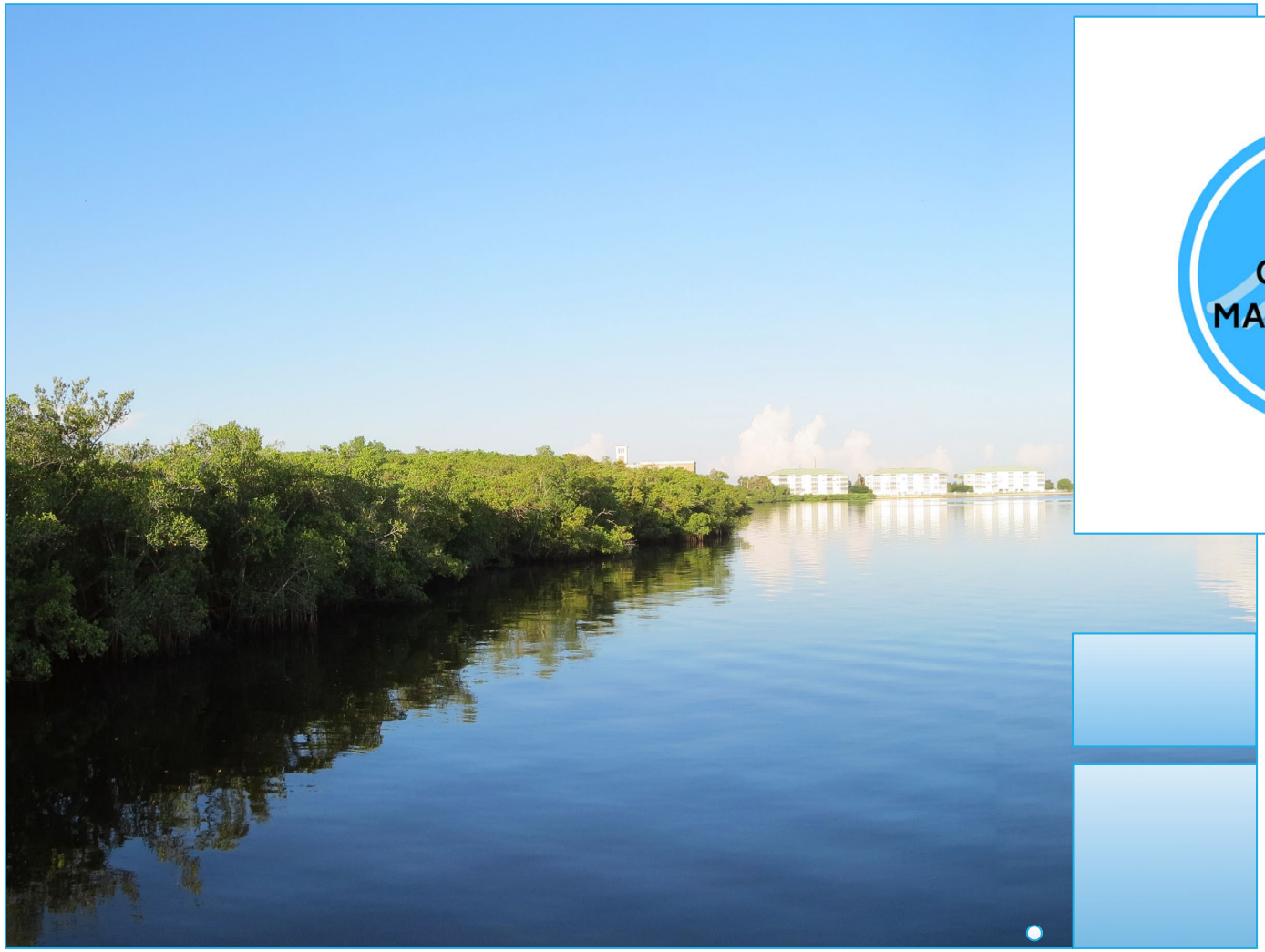

Coastal Management Element

City of Punta Gorda Comprehensive Plan 2045

Ordinance 2013-2024

February 7, 2024

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I. EXECUTIVE SUMMARY

The greatest potential impact to the natural resources of Punta Gorda and its environs, including the near pristine Charlotte Harbor estuary, is population growth in unsustainable patterns and rapid suburbanization within the coastal area. The City is committed to implementing strategies that will balance growth, including residential and commercial development and the associated infrastructure, through innovative and creative approaches that will least impact the natural systems.

II. INTRODUCTION

Purpose

The purpose of the *Coastal Management Element* is to plan, promote, manage, and protect the city's natural resources. It is important for the City to plan for development activities in areas that would mitigate or otherwise lessen the disturbance of coastal resources. This element addresses measures to protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

The City of Punta Gorda's *Coastal Management Element* plans for the protection and enhancement of the city's natural, cultural, and economic resources. It involves coordinated efforts with local, state, and federal agencies utilizing laws and policies to ensure that the coast is protected and preserved for future generations. Management of the city's coastal connection improves the quality of life for the residents, enhances economic development for the businesses, increases job opportunities and provides for logical compact and contiguous growth. The data and analysis section follows the requirements set forth in Chapter 163.3177(6)(g) of the Florida Statutes. The City's coastal management planning supports sound urban planning strategies resulting in compact and contiguous development.

Relationship to the City's Comprehensive Plan

The *Coastal Management Element* provides the underlying foundation and detailed policies regarding the use and protection of natural coastal resources. It relates to the other elements as follows:

- It is through the *Future Land Use Element* and the Future Land Use Map that the City's growth management strategy is fully implemented. Therefore, it is essential that the uses prescribed by the Future Land Use Map be consistent with sound coastal policy, and that the policies of the *Future Land Use Element* promote compatibility between development activities and the conservation of natural resources.
- The *Conservation Element* identifies and describes the city's existing and proposed natural preserves and conservation areas within and adjacent to the city.
- The *Recreation and Open Spaces Element* identifies the potential recreational opportunities for which these natural preserves may be utilized. Such uses typically include passive recreation, outdoor education, and resource-oriented activities, such as walking, cycling, hiking, and boating.
- The *Infrastructure Element*, which is divided into sections pertaining to drainage, solid waste and the provision of sewer and potable water services, is directly related to the *Conservation* and *Coastal Management Elements*. The impacts of existing and proposed facilities, within the low elevation of the city and on the natural systems, must be taken into consideration during the establishment of levels of service for water and sewer facilities, facility site location criteria, and overall policies regarding the City's infrastructure.
- The *Transportation Element* deals with the City's road network and addresses port and aviation facilities, and bicycle paths and pedestrian walkways. The policies of

the *Transportation Element* must reflect those of the *Coastal Management Element* to ensure that roads are sited in the appropriate areas and designed in a manner which minimizes impacts to the surrounding environment and provide adequate hurricane evacuation times.

III. LEGISLATION

The following is an assessment of existing regulations and programs which affect land use decisions and regulate development impacts to the natural environment and coastal planning area.

Federal Regulations

The National Flood Insurance Act of 1968

The National Flood Insurance Act of 1968 establishes the National Flood Insurance Program (NFIP) which makes federally backed flood insurance available in communities which adopt and adequately enforce floodplain management ordinances that meet NFIP requirements. The Act also required that the Federal Emergency Management Agency (FEMA) establish flood risk zones in all flood prone areas. The City of Punta Gorda actively participates in the program through building, code enforcement and through the Community Rating System (CRS) which encourages best practices in floodplain management through the granting of community wide flood insurance rate discounts. Punta Gorda previously maintained a Class 6 designation in the CRS program and recently improved to a Class 5 designation providing an additional 25% discount on insurance to our residents.

The Coastal Zone Management Act (CZMA) of 1972

The Coastal Zone Management Act (CZMA) of 1972 establishes a cooperative state and federal program to manage coastal zones in the United States. The Federal Government delegated regulatory authority to the State of Florida under the Florida Coastal Management Program in 1982.

State Regulations

Florida Statutes

Chapter 163, Florida Statutes

Chapter 163, *Florida Statutes*, (Local Government Comprehensive Planning and Land Redevelopment Act) requires that each city and county prepare and adopt a comprehensive plan containing mandatory elements that address growth management issues including coastal zone management.

Chapter 163.3178- Coastal Management

The statutes limit the City's ability to increase density within the Coastal High Hazard Area (CHHA) unless the strict criteria for mitigation are met, as defined as subsection (8). (The coastal high-hazard area is the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. See Appendix, Map #14 – Coastal High Hazard Area.) Application of mitigation and the application of development and redevelopment policies, pursuant to s. 380.27(2), and any rules adopted thereunder, shall be at the discretion of local government, provided the statutory criteria are met.

The Mangrove Trimming and Preservation Act

The Mangrove Trimming and Preservation Act was enacted during the 1995 legislative session and provides standards for the selective trimming of mangrove trees, and establishes a permitting program to allow such activities. It was amended

during the 1996 session to provide regulations for trimming and altering mangroves on private and public property.

Chapter 327, Vessel Safety

In May 2017, the State Legislature adopted new laws as part of Fla. Stat. Chapter 327, which were based closely on the results found in the Florida Fish and Wildlife Conservation Commission (FWC) Anchoring and Mooring Pilot Program Report (December 21, 2016). These new laws effect boating anchorage and mooring regulations.

Local Regulations

City Ordinance

Chapter 6, Boats, Docks, and Waterways Ordinance

Boats, Docks, and Waterways Ordinance, Chapter 6 of the City Code of Ordinances provides authority to the City to regulate waterways within the city limits. The provisions include regulation of boats, sanitation rules, mooring and speed zones, construction in waterways, maintenance of seawalls, and commercial harvesting of shellfish. The code defines the 5 member Canal Maintenance District, and a governing body with specific powers.

Chapter 6A, National Pollution Discharge Elimination System

National Pollution Discharge Elimination System, Chapter 6A of the City Code of Ordinances, was adopted for the purpose of maintaining efficient, economical and safe operation of storm sewer system and for the health, safety, and general welfare of the public within the city. It ensures that land development activities are conducted in a manner which minimizes the loss of topsoils controls run-off through the application of best management practices.

- Article I is intended to prevent and abate pollution through the regulation and control of connections and discharges to the separate storm sewer system of the City of Punta Gorda and to limit the use of the separate storm sewer system to the collection, conveyance, treatment, and disposal of stormwater through appropriate regulation and enforcement.
- Article II includes provisions for environmental protection and promotes public welfare through the regulation of the design, construction, use and maintenance of any development or other activity which disturbs land or removes the vegetative cover or results in the movement of soils on construction sites within the city.

Chapter 26, Land Development Regulations

Chapter 26, of the City Code of Ordinances is known as the Land Development Regulations (Codes) and deals with a variety of natural resources issues.

- Article 8, Section 13, Soil Conservation: provides for the installation of erosion control barriers during development. The stabilization of soils ensures that land development activities are conducted in a manner which minimizes the loss of topsoils and ensures the application of best management practices for agricultural land uses.
- Article 8, Section 16, Transfer of Development Rights: provides for the transfer of density units associated with certain types of real property. This section promotes the protection and conservation of environmentally sensitive areas of the city such as wetlands, mangrove clusters, endangered species habitats, and the protection of historic resources. The ordinance establishes an incentive for the dedication and/or discounted sale of property to the City for general purposes such as parks, roads, right-of-ways, government service sites, public access and affordable housing.
    - Article 14, Flood Hazard Areas: It is the purpose of this Article to mitigate potential

losses due to flood conditions in specific areas by provisions.

IV. INVENTORY

The city now consists of approximately thirty-two (32) square miles of land and water. It is surrounded by Charlotte Harbor and Peace River to the north and northwest. Its' western boundary is protected by Charlotte Harbor Preserve State Park. South and east the city abuts the Charlotte County South Planning District which consists of a variety of land uses. Generally flat, the city is subject to periodic flooding, which can result not only from tropical weather, but also from prolonged periods of heavy rains. With these concerns, particular attention is necessary in managing the city's coastal attributes.

The City of Punta Gorda's *Coastal Management Element* plans for the protection and enhancement of the city's natural, cultural, and economic resources. It involves coordinated efforts with local, state, and federal agencies, utilizing laws and policies to ensure that the coast is protected and preserved for future generations.

The city's location lies within the state's defined coastal planning area[1]. Management of the city's coastal connection improves the quality of life for the residents, enhances economic development for the businesses, increases job opportunities and provides for logical, compact, and contiguous growth. The data and analysis section follows the requirements set forth in Chapter 163.3177(6)(g) of the Florida Statutes. The City's coastal management planning supports sound urban planning strategies resulting in compact and contiguous development. The City's coastal planning area encompasses hurricane vulnerability zones; estuarine and coastal waters, wetlands, water dependent and water related facilities, and lands which may impact water quality.

Because of its proximity to the Charlotte Harbor Estuary, tourism, fishing, and business industries utilize the waterfront as a major component of the city's economic engine. To do this effectively requires the City to coordinate long and short term planning goals which balance the natural attributes of the waterfront with the increasing population. As the city continues to grow, planning efforts must focus on development patterns which incorporate the above components effectively.

General Information

The city of Punta Gorda lies within a low lying elevation subject to numerous flooding and storm related events. Punta Gorda area receives an average annual rainfall of fifty-four (54) inches, with approximately sixty percent (60%) falling during the summer months of June through September in a typical wet season/dry season. Rainfall in the winter months is generally associated with cold fronts moving across the region and is characterized by low intensity, higher duration events. The summer rainfall patterns consist of short duration, intensive convective storms typically occurring in the late afternoon. It is this type of rainfall event that causes the highest volumes of storm water runoff with the potential of spot flooding and damaging effects to Charlotte Harbor.

The City is tasked with providing services to residents and visitors. Limiting public expenditures that subsidize development in coastal management areas is required by the Chapter 163.3177 (g) 6. The City uses the best management practices available when it comes to expenditures within the areas subject to natural occurrences.

Land Uses

The city of Punta Gorda lies adjacent to the second largest estuary in Florida, the Charlotte Harbor Estuary. A variety of land uses surround the dynamic waterfront community. These land uses include a mix of residential, multi family, commercial, medical and preservation providing a complete menu of development opportunities. This section describes the various existing and future land uses within the city of Punta Gorda and the potential development the city expects to see over the next planning decade.

