce the Amount of Construction and Demolition Debris

Construction and demolition debris account for 20 percent of the City's waste stream. Common materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, and yard waste. The reuse and recycling of construction and demolition materials is an important component in reducing the solid waste stream. Building demolition generates large amounts of materials that can be reused or recycled if removed properly, principally wood, concrete and other types of masonry, and drywall. Deconstruction is the orderly dismantling of building components for reuse or recycling and consists of carefully taking apart portions of buildings or removing their contents with the primary goal being reuse.

Actions the City should consider are as follows:

- Develop a plan to require the reduction, reuse, and recycling of construction materials and address demolition debris.
- Promote deconstruction of buildings rather than demolition.

OBJECTIVE I-5. ENSURE ADEQUATE, SUSTAINABLE SERVICES EXIST TO SUPPORT PLANNED DEVELOPMENT

A primary responsibility of the City is to provide residents, businesses, and visitors with adequate infrastructure and public services. As the City continues to develop, it is important to not only provide new and expanded service, but also to ensure that existing public infrastructure, utilities, and amenities meets the needs of the City. The City must identify the future demand, clarify existing capacity, and work to provide services in a cost-effective and sustainable manner.

I-5.1 Ensure Adequate Public Facilities

The City should encourage growth where adequate public facilities exist (i.e. such as schools, roads, water supply, and sewer service) Infill development on existing vacant tracts in areas of the City with existing services should be encouraged and incentivized. The City should also require all new developments to provide sites for future public utilities and facilities, for example: fire stations, police stations, and lift stations.

I-5.2 Explore Use of Impact Fees

The City should continue to explore the use of impact fees on new development to pay for the construction or expansion of off-site capital improvements that are necessitated by and benefit the new development. Impact fees add predictability to the development approval process and create a uniform process for all developers.

I-5.3 Incorporate Sustainable Practices in Provision of Public Facilities and Private Utilities

The City should explore ways to incorporate sustainable practices in the delivery of public services and encourage similar practices by private utility providers. The City should explore programs and regulations that encourage the development of renewable energy sources, review public facility management practices such as increasing the use of gray water for irrigation purposes at civic buildings and public parks, and follow green building principles in the design and renovation of public buildings.

I-5.4 Assess the Island's Carrying/Holding Capacity

The City should determine the carrying, or holding, capacity of the Island in terms of road access, evacuation, and utilities. The term "Carrying Capacity" refers to the number of individuals who can be supported in a given area within the existing conditions. As the Carrying Capacity for any given area is not fixed, the City should review and update this information on a regular basis to help guide development and public investment decisions.

OBJECTIVE I-6. ENHANCE AND STRENGTHEN PUBLIC AND PRIVATE INFRASTRUCTURE TO ENSURE CONTINUITY OF SERVICE AND QUICK RECOVERY FROM DISASTERS

The damage to the City's infrastructure during Hurricane Ike delayed the return of the evacuated residents, exacerbated property damage, and placed those who had remained on the Island at a health and safety risk. The following infrastructure capacity, sustainability, and hardening projects, many funded with post-Ike recovery funding, are being or have been designed to minimize or mitigate against damage from future storm events.

- 30th Street Ground Storage Tanks;
- 30th Street to 59th Street Waterline;
- 33rd Street Sewer Rehab Project;
- 5 Emergency Generators – City Hall, McGuire-Dent Recreation and Fitness Center, Fire Station 2, Fire Station 7, and Fire Station 8;

- Airport Pump Station Generator;
- Causeway Waterline Project;
- City Hall Door and Window Renovation;
- Fire Station Number 4 Reconstruction;
- Isla Del Sol Elevated Storage Tank;
- Jamaica Beach Elevated Storage Tank;
- 22 Lift Station Rehab Project;
- Main Wastewater Treatment Plan Reconstruction;
- Pelican Island Waterline;
- Pressure Sustaining Valves;
- Sewer Lift Station Number 1 Reconstruction;
- White Sands Elevated Storage Tank Rehab;
- McGuire Dent Door and Window Project; and
- Pirates Beach Wastewater Treatment Plan Outfall Line.

As described in the Hazard Mitigation Plan, the City must continue to adequately plan, design, and implement necessary actions to protect critical infrastructure from future disasters.

I-6.1 Increase Resilience of Utilities, Infrastructure and Public Facilities

Public facilities, utilities, and infrastructure were heavily damaged by the flood waters of Hurricane Ike. Hardening of the City's infrastructure and facilities, including water, sewer, gas, electricity, and telecommunication services is a focus of recommendations in the City's Hazard Mitigation Plan, as described in

Hardening of the City's infrastructure and facilities, including water, sewer, gas, electricity, and telecommunication services is a focus of recommendations in the City's Hazard Mitigation Plan.

The City should explore funding sources for burying existing utility lines and require new developments to place utility lines underground to improve aesthetics and protect the Island from interruptions in electrical service, especially during significant weather events.

the Disaster Planning Element. To implement hardening recommendations in the Plan, the City should take the following actions:

- Consider construction of an elevated Emergency Operations Center to provide a protected location for critical personnel and equipment.
- Partner with private utility providers to develop a utility hardening plan. The plan should provide minimum standards for dry utility infrastructure, new construction and the implementation of newly available hardware resistant to Galveston's climate.
- Review and revise as needed building codes pertaining to electrical service meter drops. Any new or revised codes should aid in increased sustainability and resiliency of future development, allowing for speedier post-disaster recovery.
- Ensure all contracts with utility providers address plans for disaster response and the provision of temporary services following disaster events and ensure. This is especially important for the telecommunication providers, such the internet and cellular phones.
- Explore funding sources for burying existing utility lines and require new developments to place utility lines underground to improve aesthetics and protect the Island from interruptions in electrical service, especially during significant weather events.

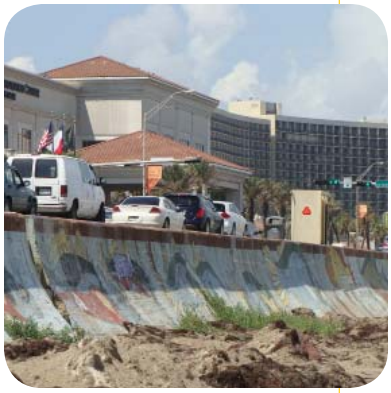
I-6.2 Continue to Explore Structural and Non-Structural Mitigation Strategies

Since Hurricane Ike, there has been an increased interest and discussion of large-scaled mitigation projects to protect Galveston Island and the surrounding area from the affects of future disasters. These large infrastructure projects are focused on providing a comprehensive regional storm surge protection plan, such as the "Ike Dike." As called for in the Hazard Mitigation Plan, the City should participate in all regional discussions regarding structural mitigation strategies to ensure that the interests of the City are represented and that the best solution for our area is determined.

A structural remedy to flood surge may take decades to plan and construct and might not be the best solution. The City of Galveston should explore non-structural mitigation strategies that can be quickly and easily implemented. By considering the following policy and regulatory steps described in the Disaster Planning and Natural Resources Element, the City could reduce the need for larger-scaled structural mitigation strategies:

- Develop land use policies such as increased setbacks from the beach and wetlands and open space preservation.

- Strengthen building codes for increased resiliency from flooding and wind.
- Strengthen the Floodplain Ordinance to include a freeboard requirement that requires elevation of a building's lowest floor above the required flood elevations by a small additional height, typically one to three feet.
- As described in the Disaster Planning Element, participate in the Community Rating System, a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program requirements.
- Support beach renourishment and dune restoration projects.



The City should continue to support the efforts of the Park Board of Trustees and Galveston County to strengthen and maintain the Seawall.

I-6.3 Maintain and Protect Existing Mitigation Features

The City initially began discussions of building a seawall and raising the elevation of the Island following the 1886 hurricane. However, it was only after the 1900 Storm that the City built the Seawall and raised the grade of the City. These engineering and infrastructure projects were undertaken in partnership with the County, state, and federal governments. Construction of the Seawall began in 1903 and the first portion was completed in 1904. By 1911, the Seawall extended from 6th Street to 53rd Street. The raising of the grade behind the Seawall an average of eight feet was completed by 1912, using almost 11 million cubic yards of fill.

The Seawall has protected the core of the City from wind driven waves since its first test in 1909. The continued maintenance of the Seawall is of upmost importance. The City should continue to support the efforts of the Park Board of Trustees and Galveston County to strengthen and maintain the Seawall. Beach renourishment plays an important role in protecting the structural supports of the older sections of the Seawall.

DISASTER PLANNING ELEMENT

INTRODUCTION

The City of Galveston's location on a barrier island, in close proximity to industrial, port and medical facilities, increases the community's susceptibility to a variety of potential disaster scenarios. However, the prominent threats to the island are natural: erosion, sea level change and more specifically, coastal storm events, including the effects from hurricanes and tropical storms. Disasters may range from minimal damage to catastrophic, and the City must take steps to prepare and respond accordingly prior to the event.

Galveston has a long history of disaster planning and mitigation; most visibly, the development of the Seawall following the 1900 Storm. To date, the September 8, 1900 hurricane is still the deadliest natural disaster in United States history with estimates ranging from 6,000 to 12,000 casualties. Within four years following the 1900 Storm, the City of Galveston had secured funding from Galveston County and had built a seawall structure over three miles long from 6th Street to 39th Street. A federal funding project extended the Seawall from 39th Street to 53rd Street by 1905. In conjunction with the construction of the Seawall, much of the eastern portion of the island's elevation was raised; some areas up to 17-feet. The Seawall structure had its first significant test in the 1915 Storm and has proved to be an effective protection measure for the City. The Seawall now extends from the eastern edge of the island to 103rd Street.

In September 2008, the eye of Hurricane Ike crossed Galveston Island. Although classified as a Category 2 storm, the surge associated with the hurricane was estimated as equivalent to a strong Category 4 storm. The flooding reached over eight feet in many areas on the north side of the island and a strong surge devastated interior neighborhoods on the island adjacent to Offat's and English Bayous. Throughout the City, the infrastructure and utilities failed, which prevented residents from returning to the island for ten days. Additionally, the City experienced a significant loss of property and the historic tree canopy. An estimated 70 percent of buildings on the island were damaged by flood or wind.

Hurricane Ike tested the City's disaster preparedness and response. In the aftermath of the event, Galveston must closely examine the planning, preparation, and mitigation that occurred prior to the storm and response and

DISASTER PLANNING GOAL

Prepare the City for Disasters that Could Adversely Affect the Health, Safety & General Welfare of Residents & Visitors.

OBJECTIVES

1. *Integrate Planning for Disaster Events, Including Mitigation, Response & Recovery Into All Levels Of City Function*
2. *Develop a Hazard Mitigation Strategy that Addresses City Assets Vulnerable to Natural Hazards & Determines the Best Policy To Mitigate Those Risks*
3. *Lead & Support Disaster Preparedness Efforts Throughout the Community & Region*
4. *Maintain Local Government Control During Response to Disasters & Take Actions that Address Public Health & Safety Issues & Ensure Continuation of Community Character*
5. *Develop a Disaster Recovery Plan that Addresses Actions for a More Sustainable Community*

The City must ensure that the resources necessary to prepare, mitigate, respond, and recover from a disaster event are provided through plans, staffing, funding, and necessary equipment.

recovery activities employed during and after the event. There were many things the City "got right," but many things that can be improved. To provide a more sustainable and resilient community, disaster planning activities must be integrated into every aspect of the City government.

GOAL

Prepare the City for Disasters that Could Adversely Affect the Health, Safety, and General Welfare of Residents and Visitors.

OBJECTIVES & STRATEGIES

OBJECTIVE DP-1. INTEGRATE PLANNING FOR DISASTER EVENTS, INCLUDING MITIGATION, RESPONSE, AND RECOVERY SHALL BE INTEGRATED INTO ALL LEVELS OF CITY FUNCTION

Prior to Hurricane Ike, the City of Galveston took steps to further protect the City from potential disaster events. While most preparation activities centered on the susceptibility to coastal storm events, many of the measures can apply to various natural and man-made disasters. Some of these preparations included: a *Response Plan* with associated annexes, actions by the Finance Committee to secure recovery loans, the *Disaster Response Plan for Historic Properties: Prepare-Protect-Preserve Plan* described in the Historic Preservation Element, and an Emergency Notification System.

The impact of Hurricane Ike demonstrated the necessity of preparing for catastrophic events in all departments of the City's government during all stages of disaster planning. Many of the City's facilities were damaged and essential documents and equipment were destroyed or inaccessible. The City must ensure that the resources necessary to prepare, mitigate, respond, and recover from a disaster event are provided through plans, staffing, funding, and necessary equipment.

DP-1.1 Ensure Appropriate Staff for All Disaster Planning, Mitigation and Response Actions

Galveston must ensure that key personnel are maintained on staff to assist the community with the preparation, mitigation and response actions required by the City. This includes, but is not limited to: the Emergency Operations

Coordinator, Certified Floodplain Administrator, Public Information Officer, Historic Preservation Officer, as well as emergency staff such as Fire and Police personnel. Because the City is particularly vulnerable to threats such as hurricanes and tropical storms, the staff must be prepared to respond at any point during the six-month hurricane season. The City should require staff be trained in current disaster response methods and be aware of any mitigation actions needed to protect the community.

