



CITY OF TYBEE ISLAND MASTER PLAN

Submitted to:
Georgia Department of
Community Affairs

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RS&H



PREFACE

In compliance with the Minimum Standards and Procedures for Local Comprehensive Planning set forth by the Georgia Department of Community Affairs, this Master Plan was prepared through a collaborative and coordinated community-driven effort. This effort included extensive work by members of the Advisory Working Group, comprised of citizen volunteers, as well as members of the community who participated through public meetings, local staff, and the consultant team.

City of Tybee Island community members spent, collectively, approximately hundreds of hours in the development of this master plan. This extensive citizen investment in the planning process ensures that the plan aligns with the community vision for the future.



TABLE OF CONTENTS

Chapter 1. Introduction	1-1
Chapter 2. Community Participation.....	2-1
Chapter 3. Community Vision and Goals	3-1
Chapter 4. Needs and Opportunities.....	4-1
Chapter 5. Achieving the Vision.....	5-1
 Appendices	
Community Participation Documentation	
Survey Results	
Character Area Map	
Carrying Capacity Study – Data Assessment	
Work Program Report of Accomplishments	
Quality Community Objectives Assessment	
Desired Design Patterns and Architectural Styles Guidebook	
Transmittal Resolution	

CHAPTER 1
INTRODUCTION



Tybee Island Comprehensive Plan

The Tybee Island Comprehensive Plan is the 20-year plan that identifies the vision, goals, objectives, and strategies. This comprehensive plan is required to be updated every ten years, and is focused on addressing the changing conditions and community needs for Tybee Island.

The Georgia Department of Community Affairs (DCA) sets forth requirements for local governments to maintain their status as a Qualified Local Government, which includes the development and adoption of a Comprehensive Plan. Status as a Qualified Local Government provides eligibility for grants and technical assistance. The Comprehensive Plan must be developed in compliance with the Rules, effective March 1, 2014, found in Chapter 110-12-1, which establishes the Minimum Standards and Procedures for Comprehensive Planning. These rules provide the framework for the development and implementation of the Comprehensive Plan and *"reflect and important state interest: healthy and economically vibrant cities and counties are vital to the state's economic prosperity."*

Local planning is recognized as a critical element in meeting the state interests. The foundation of the plan should be fact-based information that enables tracking of policy implementation within the community, as well as the creation of a stable environment for business and industry, property owners, and members of the community. The plan provides communities with the tools to implement focused economic development strategies and initiatives that ultimately support the state's role in the global market.

The minimum standards and procedures for comprehensive plans incorporate the existing conditions within the community, the identification of needs and opportunities, and strategies that support communities in meeting their aspirational goals.

Planning Requirements

In addition to the requirement for the development of the plan, the DCA regulations also include specific elements that are required for incorporation into the plan. These required elements are the minimum for the plan, however, each community is encouraged to include additional elements that robustly reflect the needs and opportunities that exist within the community.

The City of Tybee Island Comprehensive Plan includes the required elements, and based on the identified goals and objectives, includes additional elements to address the needs and desires of the community.

The required plan elements include:

- Community Vision and Goals
- Needs and Opportunities
- Land Use
- Transportation
- Housing
- Community Work Program



Through the public participation and public input process, additional elements for inclusion in the plan were developed. These additional elements reflect the unique character and needs of Tybee Island.

These additional elements include:

- Community Preservation
- Sustainability
- Intergovernmental Coordination

CHAPTER 2

COMMUNITY PARTICIPATION



Community Participation and Input

The development of the Tybee Island Comprehensive Plan incorporated a significant public involvement and participation component. For a plan to be meaningful and implementable, the community input is critical.

CARRYING CAPACITY STUDY

In addition to the development of the Master Plan, the City of Tybee Island also undertook a Carrying Capacity Study. Coordination with this study, which was underway concurrently with the Master Plan, was a key opportunity of the planning process. Because of the overlap in the two studies, including data needs, community participation and development of guiding strategies for the future of the island, the two planning processes were closely interwoven and coordinated. The dual effort was an efficient use of resources and the coordinated effort provided additional opportunities for stakeholder input throughout the planning process.

COMMUNITY PARTICIPATION PLAN

The first step in the public involvement process was the development of the Community Participation Plan. This plan describes the processes, procedures and protocols employed during the planning process to ensure that members of the public have ample opportunity to provide input. Public participation is a critical aspect of the plan development and it is through public participation that the community based vision, goals, needs and opportunities and strategies are developed.

The Community Participation Plan identified specific goals and objectives to guide the input process. These goals and objectives which provide the framework for the participation process are outlined below.

Goal:

Identify all stakeholders and members of the public who need to participate in the planning process and provide input in the development of the plan.

Objectives:

- Coordinate with local government staff to identify community members who should be actively involved in the plan, particularly community elected officials and other local government committee members
- Ensure participation of these identified community members which will foster the ongoing implementation of the plan

Goal:

Form a citizens committee that will meet regularly throughout the planning process and provide input and guidance in the development of the plan.



Objectives:

- Provide opportunities for members of the committee to review and understand detailed technical analyses
- Provide opportunities for members of the committee to provide input on an ongoing and regular basis throughout the plan development

Goal:

Provide opportunities for stakeholders, interested parties and members of the general public to learn about and help shape strategies through an active involvement process that is open, inclusive and accessible to all citizens and their perspectives.

Objectives:

- Provide participation and educational opportunities for any citizen
- Develop partnerships among the local governments, agencies and community organizations
- Build trust among all project participants

Goal:

Provide clear, accurate and understandable information that can be transmitted to citizens and interested parties through a variety of means.

Objectives:

- Use clear and understandable language, as well as graphics to clearly communicate technical issues
- Use a variety of media, including websites, fact sheets, and public meeting presentations to disseminate information and data, particularly at key decision points during the process
- Identify opportunities to obtain input from a diverse spectrum of stakeholders, including those populations that are traditionally underserved in the planning process

Goal:

Provide avenues to efficiently receive input from the public and to integrate the input into the development of the plan.

Objectives:

- Monitor the progress of the technical analysis through project team meetings, workshops, public forums and other stakeholder involvement activities to identify issues and concerns
- Provide documentation of these issues and concerns
- Provide acknowledgement of input received from stakeholders

Goal:

Monitor the effectiveness of the planning process and the public involvement process through communicating and receiving information among stakeholders, citizens, planning partners and the project team.

Objectives:

- Conduct questionnaires of participants during activities, such as workshops, to gauge the effectiveness of the format
- Collect input from the community through additional methods, such as surveys
- Solicit feedback from the advisory committees and any technical committees on their satisfaction with the input opportunities and activities



Ideally, the planning process involves many community members to obtain input from the varied interests and perspectives. The plan development process included the formation of an Advisory Working Group. This group, comprised of community members who volunteered to serve at the first public meeting, reviewed detailed information throughout the process and provided extensive feedback in the plan development. While volunteers at the first public meeting were solicited for the working group, additional members of the community were welcomed at each meeting.