Existing Land Uses

Table 2B.1 identifies those land uses currently existing within the city boundaries. The *Future Land Use Element* provides a detailed description of each use.

Critical Areas within Existing Land Uses

The existing land use is comprised of several critical areas. The districts synergy is dependent on the connectivity each has with the other. All are important components in the city's economic vitality.

Waterfront Overlay

The city has a coastal waterfront with a tradition of a water oriented economy. The City's goal is to address long-term conservation and protection of natural resources, protection of human life from natural disasters, and funding for areas which are subject to destruction by natural disasters. Map #8 - Overlay Areas shows the Waterfront Overlay, a zoning designation which recognizes the major importance of water bodies to the city and its residents and includes a variety of park and commercial properties. It also lies within the - Community Redevelopment Area (CRA) (Map #6 – Community Redevelopment Area). One of the greatest future features of the area will include the completion of the Punta Gorda Pathways, a system of approximately 18 miles of bicycle and pedestrian trails and paths that connect the city's neighborhoods, parks, and commercial areas to each other and to the waterfront. The economy of the city depends in considerable measure upon the water, and it is intended the Marine Park District be used for the purpose of protecting and preserving water areas within the jurisdiction of the City. All designated waters, including but not limited to all boat basins, bayous, canals, lakes, rivers, streams, waterways, and waters of Charlotte Harbor and Peace River, and all public or privately owned submerged lands there under extending from the mean high-water line or bulkhead line are included in this zoning district.

Table 2B.1 – Punta Gorda Generalized Existing Land Uses as of 2020

Land Use	Acres	Square Miles	Percentage of Total Land Use
Residential	2,372.03	3.72	22.35%
Commercial	332.19	0.52	3.13%
Industrial	45.35	0.07	0.43%
Agricultural	0.00	0.00	0.00%
Recreational	569.42	0.89	5.37%
Conservation	4,987.19	7.79	47.00%
Educational	122.66	0.19	1.16%
Public Buildings & Grounds	78.41	0.12	0.74%
Institutional	104.15	0.16	0.98%
Vacant Land	1,041.90	1.63	9.82%
Right of Ways Land	957.54	1.50	9.02%
Right of Ways Water*	10,011.60	15.64	N/A
Historic Resources**	95.76	0.15	0.90%
Total Land Uses	10,610.85	16.58	100.00%

Source: 2016 and 2020 City of Punta Gorda & Charlotte County GIS
*Right of Ways Water includes all navigable waterbodies and are not added into the totals for land area.
**Historic Resources counts the total area of properties containing historic structures. They are individually assigned to other land use categories and are not added into the totals for land area.

City Center (Downtown)

The downtown core lies between the two US 41 bridges and extends from the waterfront south to Retta Esplanade. The north portion immediately abuts the Charlotte Harbor and incorporates the City's Gilchrist Park. The business district consists of small businesses including restaurants, shops and stores which service the locals as well as the tourist community and is included in the City's Community Redevelopment Area.

Historic Overlay

The Historic Overlay (Map #8 – Overlay Areas) exists to protect historic resources within and adjacent to the original Trabue Plat of 1884, where most of the city's historic resources are found. This zoning overlay encompasses a number of local register districts, including a neighborhood conservation district and two historic districts, as well as a large portion of the national register historic district (Map #7 – Historic Districts & Structures within the City of Punta Gorda). A more complete accounting of the city's historic resources is contained in the *Historic Element* of the Comprehensive Plan.

Public Water Facilities and Uses

The location of Punta Gorda and the CRA is immediately connected to the Charlotte Harbor. This location and the location of the City of Punta Gorda's park infrastructure, provides numerous opportunities for water access and related activities including, public marina facilities, public boat ramps, fishing piers, mangrove boardwalks, informal paddle-craft launches, and splash beaches. The city of Punta Gorda contains a large boating community providing many residents and visitors with excellent boating opportunities in and around Charlotte Harbor.

In 2012, Florida Seagrant College Program completed a report for Charlotte County titled, Planning for the Future of Recreational Boating Access to Charlotte County Waterways: 2010 – 2050. The technical publication provided the annual numbers of pleasure boat registrations obtained for 15 years (1996-2010) from the Department of Highway Safety and Motor Vehicles (DHSMV). During this period, Charlotte County, which includes the City of Punta Gorda, ranked 16th among Florida's 67 counties in terms of the total number of boats registered in each county. Table 2B.2 provides a summary of boating registration trends for Charlotte County through the year 2050.

Table 2B.2 Boat Registration for All Size of Pleasure and Commercial Craft for Recreation

Year	2000	2006	2010	2015	2018	2050
# of Boats	18,505	22,680	20,968	21,662	22,947	**28,125**
	Source: Florida Dept. of Highway Safety & Motor Vehicles 2016					

The regional trend in the projected number of pleasure boats registered in Charlotte County differs somewhat from the state-wide trend. The forecast shows a leveling off in the number of

recreational pleasure boats from 2011 through 2020, a modest increase in the number from 2020 to 2035, followed by another leveling off from 2035 to 2050. The growth rate of pleasure boats registered in Charlotte County from 2010 through 2030 was approximately 17.8%, a rate that was significantly less than the expected 22.5% growth of pleasure boats state-wide. The report further notes, however, that the number of pleasure boats per 1,000 of the population in Charlotte County is roughly two and-a-half-to-three times higher than the figure for the state as a whole. The projected number of pleasure boats registered in Charlotte County in the year 2050 is 28,125, representing an expected increase of approximately 38% over the 22,968 pleasure boats observed in 2010.

Public Water Access

The city's waterfront access can be divided into three categories: lateral public access along the waterfront from inland; boating access to the water; and land based fishing access.

Lateral Access

In terms of lateral access along the waterfront, the City's plan is to complete a path along the waterfront area from Cooper Street in the east through Fishermen's Village to the west as part of the Punta Gorda Pathways (Map #43) system of shared use paths. Completed and future sections:

- Harborwalk East: a ten (10) foot wide continuous pedestrian and multi-use path that begins at the intersection of Adrian Street and Marion Ave and travels west along Patty Avenue around the Harbor Walk Condominiums ending in Laishley Park. This path system currently provides the East side Trabue neighborhood access to the waterfront and the open space of Laishley Park.
- Downtown Core Harborwalk: a continuation of the Harborwalk from Laishley Park traveling west under the US 41 bridges, to Gilchrist Park.
- Harborwalk West: improvements and reconstruction plans are underway and scheduled in 2017-2020 for completion. This section consists of at least ten (10) foot wide continuous pedestrian and multi-use path that will connect the Downtown Core section of the Harborwalk west across Gilchrist Park to Fishermen's Village.

Boating Access

With regards to water access to the shoreline, the marina at Fishermen's Village is owned and operated by a private corporation, and facilitates the west water-to-shore access. It contains one hundred and eleven (111) slips but does not have a boat ramp. Additionally, Ponce de Leon Park provides another west water-to-shore access point with one boat ramp and twenty (20) boat trailer parking spaces. The second water-to-shore access occurs at the Laishley Park Marina. Completed in 2007, the facility contains a two (2) lane boat ramp, eighty-six (86) boat trailer parking spaces, and eighty-five (85) boat slips. The City expects two mooring field sites identified as a result of the FSG study on either side of highway U.S. 41 westward of existing marina facilities and City park land, to provide additional boating access and help meet future demand. The recently constructed Eastern Mooring Field added 42-ball mooring field expanding the Laishley Park Municipal Marina facility. The western mooring field recommended by the Boaters Alliance Harbor Master Plan (2018) and the Citywide Master Plan corresponds with site B in the FSG study and could further expand access to accommodate future demand for boats, especially those of a larger size. However, a feasibility and environmental impact analysis should be conducted in order to determine the suitability of further expansion.

Fishing Access

Fishing continues to be a popular pastime and sport in the city. Fishing piers have expanded and been reconstructed to continue to accommodate the current needs of the residents. Events center around fishing tournaments, which bring in additional revenues to downtown businesses. Existing water

access areas and facilities are illustrated on Map #33 – Water Access Areas and Facilities and listed in Table 2B.3.

Table 2B.3 - Water Access Areas and Facilities

Marinas/ Private Facilities	Fisherman's Village	111 slips, no boat ramp
	Laishley Marina	127 slips
	Sheraton Four Points	82 slips (planned)
	Isles Yacht Club	36 slips
	Punta Gorda Waterfront Hotel Marina*	*Potential future marina*
	Gilchrist Park Dinghy Docks	2 small fingers
	Charlotte Harbor Event Center Dinghy Docks*	*Potential future docks*
Public Boat Ramps/Kayak Launches	Ponce De Leon Boat Ramp	2 lane, 20 parking spaces
	Laishley Marina Boat Ramp	2 lane, 86 parking spaces
	Gilchrist Park Ramp	Hand launch only
	Trabue Park Kayak Launch*	*Potential future kayak launch*
	Colony Point Drive Kayak Launch*	*Potential future kayak launch*
Fishing Piers	Peace River (Laishley Park) Fishing Pier	420' long, served by parking in Laishley Park
	Gilchrist Pier	Served by parking at Gilchrist Park
	Ponce De Leon Pier	Served by parking in Ponce De Leon Park
Artificial Fishing Reefs	Charlotte Harbor Reef	Materials are concrete culverts at a depth of 12'
Traditional Fishing Areas	Ponce De Leon Park	Shoreline
	Shell Creek at the Hendrickson Dam	Shoreline
Mooring Ball Fields	Laishley Eastern Mooring Ball Field	32 mooring balls
	Western Mooring Ball Field*	*Potential future mooring ball field*
Access Channel	Buckley's Pass "Bird Cut"	60' wide channel connection
**These potential future waterfront facilities were recommended in the 2019 Citywide Master Plan*		

Future Need for Public Access Facilities

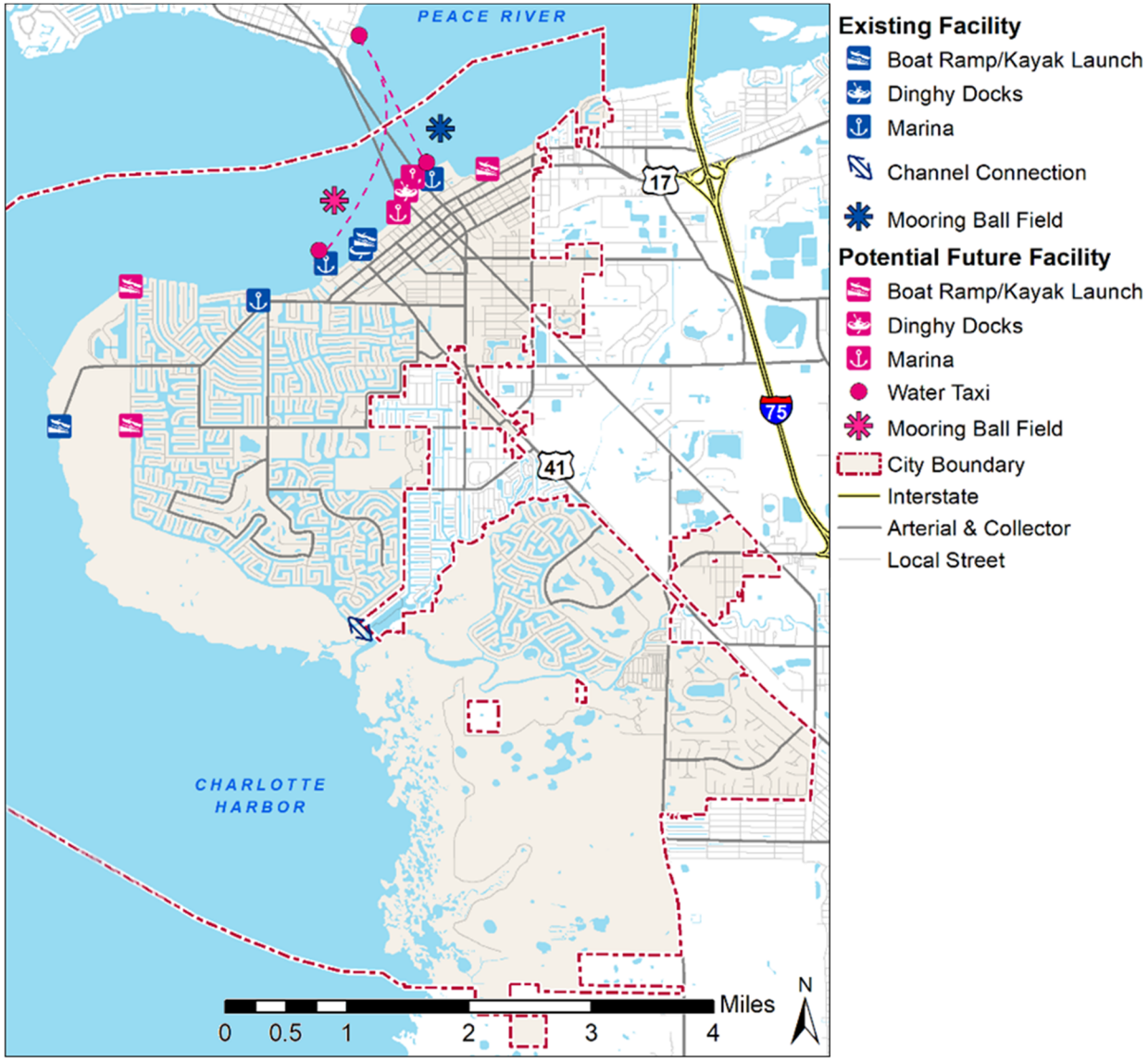
The waterfront will continue to play a key role as a resource for future development in Punta Gorda. Acknowledging the economic vitality of Punta Gorda's waterfront, the Punta Gorda Boaters Alliance initiated an update to the Waterfront Harbor Master Plan in 2018. The plan's objective sought to establish Punta Gorda as a preferred destination for visiting boaters and support recreational boating within the community and identified recommendations to the City to take action through key partnerships and investments.