The City's disaster planning programs should be closely coordinated with other plans and programs addressing development and conservation.

DP-1.2 Integrate Disaster Planning With Other Adopted City Plans and Developing Planning Documents

The City's disaster planning programs should be closely coordinated with other plans and programs addressing development and conservation, including, but not limited to, the following plans: the *Airport Master Plan*, *Capital Improvement Program*, *Progress through Preservation: Historic Preservation Plan, Safety Plan*, and the *Disaster Response Plan for Historic Properties*. Updates to these plans should evaluate disaster planning in relation to the goals of the subject plans and include specific references and action strategies. Additionally, the development of all future plans should consider disaster planning in assessing the appropriate goals and objectives.

DP-1.3 Develop an Effective Disaster Communication Plan to Guide the Dissemination of Information Through All Stages of a Disaster Event

To effectively provide information to the public before, during, and after disaster events, the City should develop a comprehensive Disaster Communication Plan. The City has already implemented an Emergency Notification System known as "One-Call," which simultaneously sends voice and text messages to all individuals that register with the system. In addition to the "One-Call" service, the City also provides press releases to local media to circulate emergency information. Galveston should also ensure an internet presence since that is one of the most easily accessible means to distribute information to a large audience. This must include a secure City website and should consider use of social media such as Facebook or Twitter.

The Disaster Communication Plan must also establish the most effective means of communicating information regarding response efforts for citizens displaced by the event or with limited access to information. As access to affected areas will be controlled, citizens will not be able to return to their property until search and rescue operations are complete and safety hazards, such as downed trees and power lines, are cleared. In addition, utilities will have to be restored and debris removed. In areas with historic resources, this may take significantly longer due to specific actions required by the federal government.

To effectively provide information to the public before, during, and after disaster events, the City should develop a comprehensive Disaster Communication Plan.

A comprehensive Disaster Communication Plan should be designed to address the following:

- Strategies for the use of a City web site, including webstreaming of Channel 16 and social media channels like Facebook and Twitter to disseminate information.
- Plans for use of website during recovery phase to provide information relating to building permits, businesses re-opening, City recovery activities, and programs for residential recovery.
- Arrangements for off-island website hosting to ensure consistent information to evacuated residents.
- Prepare and distribute communication materials to increase awareness of hazards, describe mitigation strategies such as code and regulatory changes to increase resilience and minimize loss, and educate residents and business owners about mitigation strategies for personal property.
- Identification of translators to provide preparedness, response, and recovery information in Spanish and Vietnamese.
- Arrangements for photocopiers and personnel during response phase to copy and distribute flyers to the public, which may include temporary staff for the Public Information Officer.
- Establishment of reciprocity agreements for public information with other communities that may be evacuation destinations.
- Production of disaster preparedness check lists incorporating information regarding property maintenance activities.
- Preparation of educational materials for sheltering in place if no preparation time for a disaster event.
- Preparation of business and non-profit communication strategies in partnership with the Chamber of Commerce and Galveston Economic Development Partnership.
- Prepare information relating to animal assistance such as preparing pets and required records for evacuation.
- Provide communication tools to support secure and consistent communication among City staff. (During Hurricane Ike, cell towers were damaged across the island, which created problems for contact between the City staff members during response activities. Point-to-point access for cell towers should be considered.)
- Investigate methods to provide property assessment information on the website to evacuated residents immediately upon staff inspection.
- Planning for regular community meetings during recovery phase to provide updates to the citizens. Short-term meetings may be weekly and long-term meetings may be quarterly.

DP-1.4 Secure Resources for Disaster Planning Programs and Initiatives

Planning and preparation for disaster planning is instrumental to the continued economic vitality and resiliency of this community. The City should annually dedicate funding to advance the objectives to protect the community from potential hazards. Specific funding sources related to recovery plan are described in further detail later in this Element.

OBJECTIVE DP-2. DEVELOP A HAZARD MITIGATION STRATEGY THAT ADDRESSES CITY ASSETS VULNERABLE TO NATURAL HAZARDS AND DETERMINES THE BEST POLICY TO MITIGATE THOSE RISKS

Mitigation may be defined as "sustained action that reduces or eliminates long-term risk to people and property from natural hazards and their effects." It describes the ongoing effort by individuals and governments of all levels to lessen the impact of disasters upon our families, homes, community and economy. Mitigation is achieved through three steps: risk analysis, risk reduction, and ensuring appropriate insurance for residents and businesses to protect financial investment.

By analyzing the community's risk, Galveston can obtain information that provides a foundation for mitigation activities that reduce hazards. As described in the Natural Resources Element, the City has taken steps to identify potential risk areas through the development of the Galveston Island Geohazards Map. This resource was used during the preparation of the City's *Hazard Mitigation Plan* in 2011.

Risk reduction diminishes the threat to life and property, including existing structures and future construction, in the pre and post-disaster environments. This is typically achieved through local regulations and ordinances, land use, and building practices. Additionally, focused mitigation projects should be strongly considered to reduce or eliminate long-term risk from hazards and their effects. As noted by the Federal Emergency Management Agency (FEMA), a recent study by the Multihazard Mitigation Council shows that each dollar spent on mitigation saves society an average of four dollars.

Appropriate insurance for the community residents and businesses will be vital to economic recovery. While the City can take appropriate measures to mitigate hazards, it is not possible to fully protect the community from the effects of natural disasters. However, the City should take steps to ensure the best possible insurance rates for the community.

Creation of a local hazard mitigation strategy that addresses risk analysis and reduction and ensures appropriate insurance will benefit the community by:

- receiving more pre-disaster mitigation funding;
- improving the City's CRS ratings through various mitigation initiatives, which will lower flood insurance premiums for National Flood Insurance Program (NFIP) policy holders; saving money, as the costs of pre-planned mitigation are less than the costs of recovery and emergency mitigation;
- improving existing county and city partnerships through shared resources and a unified, countywide strategy;
- focusing combined resources on areas specifically identified as hazard-prone;
- making better decisions in advance of a disaster, since complex decision-making is often difficult during the chaos following a disaster event;
- receiving increased post-disaster funding, more quickly; and
- most importantly, saving lives and property through reducing vulnerability to disaster events.

Effective mitigation efforts can break the cycle of disaster damage, reconstruction, and repetitive damage. Fundamentally, mitigation is the cornerstone of emergency management and the foundation of sustainable community development.

DP 2.1 Implement and Update the Hazard Mitigation Plan

The City must understand the full impact of natural hazards through the use of applied multi-hazard engineering science and advanced technology to effectively plan mitigation of the risk to the community. Given its location on a barrier island, Galveston has a unique topography and ecosystem that is more complex than typical jurisdictions in Texas. While the City was included in the *Galveston County Hazard Mitigation Plan*, the City recognized the need to develop its own plan that addresses more detailed coastal erosion response and the special conditions related to the City's historic resources.

In 2010, the City of Galveston was awarded a FEMA grant to develop a local *Hazard Mitigation Plan* specific to the unique conditions of the island. Working on an abbreviated timeline due to grant requirements, an appointed stakeholder committee met from May to July 2010. As some mitigation actions will directly affect the community's residents, it was essential to gain the most input possible and several opportunities for public comment were integrated into the development of the plan. Following final approval from the Texas Department of Emergency Management (TDEM), the plan was adopted by City Council in

May 2011. The City should make projects identified in the plan a priority for implementation. Potential grant sources for funding include:

- Hazard Mitigation Grant Program (HMGP);
- Pre-Disaster Mitigation Program (PDM);
- Public Assistance (PA);
- Flood Mitigation Assistance (FMA);
- Repetitive Flood Claims (RFC); and
- Severe Repetitive Loss (SRL).

The Long-Term Community Recovery Plan, completed in 2010, recommend numerous projects related to disaster planning and mitigation.

Several projects identified in the *Long-Term Community Recovery Plan* process were integrated into the *Hazard Mitigation Plan* and alternative funding sources may also be indicated within this plan. The City should also ensure that all mitigation actions are coordinated with UTMB's Hazard Mitigation Plan.

DP-2.2 Review and Modify the City's Planning Policies, Building Codes, and Development Regulations to Conform to the Hazard Mitigation Plan

As noted previously, mitigation actions create safer communities by reducing loss of life and property damages. FEMA notes that the adoption of rigorous building standards by 20,000 communities across the country are saving the nation more than $1.1 billion a year in prevented flood damages. The City should continue developing, adopting and enforcing planning policies, building codes, and development regulations to reduce public expenditures and property damage. The City should accomplish the following:

- Promote sound land use planning based on known hazards and continue to assess and update development codes to respond to the unique restraints of a barrier island.
- As described in the Land Use and Community Character Element, review the Zoning Standards and Subdivision Regulations, and amend as necessary to increase resilience.
- Review building setbacks from natural resources, including dune systems and wetlands.
- As described in the Natural Resources Element, the City should analyze environmental erosion issues and prepare a response plan as required by the Texas General Land Office (GLO).
- Use GIS to manage parcel information and analyze data relating to the island's infrastructure, natural resources, and built environment, and ensure adequate personnel and resources are available to incorporate necessary datasets and conduct spatial analyses. (GIS-based mapping of conditions hazards will allow periodic updates and sharing of the information with other organizations.)

The City should strengthen regulations to address erosion control methods for the Gulf shoreline.

DP-2.3 Develop a Coastal Erosion Response Plan (ERP) and Address Non-Coastal Land Loss

Protecting dune vegetation, increasing dune stability, and minimizing property damage are priorities of the City's existing coastal development regulations. As described in the Natural Resources Element, the City should strengthen regulations to address erosion control methods for the Gulf shoreline. New state regulations encourage coastal jurisdictions to develop Erosion Response Plans (ERP), which will be considered as one of the conditions for funding under the Coastal Erosion Planning and Response Act (CEPRA) Program. To ensure future CEPRA funding, the City should complete development of the ERP by the December 2011 deadline. Upon completion of the ERP, the City must maintain and update the plan on a regular basis.

While a new Erosion Response Plan will address erosion control methods for the Gulf shoreline, additional areas of the island would remain vulnerable to erosion, including the bay shoreline and the area adjacent to the Seawall structure. As noted in the Natural Resources Element, the City should prepare a Bay Restoration Plan to evaluate coastal erosion and mitigation issues and consider the appropriateness of further marina and canal development adjacent to the bay. Using potential state and federal funding sources, the City should make the development of these inter-related plans a priority in the next few years.

DP-2.4 Protect the Integrity of the Seawall

The City should consider the impact of developments located seaward of, and within close proximity to, the Seawall structure. As discussed in the Infrastructure Element, the Seawall was designed to function as a protection and mitigation action against destructive flooding and surge for the City. All developments on or south of the Seawall structure should not compromise the integrity or protection provided. Through the development regulation revision process, the City should evaluate the opportunities and restraints presented by further development of this area and determine specific standards and criteria for potential projects, if determined feasible. The City should work cooperatively with the U.S. Army Corps of Engineers (USACE), Galveston County, and GLO to evaluate any further development in this area as it relates to the mitigation strategy of the community.

DP-2.5 Continue to Explore Other Mitigation Projects

As referenced in the Infrastructure Element, the *Long-Term Community Recovery Plan* prepared after Hurricane Ike indicated several projects for consideration

of erosion response and protection measures. These include further studies regarding the 1979 USACE project/circular levee and consideration of a large dike. The City has received funding from the Disaster Recovery CDBG to pursue the levee study and the dike is currently being reviewed by the Gulf Coast Community Protection and Recovery District, Inc., which is a six-county corporation established to evaluate regional surge suppression options. The City should continue to consider appropriate methods to reduce erosion on both the beach and bay fronts. Further, the City should develop a climate adaptation plan to address other issues such as rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events.

DP-2.6 Participate in Voluntary Community Rating System (CRS) of the NFIP

To reduce flood insurance rates for the City and Island businesses and residents, the City should participate in the voluntary Community Rating System (CRS) of the NFIP. The NFIP is a federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. While the City does participate in the NFIP, and has adopted flood damage prevention regulations that primarily include provisions for building codes, the City should prioritize an application into the Community Rating System (CRS).

All communities are automatically scored as a “10,” if they have not been evaluated in conjunction with CRS. The lower the score that can be achieved, the lower the flood insurance rates are for the community. Due to the City’s participation in the NFIP, many of the criteria to reduce the score have already been met.

- Actively seek participation in the CRS and take the necessary steps to achieve the lowest possible score.
- Evaluate the need for a dedicated Certified Floodplain Administrator if they participate in the CRS program. Although the City does have a certified Floodplain Administrator, the position is joined with the Building Official responsibilities.
- Continue to support efforts to lower windstorm and insurance rates, whenever possible, for the Island.