The working group included sitting and former members of the City Council, business owners, property owners, historical society members, members of the community focused on environmental issues, retirees, and other community members. The working group met three times over the course of the planning process and provided guidance and input at critical milestones.

Public meetings were also held and provided the opportunity for members of the community to provide feedback. The public meetings, as well as the Advisory Working Group meetings, were scheduled at the beginning of the effort to ensure all community members were well aware of the opportunities for involvement. The meetings were scheduled to avoid conflicts with other Island committee and commission meetings to provide maximum opportunities for participation. All meetings were held on a Tuesday evening, from 6:00 pm to 8:00 pm at the Tybee City Hall.

Many of the participants also were involved in the development of the Carrying Capacity Study. Because of the significant overlap in the efforts, joint meetings were also held to ensure the full coordination of the study.

In addition to the opportunities for public input at meetings, a community survey was developed based on the input received at the first public meeting. The survey focused on the prioritization of issues and goals. The survey, both hard copy and on-line, was available for community responses from February 25, 2016 through April 1, 2016. A total of 201 responses were collected from both the on-line and hard copy versions. Survey results are found in the Appendix.

A summary of the public and advisory group meetings is provided below; detailed information is found in the Appendix.

[Public Meeting # 1: February 16, 2016](#)

This meeting served as a project kick-off meeting. The plan requirements, elements, and process was described through a powerpoint presentation that covered the purpose of the plan and the approach for completion. It was at this first meeting that volunteers for the Advisory Working Group were solicited. In addition, the meeting participants broke out into working groups to identify the issues facing the community.

[Advisory Working Group Meeting # 1: March 15, 2016](#)

The first meeting of the Advisory Working Group focused on a review of the Carrying Capacity Study; a review of existing conditions, including water, wastewater, infrastructure, transportation, land use, zoning,



housing and population; the presentation of survey responses as of the meeting date; and a review, discussion and refinement of the Community Goals and focus areas. The refinements to the goals were suggested to address the changing conditions since the previous plan. Participants were also asked to mark maps depicting the changes in land use, as well as what land uses should occur.

Public Meeting # 2: April 5, 2016

The second public meeting provided a review of the final survey results and a review of the Community Vision and Goals and priorities, as well as the issues and goals identified within the Carrying Capacity Study. Participants provided feedback and refinements to the goals and the priorities to be addressed in the plan.

Advisory Working Group Meeting # 2: April 12, 2016

The second Advisory Working Group meeting focused on finalizing the goals for the plan and the refinement of the character areas. The final results of the survey were compiled and presented, forming the framework for finalizing the Community Vision and Goals. The Vision and Goals were carefully reviewed and refined based on comments from the working group. Each character area from the previous plan was reviewed in detail and refinements to those character areas were provided based on the changing conditions.

Advisory Working Group Meeting # 3: May 10, 2016

The third working group meeting included a review of the character areas, updated based on comments from previous meetings, and the identification of development strategies; and a review of the opportunities and strategies developed to address the issues identified from previous meetings and the surveys. Additional comments on the opportunities and strategies were also collected by email after the meeting, incorporated and sent back to the meeting participants for review, comment and were finalized.

Public Meeting # 3: June 13, 2016

The third public meeting was held in conjunction with the Tybee Island Planning Commission meeting and was rescheduled due to a city staff schedule conflict. The public workshop occurred after the Planning Commission meeting was adjourned and provided members of the public the opportunity to provide feedback on the final draft of the opportunities and strategies developed to address the issues and needs. An update on the plan development was also formally provided to the Planning Commission as part of their regular agenda.

City Council Presentations/Updates

Regular updates were provided to the City Council on the status of the plan and the planning process. Updates were given at the City Council meetings held on February 11, 2016 and June 9, 2016. The draft plan was presented to the City Council on July 28, 2016 and the resolution submitting the plan to the Coastal Regional Commission and DCA was adopted at that meeting. Comments received were addressed and City Council is anticipated to formally adopt the plan at its October 13, 2016 meeting.



Public Hearings

Formal public hearings will be held in conjunction with the City Council meetings of July 28, 2016 and October 13, 2016. These public hearings will provide additional opportunity to formally enter comments into the record.

Additional Public/Stakeholder Meetings

Additional public and stakeholder meetings were held during the planning process. These included meetings focused on the Carrying Capacity Study and members of the planning team attended each of these meetings, which occurred on March 29, 2016 and June 1, 2016. An update on the plan development was also provided to the Tybee VIPs on March 28, 2016. This group of over 50 senior citizens meet regularly and had the opportunity to ask questions and provide feedback on the development of the plan.

Survey

A key component of the public input process was the community-wide survey. The survey incorporated the results of the public meeting and the identification of needs and issues that resulted from that input. This survey was administered both through hard copy and on-line, accessed through the City's website. Handouts were also developed and disseminated that included the weblink, as well as QR code leading to the online survey.

The survey ran from February 26, 2016 through April 1, 2016. During that timeframe, an additional meeting was held with the Tybee VIPs and the flyer with the survey information, as well as hard copies, were also handed out to the participants. The survey generated 201 responses from community members.

From the survey responses, the top priority needs/issues was the need to keep the height limit restriction on the Island in place, with over one-half of the respondents identifying that issue as the top priority. Other priorities included historic preservation and the designation of historic zones, improvements to US 80 and maintaining the unique Tybee sense of place. The results of the survey are shown in Figure 1.



**TYBEE ISLAND
COMPREHENSIVE PLAN UPDATE**

SURVEY

HAS YOUR VOICE BEEN HEARD?

The City of Tybee Island is currently in the process of updating the Comprehensive Plan. Information about the Plan and recent meetings can be viewed at www.cityoftybee.org

At a public meeting held 2/16/16 at Tybee Island City Hall, issues were identified by meeting participants and goals for the community were prioritized. To ensure all citizens of Tybee Island have the opportunity to participate in the planning process, a survey has been placed online. Survey responses will be collected through 3/31/16.