Recommendations from the Boaters Alliance Harbor Master Plan

- Establish a western mooring ball field to promote boating tourism and provide a mechanism to manage and control anchorage off Gilchrist Park
- Adopt and enforce regulations for boats using mooring ball fields or anchoring in the harbor
- Work with Fishermen's Village to expand their existing marina and provide upland facilities for visiting boaters including showers, bathrooms, and laundry
- Work with the Punta Gorda Waterfront Hotel (PGWH) to re-establish its marina and provide upland facilities for the west mooring field
- Work with the Sheraton Four Points to establish a marina and boating friendly environment
- Add additional dinghy and day docks behind the Charlotte Harbor Event Center, and at Fishermen's Village, PGWH, and the Four Points
- Establish kayak launches at Ponce de Leon Park, East of US 41, and at the ends of Colony Point Drive in PGI
- Provide improved boat access to PGI boat owners by completing Buckley's Pass "Bird Cut"
- Apply for permits to dredge deeper at Ponce Inlet for a depth of 6.5' to 7' and also work with the county to deepen Alligator Creek
- Partner with Sunseeker and Fishermen's Village to study the feasibility of a future water taxi
- Work with Chamber of Commerce, Yacht Clubs, and Boating Organizations to expand existing water-related events and develop large boating events like Sail-In's and Trawler Fest
- Work with the County Chamber and Tourism Bureau to establish an enhanced and ongoing city marketing campaign targeting boating and fishing tourists, as well as sailing, kayaking, and paddle boarding enthusiasts.

The above recommendations were evaluated in further detail as part of the Citywide Master Plan 2019 update and subsequent community engagement. The Downtown Historic District residents, particularly those adjacent to Gilchrist Park, have expressed deep frustrations regarding activities in the park, particularly the derelict boats that sit across from their homes. As a result, the proposal to add a western mooring ball field and maintain boater amenities in Gilchrist Park, making the park a point of entry into and out of the city for moored boaters, have been strongly opposed by the neighborhood. In response to this opposition, the 2019 Citywide Master Plan recommended a compromise regarding boating activity at Gilchrist Park. While the Boaters Alliance Harbor Master Plan recommended maintaining dinghy docks at Gilchrist Park and constructing a breakwater there, the Citywide Master Plan recommended relocating the existing docks at Gilchrist as part of a future agreement to construct a western mooring field. The new mooring ball field would be operated in partnership with Fishermen's Village, the Punta Gorda Waterfront Hotel (PGWH), or The Sheraton Four Points, where the necessary upland facilities to support visiting boaters would also have to be built and managed. In conjunction with this exchange, an oversight committee could be established among the city, boaters, and the Historic District HOA to ensure proper compliance with boating ordinances and to review and update those ordinances on an ongoing basis, as necessary.

Map #33 - Water Access Areas and Facilities



The current lack of upland facilities, boat slips, and day docks present an added challenge to meeting future demand. The majority of boats operating within the city limits are stored behind individual residences located on the extensive canal systems that have navigable access to Charlotte Harbor. Most of the remaining boats are either kept at marinas or are transported by trailer to public or private boat ramps. As the demand for boating access increases and the cost of water-front property continues to rise, the City of Punta Gorda expects greater public interest in the provision of public marinas, mooring fields, boat ramps, and dry storage facilities over the course of the planning horizon.

Having established the need to expand boating facilities, assessments have been made to determine potential sites for new access points. In 2012, the Florida Sea Grant (FSG) study conducted an in depth assessment of potential sites for new saltwater access points (marinas and boat ramps) as well as new mooring field sites. Based on development criteria, the study found 33 potential parcels to accommodate new saltwater access points outside of Punta Gorda in Port Charlotte and Gulf Cove. A similar assessment was conducted to determine potential sites for new mooring fields in the County. The authors assessed regulatory and legal criteria and found 10 possible locations for new or expanded mooring fields, 6 of which are located within the Lower Peace River region and 4 within Punta Gorda. The western mooring field recommended by the Boaters Alliance Harbor Master Plan (2018) aligns with site B in the FSG study and should be of interest for the City of Punta Gorda's expansion efforts. The 2012 FSG study provides valuable information for Punta Gorda to adequately plan for investments and partnerships that will help the City meet future boating demand.

Historic Structures

As part of resiliency planning efforts, in 2018, the City conducted a vulnerability analysis for city-owned critical infrastructure and historic buildings as part of the update to the 2019 Climate Adaptation Plan. The purpose of a vulnerability assessment is to help a municipality or community identify and prioritize structural and social assets that are likely to be impacted by future coastal flooding and sea level rise. A vulnerability assessment was conducted to address public infrastructure within city limits, with an emphasis on coastal flooding impacts to critical facilities and historic properties. The study highlights the risk that sea level rise imposes on existing historic properties and identifies recommendations and adaptation strategies to address and mitigate those impacts.

Many of Punta Gorda's historic structures listed on the Florida Master Site File are located near or within the waterfront area. Serious efforts to protect these structures, and the overall historic character of the City began in the mid 1980's, around the time of the City's Centennial in 1987. In 1988 the Punta Gorda Residential National Register Historic District along with several structures outside the district were listed on the National Register of Historic Places. Subsequently the City has designated two additional local historic districts the Downtown Commercial District and the Trabue Woods District. (Map #7 – Historic Area & National Register Structures in the City of Punta Gorda). In an effort to expand existing survey information and include all parcels within the city limits, the City completed a Historic Resources Survey in 2015 to include structures constructed between 1946 and 1965. These historic resources are a vital part of the social fabric of the community. The continued preservation, rehabilitation, and adaptive reuse of these structures are in line with heritage tourism, a critical piece of the long term economic viability of the community.

Community Redevelopment Agency (CRA)

In the aftermath of the storm related events of August 2004, the CRA focused its redevelopment efforts on projects which assist in rebuilding public space and infrastructure in order to provide the foundation for infill and redevelopment. These efforts concentrated on several expansive projects which stressed the importance of maintaining our public waterfront and help to re-establish the critical mass of structures and

economic activity within the downtown area and adjacent neighborhoods.

Currently, the CRA exists primarily to extinguish the bonded debt for the construction of the two major capital improvements: Laishley Park and the Herald Court Centre (parking garage). Once these bonds obligations are satisfied, the CRA will be sunset in accordance with the City's 2012 interlocal agreement with Charlotte County. As of 2020, CRA debt has been refinanced with a retirement date of January 1, 2028, which is earlier than the latest possible CRA termination date in the interlocal agreement (December 31, 2030).

V. COASTAL RISK

The city of Punta Gorda is located within a low lying area and subject to a variety of tidal and tropical storm caused flood events. Coastal planning strategies are implemented to minimize risk of these events to existing and future development. Coastal planning areas must encompass hurricane vulnerability zones, estuarine and coastal waters, including adjacent shorelines; beaches; wetlands; living marine resources; water dependent and water related facilities and lands whose development would impact the quality of these waters. Land development activities within the basins drain into the Charlotte Harbor Estuary can potentially impact the environmental quality of coastal and estuarine waters, the designated Coastal Planning Area should include all lands within such basins. The Coastal Planning Area includes all of the land within the city Limits.

Map #14 – The Coastal High Hazard Area (CHHA), occurs within the Coastal Planning Area and encompasses those areas which would require evacuation in the event of a Category 1 Hurricane, as designated by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model, and as established in the regional hurricane evacuation study applicable to local government as defined by State Statute 163.3178(2)(h). This definition was changed during the 2006 Legislative Session and covers a larger area than the previous definition which centered on storm surge, waves, erosion, and velocity zones designated by FEMA's Flood Insurance Rate Maps (FIRM). These areas have high vulnerability to hurricane and storm damage.

The Florida Division of Emergency Management, Department of Community Affairs Division of Community Planning, now known as the Department of Economic Opportunity, and the Department of Transportation in coordination with the Southwest Florida Regional Planning Council developed the *Statewide Regional Evacuation Study (SRES)* for the Southwest Florida Region. This report updates the region's evacuation population estimates, evacuation clearance times and public shelter demand. The study covers Charlotte, Collier, Glades, Hendry Lee, and Sarasota Counties.

The principal tool utilized in this study for analyzing the expected hazards from potential hurricanes affecting the study area is the Sea, Lake and Overland Surges from Hurricane (SLOSH) numerical storm surge prediction model. The SLOSH computerized model predicts the storm tide heights that result from hypothetical hurricanes with selected various combinations of pressure, size, forward speed, track, and winds. Originally developed for use by the National Hurricane Center (NHC) as a tool to give geographically specific warnings of expected surge heights during the approach of hurricanes, the SLOSH model is utilized in regional studies for several key hazard and vulnerability analyses.

The newest generation of the SLOSH model basin incorporated in the 2010 Statewide Regional Evacuation Study reflects major improvements, including higher resolution basin data and grid configurations. Faster computer speeds allowed additional hypothetical storms to be run for creation of the MOMs1 or the maximum potential storm tide values for each category of storm.

The Storm Tide Atlas, published in 2010, is the foundation of the hazards analysis for storm tide and a key component of the Statewide Regional Evacuation Study. The Study, which provides vital information to state and local emergency management,

forms the basis for county evacuation plans. The purpose of the maps contained in the Storm Tide Atlas is to identify those areas subject to potential storm tide flooding from the five categories of hurricane on the Saffir Simpson Hurricane Wind Scale as determined by NOAA's numerical storm surge model, SLOSH (updated 2009). It is incumbent upon local emergency management officials and planners to estimate the degree and extent of freshwater flooding as well as to determine the magnitude of the waves that will accompany the surge.

Storm Tide Atlas

As a member of the Southwest Florida Regional Resiliency Coalition, Punta Gorda collaborates with other county and municipal governments within the counties of Charlotte, Lee, and Collier to identify, prepare for, adapt to, and mitigate climate change impacts. The goals of the Coalition include facilitating regional cooperation, sharing sound science and technical data, and developing a regional resiliency action plan that will identify and assess regional threats and vulnerabilities and propose actions to address them.

Within the city's coastal planning area there are two major types of flood risks, those associated with hurricanes and those associated with rainstorms and other non-storm tidal events. Of concern in the city's coastal planning area are those areas which are identified as Hurricane Evacuation Zone A on Map #16 in the *Future Land Use Element*.

Storm Surge

The National Oceanic and Atmosphere Administration (NOAA) defines storm surge as an abnormal rise of water generated by a storm, over and above the predicted astronomical tide. This rise in water level can cause extreme flooding in coastal areas particularly when storm surge coincides with normal high tide, resulting in extreme storm tides.

As described previously the City utilized the Southwest Florida Regional Planning Council's Statewide Regional Evacuation Study Program for Charlotte, Collier, Glades, Hendry, Lee and Sarasota counties to assist in the hurricane and evacuation planning. The 2010 Study incorporated the newest generation of the SLOSH model basin. Map #16 in the *Future Land Use Element* illustrates that nearly the entire extent of the city falls within Hurricane Evacuation Zone A. Maps #33 - Utility Infrastructure in the Hurricane Vulnerability Zone and Maps #34 Transportation Infrastructure in the Hurricane Vulnerability Zone illustrate the extent of City infrastructure which is vulnerable to coastal flooding.

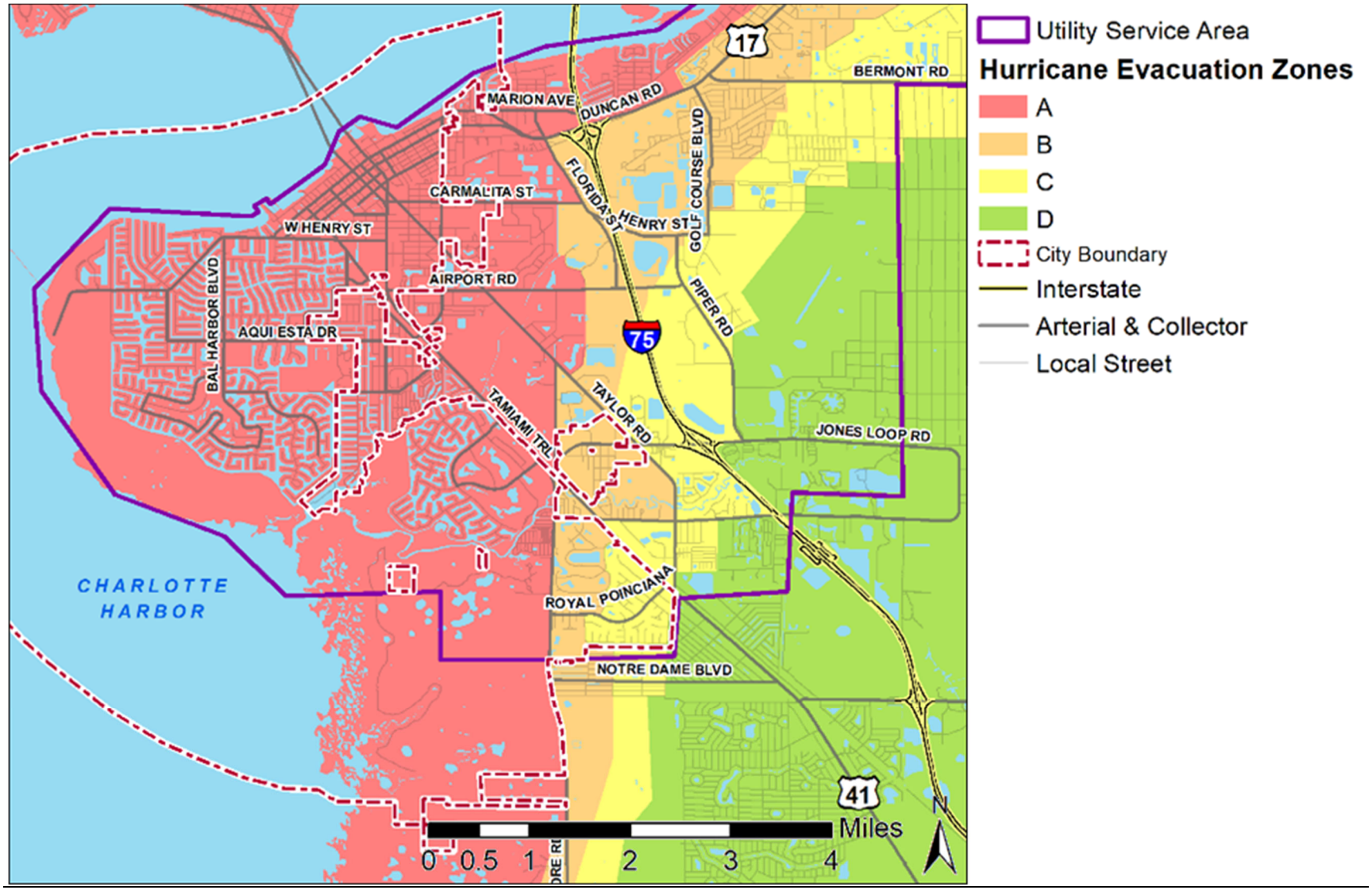
Map # 35 – Punta Gorda Hurricane Evacuation Routes displays the critical transportation corridors that facilitate local and regional evacuation in the event of a major hurricane. It is importation to note that the evacuations zones are conservative estimates that are based on what would be necessary in a maximum of maximums case of hurricane storm surge inundation, regardless of the point of where the center of the hurricane (or tropical storm) makes landfall. No single hurricane will necessarily cause all of the flooding represented on the maps.