DP-2.7 Support Transportation Improvements Supportive of Mitigation Strategies

Traffic and transportation issues must be an important consideration in the development of mitigation strategies. The City's roadways and access to the mainland must be adequate to meet the increased demands in times of evacuation and designed to withstand or minimize public expenditures during storm events. Providing additional crossings to the mainland can help reducing traffic loads on existing streets and improve the evacuation process. The City should work to protect its vulnerable public transportation system. Island Transit buses and trolleys were severely damaged by flooding in Hurricane Ike. The City should work with its transportation partners, including TxDOT, to make the necessary transportation improvements to increase resiliency. The City should consider the following actions:

- Strongly encourage TxDOT to raise portions of FM 3005 to maintain a consistent elevation that ensures coastal flooding does not impede evacuation along this primary corridor as identified in the 2004 TxDOT Drainage Study Report.
- Assess the current level of service (LOS) and projected level of service in assessment of traffic flow, particularly in relation to the West End.
- Include the transportation improvement recommendations supportive of mitigation action strategies as priority items in the Capital Improvement Program.
- As called for in the Transportation Element, explore an additional bridge crossing from Pelican Island to the Mainland to reduce the amount of industrial traffic on Galveston Island, while also providing an additional evacuation route.
- Described in the Transportation Element, explore options for alleviating traffic on 61st Street, a major evacuation route for the West End, and the separation of local and through traffic. The City should consider short-term improvements, including a flyover to connect 61st Street and I-45, and long-term improvements such as additional access points to the West End via a new bridge to the mainland.
- Participate in all regional evacuation strategy meetings and consider developing alternative evacuation routes and strategies.
- Establish a system to secure the municipal transit system so that there is not a complete loss of the transit system in a disaster event.

DP-2.8 Continue Implementation of Prepare-Protect-Preserve Plan to Mitigate Damage to Historic Properties

The *Disaster Response Plan for Historic Properties: Prepare-Protect-Preserve Plan (Prepare-Protect-Preserve Plan),* described in the Historic Preservation Element,

includes many mitigation measures for protecting historic resources. The City should regularly update the plan and incorporate new procedures and plans. The next update should include projects called for in the *Long-Term Community Recovery Plan* that address mitigation and response measures for historic properties.

DP-2.9 Prioritize the Hardening of City Facilities and Services

Many City facilities were heavily damaged by the flood waters of Hurricane Ike. As called for in the Infrastructure Element, the City must assess all municipal facilities to determine if the structures can be "hardened" or made more resistant to damage from catastrophic events. This may include retrofit for wind resistance, elevating buildings or raising critical mechanical systems from flood damage. Additionally, the City should consider the construction of an elevated Emergency Operations Center to provide a protected location for critical personnel and equipment.

OBJECTIVE DP-3. LEAD AND SUPPORT DISASTER PREPAREDNESS EFFORTS THROUGHOUT THE COMMUNITY AND REGION

Many have praised the City of Galveston for the "things done right" during Hurricane Ike. This includes the rapid response of City personnel in emergency situations, responsive debris removal, and financial preparedness. However, the City should review all actions taken during the most recent storm activities and determine methods to improve in the future.

DP-3.1 Continue Coordination with Major Institutions, Key Businesses and Organizations, and Other Local Governmental Entities

The City has multiple local partners in disaster preparation and response. These include, but are not limited to: UTMB, the Port of Galveston, Galveston County, Texas A&M University at Galveston, Galveston College, Wal-Mart, Home Depot, utility providers, and local chapters of the American Red Cross and Salvation Army. The City should proactively plan coordination of all actions with our partners to provide the most efficient response to the citizens in a disaster event. The City established hurricane preparedness meetings with key responders and other local organizations on a monthly basis usually from May through October of each year during the local hurricane season. These meetings ensure that each organization understands the City's response plan and their role in the recovery efforts.

Specific actions the City should consider to improve coordination with disaster response and recovery partners include the following:

The City should facilitate the development of a bi-annual response and recovery summit to bring together all interested parties and stakeholders that are needed to ensure the community is prepared to respond and recover from a disaster.

- Continue to coordinate preparedness meetings with first responders on a monthly basis during each hurricane season.
- Continue to hold community hurricane preparedness and recovery meetings on an annual basis.
- Continue and expand the Hurricane Preparedness brochures in the Galveston Daily News.
- Utilize other means of communication including water bill flyers, secondary neighborhood meetings (including Community Emergency Response Team volunteers), community meetings, and social media.
- Expand planning activities with local business organizations such as the Galveston Economic Development Partnership (GEDP) and the Chamber of Commerce.
- Business activities must be addressed in community response planning to facilitate business recovery.

DP-3.2 Facilitate Planning for a Response and Recovery Summit

The City should facilitate the development of a bi-annual response and recovery summit to bring together all interested parties and stakeholders that are needed to ensure the community is prepared to respond and recover from a disaster. Issues that should be covered include current plans, municipal financial preparedness, community economic recovery, as well as preparedness of all individuals, businesses, and organizations.

DP-3.3 Develop an Active Community Emergency Response Team (CERT) and Neighborhood Preparedness Programs

The *Long-Term Community Recovery Plan* project Rapid Response Plan outlines the necessity of Community Emergency Response Team (CERT) volunteers. The CERT Program educates citizens regarding disaster preparedness for hazards that may impact their area and trains volunteers through both classroom and practice exercises in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. In the event of a disaster, CERT members may also assist in their neighborhood or workplace when professional responders are not immediately available. The City should take the following actions:

- Implement a CERT program and integrate CERT volunteers into the City's response team The Emergency Operations Center (EOC) and Police Department should work cooperatively with Galveston County to train and recruit volunteers.
- Use CERT volunteers to support first responders and assist in the evacuation and re-entry plan implementation. These volunteers could

also be utilized as pre-appointed leaders in neighborhoods, community policing, and neighborhood watch.

- Investigate methods to assist financially with training and volunteer recruitment.

The City should investigate all possible applications of pre-negotiated contracts for essential personnel, supplies, and services following a disaster event.

DP-3.4 Establish Inter-Local Agreements and Maximize the Use of Pre-Negotiated Contracts to Provide Key Personnel and Necessary Supplies

The City should investigate all possible applications of pre-negotiated contracts for essential personnel, supplies, and services following a disaster event. Examples include debris management, building inspections, historic preservation, public safety, compliance activities, and utilities repair. This may also include intra-local agreements or reciprocity agreements for specialized personnel in other jurisdictions following a catastrophic disaster event.

The City will not be able to permanently maintain staffing levels to respond to a large-scale event but should establish reciprocal agreements with other municipalities to supply the necessary personnel. Pre-negotiated contracts will provide the opportunity to secure appropriate pricing and ensure the necessary staff and supplies are available should they become necessary. All contracts must meet FEMA requirements and be cleared for reimbursable expenses, if applicable.

DP-3.5 Ensure Financial Preparedness of the City during Disaster Events

Prior to Hurricane Ike, the City took steps to provide private funding for continuation of operations by establishing a $20M line of credit. This allowed the City to maintain government activities until federal funding was available. The City should:

- Continue to maintain a minimum line of credit of $20M for future disaster events and to evaluate the amount every five (5) years to determine if the credit provides the necessary funds to continue operations.
- Maintain the best possible Bond rating to ensure credit is available during disaster events.
- Utilize other best practices for financial disaster preparation, including pre-negotiated contracts for financial personnel, described previously, and maintained compliance with Federal and State grants.
- Prepare City financial staff for increased workload related to significant grant and fund administration during recovery activities and designated trained, reserve personnel.
- Ensure there are no obstacles for eligibility to receive disaster recovery funds.

DP-3.6 Establish a Tiered, Re-Entry Plan Based on the Level of the Disaster

The Emergency Operations Coordinator, City Manager, Public Works, Police, and Fire Departments should work cooperatively to develop a tiered re-entry plan following an evacuation. The tiers must be established in advance and selected based on the nature of the event. Businesses must also be considered in the tiered re-entry plan to allow essential goods and services for residents to be provided. Each Mayor and City Council should be educated regarding the potential hazards of re-entry and be provided a copy of the adopted re-entry plan. The re-entry plan must be assessed following each evacuation and updated to correct any deficient activities.

OBJECTIVE DP-4. MAINTAIN LOCAL GOVERNMENT CONTROL DURING RESPONSE TO A DISASTER EVENT AND TAKE ACTIONS THAT ADDRESS PUBLIC HEALTH AND SAFETY ISSUES AND ENSURES THE CONTINUATION OF COMMUNITY CHARACTER

The City's *Response Plan* is a detailed work plan for the City to follow pre- and post-storm to ensure our community is resistant to the natural forces and is resilient enough to recover from damage quickly. The City has made significant strides in planning and preparation for these events; however, more detailed plans must be completed to fully equip the City to handle a disaster and its aftermath. In the *Response Plan*, the City must establish a process to prioritize the residents' return and provide a detailed process to assist future Mayors and Councils in future storm events. Furthermore, the lessons learned in Hurricane Ike must be incorporated into this plan for better response in future disaster events.

DP-4.1 Maintain and Improve the Response Plan and Associated Annexes

The City has established a very good *Response Plan* and should continue to improve the plan annually. Currently, Galveston is considered an Advanced City since all annexes to the *Response Plan* are compliant with the National Incident Management System (NIMS). Galveston must maintain this status to ensure the availability of hazard mitigation funds. The *Response Plan* must be approved by the Texas Division of Emergency Management every five (5) years.

During the annual review, the City should address the following issues: financial responsibilities, public information, communication systems, community relations and adequate staffing levels, and other response related actions.

Additionally, staff should review the associated annexes as soon as feasible following a disaster event to improve any procedures. The City should always be prepared to respond immediately in the event of a natural or man-made disaster.

DP-4.2 Continue to Improve Coordination with Federal, State, and Regional Agencies

To provide the greatest continuity in operations in the event of a natural disaster, the City should have established protocol in place for interaction with state and federal agencies. These agencies include, but are not limited to: FEMA, Texas Division of Emergency Management, GLO, and THC. Following Hurricane Ike, the Texas Forest Service, Texas Parks and Wildlife Department, United States Coast Guard, and Texas Military Forces also provided significant assistance to the community.

The City should determine all staff contacts at these organizations on an annual basis and ensure they are aware of the City's mitigation, response, and recovery plans. Furthermore, the City should encourage these agencies to be familiar with Galveston's resources and unique challenges prior to a disaster event. The City should also seek further dialogue and integration of planning activities with other regional agencies such as Galveston County, Brazoria County, Chambers County, Harris County, and the Houston-Galveston Area Council (H-GAC).

DP-4.3 Annually Review and Update Regulations Affecting Emergency Response

After the annual review of the *Response Plan* and annexes, the City should also review City Code and the City Charter and identify amendments necessary for emergency provisions during a disaster. This may include revisions to processes or regulations to clarify responsibilities within departments. The City should ensure that all related municipal regulations are in conformance with all elements of the disaster planning process adopted by the City.

DP-4.4 Ensure Response for Historic Resources Meets Federal Requirements

As called for in the Historic Preservation Element, the City must ensure documentation of historic resources in preparation for any disaster event and ensure response and recovery actions comply with the Section 106 requirements. To ensure compliance, the City should conduct training to raise awareness among staff and partners of special considerations for historic properties and areas.

With proper planning, GIS data can be used as a tool to provide directions for auxiliary personnel that are not familiar with Galveston as well as support and document the results of search and rescue activities, damage assessments, and other immediate post-event activities.

DP-4.5 Increase GIS Mapping Capabilities Post-Storm for Major to Catastrophic Damage

Access to and use of the City's GIS data sets and maps will be crucial during response and recovery efforts. With proper planning, GIS data can be used as a tool to provide directions for auxiliary personnel that are not familiar with Galveston as well as support and document the results of search and rescue activities, damage assessments, and other immediate post-event activities. In many cases, street signs and roadways may be washed away and geo-referenced maps may be the only way to navigate safely and efficiently through the City.

To ensure the City's geographic data is readily available following disaster events, the City should work with organizations such as the GIS Corps Volunteer Association to assist with map development and deployment during response and recovery. The GIS Corps has mobile workrooms and volunteers that are able to update and produce maps to help emergency response personnel.

OBJECTIVE DP-5. DEVELOP A DISASTER RECOVERY PLAN FOR MAJOR TO CATASTROPHIC DISASTER EVENTS THAT ADDRESSES SHORT-TERM AND LONG-TERM ACTIONS FOR A MORE SUSTAINABLE COMMUNITY

The 2005 Hurricane Season, with the catastrophic damage from Katrina and Rita, brought to the forefront the challenge of recovering from such a significant natural disaster. Six years later, the Mississippi and Louisiana Gulf Coast is still

struggling to recover. However, the recovery process has proven educational for many similarly-situated communities and Galveston should utilize the knowledge gained.

The City of Galveston was hit by Hurricane Ike in September 2008. Completed in April 2009, the *Long-Term Community Recovery Plan* identified recovery projects in response to the conditions from Hurricane Ike and does not provide a more adaptable roadmap for the City to recover from future disaster events. The City must develop a sustainable Disaster Recovery Plan to prepare for these potential events.