Please use the following link to access the online survey:

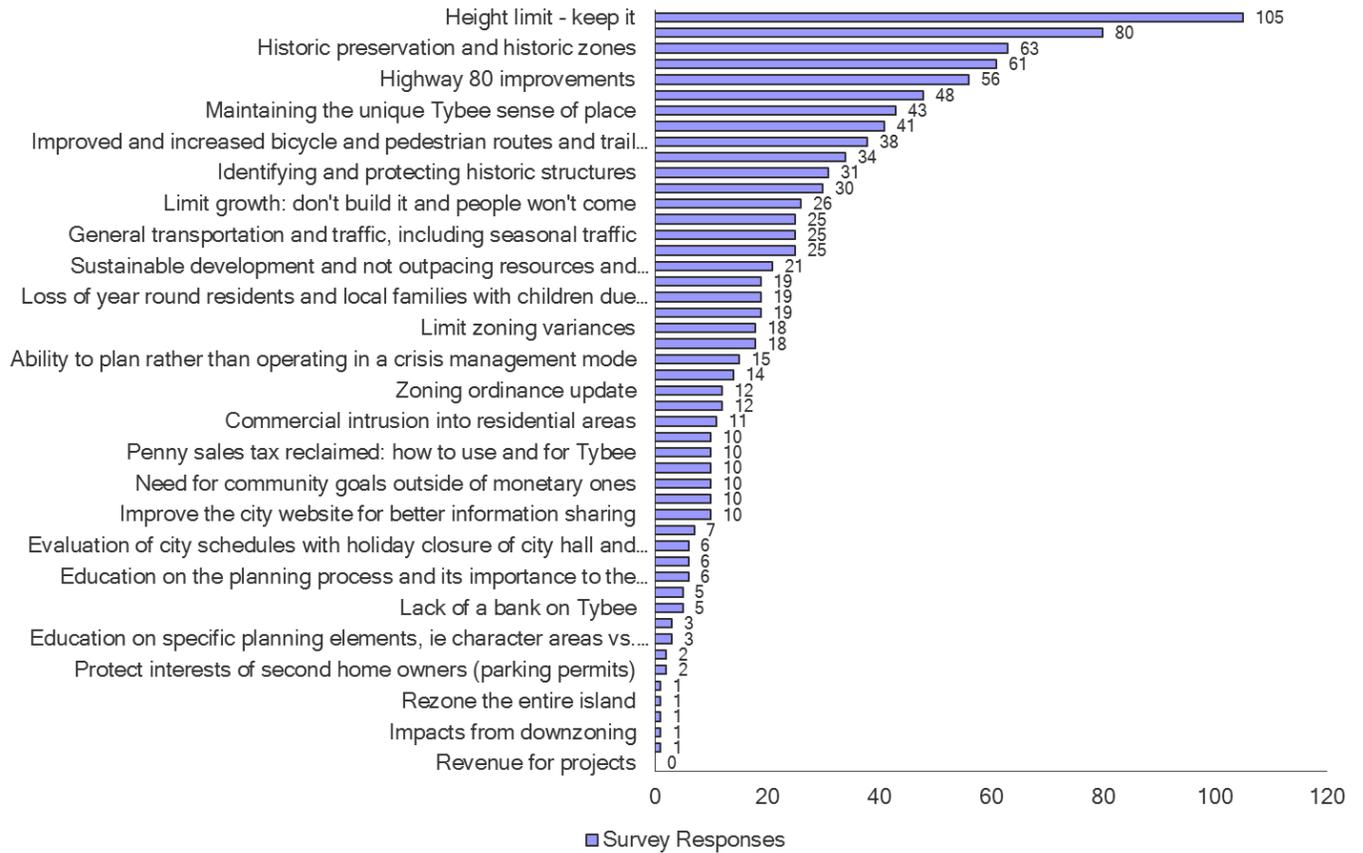
<https://www.surveymonkey.com/r/SDPHF3G>



The Comprehensive Plan charts the future course of the City and your participation is vital.



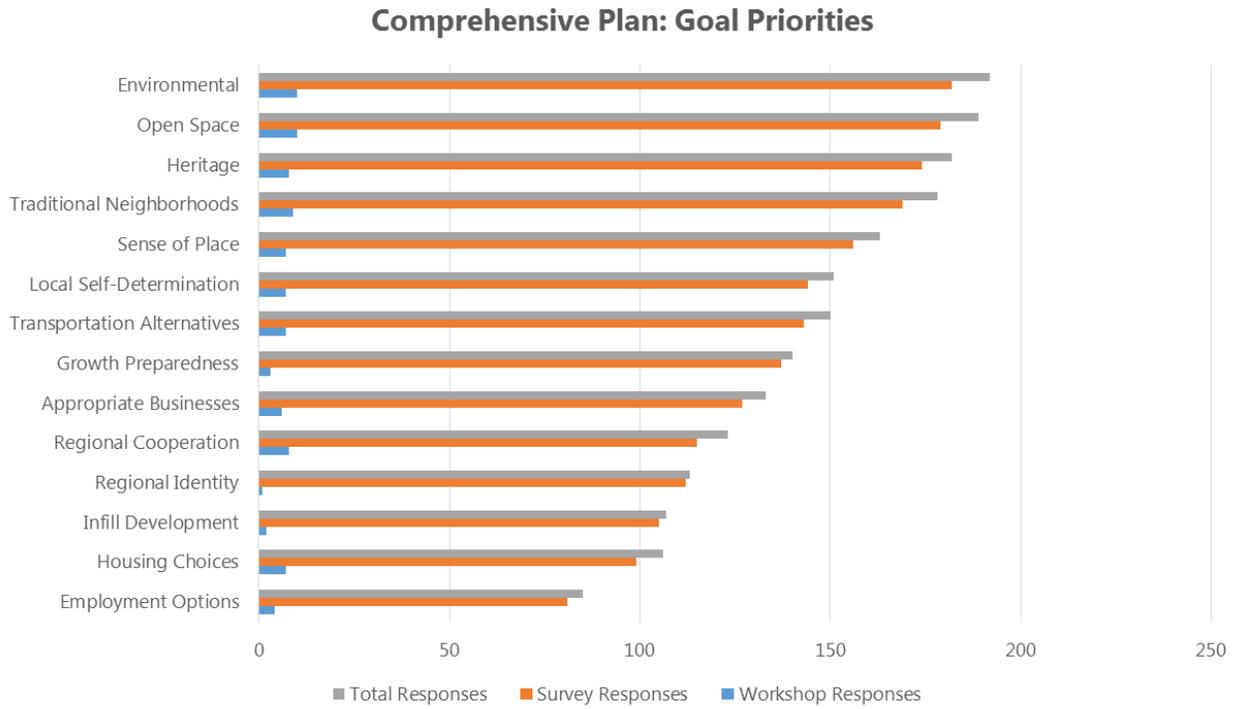
Figure 1. Survey Results



In addition to the needs/issues, the survey also obtained feedback and input on the goals and priorities of the community. The survey responses identified the environment, open space, heritage, traditional neighborhoods, and sense of place as high priorities for the goals for the Comprehensive Plan. The results of the survey, combined with the workshop responses, are shown in Figure 2.



Figure 2. Survey Results



CHAPTER 3

COMMUNITY VISION AND GOALS



Community Vision

The development of the community vision is a critical component in charting the course for the future of the community. Early in the planning process, the Advisory Working Group and the members of the public reviewed the vision statement from the previously adopted plan. Through the review process, the existing vision was slightly modified to address the changing conditions since the adoption of the last plan. This updated vision forms the framework for the Comprehensive Plan and provides the foundation upon which the City will build towards their future.

Through the community input, the following vision statement was identified:

"As concerned citizens of The City of Tybee Island, we will be conscientious stewards of our unique historic and cultural heritage, environmental resources, and diverse economic community. We will also ensure that our growth does not exceed the Island's carrying capacity.