These maps reflect areas potentially subject to still-water saltwater flooding and do not necessarily take into account the effects of pounding waves that ride on top of the storm surge in locations exposed to wave action. The City of Punta Gorda coordinates with the emergency management officials who use evacuation zone information to determine who needs to evacuate before a hurricane makes landfall.

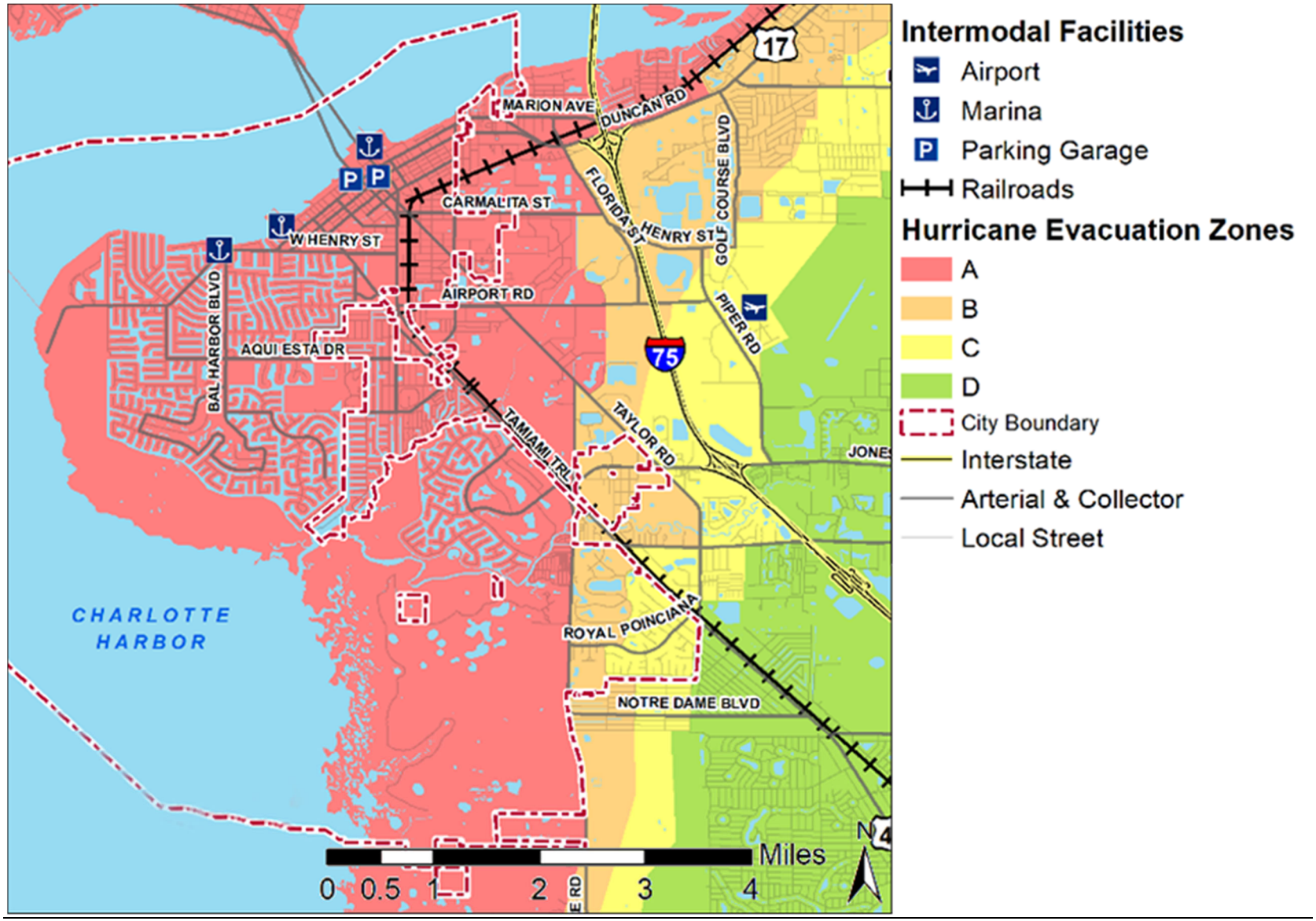
The Department of Economic Opportunity's (DEO) Coastal High Hazard Study Committee recognizes the need for development to occur within urban areas which lie within the coastal planning area. The city of Punta Gorda experienced this firsthand in 2004 when Hurricane Charley devastated the area, in 2017 when hurricane Irma caused significant flooding in the area, and in 2022 when hurricane Ian caused damage to nearly 600 properties along the Punta Gorda canal system, and severe damage to the historic Fishermen's Village. The city's recovery and post

disaster redevelopment from the 2004 even has been held up as a model of community resiliency. The City continues to work with regional, national, and even international groups to highlight what the City did right as well as lessons learned in order to assist other communities in recognizing their risks and planning for the present and future. The City also takes great pride in its close working relationship with the Florida (DEO) in moving forward in development and redevelopment efforts within the coastal planning area to make our city even more resilient to future natural disasters.

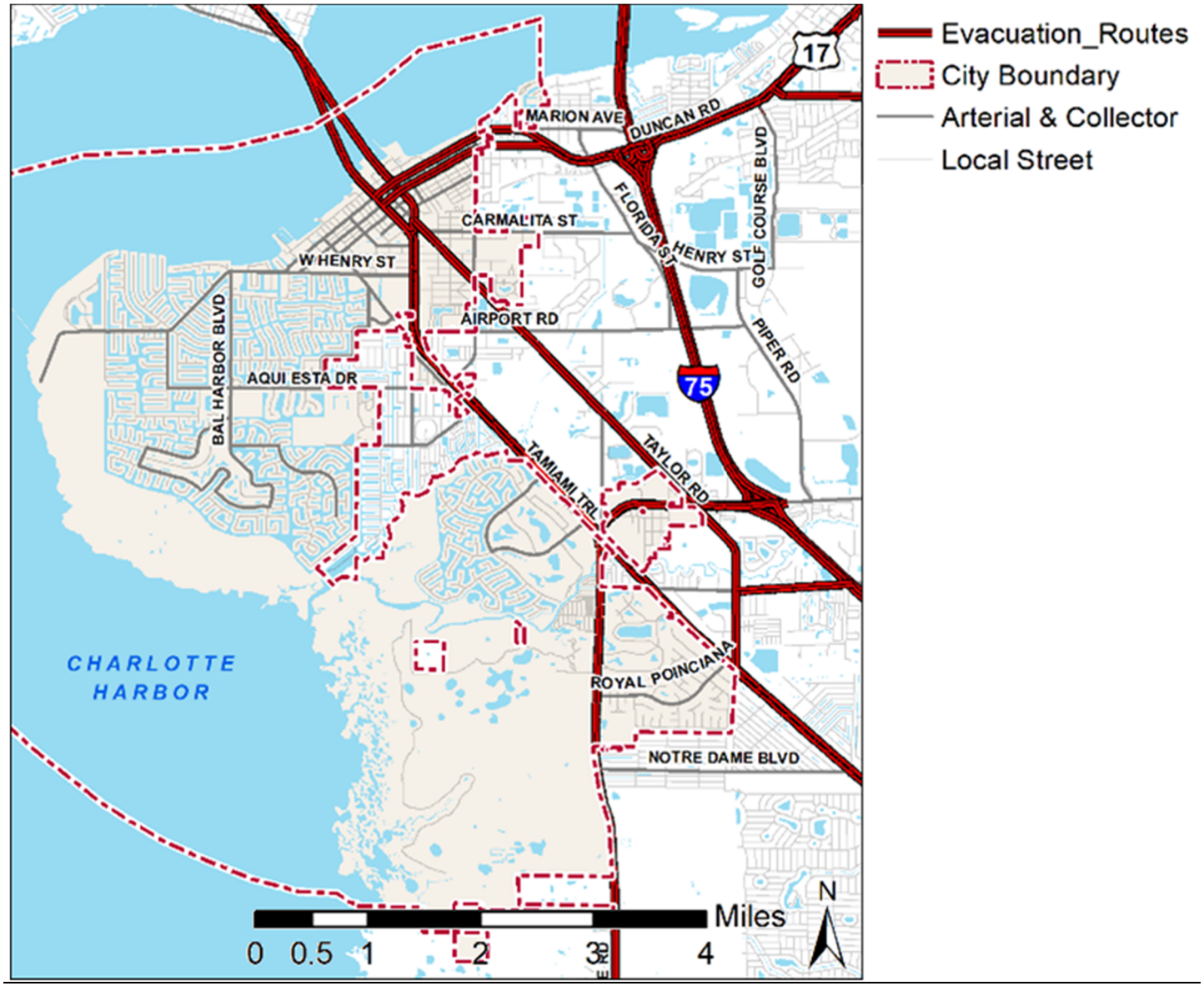
Map #34 - Utility Infrastructure in the Hurricane Vulnerability Zone



Map #35 – Transportation Infrastructure in the Hurricane Vulnerability Zone



Map #36 – Punta Gorda Hurricane Evacuation Routes



Special Flood Hazard Areas (SFHA)

Flooding, typical in the city of Punta Gorda, occurs when an expanse of water overflows and submerges a land area. This land area covered by floodwaters is referred to as the Special Flood Hazard Area (SFHA) also known as the 100 year floodplain. This area is used by most Federal and State agencies as a standard for floodplain management and is used to determine the need for flood insurance. Most of the city lies within the SFHA as shown on Map #13 – Special Flood Hazard Area (SFHA) (*Future Land Use Element*).

The City takes the flood risks it faces seriously. The City of Punta Gorda has participated in the NFIP since the first Flood Insurance Risk Maps were published for this area. Additionally, the City participates in the Community Rating System (CRS) program which is designed to mitigate flood risks to development on a community wide basis. The City, in 2015, earned a CRS rating of Class 5 which provides property owners with the opportunity to receive a twenty-five percent (25%) discount on their flood insurance premiums.

Infrastructure Vulnerability

The entire city lies within the coastal planning area as defined by the state, with a large portion of city's existing infrastructure network of roads and bridges, water lines, and sewer lines occurring within coastal vulnerable areas. This is consistent with the city's historical development and platting patterns which tended to locate communities near the coastline and major surface water bodies, a common practice dating back to the earliest known inhabitants of the region. Because of this, most of the City's other forms of infrastructure, such as schools, fire stations, libraries, government buildings, and hospitals, also occur in this area. MAP #34 - Utility Infrastructure in the Hurricane Vulnerability Zone and Map #35 - Transportation Infrastructure in the Hurricane Vulnerability Zone both illustrate the locations of such infrastructure relative to the hurricane evacuation zones established by the Southwest Florida Regional Planning Council. Analysis of infrastructure capacities and minimum level of service standards are established within the specific elements.

As the downtown area developed within the CHHA, a fairly dense interconnected urban infrastructure was provided and currently exists. Detailed discussion of the available infrastructure occurs in the *Infrastructure Element*, *Transportation Element*, *Recreation and Open Spaces Element* and the *Capital Improvements Element*. Since there are no options for the City to relocate these infrastructure elements, the City remains committed to improving and maintaining the level of service and implementing the best building, management, and technological principles when improvements are required.

The city's entire area is vulnerable to flooding. Much of the City's infrastructure is in place and serving the existing population center. Improving the existing and future infrastructure will be reviewed as the City progresses. Locating all existing infrastructure into the City's geographic information system (GIS) program is vital to ensuring data is available to recovery operators in post disaster operations. The City will consider other criteria when reviewing infrastructure placement or replacement. In addition to the development review for clearance times and available shelter space, the City will consider higher building code standards, redevelopment of the urban core, urban design standards, and environmental protection review.

The City's Water System Master Plan and hydraulic water system model provided hydraulic modeling analyses to determine pipeline infrastructure requirements for existing areas without water service and to serve new development. The Water System Master Plan also documented existing conditions in the distribution system and provided recommendations to improve system efficiency and to eliminate hydraulic bottlenecks.

Studies, programs, and efforts for additional conservation of water are on-going, as discussed in the conservation practices and regulation section of the *Infrastructure Element*. In addition to the conservation programs listed in that section, the City is

completing a Reuse Feasibility Study to investigate the feasibility of implementing a reuse system to treat and deliver reuse water for beneficial use as landscape irrigation water. A reuse water system could help to optimize the management of water resources by offsetting a portion of potable water use, which could reduce demand on the region's potable water supply.

The City's master planning efforts for both water supply and water distribution system infrastructure continues to allow the City to coordinate, plan, and meet the needs of new development in an effective manner.

To mitigate the flood prone areas, the City continues to pursue two strategies. First pursuant to a FEMA hazard mitigation grant, the City conducted a drainage study, which resulted in a comprehensive program for stormwater management in the drainage sub-basins north of the railroad tracks to the Peace River. Second, the City continues to purchase lands in the highest risk velocity areas to preserve those lands from development.