Recovery actions should be addressed in two ways: short-term and long-term. The short-term actions will deal with emergency needs such a temporary housing, infrastructure rebuilding, and immediate public health and safety concerns such as availability of food and water. Long-term recovery actions are more complex and could take several years to implement. These include economic recovery, re-establishment of businesses, permanent housing, response to building code and/or floodplain map amendments, and all aspects of community rebuilding. To fully address all of these issues in an effective manner, the City should proceed with the development of a Disaster Recovery Plan that builds on the *Hazard Mitigation Plan* and *Response Plan*.

DP-5.1 Complete a Community-Based Disaster Recovery Plan

Important issues can be resolved prior to the disaster event rather than trying to plan during the emergency. Preparing a Disaster Recovery Plan will significantly reduce the time the community will require to rebound from the disaster event and return to a vibrant, resilient, and sustainable community. In preparing the plan, Galveston should seek best practices from other coastal communities and utilize the knowledge acquired in development of other recovery plans. The Disaster Recovery Plan should be an interactive process that involves multiple facets of the community in development. Specifically, the plan must address both public and private sector issues to determine the most efficient and direct path for recovery by utilizing all available resources.

DP-5.2 Identify all Potential Funding Sources for Recovery Programs

There are multiple sources to assist with recovery efforts including grants, small business loans, non-profit assistance, and corporate recovery programs. In the aftermath of Hurricane Ike, the City was the recipient of multiple recovery funding programs. While many federal funding sources are legislative and based on the particular disaster event, others, such as CDBG funds, are typically available but may be increased following a disaster.

The City should creating a task force to analyze the housing needs and work with local, state and federal partners to determine the challenges and opportunities relating to housing recovery efforts.

The Disaster Recovery Plan should include a list of possible recovery funding sources for all levels, such as individuals, businesses, educational institutions, non-profit organizations. The list should be kept up-to-date with new funding opportunities and revised as programs are no longer available. The City should also investigate the possibility of private/non-profit funding sources for recovery activities.

DP-5.3 Develop Temporary and Permanent Housing Programs

In the event of significant damage or loss of residential buildings, the City must determine the most appropriate temporary and permanent housing programs for its citizens. In the development of the Disaster Recovery Plan, the City should consider the following:

- Address all feasible alternatives for short-term housing needs and recommend appropriate actions for the City to ensure housing is provided as needed.
- Consider possible short-term arrangements with cruise lines and hotels for temporary housing.
- Reevaluate the use and removal timeline of temporary FEMA trailers. After Hurricane Ike, FEMA trailers were utilized for over 24 months as temporary housing but these trailers are not safe structures for a barrier island and there should be a more restrictive timeline for their removal.
- Address “quick-response” permanent housing. Possible sources include industrialized or modular housing, such as the Katrina Cottages, that would allow quicker re-building and housing of residents. However, if these types of dwellings are considered, the plan should address design guidelines and standards, to ensure Galveston’s community character is maintained.
- Consider partnerships with other organizations in developing the recovery housing programs. Galveston has a history of providing recovery housing and many of the “commissary housing” buildings still exist from the 1900 Storm recovery.
- Consider creating a task force to analyze the housing needs and work with local, state and federal partners to determine the challenges and opportunities relating to housing recovery efforts.

DP-5.4 Review, and Amend as Necessary, All Applicable Building Codes, Zoning Standards, and Subdivision Regulations

Utilizing information from other disaster planning documents such as the *Hazard Mitigation Plan* and the *Prepare-Protect-Preserve Plan*, during the preparation of the Disaster Recovery Plan, the City should determine best practices for re-building after major storm events. The City should evaluate the rebuilding

strategies from other communities affected by significant natural disasters and incorporate the lessons learned. The City's overall goal should be to ensure more resilient, sustainable and energy-efficient buildings and neighborhoods are constructed during the recovery period. As the plan is developed, it may become evident that the City's codes and ordinances may need to be revised to meet the stated goals. Galveston should make every effort to incorporate these changes prior to another disaster event occurring.

DP-5.5 Evaluate Methods to Expedite the Building Permit Process During Recovery

After major storm events, it is vital that residents and businesses can begin the rebuilding process as quickly as possible. The Disaster Recovery Plan should evaluate the rebuilding strategies from other communities affected by significant natural disasters and incorporate the lessons learned. This may also include the methods for handling the substantially higher number of permits required following a natural disaster. Although the City had made significant progress towards planning for recovery efforts through the recent implementation of a multiple department property management and permitting software, there will always be improvements that can be made to the process. To help expedite the building permit process, the City should take the following actions:

- Expand permitting options via internet access, satellite offices on the West End, kiosks in the permitting office, and in the field through "mobile offices" located in staff vehicles.
- Continue to pursue further implementation of the parcel management software to allow expedited or self-service permitting and provide funding to implement.
- Investigate pre-certification of contractors, specifically including historic building construction, to ensure a qualified and responsible work force for building repair.
- Provide information to citizens and contractors relating to the permits, inspections and building regulations required for each type of building or work conducted. This is particularly important for historic areas and special permitting regulations issued by the GLO for beachfront areas.
- Consider pre-negotiated contracts for temporary staff to assist with permitting and inspections during recovery activities.

DP-5.6 Ensure Historic Preservation is Addressed in Disaster Recovery Activities

As recommended in the Historic Preservation Element, issues related to the preservation and protection of the City's historic resources should be addressed

Recovery activities should focus on ways to protect the integrity of historic districts and sites while increasing their resilience to damage during future disaster events.

in the City's disaster recovery initiatives. Recovery activities should focus on ways to protect the integrity of historic districts and sites while increasing their resilience to damage during future disaster events.

DP-5.7 Identify Insurance Issues for Individuals and Businesses to Aid in Recovery

Many recovery and rebuilding efforts are hampered by insufficient insurance, or no insurance, from the property and business owners. It is imperative for the community's recovery that the majority of properties and businesses have the appropriate insurance coverage. The Disaster Recovery Plan should address the preparation work required by both individuals and businesses relating to insurance. As previously described, the City should also take all feasible steps to ensure local insurance rates are as low as possible through participation in the Community Rating System of the NFIP.

Furthermore, during the rebuilding and recovery of the community, insurance rates may be improved by the construction of more sustainable and resilient buildings. During development of a Disaster Recovery Plan, the City should investigate construction methods that may reduce insurance rates and consider implementation and incorporation of those methods into local codes and ordinances. The Plan should also address ensuring adequate liability insurance for building contractors during the recovery period.

DP-5.9 Identify Effective Economic and Business Recovery Processes

The City's disaster recovery program should address issues related to the recovery of local economic activity following disaster events. Local business recovery will be a key component to the overall economic stability of the community and the City should identify short- and long-term actions and strategies to assist with their recovery process. In particular, key businesses should be identified that are vital to the overall recovery process and special assistance programs should be considered to revive these businesses immediately.

Additionally, the City should identify actions for businesses to prepare for a disaster event and the subsequent recovery period. These can include contingency planning, adequate liability policies, life/safety issues, risk reduction measures and vital records management techniques. In order for the economic revitalization to proceed as efficiently as possible, the community businesses must be aware of their planning responsibilities and be prepared for recovery prior to the disaster event. Sources such as the Disaster Recovery Journal,

The City's disaster recovery program should address issues related to the recovery of local economic activity following disaster events.

provide important information regarding business continuity, and should serve as a reference in preparing recommendations.

The GEDP, in conjunction with the City and the Chamber of Commerce, developed a Business Disaster Recovery Guide, which includes a database with business contacts and coordination of business activities after the disaster event. A business recovery website was established to provide information to residents about businesses that are open and services available after a disaster event. These efforts should be coordinated with City efforts during preparation of the City's Disaster Recovery Plan and expanded and amended, as determined necessary. The City should also work with GEDP and Chamber to provide a Business Recovery Center that would be a "one stop shop" for gathering information regarding business recovery activities and maintain these services for the business community.

Additional consideration should be given to contact with local banks for gap funding/bridge loan programs for local businesses during recovery. The City should also provide additional information in the recovery plan regarding Small Business Administration (SBA) loans and other available funding sources for business recovery.

HUMAN ELEMENT

INTRODUCTION

Healthy, sustainable, resilient, and safe communities do not just happen – they are the product of people working together and investing time, energy, and commitment. Children and youth are critical to the future of the City and region. The entire community should share in supporting their growth and development. City government has an important role to play, but institutions alone cannot create or sustain a community. By their involvement in civic and neighborhood activities, people see the impact of their own actions, recognize the difference they make, and can become acquainted with the people around them. This enforces the understanding that personal responsibility is crucial to the development of a vibrant, growing community. Government can support efforts by encouraging participation from all sectors of the community.

GOAL

Invest in People So That All Families and Individuals Can Meet Their Basic Needs, Build Economic Prosperity, and Participate in Creating and Maintaining a Safe, Healthy, Educated, Just, and Caring Community.

OBJECTIVES & STRATEGIES

OBJECTIVE HR-1. BUILD SUPPORTIVE RELATIONSHIPS WITH FAMILIES, NEIGHBORHOODS, AND THE COMMUNITY

The City of Galveston must focus on its citizens to in order to become the community specified by the goals of the Comp Plan. Residents should be assured fair and equitable access to all services and healthy, resilient, and safe neighborhoods. Galveston has a significant number of jobs that many communities may envy, however, many of these jobs are not held by residents of the City. The City must concentrate their efforts on human relations issues to attract residents back to the Island. By providing an enhanced quality of life for

HUMAN GOAL

Invest in People So That All Families & Individuals Can Meet Their Basic Needs, Build Economic Prosperity & Participate in Creating & Maintaining a Safe, Healthy, Educated, Just & Caring Community.

OBJECTIVES

1. *Build Supportive Relationships with Families, Neighborhoods & the Community*
2. *Ensure That All Residents Have Food to Eat & a Roof Overhead*
3. *Promote Efforts to Provide Education & Job Skills*
4. *Improve Access to Health Care, Promote Disease Prevention & Encourage Fitness*
5. *Improve Public Safety & Security & Reduce Violence & Abuse*
6. *Strive to Create a Multi-Cultural City with Freedom from Discrimination*
7. *Ensure Access to Cultural & Recreational Amenities*
8. *Promote Community Pride*
9. *Provide Coordination & Joint Planning of Services*

citizens and building relationships within the community, the City can encourage a united and close-knit population that is proud to call the Island their home.

HR-1.1 Support the Creation of Neighborhood Associations

While many areas of the City have existing neighborhood associations or HOAs, residents in many areas of the City do identify as being within a neighborhood. The City should work to encourage neighborhood associations outside of HOA-driven communities.

HR-1.2 Encourage Positive Interaction Among Island Residents

The City should promote opportunities that bring residents together to help them build connections to each other, their peers, their neighbors, and the greater communities. Specifically, the City should support the following:

- The development of multi-use community centers and Neighborhood Learning Centers, called for in the *Long-Term Community Recovery Plan*, to promote opportunities to bring people together and help them build connections with their peers, their neighbors and the greater community.
- Work toward achieving a sense of belonging among all Galveston residents and bridging the gap between the BOIs (Born On the Island) and IBCs (Islander By Choice).
- Initiatives designed to reach people in new ways to encourage broad participation in the neighborhood and community activities and events.
- Initiatives to enhance opportunities for intergenerational activities.

The City should promote opportunities that bring residents together to help them build connections to each other, their peers, their neighbors, and the greater communities.

HR-1.3 Increase Levels of Civic Engagement

The City should encourage people to become informed and involved in civic activities, so they can make educated choices about their lives and assist in finding community solutions to issues and problems and responses to opportunities. The City should support the following:

- Efforts to encourage public participation and increase involvement of people in planning and decision-making that affect their lives.
- Identify opportunities to reach people in new ways to encourage broad participation in neighborhoods and community activities and events.
- Develop a Student City Council to identify community issues from the students' point of view.
- Efforts to encourage other government agencies and community-based organizations to provide opportunities for members of the community to participate in discussions that shape decisions about their neighborhoods and community.

The City should encourage people to become informed and involved in civic activities, so they can make educated choices about their lives and assist in finding community solutions to issues and problems and responses to opportunities.

HR-1.4 Increase Volunteerism and Community Service

Volunteerism is a key component in creating a healthy and caring community. It allows citizens to get connected to one another and help others in need. The City should support volunteering and community service in the following ways:

- Promote opportunities for volunteerism and community service.
- Develop a "Community Time Bank" to provide essential services.
- Enhance people's access to information about opportunities to contribute their time, energy or resources.
- Encourage young people of all ages to be involved in creating and participating in community service projects.

HR-1.5 Support Initiatives to Strengthen Families

Strong families are important to creating happy, balanced children and adults, which provides better citizens for the Galveston community. The City should support the development of strong families through these actions:

- Encourage people to take responsibility for their lives and to nurture their families, children, and circle of friends.
- Increase the visibility, support for, and interaction with the City's Families, Children and Youth Board (FCYB).
- Create a focused public information campaign for Galveston's support of families, neighborhoods, and community.