We will foster a vibrant, year-round economy and support our business community in its goal to provide quality services and facilities for both residents and visitors. We will provide increased recreational and educational opportunities for all age groups to promote Tybee Island as a family-friendly, four-season vacation destination, while enhancing the distinctive atmosphere of our Island life".

Community Goals

With the development of the Community Vision, the next step in the process was the identification of the goals for the community, or the quality community objectives. These were developed through the community participation process, including feedback from the Advisory Working Group, public meetings, and from the results of the survey. Based on the feedback, the goals were stratified into specific categories. These goals were identified to ensure future progress for the community in achieving the vision. The goals include the following:

DEVELOPMENT PATTERNS

- Encourage development and re-development in residential areas that is within the context of traditional neighborhoods
- Encourage development and re-development to be compatible with the existing, land uses and development patterns in adjacent areas

COMMUNITY PRESERVATION

- Maintain and preserve our traditional community character and sense of place
- Maintain, preserve and enhance our historic and cultural resources
- Maintain, preserve and enhance our community open spaces, such as parks, greenbelts, and wildlife corridors



- Develop coastal hazard preparedness, or crisis management responses for hurricane preparedness and recovery from a financial, physical, and safety perspective

SUSTAINABILITY

- Encourage a diverse, stable and year round population with a high quality of life
- Encourage a focus on quality development within the carry capacity of the island
- Ensure that existing water, wastewater, solid waste, and transportation infrastructure is sufficient to support the current population
- Plan for infrastructure improvements, including water, wastewater, solid waste, and transportation, to support future growth
- Adapt to a changing climate
- Protect and preserve our environmentally sensitive areas, including beaches, natural terrain, drainage areas, vegetation, coastal marshlands, wildlife habitat and corridors, and floodplains
- Encourage and support sustainable businesses that serve both year round residents and visitors
- Promote a balance of diverse employment opportunities for both the year round and seasonal workforce

COMMUNITY

- Provide for and encourage the use of transportation alternatives, including bike, pedestrian, golf carts and public transportation
- Promote and encourage transportation safety, parking, and traffic solutions for Tybee including US 80 and its bridge infrastructure
- Encourage a range of housing sizes, costs, and densities to meet the diverse needs of the population.
- Encourage a range of educational and enrichment opportunities within the community
- Support non-profit organizations that enhance the quality of life, economy and culture of the island
- Encourage and support recreational opportunities and amenities, including the existing campground

GOVERNMENTAL/INTERGOVERNMENTAL COORDINATION

- Continue to participate and promote the regional efforts to develop solutions for issues affecting Tybee, the region and the State
- Promote and preserve Tybee's unique identity within the regional context of Coastal Georgia
- Develop and achieve our own vision with State technical and financial support

CARRYING CAPACITY STUDY GOALS

The Carrying Capacity Study also developed a set of goals for that study. Although worded somewhat differently, the goals of that study are consistent with the goals identified for the Comprehensive Plan.

The Carrying Capacity Study goals are as follows:

- Diverse, stable year round population with a high quality of life
- Healthy, sustainable tourism based economy that also serves the year round population and business owners in the off season
- Balance between the tourism industry and year round residents
- Protection of environmental, historic and cultural resources
- Safe, multi-modal access to, from and within Tybee



COMMUNITY VISION AND GOALS

- Political and public support for plan implementation
- Affordability
- Adapting to a changing climate

CHAPTER 4

NEEDS AND OPPORTUNITIES



Needs and Opportunities

The identification of needs and issues is an important step in the development of strategies to address those needs and issues and to take advantage of opportunities to move the City towards their desired future. Public and community input is a vital part of the identification of these needs, providing feedback from a wide array of diverse perspectives found throughout the community.

At the first public meeting, the workshop portion of the meeting included break-out session into small groups. The groups each focused on the identification of the various needs and issues facing the City of Tybee Island. Each break-out group included a facilitator and scribe to capture the feedback. At the conclusion of the discussion groups, each participant was asked to review all of the needs identified by each group and to identify their priorities with the placement of dots by their choices.

Once these needs were identified, they were all included in the community-wide survey, where each respondent was asked to also prioritize their needs. The resulting needs and priorities were categorized for each element.

In addition to the identification of needs through the comprehensive planning process, the Carrying Capacity Study being developed concurrently also included the identification of needs and issues. These needs and issues closely mirrored those identified through the comprehensive plan community feedback. The specific carry capacity study needs and issues are shown below.

Carry Capacity Study Needs and Issues

In working with their advisory/stakeholder committee, the Carrying Capacity study also identified needs and issues as part of the effort. Similar to the development of the goals, the needs and issues identified align with those identified as part of the master planning process. The identified issues include:

- Traffic congestion
- Lack of access
- Mobility issues during special events and peak tourism season
- Incidents/Accidents on US 80
- Lack of shoulders
- Public safety
- Lack of parking during special events
- Emergencies and emergency evacuation
- Water withdrawal and ability to meet future needs
- Wastewater discharge
- Stormwater quality and quantity
- Handling solid waste
- Land use and build-out
- Growing older, retired population segment



LAND USE ELEMENT

According to the requirements set forth by the Georgia Department of Community Affairs, the land use element is required for communities with “zoning or equivalent land development regulations that are subject to the Zoning Procedures Law”. This land use element includes an assessment of the needs and issues, as well as the identification of opportunities and strategies to address the identified needs and to ensure the preservation and enhancement of each of the described character areas.

Needs and Issues

Land use and development patterns are a critical element in the City’s efforts to maintain and preserve their quality of life and meet their vision and goals for the future. The needs and issues identified for the land use and development patterns element include the following:

- Maintain height limits
- Growth limits
- Compatible redevelopment with adjacent areas
- Limit zoning variances
- Zoning ordinance update
- Impacts from down-zoning

Each of these needs and issues were considered within the specific character areas and in the development of the strategies to address those needs.