Challenges for the City are associated with the impact of development on the stormwater management system and the future annexation of vacant lands. The development review process, permit issuance, and level of service standards assist the City in offsetting the impact of development on the stormwater management system.

The development of stormwater management facilities in the city is relatively difficult and expensive due to the city's low elevation, engineering, and real estate constraints. The primary concerns relating to stormwater management facilities mainly relate to capacity and design life.

The quality of discharge needs to be consistent with the recommendations being developed by the Charlotte Harbor National Estuary Program (CHNEP) and the requirements of State Water Policy. Establishment of level of service standards for the quality and quantity of discharge must account for various storm events and acceptable levels of flooding. Level of service criteria for storm water quality should at a minimum maintain water quality consistent with the final pollutant load reduction goals established by the local State, and Federal water quality programs. Pollutant load reduction goals will be implemented according to a schedule provided in the Southwest Florida Water Management District's Water Management Plan. These levels of service standards were based on providing varying degrees of flood protection based on the nature of the facility and the acceptability for potential flooding.

VI. ANALYSIS

Hurricane Evacuation

The Southwest Florida Regional Planning Council (SWFRPC-) provides technical assistance to member governments on several key issues including hurricane evacuation. Current study published by the RPC is the 2017 Evacuation Study. This document analyzes demographic and land use patterns, various hazards, behavioral trends, vulnerability, shelter, and transportation resources. This analysis provides a foundation for calculating the clearance times based upon:

- Regional evacuation transportation network
- Storm intensity
- Evacuation population
- Behavioral response

This evacuation study dives deeply into the actual behavior observed from previous evacuation events to project realistic evacuation assumptions for evacuation rates, out of county trips, type of refuge and evacuation timing. This more realistic analysis provides a firmer foundation for determining actual transportation system demands in the event of an evacuation order. The critical planning figure in determining the effectiveness of the transportation network in accommodating an evacuation is called the 'clearance time' which is broken into four categories:

1. Clearance time to shelter
2. In-county clearance time
3. Out of county clearance time
4. Regional clearance time

Evacuation clearance times are calculated for each of the five evacuation zones A thru E and for the 2017 base year and a 2020 projection year as illustrated in Table 2B.4.

Table 2B.4 – Clearance Times for Operational Scenarios for Charlotte County

Evacuation Level					
	A	B	C	D	E
Clearance Time to Shelter					
2017	N/A	13.0	15.0	19.0	41.5
2020	12.5	13.5	18.5	26.0	19.0
In-County Clearance Time					
2017	N/A	18.5	32.5	45.0	59.5
2020	17.5	26.5	36.0	51.0	46.0
Out of County Clearance Time					
2017	N/A	19.0	32.5	45.0	59.5
2020	17.5	26.5	36.0	51.0	46.0
Regional Clearance Time					
2017	19.0	23.5	33.5	45.0	61.0
2020	23.5	30.5	36.0	51.0	46.5
Source: Southwest Florida Regional Planning Council 2017 Evacuation Study Time listed in hours					

As demonstrated by the regional clearance times in Table 2B.4, inter-county, loading is a significant factor in experienced evacuation clearance times. Due to the regional nature of hurricane impacts it is likely that any evacuation will include more than one county. The need to evacuate larger regions proportional to the category storm approaching indicates that there should be as few artificial restrictions on roadways as possible.

While the transportation network plays a major role in effective evacuation, as illustrated on Map # 35 – Punta Gorda Hurricane Evacuation Routes. While recognizing evacuation needs, funding for major transportation improvements based on infrequent hurricane events is not a fiscally sustainable approach. It is therefore determined by the study that improvements in hurricane evacuation planning including increased public shelter capacity, assistance to transit dependent persons, alternatives for evacuees with pets, special needs shelters, and other strategies are needed.

Climate Resiliency

The natural setting of the city coupled with extensive infrastructure investment in the areas closest to the coast have placed the city at the forefront of geographic areas that will be among the first to suffer the negative effects of a changing climate. The city's vulnerabilities to climate change and sea level rise were discussed in the Comprehensive Southwest Florida/Charlotte Harbor Climate Change Vulnerability Assessment (Southwest Florida Regional Planning Council

Charlotte Harbor National Estuary Program Technical Report 09-3 September 15, 2009). This report identifies the effects of a changing climate on Southwest Florida by examining the current climate and ongoing climate change in southwest Florida along with five future scenarios of climate change into the year 2200. The updated Charlotte Harbor National Estuary Program Technical Report 16-3 March 9, 2017 identifies and diagnoses Locations of Ongoing and Future Saltwater Wetland Loss, causing mangrove heart attacks.

There are crucial areas where adaptation planning and implementation will be needed in order to avoid, minimize, and mitigate the anticipated effects to the natural and man-altered areas of southwest Florida. Some effects, such as air temperature and water temperature increases, will be experienced throughout the region. Others, such as sea level rise and habitat shifts, will occur in specific geographic and climate locations. In the course of the project 246 climate change management adaptations were identified (Beever et al. 2009) that could be utilized to address the various vulnerabilities identified for the region. Future adaptation plans will identify the management measures best suited for each geographic location. The updated report identified a total of 61,601 mangroves acres and compared the mangroves condition in 1985 to their condition in 2015. Some of the basins where mangroves have declined include Malacha Pass and Pine Island Sound. Improvements were however shown for the Tidal Peace River and the Tidal Myakka River.

As future studies and more detailed information of climate change become available, the City plans to monitor the effects and assess when and where adaptive management needs to be and should be applied. A critical goal of this monitoring is to establish and follow indicators that signal approach toward an ecosystem threshold that, once passed, puts the system into an alternative state from which conversion back is difficult to impossible to achieve.

The City of Punta Gorda's Climate Adaptation Plan states that the city of Punta Gorda is currently experiencing climate change. Severe tropical storms and hurricanes with increased wind speeds and storm surges have already severely damaged the community. Charlotte Harbor is experiencing mangrove forest losses, water quality degradation, and barrier island geomorphic changes. The plan further states that longer, more severe dry season droughts coupled with shorter duration wet seasons consisting of higher volume precipitation will generate a pattern of drought and flood impacting both natural and man-made ecosystems.

Currently, the City of Punta Gorda is taking a progressive approach to planning for climate change. The 2025 Comprehensive Plan already included comprehensive plan language to address the impacts of sea level rise, and seek strategies to combat its effects on the shoreline of the city.

Climate resiliency planning provides a planning framework for addressing the physical, economic, environmental, and social impacts that changes in climate are expected to have on the city of Punta Gorda. The City recognizes the general consensus that climate change is occurring and understands that it is vulnerable to sea level rise, and other climate change impacts. The City is also aware that these impacts will be greater when coupled with significant storm events that may include flooding, hurricanes, and storm surge. As a result of the changes in global and local conditions that are occurring, the City has made it a priority to develop additional strategies to address impacts associated with coastal flooding, tidal events, storm surge, flash floods, stormwater runoff, salt water intrusion, groundwater contamination and other impacts related to global climate change and sea level rise. This comprehensive plan update recognizes the need to continue planning for climate change will continue these efforts by:

- Updating the City's Adaptation Plan,
- Developing and working with partners to promote protection of our built environment

- Reviewing alternative adaptations that could be undertaken to address the identified climate change vulnerabilities for the city of Punta Gorda
- Utilizing land use strategies in reviewing future developments promote conservation and water dependent recreation.

In December 2008, the Punta Gorda City Council voted unanimously to participate in the EPA Climate Ready Estuary pilot program. This EPA program works with communities to assess climate change vulnerabilities, develop, and implement adaptation strategies, and engage stakeholders. In 2009, the City, through partnerships with the SWFRPC, EPA, and the CHNEP, developed a climate adaptation plan.

In 2018, the City applied for NOAA's 2018-2019 Florida Resilient Coastlines: Resiliency Planning grant, administered by FDEP to conduct a vulnerability analysis for city-owned critical infrastructure and prepare an addendum to the City's existing 2009 climate adaptation plan. A vulnerability assessment was conducted to address public infrastructure within city limits, with an emphasis on coastal flooding impacts to critical facilities and historic properties. The purpose of a vulnerability assessment is to help a municipality or community identify and prioritize structural and social assets that are likely to be impacted by future coastal flooding and sea level rise. Over the past decade since the initial adoption of the climate adaptation plan, the City has undertaken actions outlined in the report to increase resilience for the city and its infrastructure. These actions include participating in collaborative public private partnerships, policy changes, and maintenance and acquisition of greenspace.

The 2019 addendum to the City Adaptation Plan developed a number of vulnerability criteria including: parcel inundation at 3 ft. of sea level rise, ratio of flooded acreage to non-flooded acreage at 3 ft. of sea level rise, number of publicly owned parcels inundated, number of critical facilities inundated, and number of historic properties inundated. These criteria yielded three distinct Adaptation Focus Areas for further investigation and narrowing of adaptation strategies, which are the Downtown Focus Area, the Fire Station Focus Area, and the US 41 Commercial Focus Area. For each Adaptation Focus Area, a variety of strategies for helping the City become more resilient are recommended and incorporated as part of this comprehensive plan.

Figure 2B.1 – Overview of Adaptation Focus Areas

Land Use Challenges

The land uses adjacent to the harbor are a mixture of single and multi-family developments, commercial developments, hotels, marinas, public land, preservation, and recreation and all are vulnerable to coastal flooding. While Legislation encourages mixed use, high density development in urban infill and redevelopment areas, this type of growth is criticized for density issues within vulnerable coastal areas. However, it makes sense regarding delivery of services to the urban core to encourage this type of development within the city. These mixed use developments accommodate a variety of uses with higher densities, and promote pedestrian and bicycle friendly sustainable communities. In a perfect world, the city's coastal area would remain undeveloped and would serve as a buffer to minimize the effects of a natural disaster. However, because much of the area is already developed, and there are no adequate funding mechanisms to acquire those areas most vulnerable to a disaster City works with the residents, businesses and developers to promote mixed use, high density urban infill and redevelopment projects in the most resilient way possible.

The City will utilize land uses strategies in reviewing future developments which promote water dependent recreation, commercial and residential development, keeping in mind that Charlotte Harbor is the key economic and cultural resource which defines the quality of life found here. Some of the strategies to be used include:

Future Land Uses

Understanding the city's historic and past development patterns assists the staff in developing strategies that combine the waterfront attribute with sound urban development strategies. Compact and contiguous growth patterns need to be employed to assist the city in growing and developing into a viable economic center. Most of the city's coastal platting occurred prior to any serious consideration of planning. The City's Land Development Regulations (LDR's) rewritten in 2005, and as amended over the years, support growth management and climate adaptation strategies promoting compact and contiguous growth centered around the city's greatest natural resource, Charlotte Harbor, and current infrastructure. The local economy is largely built on the direct and indirect economic impacts derived from this resource. However sound these growth management principles may be, careful consideration must be employed as the City moves into the next planning decade.

The City's adopted future land use designations are identified on Map #5 - Future Land Use Map (*Future Land Use Element*) and in Table 2B.6 - The City of Punta Gorda's Future Land Uses, which provide a brief description of the future land use and the associated densities permitted under each designation. Future land uses within the city need to be reviewed. This comprehensive plan update identifies the need to review these uses and associated densities in light of present day conditions. A detailed discussion of the land uses and proposed changes for the land uses is provided in the *Future Land Use Element.*

Table 2B-6 - The City of Punta Gorda's Future Land Uses

Future Land Use Category	Description		Units/Acre & Floor Area Ratio	Acreage	% of Total Acreage
Residential Category	High Density Residential	Permits residential structures other than mobile homes.	10.0 – 15.0 units/acre	845.86	7.14%
	Low Density Residential	Permits residential structures other than mobile homes.	1.0 to 5.0 units/acre	3,349.54	28.28%
	Mobile Home	Permits residential structures & mobile homes. Recreational vehicles permitted.	MH 12.0 units/acre; densities of R.V.'s 8.0 units/acre	179.66	1.52%
Commercial/ Mixed Use Category	Downtown	Intended to be developed in a pedestrian oriented manner consistent with the historic pattern. A mix of retail, dining, offices, and multifamily residential are permitted.	25 – 40 units/acre	176.61	1.49%
	Village Center	Intended for smaller mixed-use commercial centers outside of the downtown core. Development should be pedestrian oriented.	25 – 35 units/acre	104.67	0.88%
	Traditional Neighborhood	Defined by a unique mix of single-family and multifamily housing types such as duplexes, triplexes, cottage courts, small apartments, and townhouses.	25.0 units/ acre (et)	437.61	3.69%
	Flex Commercial Corridor	Intended to accommodate a wide array of commercial,	25 – 35 units/acre	195.55	1.65%

		office, light industrial, PDR (production, distribution, and repair), and mixed-use developments.			
	Highway Commercial Corridor	Intended to accommodate commercial, retail and office uses that are more auto oriented due to scale and typology while respecting pedestrian and alternative transportation modes through development design standards.	3.5 units/acre	290.73	2.45%
	Professional Office	Office lands are lands primarily intended for office, professional, medical, and institutional uses.	15.0 units/acre	35.43	0.30%
	Light Industrial	Intended for activities predominantly connected with manufacturing, assembly, processing, distribution, or storage of material goods.	3.5 units/acre	9.39	0.08%
	Loop Annexation Area	Intended to accommodate a wide variety of future growth and development.	450 total entitled units	224.85	1.90%
General Category	Conservation	Privately owned lands, like "Preservation" lands, which are held in private ownership. These lands are generally undeveloped, have considerable environmental significance.	1 unit/10 acre or 1 unit/lot of < 10 acre	273.63	2.31%
	Preservation	Publicly owned lands, generally held as open space for environmental, flood hazard mitigation,	0 units/acre	3,296.06	27.83%

		educational, recreational, cultural, or archaeological purposes with minimal development promoting these purposes.			
	Public/Semi-Public	Lands owned by the public and used for public purposes such as governmental offices and operational facilities.	0 units/acre	184.58	1.56%
	Recreation – Private	Intended for recreational uses that are not public property and which are primarily intended to serve a surrounding residential community.	0 units/acre	406.32	3.43%
	Recreation – Public*	Intended to serve active and passive recreational needs of the public.	0 units/acre	1,834.23	15.49%

Source: Urban Design Department 2020

*A significant portion of the Recreation-Public lands in the City are owned by the State of Florida as part of the Charlotte Harbor Buffer Preserve. These lands are held for and operate as Preservation lands but are categorized on the Future Land Use Map as Recreation-Public at the request of the State agency responsible for the management of the land.