HR-1.6 Invest in the Youth

Today's children and youth are the future leaders of our community. The City must focus on the importance of younger generations to the overall sustainability and health of the Island through the following activities:

- Promote the investment by adults in the healthy development of the community's children and youth.
- Emphasize prevention and early intervention to reduce risks and strengthen resiliency of children and youth.
- Enhance opportunities that help children and youth gain skills and self-esteem, and foster a sense of hope and optimism about the future.
- Reinforce efforts that strengthen the ability of children, youth and families to help themselves and each other. Promote activities that help teach children and youth to act responsibly, and acknowledge young people's accomplishments.

HR-1.7 Incorporate Livability Standards in City Planning and Policy-Making

Incorporate American Institute of Architects Livability Standards into all aspects of planning and development. The Livability Standards are address strategies to achieve the following planning and design objectives:

- Design on human scale.
- Provide a variety of choices in housing, shopping, recreation, transportation, and employment.
- Encourage mixed use development.
- Preserve urban centers.
- Vary transportation options.
- Build vibrant public spaces.
- Create neighborhood identities.
- Protect environmental resources.
- Conserve environmental resources.
- Conserve landscapes.
- Design excellence as the foundation for a successful and healthy community.

Incorporate livability standards into all aspects of planning and development.

OBJECTIVE HR-2. WORK WITH THE COMMUNITY TO ENSURE THAT ALL RESIDENTS HAVE FOOD TO EAT AND A ROOF OVERHEAD

The City must strive to alleviate the impacts of poverty, low income, and living conditions that make people, especially children and older adults, vulnerable.

There are approximately 5,000 Galveston households that pay more than 30 percent of their income for housing costs that are not helped through public housing or housing vouchers, and many citizens lack food and basic shelter or face barriers to living independently and the community must help provide access to the assistance needed. Further, the safety of these vulnerable populations will need special attention in preparing for disaster events. The City must recognize its role in making Galveston the kind of place people of all ages want to live and raise their families. Galveston's economic future and quality of life depend on the development of its people.

HR-2.1 Increase Access to Fresh Food

The City should promote convenient access to fresh food for all residents with an ideal walk of no more than one-half mile to fresh food through development of community gardens, farmers' market, smaller grocery stores, and home gardens. To accomplish this, the City should support the following activities:

- Pursue available grant funding to allow distribution of seeds, tools, etc.
- Encourage public and private efforts that support food banks and nutrition programs, especially to meet the nutritional needs of infants, children and the elderly, and other vulnerable populations.
- Create a policy for use of tax foreclosed properties as locations for community gardens or parks.
- Partner with UTMB's Center to Eliminate Health Disparities to improve access to food and promote better nutrition.

HR-2.2 Provide Services to Vulnerable Populations

To alleviate challenges affecting vulnerable populations, the City should expand support services to vulnerable population including the elderly, homeless, and women in crisis. The City should also better coordinate service delivery plans (evacuation, shelter in place – BP explosion, tornados, fire) for vulnerable populations in the event of an emergency or disaster.

HR-2.3 Ensure Housing Assistance Programs are Continued

Currently, the City provides housing rehabilitation programs and public service grants to non-profits and city departments through the CDBG Program. The City should analyze the potential changes to the City's Grants and Housing Department and assistance to be provided if the City's population drops below 50,000 residents.

HR-2.4 Protect Historic Neighborhoods and Promote Infill Development

As recommended in the Historic Preservation and Housing and Neighborhoods Elements, the City should seeks ways to expand protection for historic properties, explore the feasibility of creating a Revitalization Authority to oversee areas of the City that need redevelopment, and support on-going efforts to expand housing choices to meet the needs of all City residents. A Revitalization Authority should purchase homes that need repair or are substantially damaged to place for sale once work is completed.

OBJECTIVE HR-3. PROMOTE EFFORTS TO PROVIDE THE EDUCATION AND JOB SKILLS TO LEAD AN INDEPENDENT LIFE

The City recognizes the importance of a well-educated population and young people with the skills to pursue opportunities and careers of their choice. The community must provide a wide variety of educational and occupational opportunities for students. The City must recognize and promote the Galveston Independent School District's (GISD) excellence in multiple areas. Additionally, there must be a seamless transition between pre-school and higher education or vocational training to encourage students to achieve their greatest potential. Galveston recognizes the need to work with other public agencies, non-profit agencies, community groups and the business groups to provide quality education and expand opportunities for learning and training available to children, youth, and adults.

HR-3.1 Promote Life-Long Learning

The City should promote an excellent educational system and opportunities for life-long learning for all residents by working with community colleges, universities, and other institutions of higher learning to promote life-long learning opportunities for community members. The broadest possible use of libraries, community centers, schools, and other existing facilities throughout the City should be encouraged, with the focus on development of these resources in community centers.

The City should strengthen educational opportunities for all Galveston students by working with schools, libraries, community centers, agencies and organizations to link services into a seamless system that helps students stay in school, including co-location and joint use of facilities to make a broader variety of services available to students; promoting development of literacy and employability among Galveston residents; and enhancing opportunities for increased access to literacy development and English-as-a-Second Language (ESL) resources. To further expand educational opportunities, the City should

provide additional opportunities for the public to access computers and internet resources and improve computer skills. The City should create a program for citizens to donate older computers for community use.

HR-3.2 Improve Workforce Development Opportunities and Access to Higher Education

As recommended in the Economic Development Element, support the Galveston P-16 Council to provide focused student support from pre-school through college and support the development of a Vocational-Technical Center at Galveston College called for in the *Long-Term Community Recovery Plan*.

HR-3.3 Encourage GISD to Continue Improving Educational Opportunities for the Island's Youth

As discussed in the Economic Development Element, the City should take actions to support GISD in continued improvement of the community schools on the Island. The City should consider the following actions:

- Work with GISD to create safe learning environments in and after school that promote academic and personal achievement for all children.
- Establish focused interaction between the City Council and GISD through a monthly meeting between the Superintendent, Mayor, City Manager, and Chairman of the School Board. Prioritize big issues at quarterly workshop meetings with the entire City Council. City officials need to attend school events.
- Promote the excellence achieved by GISD through the City website, Channel 16, and special programs.
- Encourage interaction between City staff, GISD, and students such as Saturday Career Day, mentoring programs, Department of Parks and Recreation flyers for afterschool and summer programs, historic preservation educational sessions, Adopt-A-School, community planning activities such as the Master Neighborhood Planning initiative and ensure open access to programs to all children in community.

HR-3.4 Support Educational Programming Outside of Public Schools

Recognizing that community-based learning through service projects has value both to the student and the community, the City should encourage other entities such as fine arts groups, business organizations, or non-profit groups to increase interaction with students through internships and mentoring programs. To provide additional learning opportunities beyond school settings, the City should support the development of a Neighborhood Learning Center, as called for in the *Long-Term Community Recovery Plan*, to offer after hours educational programs.

OBJECTIVE HR-4. WORK WITH PUBLIC AND PRIVATE ORGANIZATIONS AND AGENCIES TO IMPROVE ACCESS TO HEALTH CARE, PROMOTE DISEASE PREVENTION, AND ENCOURAGE PHYSICAL AND MENTAL FITNESS FOR EVERYONE

Health is a major determinant of quality of life and the ability to participate fully in the community. The City of Galveston recognizes the importance of health care for all its residents, in particular the poor and uninsured. Local efforts should help people who experience greater health risks and adverse conditions with a focus on primary prevention through effective policies.

HR-4.1 Develop and Maintain Partnerships with UTMB

The City should continue to develop and maintain a strong partnership with UTMB, including continuation of cooperative work on the Neighborhood Completeness Indicators project. Expand and develop for the City to use in planning analysis. Working cooperatively with UTMB and other entities, the City should establish and monitor key indicators of overall social and health conditions.

HR-4.2 Work to Reduce Environmental Threats and Hazards to Health in the Workplace, at Home, and at Play

To reduce environmental threats and health hazards, the City should make use of the City's building and fire codes, food licensing, permit processes, and hazardous materials and smoking regulations for fire and life safety protection. The City also should collaborate through joint efforts among City departments, such as Fire, Police, and Planning and Community Development to address health and safety issues in a more efficient manner, and support the preparation of land use plans in ways that support development and design that promotes physical activities, uses safe materials, and protects water and air quality.

HR-4.4 Seek to Improve the Quality and Equity of Access to Health Care

To increase the quality of and access to health care, including physical and mental health, emergency medical, and addiction services, the City should:

- Support the preparation of a Health Needs Assessment, called for in the *Long-Term Community Recovery Plan*, to review the health issues facing City populations.
- Collaborate with community organizations and health providers to advocate for quality health care and broader accessibility to services.

- Pursue co-location of programs and services, particularly in under-served areas.
- Work with other jurisdictions, institutions, health care providers and community organizations to develop a strong continuum of community-based, long-term care services.
- Work towards the reduction of health risks and behaviors leading to chronic and infectious diseases and infant mortality, with particular emphasis on populations disproportionately affected by these conditions.

HR-4.9 Expand Access to Mental Health Services

The City should support increased access to preventative interventions at agencies that serve the homeless, mentally ill, and chemically dependent populations. The City also should pursue co-location of health services at these and other agencies serving those disproportionately affected by disease.

OBJECTIVE HR-5. WORK TO IMPROVE PUBLIC SAFETY AND SECURITY AND REDUCE VIOLENCE AND ABUSE WITHIN THE COMMUNITY

Public safety is an individual, family, and social responsibility – not just a job for the City and the Galveston Police Department. It is more than enacting and enforcing laws. It goes beyond preventing crime. It includes human service efforts that prevent problems before they begin, and intervenes early before problems become serious. The City recognizes that building safer communities requires the commitment of all of Galveston's residents, youth and adults alike. City government can act as a catalyst in this effort. It can help build partnerships and make connections between the individuals, agencies, and other groups that work to address persistent community and neighborhood problems.

HR-5.1 Support Efforts to Address Conditions Affecting Public Safety in Neighborhoods

The City should work with community organizations and residents to reduce abandoned and vacant homes and address associated problems such as drug activity, squatters, fire, disease, and rodents/pigeons. The City also should support efforts to reduce or manage the feral animal population including dogs, coyotes, and cats and provide support for informal monitoring and legitimate activities that give people a sense of ownership and control over their neighborhoods. This can include support for events like National Night Out, neighborhood block parties, and participation in neighborhood planning activities. The City should also make public safety a consideration in the design

of porches, light levels, sidewalks, and landscaping and management of public spaces to prevent crime and fear in public facilities, gathering places, streets, and parking and shopping areas.

HR-5.2 Work to Reduce Youth Crime and Gang Activity

The City should strive to prevent youth crime and reduce youth violence and gang activity and promote efforts that increase youths' attachment to the community, involvement in legitimate activities, commitment to and success in education and employment, and participation in the community. The City should continue support for activities that are a wholesome alternative to crime and violence, find ways to involve young people in discussions about community crime and prevention, and work with GISD to make schools safe for all youth.

HR-5.3 Improve Perception of Public Safety and Sense of Security in City Neighborhoods

The City should strive to reduce violence and fear of crime and help individuals, families, and neighborhoods participate in addressing their safety concerns. The City should support programs and initiatives designed to achieve an increased sense of security and a decrease in the per capita incidence of crimes, as indicated by decreased homicides, aggravated assaults, residential burglaries and auto theft. An increased perception of police presence and a decreased perception of crime are essential to promoting security within the City's neighborhoods.

The City also should enforce policing strategies that work in partnership with the community to reduce crime through prevention, education, and enforcement, and encourages communities to build block by block networks to prevent crime, develop social networks, and solve common problems. The City should strive to provide competent, professional, and efficient City criminal justice services, including law enforcement, prosecution, and adjudication. The City should seek to find and hold accountable those who commit crimes, reduce recidivism, and achieve a fair and just system.

OBJECTIVE HR-6. STRIVE TO CREATE A MULTI-CULTURAL CITY WITH FREEDOM FROM DISCRIMINATION

The City of Galveston must promote respect and appreciation for diversity, including economic, racial, cultural, and individual differences, within the community. The diverse citizenry of Galveston provides varied heritage, talents, and perspectives that can combine to build a stronger community. The City

recognizes that every human being should have the opportunity to succeed, to contribute, and to be treated with dignity.

The City should encourage community efforts that work toward achieving a diversity of ages, incomes, household types and sizes, and cultural backgrounds throughout the City and region.

HR-6.1 Support Initiatives that Build Respect and Appreciation for Diversity

The City should encourage community efforts that work toward achieving a diversity of ages, incomes, household types and sizes, and cultural backgrounds throughout the City and region. To promote diversity and bridge cultural, racial, and economic, and other differences and divides, the City should accomplish the following:

- Celebrate diversity through community activities and events that recognize different groups and bring people together to experience and learn about ethnic and cultural traditions.
- Involve children, youth, and adults of all ages in intergenerational activities to lend support to and learn from each other.
- Work to improve access to City and community services (arts, natural resources, beach) and to remove obstacles that keep people from receiving the services they need.
- Improve facility and program accessibility through implementation of the Americans with Disabilities Act. This could include increased parking enforcement or a public information campaign.
- Enhance opportunities for people with low incomes, disabilities, limited English-speaking ability, and other barriers to service to participate fully in community life and to access assistance.
- Promote culturally responsive and relevant service delivery. Strive to ensure that City-funded agencies and services provide appropriate service.
- Provide opportunities for diverse representation of people and interests on City boards, commissions, advisory committees, and in the neighborhood planning implementation.
- In addition to upholding federal, state, and local laws against discrimination and bias crimes, the City should work to promote human rights and mutual respect and to end intolerance and divisiveness. Reach out and bring people together in ways that build bridges between individuals and between groups.