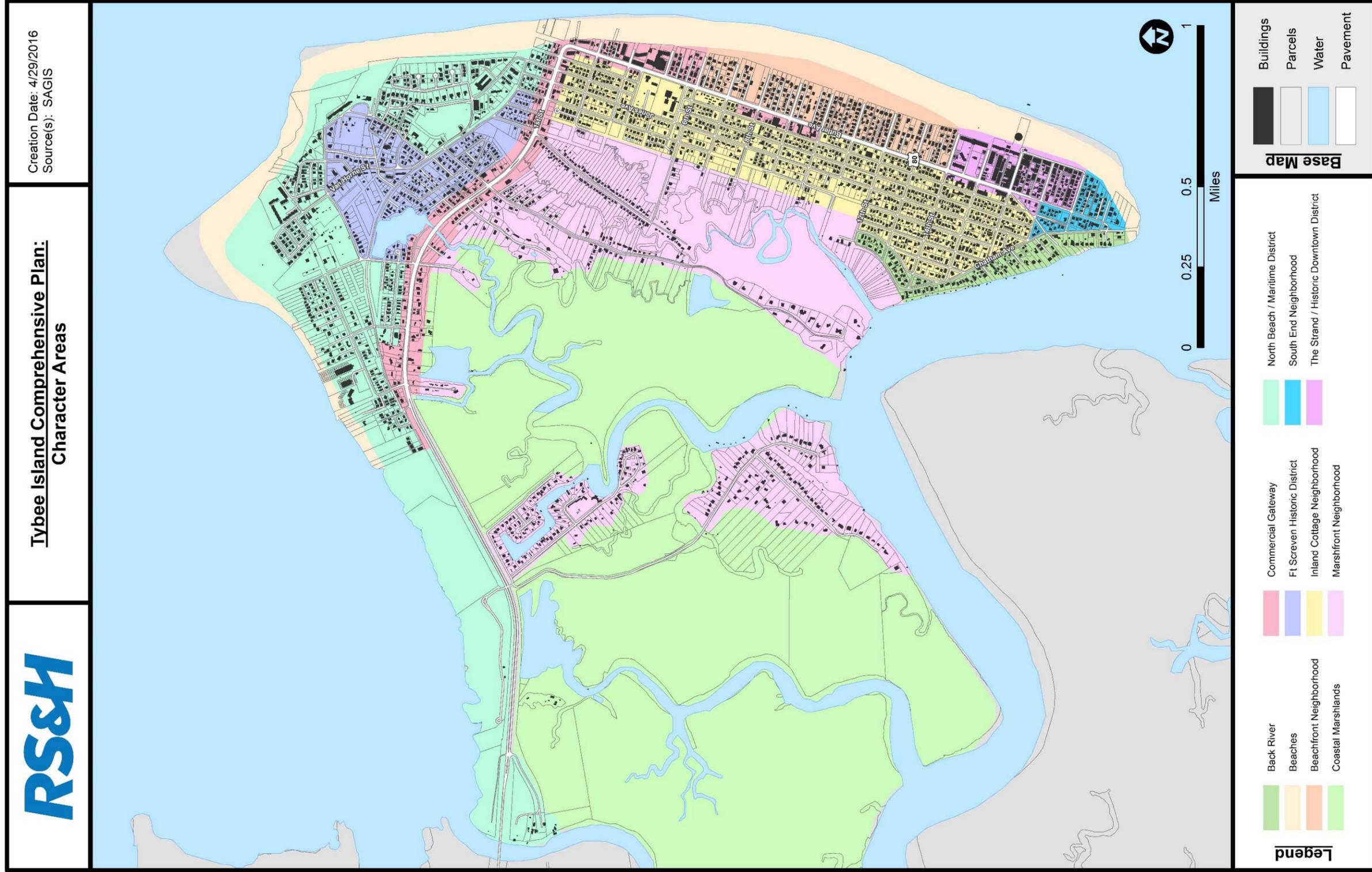
Character Areas

In the previously adopted plan, the City of Tybee Island crafted future development strategies for the identified character areas to address the needs affecting those areas. These previously identified character areas formed the basis for the updated character areas.

Each of the character areas were carefully reviewed by through the Advisory Working Group and public meetings. Based on the consensus of the community, the existing character areas were modified to address the changing conditions. The updated character areas are displayed in Figure 3 and is also included in the Appendices. The map of the character areas will be used by the City as the future land use map and coordinated with the zoning map and used as a guide for future development. The development codes for the city are currently under review and an update of the codes is included in the Short Term Work Program.



Figure 3. Character Areas





Each of the character areas is described in detail, with the special and defining characteristics that the City wishes to enhance and protect identified. Zoning classifications within each of the character areas has also been identified and analyzed for their applicability to the character area.

Table 1 describes each of the zoning categories, including their purpose and permitted uses.

Table 1. City of Tybee Island Zoning

Zoning Category	Purpose	Permitted Uses
C-1: Beach Business	Provide central locations for city business and services to meet the market needs of the city's residents and visitors.	Apartments; condominiums; townhouses; guest cottages; hotels/motels; time shares; tourist homes; bed and breakfast inns; single, two, three and four family dwellings; apothecary shops; gift shops; barber/beauty shops; finance, investment and insurance offices; florist; restaurants/concession stands; commercial amusements; retail stores; public structures. Uses permitted after special review: lounges; package shops; dwellings or structures for special events
C-2: Highway Business	Provide central locations for city business and services to meet the market needs of the city's residents and visitors	Service stations; restaurants/drive ins; gift shops; motels; grocery stores; tourist homes/bed and breakfast inns; parks, playgrounds, recreation facilities; professional/business offices; retail stores; marinas; seafood warehouses, retail and wholesale sales Uses permitted after special review: lounges; package shops; dwellings or structures for special events.
E-C: Environment Conservation	Protect the ecologically sensitive areas of the city and to limit the active development to those uses which are compatible with natural limits of the land	Growing of gardens; piers, docks, and wharfs



Zoning Category	Purpose	Permitted Uses
M-D: Maritime	Purpose of this district shall be to protect the character of the commercial development along Lazaretto Creek within the city limits	Boat launching facilities; bait shops; retail sale of boating provisions; aquaculture projects; assembly hall/club/lounge; boat building/repair; commercial charter/sightseeing; commercial fishing/crabbing; government buildings; marina; recreational activities; passenger cruise lines; private/community docks; public utility structures; wholesale/retail seafood sales/warehouses; seated restaurant; watercraft rentals;
N-M: Neighborhood Marina	Intended to be used for neighborhood marina facilities with a modest scale of operation	Commercial land uses involving pleasure and commercial watercraft, including boat launching facilities; bait shops; retail sale of boating provisions. Uses permitted after special review: Lounges/package shops; restaurants; watercraft/equipment rental; watercraft sales/dry dock storage; wholesale/retail seafood sales; machine repair shops
P-C: Public Conservation	To create an area or areas to be conserved for public use, to preserve areas established by tradition and custom for public use, and to prevent development of these areas for other than approved public and/or municipal use	Parks-public, playgrounds; ball fields and/or sports arenas, picnic facilities, public schools, public libraries, public parking and municipal buildings/structures, other public uses as approved by the governing body of the city
PUD: Planned Unit Development	The existing planned unit development districts, at the time of the adoption of the ordinance from which this section is derived, shall remain. No further planned unit development district shall be created	Not Applicable



Zoning Category	Purpose	Permitted Uses
R-1: Single Family Residential	Established to minimize development densities and to provide for quiet livable, low-density single family neighborhoods; Character of the development is oriented to permanent residents	Single Family dwellings, non-habitable accessory buildings; public utility structures; home business offices; public community buildings, libraries, recreation centers and museums. Uses permitted after special review: bed and breakfast, residential; primary/secondary schools; nursing homes; public parks/neighborhood playgrounds; churches; general education, including kindergarten and day nurseries; guest cottages; home occupations
R-1-B: Single Family Residential	Provide a transition from R-1 to higher density development	Uses permitted in R-1 with additional density
R-2: one and Two Family Residential	Provide for affordable development of single-family and duplex style development. This district is intended for medium density residential neighborhoods which are quiet and livable.	Uses permitted in R-1 and two family dwellings. Uses permitted after special review include those identified in R-1.
R-T: Residential Tourist	Provide for areas where tourists and residents are mixed. Development in this district is primarily residential; however, limited accommodations are made for the housing of the tourist population visiting overnight, weekends, weeks, or extended periods	Uses permitted in R-2. Uses permitted after special review: apartment houses and condominiums exceeding two units; bed and breakfast inns; theater facilities or houses that are historical in nature
C-1/SE: Zoning South End Business Overlay	Provide central locations for city business and services to meet the market needs of the city's residents and visitors	All commercial and multi-family residential uses are permissible