Compatible Zoning

Zoning compatibility is generally about separating residential uses from commercial, industrial, institutional, and other uses. However, the City of Punta Gorda with its mixed-use land use categories seeks to blend these non-residential uses with residential uses to produce neighborhoods that host a more complete array of daily goods and services to meet the needs of residents and visitors alike. Balancing proximity of non-residential uses to residential uses while preserving neighborhood tranquility will be the constant challenge with this approach to creating more complete neighborhoods.

Conservation Lands

In reviewing the land uses within the city, it is important to remember that the city has approximately 5,386 acres of land within Conservation, Preservation, and Public-Recreation future land use designation of Conservation, areas having considerable environmental of significance. The City continues to acquire land along the waterfront to assist in the reduction of structure damage. This process will continue where possible and when funding is available. This area will remain in conservation to assist in the protection of the adjacent development.

Economic Viability

Punta Gorda's traditional economy was primarily comprised of fishing, tourism, and rail-to-water transportation. In its redevelopment, Punta Gorda seeks to partner with waterfront property owners, yacht clubs, and local boating advocates to increase amenities for visiting and local boaters, protect the unique marine habitat of Charlotte Harbor, and uphold Punta Gorda's reputation as a world class sailing, boating, and fishing destination. The City of Punta Gorda is situated on the Peace River which is included in the National Estuary Program by the Environmental Protection Agency, and approximately half of the proposed waterfront area lies within an aquatic preserve.

While taking steps to increase access to the water by commercial fishermen, the City has expanded its fishing industry to include sport fishing. The construction of the open air market at Laishley Park benefits commercial fishermen as well as the tourist industry.

The City would greatly benefit from and is beginning to explore collaborative marketing strategies that join different industries together. In this way, Punta Gorda would better be able to market itself and enhance its viable economies, such as traditional fishing, tourism, and sport fishing. At the same time, a successful marketing strategy would enable Punta Gorda to enhance its visibility as a boaters' destination, and attract cruising boaters on the intra-coastal waterway. One such investment is partnering with Fishermen's Village, the Punta Gorda Waterfront Hotel, and the Sheraton Four Points to expand their marinas and provide upland facilities and additional day docks for visiting boaters. The City continues to seek opportunities in an effort to facilitate the redevelopment of the city's waterfront area and advance the economic engine opportunities of the downtown area.

Of great importance to the economic viability of the city was the formation of a Community Redevelopment Agency (CRA). In 1989, the City of Punta Gorda adopted Ordinance 989-90 creating the Punta Gorda Redevelopment Agency and adopted the 1990 Downtown Redevelopment Plan. The primary purpose of the plan was to establish a comprehensive set of public projects and programs aimed at facilitating the positive revitalization of Punta Gorda's downtown and eliminating the conditions of blight existing in the redevelopment area. The Punta Gorda Redevelopment Plan was divided into four areas:

- Urban design framework;
- Traffic circulation and parking proposals;
- Capital projects; and
- Redevelopment programs.

Currently, the CRA exists primarily to extinguish the bonded debt for the construction of the two major capital improvements: Laishley Park and the Herald Court Centre (parking garage). Once these bonds obligations are satisfied, the CRA will be sunset in accordance with the City's 2012 interlocal agreement with Charlotte County. As of 2020, CRA debt has been refinanced with a retirement date of January 1, 2028, which is earlier than the latest possible CRA termination date in the interlocal agreement (December 31, 2030).

VII. DEVELOPMENT & REDEVELOPMENT IN VULNERABILITY ZONES

Growth Management Strategies in Vulnerable Area

This section reviews the tools that are available for implementation by local governments for development and redevelopment in vulnerable areas. These tools are being discussed so as to assist local governments in protecting and managing its coastal resources for environmental protection, recreation, tourism, commerce, and economic development. In addition, land use decisions must also include protected private property rights and the need for redevelopment to ensure the long term viability of the coastal community. It will include

those practices employed by the City. The growth management strategies used by the City include:

Building Codes

Building codes protect the health, safety, and general welfare of the public as it relates to the construction and occupancy of buildings and structures. The codes govern the design and construction practices of residential and other development. An adequate building code which is properly administered and enforced can help mitigate potential hurricane damage. Building codes are required by the State Legislature. All local governments in Southwest Florida have adopted the Standard Building Code (formerly the Southern Standard Building Code) developed by the Southern Standard Building Code Conference.

Many building codes contain hurricane-proofing provisions. In addition, the City adopted Article V Floodplain Management Code in 2014. The provisions of this Article shall apply to all development that is wholly within or partially within any flood hazard area, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling, enlargement, improvement, replacement, repair, relocation or demolition of buildings, structures, and facilities that are exempt from the Florida Building Code; placement, installation, or replacement of manufactured homes and manufactured buildings; installation or replacement of tanks; placement of recreational vehicles; installation of swimming pools; and any other development.

The purposes of this Article and the flood load and flood resistant construction requirements of the Florida Building Code are to establish minimum requirements, and in some instances provide higher standards, to safeguard the public health, safety, and general welfare and to minimize public and private losses due to flooding through regulation of development in flood hazard areas to:

1. Minimize unnecessary disruption of commerce, access, and public service during times of flooding;
2. Require the use of appropriate construction practices in order to prevent or minimize future flood damage;
3. Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials, and other development which may increase flood damage or erosion potential;
4. Manage the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain;
5. Minimize damage to public and private facilities and utilities;
6. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas;
7. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and
8. Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22.

Subdivision Regulations

Subdivision regulation is a very commonly used development control device. These regulations guide the division of large parcels of land into smaller lots for sale or development. Subdivision regulations can be an effective means for local governments to supplement hurricane hazard protection by incorporating specific measures into these regulations.

Conventional Zoning and Land Use Planning

A functioning community needs to provide the capability for virtually all types of development. The manner in which this development may locate is commonly accomplished through the zoning-land use planning process.

Zoning is a commonly employed development control device. It is used to regulate the use of buildings and land, the area of a lot which may be developed, the density of development, and the height and bulk of buildings or other structures. Zoning is

one of the most effective means of protecting residents and their property from hurricane or flood damage. Zoning regulates the height of structures, the use of structures and land, and the size of lots and density of use. One important aspect of zoning is the ability to specifically regulate flood hazard area land uses.

Comprehensive plans are also an effective means of protecting persons and property from potential hurricane impacts by designing general land uses in specific areas. The allocation of land uses to areas that can accommodate those uses can mitigate potential hurricane damage.

If communities incorporate disaster preparedness considerations into their overall planning and zoning process, then the threat to a great deal of future development may be avoided. The uses to be directed away from hazardous areas include moderate to high density residential development, population-related intense commercial development, most forms of industrial development, and population-related institutional uses (schools) and utility development. The uses which would be permitted or encouraged in hazard areas are the water dependent commercial and industrial development (marinas, canneries, ports), water oriented tourist development, recreation, agriculture, and estate housing.

Zoning ordinances are used by the Region's local governments, and comprehensive land use plans have been adopted for all counties and municipalities in Southwest Florida.

Fiscal Policies

The use of fiscal policy in hazard areas is somewhat related to the provision of public improvement but has one major difference, which is to make it more expensive to develop hazard areas. The rationale for the imposition of additional costs is that the cost of services for hazard areas, regardless of the cost of normal services, is greater than normal due to several factors, including the need for shelters and for adequate traffic flow on evacuation routes. Fiscal policy may take several forms, such as exactions, fees, and special taxes. Each type of policy may apply during different times in the life of a development. Fiscal policies do not necessarily inhibit the development of hazard areas. The development that does occur, however, is more costly, and some users will be crowded out by economic market conditions.

Public Improvements

Growth is influenced by the location of specific public facilities and services. The location of infrastructure will have an impact on a community's development patterns. One benefit is that it can be used to direct growth away from areas prone to adverse hurricane impacts. Public improvements include both the location of facilities to influence growth (such as roads, sewer, water and other essential support facilities), and access to existing facilities (such as the permit to tap into a sewer or water line, etc.).

The uses of lands which are most endangered by hurricane flooding are urban uses. These uses are dependent upon services and facilities normally provided by public agencies. Both the location of facilities and access to these facilities can be used to limit development in hazard areas by not providing services or expanding services in such areas. Most local governments and state government in Florida do not directly prohibit private agencies from providing services in such areas. Consequently, the approach of public improvement limitations is not of great value by itself. When used in coordination with other approaches, however, public improvement limitations have greater utility.

The provision of public improvements is the core of the City’s growth management strategy. Realizing that development tends to follow roads and water lines and to a lesser extent sewer lines, this growth management strategy seeks to control the location and timing of such improvements, thereby controlling the location and timing of growth.

Development Rights Transfer of Density Units

One method of reducing/removing density and the associated impacts from other areas less appropriate for development to more suitable areas development is the Transfer of Development Rights (TDR) process. The TDR process is described in Chapter 8 of the City's Code of Ordinances. TDR permits development rights to be severed from one parcel of land and transferred to another.

The intent of the Transfer of Development Rights ordinance is to protect ecologically valuable, historic, and archeological resources by directing growth to areas better suited for development.

Environmental Controls

These controls have emerged to protect natural processes such as flooding, stormwater runoff, groundwater recharge, or to prevent development in sensitive resource areas such as flood plains, stream valleys, wetlands, and shorelands, where problems could occur with development. Much of the area subject to a high degree of hurricane hazard also has recognized environmental values. Examples of such areas are beaches, dunes, and salt and freshwater wetlands. Protection of these areas allows for endless possibilities for public access, educational parks etc.

Floodplains and Drainage Ways

There are other environmental areas which have less recognition and less regulatory protection. These are floodplains and drainage ways for stormwater runoff. Such areas, which may be expected to be flooded by hurricanes, contain only moderate developmental controls, which are identified primarily by performance standards. Typical examples of such performance standards include the requirement of minimum building elevations in flood zones and storage capacities in drainage ways. Consequently, many environmental controls that have been enacted have limited utility in preventing hurricane flood zone development.

Land Development Regulations

The City has adopted a number of land development regulations, including a Stormwater Ordinance and a number of others which, while intended to address specific environmental concerns, have an overall effect of limiting development in certain areas, and in particular on small parcels. By establishing minimum lot sizes, setback requirements, and building height restrictions, the Zoning Regulations have a similar influence on development, as well.

Land Acquisition

Land Acquisition is another tool used by the City as an environmental control. The City has embarked on a land acquisition program which emphasizes properties which benefit a number of City priorities (protection of environmentally sensitive areas, reduction of platted lots, recreational opportunities, etc.).

Post Disaster Redevelopment in the Vulnerable Areas

Many of the existing structures within the coastal planning area were built prior to the City's participation in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program. As such, many structures do not meet the current standards for ground floor elevations specifically formulated to protect against the loss of life and property from flooding. The *Housing Element* provides a detailed discussion of dwelling units by age for Punta Gorda. For example, as of 2016, units built prior to 1970 (now 50 years and older) constitute approximately 7% of the total housing stock for the city of Punta Gorda. Based on data from the American Community Survey, approximately 40% the city's housing units were built prior to 1990.

The requirements of the FEMA regulations, which are incorporated into the City Code as Land Development Regulations, specify that substantial improvements of existing structures shall have the lowest habitable floor of such structure elevated to or above the applicable level of the one hundred year flood as shown on the Flood Insurance Rate Maps. "Substantial improvement" means any enlargement of a structure, the area of which equals or exceeds fifty percent of the existing enclosed area of the structure. This does not include projects for improvement of a structure to comply with existing state or local health, sanitary or safety codes, or alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

The impacts from Hurricane Charley in 2004 changed much of the downtown area. Many of the older units were damaged or destroyed not by flooding but by wind. A discussion of these properties is found in the *Housing Element*.

The coastal planning area incorporates the "V" (velocity) zones depicted on the FEMA's Flood Insurance Rate Maps (FIRM), which, according to the SWFRPC, would require evacuation in the event of a hurricane. Redevelopment of these areas, including assistance programs, strategies for directing higher density growth, and prioritizing of redevelopment concerns were discussed as early as 1987 by South Florida's RPC Hurricane Loss Study.

With regard to land use in vulnerable areas, there is a basic perceived conflict between the duty of government to protect the health, safety and welfare of its citizens and the rights of property owners to the use and disposition of their property. One way, perhaps the best way, to resolve this issue is for government to acquire properties deemed as having high hazards with regard to hurricane flooding, in accordance with constitutional law. The acquisition program is perceived to be particularly necessary when the protection role of government removes most commonly agreed upon reasonable uses from land which would normally be suitable for such use. The City acquires these properties as opportunities and monies are provided.

There is no doubt that redevelopment will continue to occur in the coastal vulnerable area following any natural disaster. The question facing the City and other cities and counties with coastal vulnerable areas, is what will be the nature of the redevelopment? It is a generally accepted theory of land use and zoning law that, if a property is lawfully developed in accordance with all existing regulations in force and effect at the time of development, and then those regulations change, the development which took place prior to the change is considered a lawful non-conformity. In the city lawful non-conformities are typically allowed to remain in existence – including regular maintenance as long as they are not enlarged or expanded – provided they are not destroyed by more than 50% of their value, at which time they have to be brought into compliance with existing codes. It remains to be seen whether this would be applied in such a way as to preclude re-development of a previously existing structure following a natural disaster due to density restrictions. In such instances, the City would have to give careful consideration to any vested rights which may apply to the property and circumstances. Discouraging density, while trying to promote compact and contiguous growth, may be considered an oxymoron. It is critical for cities such as Punta Gorda to have some flexibility in future planning. The Department of Community Planning recognized this need for flexibility and has provided statutory regulation which allows for an increase in density provided there is no increase in evacuation times as cited in Chapter 163.3178 (8).