OBJECTIVE HR-7. ENSURE ACCESS TO CULTURAL AND RECREATIONAL AMENITIES FOR ALL GALVESTONIANS

The City of Galveston is blessed with an abundance of natural, cultural, and recreational activities within the community. These amenities include beaches, wetlands, fishing, historical districts, Gulf and bay access, parks, and public

To improve availability and access to cultural amenities, the City should fund the Commission for the Arts to improve the visual appearance and cultural interest of the community through further the expansion of public art, maintenance of public art, and community events.

events. Galveston must ensure accessibility to these activities for residents and visitors to the Island and provide an opportunity for all to appreciate the unique character of the Island.

HR-7.1 Improve Availability and Access to Cultural Amenities

To improve availability and access to cultural amenities, the City should fund the Commission for the Arts to improve the visual appearance and cultural interest of the community through further the expansion of public art, maintenance of public art, and community events.

HR-7.2 Encourage Healthy and Active Lifestyles by Increasing Access to Recreational Facilities and Open Space

To encourage City residents to adopt healthy and active lifestyles to improve their general health and well-being and increase their number of healthy years lived, the City should take the following actions to improve the access, availability, and quality of the recreational facilities, programs, and activities to meet the needs of the diverse populations in Galveston:

- Provide opportunities for people to participate in fitness and recreational activities and to enjoy available open space.
- Build a community pool and build on the City's recreational programs and facilities including Menard Park, the Jonathan M. Romano Skate Park, and the McGuire–Dent Recreation and Fitness Center.

- Expand available public parks and recreational activities, including band concerts, recreational space, community center programming, community pool, master sports complex, Wright-Cuney Park and Recreation Center, and McGuire-Dent Recreation and Fitness Center.
- Review City codes and regulations to allow more flexibility to support development of cultural and recreational activities including concerts, smaller neighborhood events, and community gardens. Work cooperatively with City organizations and GISD to meet the needs of special events while reducing negative impacts including noise and traffic.
- Provide additional recreational and cultural opportunities for the increasing elderly population including the development of card tournaments, exercise classes, and a community pool.

OBJECTIVE HR-8. PROMOTE COMMUNITY PRIDE

For far too long, far too many Galvestonians have not taken pride in the community. This is evidenced by public policy, land use decisions, the cleanliness of the town, the state of repair of residential and commercial buildings and infrastructure. There needs to be a fundamental change in the culture of the community to recognize the unique value of Galveston and to stop viewing the City as a second rate area. This includes the behavior of individuals, littering, keeping up private property and lack of understanding of regulations and value of the Island itself. There is also a general acceptance of the situation with the complaint that it is “Just Galveston” and no one will listen anyway. As a community, we must change our focus to take pride in our unique city, speak positively and reduce the negativity, and actively work together to reflect the goals and values of Galveston.

HR-8.1 Support Efforts and Initiatives to Promote Pride in the Community

The City must lead by example in promoting community pride. The City should: ensure codes and regulations are uniformly and fairly applied ; create a sustainable Adopt the Road or Adopt the Neighborhood Programs by partnering with the educational institutions, business organizations, and neighborhood groups; and create a “Take Pride in Galveston” or “Fight for Galveston” campaign that includes an educational component to address litter, architecture, history, arts and culture, educational resources, natural resources, natural habitats, and a comparison to other communities with positive aspects such as lower crime and educational opportunities.

OBJECTIVE HR-9. PROVIDE COORDINATION AND JOINT PLANNING OF SERVICES

The City must develop a more flexible, comprehensive, coordinated and efficient system of services that addresses whole needs of people, families and communities. Through the use of its limited resources, the City of Galveston has an important role to play in building efficient human service and public safety systems with easy access for people. Access, linkages, and quality assurance help make services work better for individuals, families and neighborhoods. Co-location of services and other collaborative efforts can improve access. The City of Galveston must work cooperatively with its partners on local, regional and inter-regional levels to provide the essential services necessary for its residents.

HR-9.1 Incorporate Customer-Focused, Community-Based Service Delivery Strategies

Incorporate the customer-focused and community-based concepts in the delivery of City services. To encourage greater levels of interaction between citizens and staff members, the City should promote effective, efficient community-based and community delivered services using a combination of public, private, community and personal resources by supporting the following:

- Assignment of dedicated staff to geographic areas within the community throughout the City departments. Encourage further.
- Establishment of service zones for ease of interaction with citizens, neighborhood groups, and organizations and coordinate neighborhood planning, community policing, code enforcement, building, and public works services that are human oriented and help to build trust and gather feedback.
- Encouragement of customer-focused services with feedback from those who use them and involvement of consumers in identifying needs and planning for service delivery.
- Seek effective ways to measure program performance and results, balancing accountability and efficiency with the need to encourage service innovation.

HR-9.2 Improve Communications with City Residents

The City should provide better and more coordinated information to people about the availability of services in the community and make use of available and new technologies to improve access to services and information. As a means to accomplish this, the City's website may be used to provide better information regarding services to the public, including public announcements

and meetings, free services, transportation routes, committees, and City projects. In addition, the City can expand communications programs to include translations, particularly in Spanish and Vietnamese, for important municipal, county and regional information.

HR-9.3 Expand Intergovernmental Collaborations

The City should encourage inter-community-based cooperation with other organizations and agencies. To accomplish this, the City should consider the following:

- Importance of addressing the need for transportation and dependent care in planning for health, human services, employment, and recreation programs.
- Potential to partner with neighborhood organizations to address a broad range of human issues in a context of both neighborhood strengths and needs.
- Identification of solutions to service concerns and ways to make service delivery more accessible and user-friendly.

HR-9.4 Improve Accessibility and Efficiency of Community Facilities

The City should work to ensure equitable sharing and siting of facilities throughout the City to promote access and efficient use of community resources. Siting policies and good neighbor guidelines should be followed to strive for distribution of services that considers the needs of consumers and the community and focuses growth in neighborhood areas. In planning for new and the improvement of existing facilities, the City should consider the following:

- Explore the use of existing facilities and co-location of services, including joint use of schools and City and community facilities, to make services more available in neighborhood regions/areas.
- Address the special needs of pre-teen, teens, and young adults in planning and designing community facilities and programs. Increase awareness of programs and activities available to pre-teens, teens and young adults, and directly seek information from this group on how programs and activities can be improved to better meet their needs.
- Work more cooperatively with the Park Board of Trustees and other partners to provide recreational opportunities and maintain and expand recreational amenities at the County pocket parks, encouraging similar actions at the Galveston Island State Park.
- Assist in the expansion and improvement of Galveston County Health District services such as mosquito control, regulations of on-site disposal systems, and inspection of restaurants and food vendors.

Encourage inter-local and inter-regional interaction between the City and other agencies to improve the delivery of services.

HR-9.5 Expand Partnerships with Local and Regional Agencies to Provide Services

Encourage inter-local and inter-regional interaction between the City and other agencies to improve the delivery of services. Specifically, the City should encourage the following:

- Cooperative planning, decision-making, and funding for health and human service delivery throughout the region by joining with other public and private institutions in the region to strive for a stable and adequate funding base for services that support safe and healthy communities.
- Expanded collaboration with community organizations and other jurisdictions to advocate for strong health, human service and public safety systems, including services for which the City does not carry primary responsibility, such as mental health and substance abuse.

HR-9.6 Ensure Transportation Systems and Services to Improve Livability

As described in the Transportation Element, the City should implement Complete Streets policies. The City should also support regional transportation initiatives that connect Galveston to the mainland including commuter rail, Island Connect services, and UTMB shuttles between facilities.

HR-9.7 Ensure Disaster Planning Programs Serve Vulnerable Populations

As described in the Disaster Planning Element, it is essential to plan for disaster events to address the needs of vulnerable populations on the Island. To accomplish this, the City should explore the following:

- Continue to support inter-regional disaster planning to determine evacuation routes, safety, and cooperative relationships with social service and health providers in Houston-Galveston area.
- Create a program to provide post-storm assistance such as daycare, shelters, temporary housing, mental health support services, elderly, homeless populations, and individuals with special needs.
- Encourage cooperative agreements with on and off island day care for reciprocal services that are established prior to disaster events. Encourage development of a master file process for immunization records and child health information.
- Encourage cooperative agreements with on and off Island animal shelters, vet offices, and boarding facilities to provide pet care in a disaster event. Encourage development of master file process for immunization records and pet health information.

HR-9.8 Improve City Technology and Data Sharing

The City should continue to participate with the Galveston GIS Consortium to promote data sharing and information exchange and ensure City communication systems reflect changes in technology and provide access to regional agencies' communication systems.

PLAN IMPLEMENTATION

INTRODUCTION

This chapter describes an implementation program for the Comp Plan comprised of the following:

- A protocol for monitoring and updating the plan, indicating how it will be used, tracked and updated, and revised to ensure that the City "stays the course" in implementing the Plan.
- An Action Plan that identifies 76 projects and initiatives synthesizing actions described in the Comp Plan Elements.

Also included is a discussion of the importance of aligning the City's Capital Improvement Program with recommendations in the Comp Plan.

PLAN USE, MONITORING, & UPDATING

Texas law provides basic guidance to municipalities in the preparation and use of Comprehensive Plans, and although municipalities have considerable flexibility in defining the relationship between their Comprehensive Plans and development regulations, Chapters 211.004 requires that zoning regulations (including rezonings) be adopted in accordance with a Comprehensive Plan and Chapter 212.010 requires development plat approvals to conform to a Comprehensive Plan. Consequently, the Comprehensive Plan plays a very central and direct role in shaping the future of the City's built environment.

For the Plan to serve over time as an effective, relevant guide for zoning, subdivision, and other decision-making, effective monitoring and evaluation is critical. Without care and maintenance, the Plan's value will start to diminish after a three- to five-year period. As circumstances in the City and region change, planning goals, objectives and strategies should be reassessed and adjusted to address new issues and opportunities and reflect evolving priorities.

The following is a recommended framework for the use, monitoring, and updating of the Comp Plan:

- **Plan Use in Development Review and Investment Decisions**
  - Continue to review zoning approvals and plats for consistency with the Comprehensive Plan.
  - Continue efforts to ensure investments called for in the Capital Improvement Program are consistent with policies, strategies, and priorities established in the Comprehensive Plan.

- **Plan Monitoring and Annual Reporting:**
  - At or near the anniversary of plan adoption, the Planning and Community Development Department should submit to the Planning Commission and City Council, an annual report indicating actions taken and progress made toward plan implementation.
  - Include in the annual report a review of current conditions and trends that may affect or be affected by plan policies, including planned or anticipated development, improvements to transportation and infrastructure systems, changes in federal or state regulations or programs, and key issues pertaining to public health and safety.
  - As part of the annual review and reporting process, potential plan amendments to address altered circumstances or in response to citizen requests, proposed rezonings, or proposed plats should be recommended.
  - Also as part of the annual review and reporting process, identify potential revisions to land development regulations to ensure conformance with the Comprehensive Plan.

- **Plan Amendments:**
  - Package proposed plan amendments annually for review by the Planning Commission, and forward their recommendation for adoption of plan amendments to City Council, with requirements for public notice and public hearing.
  - Plan amendments may include corrections of errors, clarifications of intent, modifications to goals, objectives, strategies and actions; or modifications to accommodate rezonings which are contrary to the Comprehensive Plan.

- Amendments should not be made without an analysis of immediate needs and consideration of the long-terms effects. In considering amendments to the Comp Plan, the City should be guided by the following: 1) the need for the proposed change; 2) the effect of the proposed change on the need for city services and facilities; 3) the implications, if any, that the amendment may have for other parts of the plan; and 4) the impact of the proposed change on the ability of the City to achieve the goals, objectives, and policies expressed in the Plan or in other City policies, programs, or interests.

› **Public Involvement and Coordination:**
- To monitor Plan effectiveness, maintain a two-way dialogue with the public, developers, groups, associations, and agencies.
- Before amendments are considered for adoption, City stakeholders should be provided with effective ways to participate and should be encouraged to get involved in the decision-making process.
- Continue coordinating with other agencies and groups involved in activities related to the Comprehensive Plan and policy-making processes related to form, character, and intensity of development on the Island.
- Provide opportunities for all City Departments to affect change in the policies of the Comprehensive Plan, thereby ensuring the Plan provides a City-wide framework for decision-making.
- Encourage ongoing citizen input into changes in the needs of the community through questionnaires and opportunities for written input.