Zoning Category	Purpose	Permitted Uses
NG: Neighborhood Grocery Store	Preserve what was previously an existing non-conforming use and to protect adjoining and nearby properties from intrusion of commercial property and to further preserve the residential character of the area while meeting the needs of the community for a grocery store	Grocery store and parking; single family residences
R-1: NEC: North End Cultural Overlay	Promote the development of properties in a manner that promotes arts, cultural, heritage, and educational opportunities in conjunction with recreational and light commercial uses while protecting surrounding residential uses from adverse impact	Municipal/public safety; cultural/educational/historical facilities; parks/open space; picnic grounds/barbeque pits/ cooking facilities; shelters/observations decks/platforms/pavilions/storage sheds/patios/restrooms; pedestrian and bicycle walkways/trails; jogging trails; publicly owned facilities operated under lease or agreement with city
R-1/NEP: North End Parks and Public Overlay	Promote the development of properties in a manner that integrates public uses, open space, municipal uses, and recreational uses compatibly into a residential area	Municipal/public safety; public campgrounds; parks/open space; shelters/observations decks/platforms/pavilions/storage sheds/patios/restrooms; pedestrian and bicycle walkways/trails; jogging trails; tennis courts; swimming pools

The character areas include the following:

- Back River Neighborhood
- Beaches
- Beachfront Neighborhood
- Coastal Marshlands
- Commercial Gateway
- Ft. Screven Historic District
- Inland Cottage Neighborhood
- Marshfront Neighborhood
- North Beach/Maritime District
- The Strand/Historic Downtown
- South End Neighborhood



Strategies Affecting All Areas

Specific development strategies were identified for each of the individual character areas and were developed to preserve and enhance the existing character within the area. Development strategies that were applicable to all of the character areas were also identified and include the following:

- New development, redevelopment and restoration should be consistent with the existing character of the area.
- Enhance the pedestrian environment where feasible.
- Historic structures should be preserved whenever possible.
- Prioritize tree preservation to protect the scenic and habitat value of the area.
- Encourage land uses, through clearly defined guidelines, that protect against stormwater pollution including xeriscaping, pervious surfaces and erosion and sedimentation control.
- Require the treatment of stormwater runoff quality and quantity prior to its discharge in the marsh.
- Limit housing density, size and height through zoning.
- Adopt the wayfinding and directional signage plan created for the City and ensure consistency throughout the island.
- Encourage consistency with recommended design and architectural standards, as presented in the City's Desired Design Patterns & Architectural Styles Guidebook.
- Restore and maintain the tree canopy.

Character Area: Back River Neighborhood

The Back River Neighborhood character area is a unique residential area with waterfront lots and beach access along the Back River. Zoning consists of contains R-2 and N-M neighborhood marina. In addition to the residential use, low impact commercial service uses exist in this neighborhood.

Characteristics

- Unique residential neighborhood
- Waterfront lots
- Beach access along the Back River
- Public access to water
- Scenic views
- Low impact commercial service uses



Development Strategies

- The boat ramp, marina and fishing pier are essential elements of the neighborhood and should be preserved.
- Work with DNR to limit docks that impede public passage along the beach.
- Encourage safer pedestrian mobility.
- Preserve historic structures whenever possible.
- Provide appropriate incentives for historic restoration projects.
- Preserve the scenic value of the area.
- Enforce local ordinances related to noise and parking.
- Preserve and enhance public access to beaches and waterways.
- Implement recommendations of the Beach management Plan.



Character Area: Beaches

A primary and critical Tybee Island character area, the Beaches character area consists of the undeveloped, environmentally sensitive beachfront and dune system. C-1, R-1, and R-2 zoning exist within the Beaches character area with close proximity to the recreational opportunities provided by the beaches.

Characteristics

- Undeveloped
- Natural habitats and environmentally sensitive
- Beachfront and dune system
- Recreational opportunities
- Protection is critical to the community



Development Strategies

- Explore ways to expand and strengthen the dune system in accordance with the Beach Management Plan.
- Consider impacts of beach maintenance activities on the north beach area.
- Educate the public and city employees on how to reduce the impact of their activities on the beach and dune system.
- Develop strategies to better address litter and toxic materials, such as plastics and cigarette butts, on the beach and maintain clean beaches.
- Property, both public and private, should be managed to preserve a healthy beach and dune system.
- Prohibit any development on the beach or dune system.
- Encourage preservation of the buffer between development and the beach/dune system through development regulations.
- Utilize dune crossing boardwalks to provide education on the beach/dune system, local flora and fauna, and natural resources protection.
- Support projects enhancing wildlife habitats.
- Promote the area as a recreation area and tourist destination.
- Preserve the greenspace adjacent to beaches and dunes.
- Maintain beach access dune crossing with the least amount of impact to the dune system
- Investigate a plan to reinstall some portion of the Strand boardwalk along the beachfront adjacent to the pavilion.
- Work with local, state, and federal agencies to monitor the depth of the South Channel and mitigate effect of the channel on the beaches.
- Implement recommendations of the Beach Management Plan.
- Develop a signage system identifying dune crossing boardwalk entrances from the beach.
- Install more public restrooms.

Character Area: Beachfront Neighborhood

The Beachfront Neighborhood to the east of Butler Avenue is exclusively R-2 zoning, with single family, multi family, and duplex housing types. The area is characterized by wide streets with on street parking and old growth trees supplemented by side alleys. Public and private beach access are available.



Characteristics

- Neighborhood east of Butler Avenue
- Mix of housing types
 - Single family
 - Duplex
 - Multi-family
- Old growth trees
- On street parking
- Wide streets
- Alleys
- Public/private beach access



Development Strategies

- Historic structures should be preserved whenever possible.
- Enhance the pedestrian environment where feasible.
- Preserve old growth trees.
- Preserve and maintain public beach access and enhance when necessary.
- Do not allow intrusion of commercial uses.
- Preserve the low-density character of the area.
- Encourage preservation of the large historic beach to Butler Ave. lots.

Character Area: Coastal Marshlands

The Coastal Marshlands character area encompasses environmentally sensitive undeveloped natural land not suitable for development. The marshlands buffer against flooding and erosion and provide marine/wildlife habitat as well as natural recreational opportunities. The zoning is exclusively E-C.