The uncertainty surrounding what vested rights may exist for post-disaster redevelopment is complicated by the 1997 Comprehensive Plan which does not provide specific policies to reduce densities in the wake of a disaster, but instead focuses on ameliorating the scale of future potential disasters. It does this by limiting the density of future plats within the coastal vulnerable areas to 3.5 units per acre, and by seeking to direct future growth away from the most vulnerable areas through the

land acquisition and transfer of development rights programs. Because this policy guidance is limited to future platting but is silent in regard to construction not requiring platting, an applicant would be able to rebuild in accordance with the property's underlying zoning and future land use designations. Again, whether this would restrict the redevelopment of previously existing structures (where such would mean exceeding the density allowed under the FLUM) has not yet been tested and would require a careful examination of vested rights issues.

Hazard Mitigation

The City has recognized the importance of hazard mitigation to preserve the undeveloped quality of the eastern side of its waterfront area. Toward this end, the City has purchased two (2) acres of undeveloped land on the waterfront for preservation. Although the city lost significant portions of mangrove stands during Hurricane Charley, the mangroves that were lost shielded the developed inland areas from destruction. The City, therefore, sees the restoration of mangroves along the eastern side of its waterfront as a priority.

The city's entire waterfront area is flood prone. To mitigate this, the City, pursuant to a FEMA hazard mitigation grant conducted a drainage study which looked at the area north of the railroad tracks. This study resulted in a comprehensive program for stormwater management of the existing conditions. The strategies identified were implemented over the last few years. The City will need to re-evaluate the area for future conditions and also look at the area south of the railroad tracks. The City will continue to seek out and purchase lands in the highest risk velocity zone areas as designated by FEMA to preserve those lands from development as they have done in the past.

Early identification, planning, and action increase a community's resilience to climate induced disasters. The 2019 update to the City's Climate Adaptation Plan outlines a toolkit of initiatives and strategies to guide the City's efforts for hazard mitigation and resilience planning. General policy recommendations, funding sources, and future actions have been integrated into this Comprehensive Plan, in addition to specific strategies identified for Adaptation Focus Areas, including the Downtown, US 41 Commercial, and Fire Station Focus Areas.

Coastal areas are extremely vulnerable to hurricanes and other storm events. The City recognizes the need exists to reduce damage to future development by minimizing vulnerability to these hazards. In an ideal world, no future development would be allowed within the vulnerable coastal areas; however, with the city's current development, redevelopment projects infrastructure investment and citizen's plans, the City will continue to grow and develop. Therefore, hazard mitigation should not be used to limit development within the city, but should be to control the location and structural integrity of the development ensuring the development is built to withstand hurricanes and other storm events. Toward this end, the City has utilized growth management strategies to aid in the preservation of the natural resources.

Citizen Participation

The citizens of Punta Gorda individually and through organizations like TEAM Punta Gorda (TPG) have been extremely active in establishing the long-range goals for the city through various planning studies, visioning meetings and charrettes. The 2000 Eastside and Downtown Planning Study, The 2005 CRA Charrette, and 2005 Citizens Master Plan, and the 2019 Citywide Master Plan are a few of the most recent studies that the City and its citizens have undertaken and the City implemented, in order to clarify a vision of a viable urban center, respectful of its history, connected to its waterfront, and sensitive to its ecological heritage. With many of the policies and visions completed from these studies, the City looks to begin a wide range of studies and public input over the next decade to continue to build on the previous progress and will be seeking citizen input.

In order to demonstrate the greater visions illustrated in the various planning documents citizens worked with the City to accomplish a variety of projects including the Economic Development Strategy Report, which outlines available economic opportunities promoting the Downtown and Waterfront Area. The City counts among its resources a multitude of organizations such as:

TEAM Punta Gorda

A volunteer-driven organization committed to making the greater Punta Gorda area a great place to live, work and play. TEAM Punta Gorda has as its mission uniting Punta Gorda residents for the purposes of collaborating with federal, state, county, and local political leaders in order to rebuild and revitalize post-Hurricane Charley Punta Gorda. TEAM Punta Gorda developed a 2005 Citizens Master Plan as a vision upon which to guide the development of Punta Gorda, which includes a regional master plan, a downtown master plan, traffic studies, and architectural guidelines. The City will continue to work with the group as it moves into the next planning decade.

Punta Gorda Boating Alliance

A group representing the interest of over three thousand (3,000) boaters from various organizations, with the stated goal of working with the City and TPG to improve the waterfront and marine area along the Peace River by implementing plans to promote the city as a boater's destination.

Punta Gorda Historical Society

The society preserves historic buildings in Punta Gorda, including the National Register of Historic Places district.

Punta Gorda Historical Mural Society

The society is working to restore the interpretive murals that were destroyed by Hurricane Charley.

Charlotte Harbor Environmental Center

The center offers environmental education, recreation, research, and preservation to residents and visitors of the Charlotte Harbor area, which includes the waterfront area.

Table 2B – 7 - Future City Studies

Punta Gorda City Hall Needs Assessment	2020	Review of City Hall's current conditions and assessment of building upgrade and maintenance needs.
Parks & Recreation Master Plan	2020	Update to the City's Parks & Recreation Master Plan
Charlotte County-Punta Gorda MPO 2045 Long Range Transportation Plan (LRTP)	2020	Update the MPO's Long range Transportation Plan
AC Freeman House Building Evaluation	2021	Historic building evaluation for the AC Freeman House
Source: City of Punta Gorda Urban Design 2020		

VIII. CONCLUSION

The City will continue to plan, promote, and manage the conservation and protection of the city's natural resources through the implementation of the strategies detailed throughout the document. The goals, objectives, and policies of the *Coastal Management Element* will provide the direction necessary to address urban development occurring within the coastal area. As the city has adequate lands placed in Preservation and Conservation, the City will address development and redevelopment by continuing to:

- Limit the platting of new residential subdivisions to a maximum of 3.5 units per acre in the Tropical Storm and Category 1 Vulnerability Zones unless such subdivisions provide reasonable provisions for mitigating hurricane risks including but not limited to maintaining evacuation times and increasing shelter capacity under the provisions of The State Statutes.
- Implement the FEMA's 50 Percent Rule. Utilize the Flood Insurance Rate Maps (FIRM) from the Federal Emergency Management Agency (FEMA) and Floodplain Management of DEO. (In addition to identifying those areas susceptible to flooding because it lies within the 100 – year and 500 – year floodplains, the FIRM maps also designate areas which are located within coastal floodplains with velocity.)
- Ensure through the development review process, that new structures meet the minimum floor elevation standards established by FEMA and that special construction procedures are followed within velocity zones such as elevation with pilings or columns, breakaway walls, and other techniques.
- Coordinate with the County in developing a post-disaster redevelopment plan in cooperation with the SWFRPC.
- Acquire undeveloped land on the waterfront for preservation.

The City will coordinate and communicate with the city's stakeholders as the plans for future developments continue. Organizational and technical assistance in consensus building among the competing interests of waterfront users, including the City, investors, business owners, residents, and visitors for the development of the waterfront area, and preservation of public access, will be provided by staff through citizen participation sessions. The City is committed to implementing strategies that will balance growth, including residential and commercial development and the associated infrastructure, through innovative and creative approaches that will least impact the natural systems.

GOALS, OBJECTIVES, and POLICIES

Goal 2B.1: The City's coastal programs are directed toward the long term protection of its greatest natural resource, Charlotte Harbor, the protection of human life from natural disasters through development regulations, and the elimination of unnecessary public expenditure of funds for improvement in areas subject to destruction by natural disasters.

Objective 2B.1.1: Punta Gorda will continue a development pattern which is characterized by the location of water dependent and water related uses in its waterfront areas.

Policy 2B.1.1.1: Structures and uses in waterways, waterward of the mean high water line or bulkhead line, will be limited to water-oriented uses and structures which support water-oriented uses, and such uses and structures may be further regulated or restricted depending upon adjacent upland land uses, consistent with the Comprehensive Plan and zoning.

Measurement: Review and revision of the Land Development Regulations.

Policy 2B.1.1.2: Punta Gorda's waterfront will be characterized by water-dependent uses (e.g., boat ramps, marinas, dock facilities, fishing piers, etc.) and by other water-related uses such as waterfront parks, boardwalks, hotels, shopping and restaurant uses, waterfront residential uses, etc.

Measurement: New waterfront development permit applications reviewed.

Policy 2B.1.1.3: The siting of boating related facilities in Punta Gorda will be consistent with the Comprehensive Plan and Land Development Regulations and will incorporate developmental and environmental criteria: vacant adjoining parcels, acreage, land use, landside infrastructure (water, sewer, road), aquatic preserve, wetland, seagrass, water depth adjacent to parcel, and boat access.

Measurement: New boating-related development permit applications reviewed.

Objective 2B.1.2: Punta Gorda will protect existing and potential populations in vulnerable coastal areas by establishing constraints on public infrastructure, by managing population growth in such areas; and by implementing protective controls on development in such areas.

Policy 2B.1.2.1: The City will implement this objective through the implementation of Policies 1.1.1.1; 1.1.1.2; 1.1.4.1; 1.1.4.3; 1.1.4.4; 1.1.5.1; 1.1.7.1-1.1.7.5; 1.1.8.1; 1.1.8.2; 1.1.9.2 - 1.1.9.5; 1.1.14.1-1.1.14.16; and 1.1.15.1 as contained in the *Future Land Use Element.*

Measurement: Implementation of stated policies.

Policy 2B.1.2.2: All comprehensive plan amendments and redevelopment within the coastal planning area, which includes the CHHA, will be required to demonstrate no adverse impacts relative to hurricane evacuation times or mitigate the impacts pursuant to 163.3178(8)3 § 163.3178 (8) 3, Fla. Stat.

Measurement: Number of plan amendments and redevelopment plans reviewed for adverse impacts relative to hurricane evacuation times or the mitigation of the

impacts within the coastal planning area, which includes the CHHA.

Objective 2B.1.3: Punta Gorda will maintain or reduce hurricane evacuation times by implementing appropriate transportation improvements to hurricane evacuation routes identified in the *Transportation Element.*

Policy 2B.1.3.1: Punta Gorda will support, as a top priority, the timely completion of hurricane evacuation route improvements proposed in the *Transportation Element* of this plan through its participation in the MPO and the City's *Capital Improvements Element* and Capital Improvements Program.

Measurement: Inclusion of these projects in the Capital Improvements Element and Capital Improvements Program.

Policy 2B.1.3.2: The City shall promote joint ventures, development or redevelopment of projects which support design standards that promote or improve sheltering evacuees safely in a local area which would reduce traffic and congestion and therefore reduce the demands on road networks in an evacuation scenario.

Measurement: Number of development or redevelopment permit applications reviewed.

Objective 2B.1.4: Punta Gorda will participate in the preparation of post-disaster redevelopment plans to reduce or eliminate exposure of human life and property to natural hazards.

Policy 2B.1.4.1: Punta Gorda will take steps to fulfill support roles to be identified in the Charlotte County Comprehensive Emergency Management Plan and as amended.

Measurement: Number of completed support role steps.

Policy 2B.1.4.2: Punta Gorda will participate in the production and implementation of Interagency Hazard Mitigation Reports issued pursuant to any future Presidential Disaster Declaration affecting Punta Gorda.

Measurement: Number of Hazard Mitigation Reports prepared affecting Punta Gorda.

Policy 2B.1.4.3: Punta Gorda's post-disaster redevelopment policy is to seek the repair and replacement of utilities, roads, bridges, and other facilities and infrastructure in the same general locations in which they existed at the time of the disaster event, with consideration given to issues such as the possibility of introducing functional improvements, preservation of economic base and other community resources, accommodations in land use necessitated by disaster related changes in such things as sedimentation or drainage, etc.

Measurement: Implementation of a post-disaster redevelopment program reflecting the priorities of Policy 2B.1.4.3 should such a program be necessitated by a disaster.

Policy 2B.1.4.4: All development and redevelopment within the coastal planning area, which includes the CHHA, is subject to the Florida Building Codes, the City's Floodplain Management Code and Land Development Regulations.

Measurement: Number of development or redevelopment permit applications approved.

Goal 2B.2: The City shall limit development activities where such activities would damage or destroy coastal resources, except where mitigation would protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

Objective 2B.2.1: Punta Gorda will mitigate the risk of coastal flooding vulnerability by strategic provision of public infrastructure; promoting the use of citywide Transfer of Development Rights (TDR) for environmentally sensitive lands; and by pursuing the acquisition of lands for preservation.

Policy 2B.2.1.1 Construction of public facilities in coastal flood risk area will be in furtherance of one or more of the following: downtown revitalization, efficiencies in the provision of service, or service to existing populations.

Measurement: Number of projects reviewed under the Florida Building Codes, 44 C.F.R., the City's Floodplain Management Code, and land development regulations.

Objective 2B.2.2: Punta Gorda will continue to eliminate, reduce, or mitigate conditions that are inconsistent with any interagency hazard mitigation report recommendations that it deems to be appropriate, and which are inconsistent with the comprehensive plan.

Policy 2B.2.2.1: The City of Punta Gorda will continue to participate in the Community Rating System (CRS) program, provide public education on flood hazards, have development and building regulations that mitigate flood hazard, maintain and/or improve stormwater drainage, train City staff in flood issues, and control the siting of mobile homes.

Measurement: Continued participation in the CRS program

Policy 2B.2.2.2: Punta Gorda will maintain and enforce regulations requiring flood elevation and/or flood proofing techniques for building in floodplains.

Measurement: Elevation and floodproofing required by building permit conditions.

Goal 2B.3: Public Access: To promote the City of Punta Gorda as a "boaters' destination" by enhancing public access between the land and waters of the State of Florida for all residents and visitors of the city of Punta Gorda, based upon current and projected demand.

Objective 2B.3.1: Expand access from the waters of the Peace River and the Charlotte Harbor to the city of Punta Gorda, balancing impacts of the number and quality of boat slips, moorings and shore side support facilities for cruising boaters with sustaining and enhancing the natural shoreline environment.