› **Plan Review and Updates:**
- Initiate a formal Comprehensive Plan review and update every five years, including creation of a Comprehensive Plan Steering Committee, updating of data documenting conditions and trends; evaluation and appraisal of Comprehensive Plan effectiveness and implementation efforts, and revision of goals, objectives, policies, and actions to reflect changing circumstances, emerging needs and opportunities, and expressed citizen priorities.

CAPITAL IMPROVEMENT PROGRAM

The City of Galveston's Capital Improvement Program (**CIP**) is one of the key methods available for implementing Comp Plan recommendations. Currently, the City's CIP is a five-year schedule of proposed improvements prepared by a committee of senior staff and submitted to City Council for adoption.

As the CIP is being prepared, potential improvements are prioritized using three types of criteria:

- Public health and safety, legal mandate issues, protection of existing facilities, potential for economic development, and impact on the operating budget.
- Population served, relation to the adopted plan, intensity of use, and scheduling issues.
- Available financing, special need, energy consumption, timelines, and public support.

Because the CIP process focuses on meeting near-term needs with available and committed funding sources, it's potential to serve as a strategic planning tool has been limited. To gain more value from the process, the following modification should be considered:

- For all items listed, potential funding sources should identified including those extending through the 5-year horizon.
- For each potential project, add information regarding Comp Plan relevance.
- Include Comp Plan relevance and consistency as factors in priority-setting.

ACTION PLAN

The Comprehensive Plan identifies over 800 individual action items designed to achieve the City's vision to be a more livable, sustainable, and competitive community. As a first step in drafting the Comp Plan's Implementation chapter, individual action items in the Elements were reviewed, grouped by general topic, and organized into a list of 76 projects. These projects represent a broad assortment of existing and proposed plans, programs, capital investments, policies, and initiatives required to realize the Plan's goals and objectives.

The following table presents an *Action Plan* for implementing the Comp Plan. The table classifies projects according to general category, plan element, project

champion and partner (abbreviations listed in call-out box below), and project status. Project status is defined as follows:

- Committed – Underway or Funded
- Expanded Plan or Program
- New Plan, Program or Study

The *Action Plan* is not intended to be a definitive prescription; rather, it is suggested as a framework to guide decision-making, so the process remains focused upon the policies and strategies of the Comp Plan. While the Comp Plan incorporates reasonable flexibility, the degree of success in implementing the Plan will be a reflection of the City's ability to consistently act in accordance with the *Action Plan*.

Action Plan Champion and Partner Abbreviations:

The following abbreviations for Champions and Partners are used in the following Action Plan table .

CITY DEPARTMENTS

EOC	Emergency Operations Center
GH	Grants & Housing
IT	Information Technology
LD	Legal Department
PR	Parks & Recreation
PCD	Planning & Community Development
PW	Public Works
PIO	Public Information Officer
GFD	Fire Department
GPD	Police Department

CITY BOARDS & COMMITTEES

FCYB	Families, Children & Youth Board
LC	Landmarks Commission
ITC	Intermodal Transportation Committee
PC	Planning Commission

OTHER AGENCIES & ORGANIZATIONS

CC	Galveston Chamber of Commerce
CVB	Galveston Island Convention & Visitors Bureau
GAIN	Galveston Alliance of Island Neighborhoods
GBF	Galveston Bay Foundation
GC	Galveston College
GCHD	Galveston County Health District
GEDP	Galveston Economic Development Partnership
GHA	Galveston Housing Authority
GHF	Galveston Historical Foundation
GINTC	Galveston Island Nature Tourism Council
GITC	Galveston Island Tree Conservancy
GIS	Galveston GIS Consortium
GISD	Galveston Independent School District
GLO	Texas General Land Office
GTC	Galveston Tree Committee
HDSSP	Historic Downtown Strand Seaport Partnership
H-GAC	Houston-Galveston Area Council
NTF	Northside Task Force
PBT	Park Board of Trustees
Port	Port of Galveston
Scholes	Scholes International Airport at Galveston
TAMUG	Texas A&M University at Galveston
THC	Texas Historical Commission
TPL	Trust for Public Lands
TxDOT	Texas Department of Transportation
USACE	U.S. Army Corps of Engineers
UTMB	University of Texas Medical Branch
WGIPOA	West Galveston Island Propery Owners Association

Action Plan

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Complete Streets Policy	Development of a Complete Streets Policy will be completed as part of the Mobility and Thoroughfare Plan as part of Progress Galveston initiative.	Infrastructure, Parks & Public Facilities	Transportation	Funded	Champion: PCD Partner(s): PW, ITC
Disaster Recovery Plan	Plan to be completed as part of Progress Galveston to address post-event recovery efforts, including partnerships, business recovery, lowering insurance rates, historic resources, and debris management.	Hazard Planning & Response	Disaster Planning	Funded	Champion: PCD Partner(s): GHF, GEDP, EOC, PW
Mobility & Thoroughfare Plan	Plan to be completed as part of Progress Galveston initiative to assess capacity, identify transportation improvements, partnerships with regional and state partners, neighborhood impacts, linkages to regional network, public outreach, and develop a 5-year capital improvement program.	Infrastructure, Parks & Public Facilities	Transportation	Funded	Champion: PCD, PW Partner(s): ITC, H-GAC
Sustainability Plan	Plan to be completed as part of Progress Galveston initiative to implement recommendation from Hazard Mitigation Plan and develop comprehensive framework for decision-making with measurable objectives. Plan to address management practices, energy use, City regulations and policies, business development, housing, and other sustainable practices.	Planning & Plan Implementation - Island-Wide	Natural Resources	Funded	Champion: PCD
Coastal Management & Erosion Response Plans	A LTCRP project that is currently underway as part of the Progress Galveston initiative. These plans will respond to state requirements for beachfront development and dune protection and restoration.	Resource Conservation	Natural Resources	Underway	Champion: PCD Partner(s): PBT, WGIPOA, GLO, PW
Community Development Resources Evaluation	Study to determine potential resources for community development activities.	Engagement, Education & Community Services	Human	Underway	Champion: GH Partner(s): GHA, GAIN, FCYB
East End Lagoon Preserve Master Plan Implementation	Implementation program for completed LTCRP project: East End Lagoon Nature Park and Preserve.	Infrastructure, Parks & Public Facilities	Land Use & Community Character	Underway	Champion: GINTC Partner(s): PR

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Future Land Use Plan	Plan for future growth and development completed as part of Progress Galveston initiative.	Planning & Plan Implementation - Island-Wide	Land Use & Community Character	Underway	Champion: PCD
Historic Preservation Plan & Design Standards	Plan and regulatory update as part of Progress Galveston initiative to address historic preservation issues including disaster planning, incentives and grant programs staffing, permitting, demolition by neglect, neighborhood conservation, additional district designations, and partnerships.	Historic Preservation	Historic Preservation	Underway	Champion: PCD Partner(s): THC, GHF, LC, GAIN, HDSSP, and other neighborhood associations
LDRs - Conservation Standards & Incentives	Regulatory update as part of Progress Galveston initiative to protection of natural resources through construction and mitigation practices, sustainable development patterns, and open space and wetland protection.	Resource Conservation	Natural Resources	Underway	Champion: PCD Partner(s): TPL, GBF
LDRs - Crime Prevention through Environmental Design (CPTED) Standards	Regulatory update as part of Progress Galveston initiative to address public safety issues in addressing neighborhood, site, and building design.	Planning & Plan Implementation - Island-Wide	Human	Underway	Champion: PCD Partner(s): GPD, GAIN, and other neighborhood associations
LDRs - General Guidance regarding Update	Regulatory update as part of Progress Galveston initiative to address livability and neighborhood quality of life issues and Comprehensive Plan goals and objectives.	Planning & Plan Implementation - Island-Wide	Land Use & Community Character	Underway	Champion: PCD Partner(s): LC, PC, GAIN, and other neighborhood associations
LDRs - Hazard Mitigation Provisions	Regulatory update as part of Progress Galveston initiative to address disaster planning and mitigation issues.	Hazard Planning & Response	Disaster Planning	Underway	Champion: PCD Partner(s): PW, EOC
LDRs - Infill Development Standards	Regulatory update recommended in LTCRP to be completed as part of Progress Galveston to develop design standards for infill development and reevaluate underlying zoning designations.	Neighborhoods & Housing	Housing & Neighborhoods	Underway	Champion: PCD Partner(s): GHF, GAIN, LC, PC
LDRs - Landscape & Buffer Standards	Regulatory update as part of Progress Galveston initiative to landscaping standards.	Planning & Plan Implementation - Island-Wide	Land Use & Community Character	Underway	Champion: City Partner(s): PCD
Noise Ordinance Update	Regulatory update to ensure appropriate monitoring and enforcement of noise regulations.	Planning & Plan Implementation - Island-Wide	Housing & Neighborhoods	Underway	Champion: LD, GPD Partner(s): PCD

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Parks Master Plan	Plan update to be completed as part of Progress Galveston initiative.	Infrastructure, Parks & Public Facilities	Natural Resources	Underway	Champion: PR Partner(s): PCD, PW, PBT
Airport Master Plan	Update existing plan to address development of airport and surrounding area.	Districts & Corridors	Land Use & Community Character	Expanded Plan	Champion: Scholes Partner(s): PCD
Beach & Bay Access Improvements	Plan to maintain existing beach and bay access points, improve access and develop new facilities, and identify potential funding sources.	Resource Conservation	Natural Resources	Expanded Program	Champion: PCD Partner(s): PBT, GBF, TPL, GINTC, WGIPOA
Broadway Improvement Program	Program to address development and design standards, land uses, public realm improvements, transportation choices, code enforcement, and potential funding sources.	Districts & Corridors	Land Use & Community Character	Expanded Program	Champion: PW, PCD, PR Partner(s): CC, GHF, GITC, THC, TxDOT, GTC
Business Recruitment & Development Initiative	Initiatives include: LTCRP project: Galveston Business Incubator; small business development, micro-loan program, public-private partnerships, technology-oriented and "green" business recruitment.	Economic Development	Economic Development	Expanded Program	Champion: CC, GEDP Partner(s): City
Capital Project Financing Strategies	Program to explore new ways to fund capital improvement projects.	Infrastructure, Parks & Public Facilities	Economic Development	Expanded Program	Champion: PW Partner(s): PR, PCD
Code Compliance & Enforcement Initiative	Program to improve maintenance of properties, reduce blight, protect historic resources, and implement LTCRP project: Sustainable Neighborhoods Code Compliance Strategy.	Planning & Plan Implementation - Island-Wide	Housing & Neighborhoods	Expanded Program	Champion: PCD Partner(s): GAIN, GH, GHF
Comprehensive Housing Program	Program to continue partnerships, develop receivership and homeowner incentive programs, implement LTCRP projects: Housing Market Study, Galveston Housing Rehabilitation and Infill, and Sally Abston Housing Program. (GHA received money from HUD to complete new plan)	Neighborhoods & Housing	Housing & Neighborhoods	Expanded Program	Champion: GH Partner(s): GHA, GHF, GAIN, PCD
Crime Prevention & Public Safety Program	Program to address safety concerns, reduce crime through prevention, and improve perception of public safety.	Engagement, Education & Community Services	Human	Expanded Program	Champion: GPD Partner(s): PIO, GAIN

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Decision Support Initiatives (IT/IMS/GIS)	Program to expand technology initiatives to support city services including development of IT infrastructure, promote data sharing, improve public access to information, and develop partnerships with regional and educational institutions.	Planning & Plan Implementation - Island-Wide	Plan-Wide	Expanded Program	Champion: IT Partner(s): PIO, TxDOT, H-GAC, PCD, PW, GIS
Disaster Response Plan Implementation	Program to ensure appropriate staffing, coordination with state and federal agencies, and response activities are in place in post-event situations.	Hazard Planning & Response	Disaster Planning	Expanded Program	Champion: EOC
Education Programs & Partnerships	Program to support GISD and other educational partners' initiatives and implementation of several LTCRP projects including: Galveston Promise, Galveston Center for Technology and Workforce Development, Vocational-Technical Center, and Galveston Center for Historic Preservation.	Engagement, Education & Community Services	Human	Expanded Program	Champion: GISD Partner(s): P-16 Council, GC, GHF
Expansion of Support Services to Vulnerable Populations	Program to provide support services to vulnerable populations including the elderly, homeless, and women in crisis.	Engagement, Education & Community Services	Human	Expanded Program	Champion: tbd Partner(s): FCYB, UTMB, GH, local social service providers
Hazard Communications Initiative	Program to ensure residents and businesses are adequately prepared before a disaster event and have access to timely information both during and after an event.	Hazard Planning & Response	Disaster Planning	Expanded Program	Champion: PIO, EOC
Hazard Mitigation Plan Implementation	Program to implement LTCRP project to ensure appropriate mitigation and preparedness activities including participation in CRS program, education programs, structural mitigation strategies, and regulatory changes.	Hazard Planning & Response	Disaster Planning	Expanded Program	Champion: EOC Partner(s): PW, PCD, PIO
Infrastructure & Facility Hardening Program	Program to ensure municipal facilities, utilities, and transportation systems are strengthened to increase resiliency.	Hazard Planning & Response	Infrastructure	Expanded Program	Champion: PW Partner(s): ITC, H-GAC, TxDOT
North Broadway Neighborhood Revitalization Strategy	Program to expand existing plans to address economic development issues for redevelopment area north of Broadway.	Neighborhoods & Housing	Land Use & Community Character	Expanded Program	Champion: tbd Partner(s): NTC, GHA, GAIN, PCD, GEDP, GHF