Characteristics

- Undeveloped natural land
- Environmentally sensitive areas
- Not suitable for development
- Marine/wildlife habitat
- Buffer against flooding and erosion and offer
- Natural recreational opportunities



Development Strategies

- Ensure that City maintenance and landscaping activities, including the application of landscaping chemicals, do not adversely affect the marsh.
- Property should be maintained in a natural state.
- Restrict development and encroachment into this area.
- Promote the use of conservation easements to protect marshland in private ownership (i.e., King's Grants).
- Support the use of these areas for shellfish aquaculture as appropriate.
- Promote areas as eco-tourism and low impact recreation destinations.
- Encourage oyster reef restoration through established programs.
- Enforce the City's Marsh Buffer Ordinance to mitigate development impacts.
- Restrict or discourage uses adjacent to this area that could contribute to water pollution.



- Erosion and sedimentation control should be enforced adjacent to this area.
- Improve coordination with GDOT on clearing, cutting, and use of landscaping chemicals adjacent to or within the marsh areas associated with transportation projects.
- Enforce existing ordinance prohibiting billboards within or adjacent to marshlands and views of the marsh.

Character Area: Commercial Gateway

Previously the “Arts, Eats, Eco-Business Corridor,” the Commercial Gateway Character Area functions as an activity center and serves as the commercial gateway for the City. Zoning classifications are C-1, C-2, R-1, R-1-B, R-T, and R-2. The mix of neighborhood commercial uses include shopping, crafts, restaurants, and eco-tourism.

Characteristics

- Previously “Arts, Eats, Eco-Business Corridor”
- Serves as commercial gateway
- Functions as an activity center
- Existing residential
- Mix of neighborhood commercial uses
 - Shopping
 - Crafts
 - Restaurants
 - Eco-tourism



Development Strategies

- Encourage commercial and mixed use development and redevelopment along the US 80 commercial corridor.
- Discourage down-zoning within the US 80 commercial corridor.
- Establish standards for a maximum percentage of residential use on a per parcel basis to encourage mixed use.
- Enhance pedestrian movements with streetscape improvements.
- Support the continued development of the Tybee Island bikeway including bike lanes and multi-use trails.
- Allow for an appropriate mix of retail, residential, and tourism-related uses consistent with the Plan vision.
- Implement traffic calming measures and parking improvements.
- Establish noise and sight buffers between commercial uses and adjacent residential areas.
- Review parking requirements to ensure they are not prohibitive to future commercial development.
- Consider the use of City’s unopened ROW’s to provide additional public parking.

Character Area: Ft. Screven Historic District

Previously part of North Beach Neighborhood, the Fort Screven Historic District includes Officers Row and all of Ft. Screven, which represents significant historic, cultural and natural resources. Varied uses include new, larger scale development, traditional cottages, townhomes/condominiums, public uses/parks, historic sites, narrow streets, street trees, public parking. Zoning includes R-1, R-2, R-T, R1/NEC, P-C, and PUD.



Characteristics

- Previously part of North Beach Neighborhood
- Includes Officers Row and all of Ft. Screven
- Significant historic, cultural and natural resources, including historic district designation
- Uses include
 - New, larger scale development
 - Traditional cottages
 - Townhomes/Condos
 - Public uses/parks
 - Historic sites
 - Narrow streets
 - Street trees
 - Public parking



Development Strategies

- Establish standards and guidelines for signage.
- Provide signage for landmarks and commercial businesses.
- Preserve or restore historic structures whenever possible.
- Provide appropriate incentives for historic restoration projects.
- Ensure continued preservation of old growth trees, parks, and greenspace.
- Support an improved bicycle and pedestrian environment with connected facilities.
- Consider adoption of architectural standards for historic structures.

Character Area: Inland Cottage Neighborhood

This traditional neighborhood West of Butler consists of R-2, NG and P-C zoning characterized by a grid of narrow, tree lined streets. Housing includes permanent residences and rental homes, along with multi-family. Both traditional historic cottages and large new residential homes are found here. Other uses include low density commercial and grocery, public/government buildings, and parks.

Characteristics

- Narrow, tree lined streets
- Grid pattern
- Permanent residences and rental homes
- Multi-family
- Parks
- Low impact commercial establishments and grocery
- Public/Gov't buildings
- Mix of traditional/historic cottage homes
- Large new residential homes.
- Alternative transportation - bike path



Development Strategies

- Permit only compatible uses including low density residential, public/institutional and low impact commercial.



- Implement streetscape improvements to improve the pedestrian/bicycle environment and enhance safety and mobility.
- Preserve/restore historic structures whenever possible.
- Provide appropriate incentives for historic restoration projects.
- Continue to address drainage issues in this area.
- Develop strategies to address illegal parking on private and public property in this area.
- Preserve the residential character of this neighborhood.

Character Area: Marshfront Neighborhood

Along the marshfront exist residential uses of various ages, sprinkled with intermittent commercial uses. Zoning classifications area R-1, R-1-B, R-2, and E-C. Providing natural habitat, scenic views, and access to the water via docks and creeks, natural resources here require special consideration.

Characteristics

- Fronted by coastal marshlands
- Wide mix of new and old residential development
- Sporadic commercial uses
- Many lots contain water access via creeks
- Land use and natural resource protection is of special consideration



Development Strategies

- Permit only uses compatible with area character.
- Permit only uses that will not adversely affect/impact the marsh environment.
- Enforce marsh buffer ordinance within the area.
- Prioritize tree preservation to protect the scenic and habitat value of the area.

Character Area: North Beach/Maritime District

The North Beach/Maritime District merges three previous areas: North Beach, Lazaretto Creek and Historic Battery. This multifaceted area houses R-1, R-2, R-1-B, R1/NEC, R-T, E-C, PUD, and M-D zoning. Uses include commercial, recreational, campground, public/government uses and buildings, and a mix of residential styles and homes set on narrow streets. In addition to these developed portions, the area also includes extensive undeveloped environmentally sensitive areas with multi-use trails and public water access.

Characteristics

- Previously North Beach, Lazaretto Creek and Historic Battery
- Developed and undeveloped
- Environmentally sensitive areas
- Public water access
- Current uses
 - Commercial, recreational uses and campground
 - Mix of residential styles and homes
 - Public/Gov't uses and buildings
 - Narrow streets





- Multi-use trails

Development Strategies

- Establish standards and design guidelines for signage in keeping with island character.
- Allow for the development of retail, restaurants and services for seasonal and year round populations.
- Improve the pedestrian and bicycle environment.
- Discourage down-zoning from commercial to residential in the Lazaretto Creek area and maintain commercial dock usage.
- Improve street conditions through grading improvements.
- Provide signage for landmarks and commercial establishments.
- Preserve/restore historic structures whenever possible.
- Provide appropriate incentives for historic restoration projects.
- Ensure preservation of old growth trees, parks and greenspace.
- Support development of the Tybee Island bikeway, including bike lanes and multi-use trails.
- Consider the potential for additional parking within this area with transportation to other areas of the Island.
- Facilitate public water access where appropriate and on public property.
- Explore opportunities to preserve historic battery, and public access to those batteries, in this area.