Policy 2B.3.1.1: The City shall promote joint ventures, development or redevelopment of projects which support design standards that promote or improve public access from the waterfront to the city.

Measurement: Number of development or redevelopment permit applications reviewed.

Policy 2B.3.1.2: The City shall identify areas in the city that are appropriate for the construction of boat ramps and paddle craft launches, through the Parks Master Plan, to provide increased public boat access within the city of Punta Gorda.

Measurement: The completion of the City's Park Master Plan.

Policy 2B.3.1.3: The City shall continue to work with appropriate agencies to develop a feasible mooring field program and adopt and enforce

strict regulations for boaters using mooring ball fields and anchoring in Charlotte Harbor.

Measurement: The development of a feasible mooring field and regulation and enforcement activities.

Policy 2B.3.1.4: As part of their long-term plans the City shall continue to acquire, protect, and enhance lands which are adjacent to public waterways that provide adequate public access to coastal resources.

Measurement: Numbers of acres acquired annually.

Policy 2B.3.1.5: Implement City and County dredging projects, such as the Ponce Inlet and Alligator Creek.

Measurement: Number of coordination meetings with City of Punta Gorda and Charlotte County regarding dredging projects and inlet/canal maintenance.

Policy 2B.3.1.6: The City shall conduct an in depth study of the effects of adding new marinas, mooring ball fields, and breakwater in Charlotte Harbor and work closely with property owners, environmental groups, and technical consultants to mitigate any potential impacts.

Measurement: Existence of a marina expansion and western mooring ball field feasibility and impact analysis.

Policy 2B.3.1.7: The City should study the feasibility of relocating the dinghy docks at Gilchrist Park to the Charlotte Harbor Event Center, Fishermen's Village, and the PG Waterfront Hotel.

Measurement: Existence of a dinghy dock relocation feasibility and impact analysis.

Policy 2B.3.1.8: The City shall work to expand access of kayak launch areas to promote paddle craft activities and launch points.

Measurement: Number of new public kayak launches constructed.

Objective 2B.3.2: Develop strategies to improve the marketability and visibility of Punta Gorda to cruising boaters on Florida's Intracoastal Waterway.

Policy 2B.3.2.1: Work with the Economic Tourism Director and other groups to produce publications, technical assistance and special extension programming activities that will inform and educate the local citizenry and visitors of nature-based tourism activities available in the area.

Measurement: Completion and distribution of publications.

Policy 2B.3.2.2: The City will work with Economic Tourism Director to develop a boating and anchoring guide to (1) enhance the experiences of local and transient boaters, (2) promote safe navigation and responsible boating and anchoring behaviors of the Charlotte Harbor, and (3) provide boaters with information on area resources and amenities.

Measurement: Completion and distribution of the guide.

Objective 2B.3.3: Complete construction of the linear walkway along the entire waterfront area.

Policy 2B.3.3.1: Where public access is hindered, the City shall seek to acquire in fee or in interest private easements to improve public access

along the waterfront area when development or redevelopment activities are proposed.

Measurement: Number of linear feet.

Objective 2B.3.4: Improve the connectivity of the downtown area to the waterfront.

Policy 2B.3.4.1: Improve existing signs to facilitate access from the waterfront to downtown, and ensure that walkways provide convenient paths between downtown and the waterfront through the implementation of such programs as the Wayfinding System.

Measurement: Implementation of the Wayfinding System and other programs.

Policy 2B.3.4.2: The City shall continue to develop opportunities and implement improvements of pedestrian and bicycle connections from downtown to the waterfront.

Measurement: Number of developed pedestrian and bike path connections.

Objective 2B.3.5: Maintain visual access along the waterfront through use of design guidelines.

Policy 2B.3.5.1: The City will implement design standards which contain site planning, landscaping, and architectural standards to reinforce, frame, and define water views.

Measurement: Number of building permits completed along the waterfront.

Goal 2B.4: Environmental and Cultural Resource Protection: To ensure the protection of the city of Punta Gorda's environmental and cultural resources in accordance with federal and state law, and to enhance the cultural heritage and physical character of the city by directing development in a manner that maintains the working waterfront identity of the city.

Objective 2B.4.1: Provide for a sustainable development and redevelopment pattern throughout the city of Punta Gorda.

Policy 2B.4.1.1: The City of Punta Gorda shall recognize the natural division of Punta Gorda's waterfront area as 1) western side of the waterfront containing developed parcels, and including the sea-walled Gilchrist Park; and 2) the eastern side of the waterfront containing largely undeveloped parcels and including the city's ecological connection to the waterfront.

Measurement: Implementation of existing plans.

Policy 2B.4.1.2: The City shall continue to pursue acquisition of undeveloped land along the eastern waterfront area for preservation of the natural environment and protection of the manmade environment.

Measurement: Number of acquisitions along the eastern waterfront area.

Policy 2B.4.1.3: The City shall continue to review, and where necessary, modify local development regulations to ensure that development and redevelopment projects utilize best available management construction techniques for minimizing water quality impacts.

Measurement: Number of Development Review Committee applications reviewed per the Land Development Regulations.

Policy 2B.4.1.4: The City shall update the City of Punta Gorda's Adaptation Plan to identify additional strategies that will assist in developing a coastal resilient city.

Measurement: Completion of the updated Plan and the Identified strategies that will

add protection to the built environment and public infrastructure.

Objective 2B.4.2: Enhance and restore the coastal landscaping of Punta Gorda's living shorelines to increase coastal resiliency in the built environment.

Policy 2B.4.2.1: Seek matching grant funding opportunities for exotic species removal and native species restoration stands citywide especially when it concerns protection of the inland developed areas.

Measurement: Number of grants received.

Policy 2B.4.2.2: Implementation and enforcement of land development regulations which require exotic species removal and require native species plantings in conjunction with development projects.

Measurement: Number of Land Development Regulations (LDR) and Code Enforcement Violations.

Policy 2B.4.2.3: The City shall promote oyster reef restoration in appropriate areas along its shoreline.

Measurement: Development of additional oyster reef projects and studies.

Policy 2B.4.2.4: The City shall continue to preserve existing shoreline parks and conservation areas through proper maintenance and appropriate land development and zoning regulations.

Measurement: Maintenance of existing parks and conservation sites.

Policy 2B.4.2.5: The City shall continue and expand existing efforts to fund, design, and install living shorelines offshore of existing waterfront parks and plant additional vegetation, such as seagrass, along the coastline to enhance the natural shoreline ecosystem and protect against storm events.

Measurement: Number of new living shoreline and coastal vegetation planting projects completed annually.

Objective 2B.4.3: The City shall ensure the protection of cultural and historical sites throughout the city.

Policy 2B.4.3.1: The City shall encourage the restoration and creation of murals depicting historical events.

Measurement: Number of Murals completed.

Policy 2B.4.3.2: The City shall maintain a Local Register of historic resources in addition to eligible National Register places.

Measurement: Updated list of historic properties.

Policy 2B.4.3.3: The City shall through the permitting process ensure the architectural integrity of historic structures while respecting FEMA building standard and hazard mitigation strategies.

Measurement: Approved building permits that respect architectural character.

Goal 2B.5: Hazard Mitigation: To ensure the implementation of resilience and climate adaptation strategies to preserve the city of Punta Gorda's infrastructure and resources, and to mitigate potential future flood damage within the coastal planning area.

Objective 2B.5.1: Improve storm water management.

Policy 2B.5.1.1: The City will continue to pursue grant funding opportunities to improve stormwater management systems.

Measurement: Implementation of new systems.

Policy 2B.5.1.2: The City will review and update stormwater management regulations to ensure best practices are utilized for all development and redevelopment activities.

Measurement: Periodic review of the Stormwater Management Regulations and implemented projects.

Objective 2B.5.2: Address the impacts of climate change such as sea level rise, and seek strategies to combat its effects on the shoreline of the city.

Policy 2B.5.2.1: The City will work with the Southwest Florida Regional Planning Council and other organizations to determine the potential climate change impacts, including but not limited to sea level rise impacts, on the Coastal Planning Area.

Measurement: Completion and implementation of developed coastal studies or development of model scenarios.

Objective 2B.5.3: Ensure protection and explore restoration opportunities of mangrove stands to enhance shoreline protection.

Policy 2B.5.3.1: Strategically restore mangrove stands along waterfront properties that are at risk of adverse impacts form tidal activity.

Measurement: Monitoring of completed restoration projects.

Objective 2B.5.4: Mitigate the risk of storm-related flooding in the City of Punta Gorda.

Policy 2B.5.4.1: The City shall continue to pursue FEMA hazard mitigation and other grant opportunities.

Measurement: Number of FEMA hazard mitigation and other grant applications submitted.

Policy 2B.5.4.2: The City shall continue to pursue acquisition of lands in the highest risk areas to mitigate hazard risks.

Measurement: Number of acreage acquired annually in the designated high risk areas.

Goal 2B.6: Enhancement of the Viable Traditional Economy: To enhance economic development opportunities within the city of Punta Gorda that more fully connects the community to its waterfront.

Objective 2B.6.1: The City shall maintain and enhance its traditional economy in the areas of boating, fishing, and tourism.

Policy 2B.6.1.1: The City shall promote fishing events and other similar activities.

Measurement: Number of sport fishing events and similar activities approved annually.

Policy 2B.6.1.2: The City shall encourage farmers markets and community gardens to facilitate the sales of locally produced goods which will benefit residents, local business', local food producers, commercial fishermen and visitors.

Measurement: The completion of open air markets, and the sales of the vendors.

Policy 2B.6.1.3: The City shall explore collaborative marketing strategies to encourage and facilitate the further development of waterfront dependent economic activities.

Measurement: Number of implemented strategies

Policy 2B.6.1.4: The City shall explore marketing strategies that would enhance its viability as a boater's destination.

Measurement: Number of boats visiting City boating facilities.

Policy 2B.6.1.5: The City shall study the cost and feasibility of new artistic lighting for the Gilchrist and Barron Collier Bridges that can be programmed for special events only or for certain hours of the night.

Measurement: Completion of a cost and feasibility analysis for decorative lighting on the Gilchrist and Barron Collier Bridges.

Policy 2B.6.1.6: The City shall partner with large waterfront developments to study the feasibility of water taxi service in the long-term.

Measurement: Completion of a water-taxi feasibility study.

Policy 2B.6.1.7: The City shall work with the Chamber of Commerce, Yacht Clubs, and local boating organizations to expand existing water-related events and develop large boating events like Sail In's and Traveler Fest.

Measurement: Number of boating and water-related events hosted in Punta Gorda annually.

Policy 2B.6.1.8 The City shall expand and improve city marketing aimed specifically at boating and fishing tourists, as well as sailing, kayaking, and paddle boarding enthusiasts.

Measurement: Number of marketing campaigns targeted to boating, fishing, and water-related recreation enthusiasts each year.

Goal 2B.7: Coastal Resilience: To increase the city's resilience to the impacts of climate change and sea level rise by developing and implementing adaptation strategies and measures in order to protect human life, natural systems, economic resources, property, and infrastructure.

Objective 2B.7.1: Punta Gorda will develop and implement adaptation strategies for areas vulnerable to coastal flooding, tidal events, storm surge, flash floods, stormwater runoff, saltwater intrusion and other impacts related to climate change or exacerbated by sea level rise, with the intent to increase the city's comprehensive adaptability and resiliency capacities.

Policy 2B.7.1.1: Identify public investments and infrastructure at risk to sea level rise and other climate related impacts.

Measurement: List public investments and infrastructure at risk from rising sea levels and develop adaptation strategies for vulnerable areas and assets by the year 2021, to be re-evaluated every 5 years after.

Policy 2B.7.1.2: Adaptation strategies may include, but not be limited to:

a. Accommodation
b. Protection
c. Planned relocation
d. Other strategies

Policy 2B.7.1.3: The City's Climate Adaptation Plan should be maintained and updated periodically in order to incorporate the best available scientific data and technological advances. Evaluate Adaptation focus areas and designate new Focus Areas for development of further adaptation priorities.

Measurement: The City's Climate Adaptation Plan will be updated at least once every 10 years. Adaptation Focus Areas to be re-evaluated and new ones designated, as necessary.

Policy 2B.7.1.4: The elevation of the City's stormwater outfalls should be assessed as part of a stormwater master plan review, with these elevations compared to future sea level rise scenarios, and appropriate adaptations implemented to prevent backflow "nuisance flooding."

Measurement: Review the stormwater master plan and elevations of stormwater outfalls, comparing these to future sea level rise scenarios after each Climate Adaptation Plan update. Implement adaptations to prevent backflow "nuisance flooding."

Policy 2B.7.1.5: The City shall establish a living shoreline pilot project at a City-owned park in order to encourage citizens to incorporate living shorelines on their properties.

Measurement: One or more new living shoreline projects designed and constructed on City-owned property by 2022.

Policy 2B.7.1.6: The City will pursue grants, alternative funding, and partnerships in order to implement adaptation and resilience projects outlined in the Climate Adaptation Plan.

Measurement: Alternative funding awarded for City adaptation and resilience projects.

Objective 2B.7.2: The City will consider identifying and designating Adaptation Action Areas (AAAs), as provided by Section 163.3164(1), Florida Statutes. The City will develop specific adaptation strategies for properties located in AAAs.

Policy 2B.7.2.1: Considerations for AAA designation may include, but not be limited to:

a. Areas which experience tidal flooding, or flooding due to extensive rainfall
b. Areas which have a hydrological connection to coastal waters
c. Locations which are within areas designated as evacuation zones for storm surge
d. Other areas impacted by stormwater/flood control issues

Measurement: Identify and designate areas within the city which are at risk from coastal flooding and prioritize funding for infrastructure and adaptation planning for these AAAs.

Policy 2B.7.2.2: As a basis for the designation of AAAs, the City will utilize the best available data and resources in order to identify and understand the risks, vulnerabilities, and opportunities to formulate timely and effective adaptation strategies.

Measurement: After each Climate Adaptation Plan update, re-evaluate city's areas at risk from coastal flooding and assess their possible inclusion as AAAs.