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Preservation Incentive Program	Program to provide funding or financial incentives to promote preservation activities.	Historic Preservation	Historic Preservation	Expanded Program	Champion: PCD Partner(s): GHF, LC, GAIN, HDSSP, and other neighborhood associations
Public Communication Plan & Initiatives	Program to improve communication between City and residents, developers, and visitors through development of "virtual city hall," public education and awareness campaigns.	Engagement, Education & Community Services	Multiple Elements	Expanded Program	Champion: PIO Partner(s): IT
Seawall Boulevard Enhancement Strategy	Program to implement LTCRP project, which includes development and design standards, land use controls, other management districts and development tools, public realm improvements, and potential funding sources.	Districts & Corridors	Land Use & Community Character	Expanded Program	Champion: tbd Partner(s): PBT, PW, PCD, Galveston County, PC, GEDP, CC, USACE
Stormwater Management & Water Quality Improvement Program	Program to address NPDES compliance and maintenance and investments to improve stormwater management on the Island.	Infrastructure, Parks & Public Facilities	Infrastructure & Natural Resources	Expanded Program	Champion: PW Partner(s): PCD
Waste Disposal & Recycling Program	Program to explore more sustainable waste management options including expansion of recycling program and reuse of building materials.	Infrastructure, Parks & Public Facilities	Infrastructure	Expanded Program	Champion: PW Partner(s): PCD, PR, PBT
Water Conservation Program	Program to implement 2009 plan including public awareness programs, establishing a water budget for City, and developing new landscaping and irrigation standards.	Infrastructure, Parks & Public Facilities	Infrastructure	Expanded Program	Champion: PW Partner(s): PCD, PR, PIO
Wayfinding Signage Program	Program to develop directional signage for visitors.	Economic Development	Transportation	Expanded Program	Champion: PW Partner(s): PCD, CC, HDSSP, CVB, Island Transit
Youth Programs & Partnerships	Program to support City youth through partnerships to develop mentoring and internship programs and increased recreational activities.	Engagement, Education & Community Services	Human	Expanded Program	Champion: FCYB Partner(s): GISD, PR
61st Street Improvement Plan	Plan to include development and design standards, land use controls, public realm improvements, and potential funding sources.	Districts & Corridors	Land Use & Community Character	New Plan	Champion: PCD Partner(s): PW, Galveston County, TxDOT

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Bay Restoration Plan	Plan to address erosion and mitigation issues for bay shoreline and bay wetlands.	Resource Conservation	Natural Resources	New Plan	Champion: PCD Partner(s): GBF, TPL, NOAA, USACE, TAMUG
Carrying Capacity/ Adequate Public Facilities Study	Plan to determine the existing carrying capacity of City to provide services to ensure that the City provides adequate schools, roads, water, and sewer service. Plan to include public safety facility location study.	Infrastructure, Parks & Public Facilities	Infrastructure	New Plan	Champion: PW Partner(s): PCD, GISD, GPD, GFD
East End Flats Development Plan	Plan to address future development of the area north of seawall that is currently used as dredge fill site for USACE.	Neighborhoods & Housing	Land Use & Community Character	New Plan	Champion: tbd Partner: CC, PCD, GEDP, GAIN, USACE
FM 3005 Corridor Design Standards	Plan to develop design standards for FM 3005 Corridor west of the Seawall.	Districts & Corridors	Land Use & Community Character	New Plan	Champion: PCD Partner(s): PW, TxDOT, WGIPOA, GLO
Galveston Port Improvement Plan	Initiatives include: LTCRP project: Galveston Port Improvement Project; partnerships with Port; review development regulations and access, utilities, and parking; cruise ship terminal development	Districts & Corridors	Land Use & Community Character	New Plan	Champion: Port Partner(s): PCD, GEDP, CC, HDSSP, UTMB, PW
Harborside Drive Improvement Plan	Plan to include development and design standards, land use controls, public realm improvements, cruise ship terminal improvements, and potential funding sources.	Districts & Corridors	Land Use & Community Character	New Plan	Champion: PCD Partner(s): PW, Port, GEDP, CC, HDSSP, UTMB
Sports, Arts & Recreation Master Plan	Initiatives include: LTCRP project: Galveston Master Sports, Arts & Recreation Complex; expand existing recreational and cultural services; and support Commission of the Arts.	Economic Development	Economic Development	New Plan	Champion: PR Partner(s): PCD, PW, GHF, GAIN, GISD, GEDP, CVB
Tourism Master Plan	A LTCRP project to support existing visitor attractions, develop eco-tourism, develop public-private partnerships, support special events, support development of cruise ship terminal and welcome center.	Economic Development	Economic Development	New Plan	Champion: CVB Partner(s): PBT, GHF, TPL, GINTC

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Trail Master Plan	Plan to create islandwide trail network by promoting private development, identifying potential funding, and developing a master plan to identify priorities.	Infrastructure, Parks & Public Facilities	Natural Resources	New Plan	Champion: PCD Partner(s): PR, CVB, PW, GINTC, GBF, TPL, WGIPOA, GAIN
Water & Sewer Master Plan Update	Plan to address potable water supply and distribution, expansion of sanitary sewer system, use of on-site disposal systems, and alternative water sources including desalination and reclaimed water.	Infrastructure, Parks & Public Facilities	Infrastructure	New Plan	Champion: PW Partner(s): PCD
West End Commercial Centers Plan	Plan to include new designated commercial centers with development design standards for neighborhood-serving commercial uses on the West End.	Districts & Corridors	Land Use & Community Character	New Plan	Champion: PCD Partner(s): WGIPOA, GEDP, CC
Civic Engagement Initiative	Initiatives to improve social engagement by working with citizens to increase participation and diversity, solve intergenerational issues, and promote volunteerism and community service.	Engagement, Education & Community Services	Human	New Program	Champion: PIO Partner(s): GAIN, WGIPOA, FCYB
Clean, Green & Smart Galveston Initiative	Initiative includes: two LTCRP projects: Clean, Green, and Smart Galveston and Trees; expansion of recycling programs, code enforcement, beautification efforts; and partnerships with neighborhood organizations and non-profit organizations.	Public Realm Improvements	Economic Development & Human	New Program	Champion: PCD Partner(s): GITC, PW, PR
Community-based Service Delivery Initiative	Initiative to create service zones within the City and coordinate full-range of City services through shared facilities and co-location of services, community policing, develop program performance measures, improved communication with residents, and partnerships with non-profits neighborhood organizations, and educational providers.	Engagement, Education & Community Services	Human	New Program	Champion: City Partner(s): GAIN, WGIPOA, GISD, TAMUG, GC, UTMB
Cost of Service Program	Program to evaluate cost of service for different housing types and evaluate cost/benefit for proposed developments.	Planning & Plan Implementation - Island-Wide	Economic Development	New Program	Champion: PW Partner(s): PCD

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Downtown Plan Implementation Program	Program to implement completed LTCRP project: Downtown Redevelopment Plan including revised development standards.	Districts & Corridors	Land Use & Community Character	New Program	Champion: HDSSP Partner(s): PCD, PW, H-GAC
Environmental Lands Conservation Program	Program initiatives include: LTCRP projects: Galveston Island Ecosystem Restoration from the Gulf to the Bay, Protecting Island Resources, and West Galveston Island Land Conservation; develop priority system to protect natural resources; connection habitat and wetland systems; incentive and regulatory matrix for property owners; Open Space Network Plan; beachfront acquisition program; potential funding sources; and long-term open space management.	Resource Conservation	Natural Resources	New Program	Champion: Artist Boat Partner(s): City, USACE, GLO, WGIPOA
Food Access Initiative	Program to support access to fresh food including identification of potential funding sources, development of food banks, nutrition programs, community gardens, and farmers' markets, and continued partnership with UTMB's Center to Eliminate Health Disparities.	Engagement, Education & Community Services	Human	New Program	Champion: UTMB Partner(s): PCD, GAIN, WGIPOA, and other neighborhood associations
Gateway Area Plan Update & Implementation Program	Plan and program to address redevelopment of municipal sites in Gateway Area through additional development standards and economic development strategies and tools.	Districts & Corridors	Land Use & Community Character	New Program	Champion: PCD Partner(s): PW, TxDOT
Healthy Galveston Initiative	Program to support health needs and promote healthy lifestyles through partnerships and implementation of LTCRP project: Health Needs Assessment.	Engagement, Education & Community Services	Human	New Program	Champion: UTMB Partner(s): PCD, GCHD, PW, health care providers
Higher Education & Economic Development Initiative	Initiatives include: LTCRP project: Galveston Center for Technology and Workforce Developments and partnerships with higher education agencies.	Economic Development	Economic Development & Human	New Program	Champion: GEDP, UTMB, GC, TAMUG

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Livable Neighborhoods Partnership	Program to create partnership to address range of issues with owners and neighborhood organizations such as lead paint abatement, public safety, and other health-related and quality of life issues.	Neighborhoods & Housing	Housing & Neighborhoods & Human	New Program	Champion: PCD Partner(s): GPD, GAIN, UTMB, WGIPOA
Neighborhood Learning Center Program	A LTCRP project to support educational programs and community centers.	Engagement, Education & Community Services	Human	New Program	Champion: GC, GISD Partner(s): PCD, PR, FCYB, GAIN
Neighborhood Main Streets & Corner Stores Initiative	Program to address development standards and make public realm improvements to address areas with existing neighborhood serving commercial uses.	Neighborhoods & Housing	Land Use & Community Character	New Program	Champion: PCD Partner(s): GEDP, PW, GAIN
Neighborhood Reinvestment Program	Program to address regulatory controls and create financial incentives for infill development and property revitalization projects.	Neighborhoods & Housing	Housing & Neighborhoods	New Program	Champion: tbd Partner(s): PCD, GEDP, PW, GAIN
Neighborhood Streetscape Improvement Program	Program to address regulatory controls, create financial incentives, and make targeted investments in neighborhood public amenities.	Neighborhoods & Housing	Neighborhoods & Housing	New Program	Champion: GAIN Partner(s): PW, PCD, GEDP
Public Buildings & Spaces Preservation Initiative	Program to ensure City preserves and maintains city-owned historic resources and makes public realm improvements that are sensitive to historic areas.	Historic Preservation	Historic Preservation	New Program	Champion: City Partner(s): PCD, PR, PW
Rental Housing Program	Program to establish rental housing licensing to improve quality of rental units and institute annual inspections.	Neighborhoods & Housing	Housing & Neighborhoods	New Program	Champion: PCD Partner(s): GPD, GFD, GCHD, GAIN
Revitalization Authority Formation	A LTCRP project to create a Revitalization Authority and a land bank.	Economic Development	Economic Development	New Program	Champion: City Partner(s): CC, GEDP
Technology Development Initiative	Initiatives include: development of a smart park; non-profit corporation to promote technology transfer; and partnerships.	Economic Development	Economic Development	New Program	Champion: GEDP Partner(s): City, UTMB, TAMUG, Johnson Space Center/NASA

Action Plan (cont.)

PROJECT NAME	DESCRIPTION	CATEGORY	ELEMENT	PROJECT STATUS	CHAMPION/ PARTNER
Tree Management Program	Program to increase preservation of existing tree canopy and plant new trees through development of new ordinances, city staffing, tree inventories, and participation in national programs.	Public Realm Improvements	Natural Resources	New Program	Champion: GITC Partner(s): PR, PW, PCD, GHF
Utility Undergrounding Standards & Funding	Program to establish standards for underground utilities and identify potential funding sources.	Infrastructure, Parks & Public Facilities	Infrastructure	New Program	Champion: PW
Casino Gambling Feasibility Study	A LTCRP project to study the feasibility of casinos on Galveston Island.	Economic Development	Economic Development	New Study	Champion: CC
Staff Resource Assessment	Study to assess City staffing and resources necessary to support existing and proposed services, plans, and programs.	Planning & Plan Implementation - Island-Wide	Multiple Elements	New Study	Champion: City Manager, City HR Director

PROGRESS GALVESTON

Plan prepared by HDR Engineering, Inc. for the City of Galveston, Texas.

Completed as part of Progress Galveston, a planning initiative led by the City's Department of Planning & Community Development with technical assistance provided by HDR Engineering, Inc., Kendig Keast Collaborative, Winter & Company, and the Law Offices of Kimberley Mickelson.

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Contact:
City of Galveston
Department of Planning & Community Development
823 Rosenberg | P.O. Box 779
City of Galveston, TX 77553
(409) 797-3660
progressgalveston@cityofgalveston.org