Character Area: The Strand/Historic Downtown District

Previously known as The Strand/Downtown and 17th Street Neighborhood, this district is the traditional “Main Street” of Tybee Island. The focal point for residents and visitors, this area of C-1, C1/SE and R-1 zoning has significant pedestrian activity. The mix of uses include shopping, restaurants, hotels/lodging, museums/public education, pavilion, and public parking. Single-family, multi-family, and vacation rentals form the residential uses.

Characteristics

- Previously The Strand/Downtown and 17th Street Neighborhood
- Traditional “Main Street”
- Focal point for residents and visitors
- Mix of uses
 - Shopping, Restaurants, Hotels/lodging, Museums/public education, Pavilion
 - Public parking
- Significant pedestrian activity
- Mix of residential uses
 - Single family
 - Multi-family
 - Vacation rentals



Development Strategies

- Future development and redevelopment should be very pedestrian oriented with safe connections to adjacent neighborhoods and commercial areas.



- Promote mixed densities of residential development, including upstairs residential over commercial.
- Encourage mixed uses to provide for the daily needs of residents and tourists.
- Commercial uses should be low-intensity and consistent with the existing character.
- Uses and zoning should provide a transition from the South End neighborhood.
- Add recreational uses within the area.
- Beautification and façade improvement projects should be implemented to improve area aesthetics.
- Encourage the preservation, restoration and adaptive reuse of historic structures through incentives.
- Encourage development/redevelopment of existing vacant properties and under-utilized structures.
- Consider the development of a Convention Center in association with lodging establishments.
- Develop a plan to re-install elements of the boardwalk.
- Identify locations for additional parking or garage.
- Preserve/retain buildings that can house small businesses.
- Look for opportunities to ease congestion and improve traffic flow within the City's road network.
- Install a sidewalk on 18th street.
- Address trash and litter issues in this area.
- Assess traffic flow and transportation issues on the narrow lanes within this district.
- Consider feasibility of a transfer of development rights program to allow for more dense development and higher impact land uses in this area, and reduce those types of uses in other areas.
- Discourage down-zoning within this area.
- Improve the availability and accessibility of public services and amenities in this area.

Character Area: South End Neighborhood

Located close to the South End beach and The Strand, this area has public beach access and parking. Zoning is R-2. The mix of residential uses include a growing number of vacation/seasonal rentals, single family, and duplex.

Characteristics

- Mix of residential uses
 - Growing number of vacation/seasonal rentals
 - Single family
 - Duplex
- Proximity to the South End beach and The Strand



Development Strategies

- Future development and redevelopment should be pedestrian oriented with safe connections to adjacent neighborhoods and commercial areas.
- Preserve or restore historic structures whenever possible.
- Continue implementation of improvements to enhance/encourage pedestrian safety and mobility.
- Develop strategies to address illegal parking on private and public property in this area.
- Preserve the residential character of this neighborhood.



Coordination with Previous Efforts

In 2008, the City of Tybee Island completed the Desired Design Patterns and Architectural Styles as part of the master planning effort. These guidelines, included in the Appendix, provide desired styles and design patterns for various types of residential and commercial uses, as well as public spaces. The matrix below provides a cross-reference for each of the character areas and the corresponding design guidelines.

Character Area	Applicable Design Patterns and Guidelines
Back River Neighborhood	Residential Redevelopment and Restoration New Residential Development Public Open Spaces
Beaches	N/A
Beachfront Neighborhood	Residential Redevelopment and Restoration New Residential Development Duplex and Multi-family Residential Development Public Open Spaces
Coastal Marshlands	N/A
Commercial Gateway	Residential Redevelopment and Restoration Duplex and Multi-family Residential Development Highway 80 Commercial
Ft. Screven Historic District	Residential Redevelopment and Restoration New Residential Development Duplex and Multi-family Residential Development Public Open Spaces
Inland Cottage Neighborhood	Residential Redevelopment and Restoration New Residential Development Duplex and Multi-family Residential Development Public Open Spaces
Marshfront Neighborhood	Residential Redevelopment and Restoration New Residential Development Public Open Spaces
North Beach/Maritime District	Residential Redevelopment and Restoration New Residential Development Duplex and Multi-family Residential Development Highway 80 Commercial Maritime Commercial Public Open Spaces
The Strand/Historic Downtown District	Residential Redevelopment and Restoration New Residential Development Duplex and Multi-family Residential Development The Strand Commercial Public Open Spaces
South End Neighborhood	Residential Redevelopment and Restoration New Residential Development Duplex and Multi-family Residential Development



TRANSPORTATION ELEMENT

The transportation element of the comprehensive plan is also a required element by the Georgia Department of Community Affairs. The City of Tybee Island is within the metropolitan planning area for the Coastal Region Metropolitan Planning Organization (CORE MPO). The City of Tybee Island participates both through the Technical Coordinating Committee and as a member of the MPO Policy Committee.

Data Analysis

As a member of the CORE MPO, the City of Tybee Island works through the MPO process on major transportation issues. The long range Metropolitan Transportation Plan for the MPO includes any projects on Tybee that incorporates the expenditure of federal funds. The MPO also has a long range Non-Motorized Plan which includes Tybee. The coordination and participation with the MPO is a critical function for the City of Tybee Island in addressing their major transportation needs.

Road Network

The City of Tybee Island has a single roadway leading onto/off the Island. This roadway, US 80, is currently two lanes with an intermittent passing lane for both east and westbound traffic. US 80 is the only facility on Tybee that is under the jurisdiction of the Georgia Department of Transportation (GDOT).

With the City included in the MPO area, there is a travel demand model that includes US 80. The travel demand model depicts the existing traffic based on the 2010 socio-economic data obtained from the US Census. This data includes both population and employment. The existing conditions show that US 80 is currently operating at a Level of Service A, which means on the average, there are no congested conditions. The future conditions, projected to 2040, show the same expected Level of Service.

However, the model does not identify the seasonal conditions which has significant impacts on the City. As the summer population swells, the congestion correspondingly increases. This congestion is evidenced even more on holidays, such as July 4th, when the traffic delays can approach extreme.

US 80 also experiences tidal flooding in its lower portions during king tides. The incidence of this flooding is becoming more frequent and is anticipated to continue to increase. In addition to the flooding issue, the facility also includes two bridges (Bull River and Lazaretto Creek) that are two lane structures with no shoulders. When a crash occurs on the bridges, or on the two lane sections of the roadway, the access on and off the Island is restricted until the accident is cleared. There are also no pedestrian or bicycle facilities along the roadway or on the bridges, causing a safety hazard for users.

The CORE MPO currently have a project underway to address the Bull River and Lazaretto Creek bridges, adding standard shoulders/emergency lanes, as well as raising the roadway to address the flooding. This project, as well as future projects is critical for the residents of Tybee, as US 80 is the only facility providing access to the island and maintaining its viability is critical in evacuation scenarios.

The remainder of the roadway network on Tybee Island are local streets, maintained by the City.



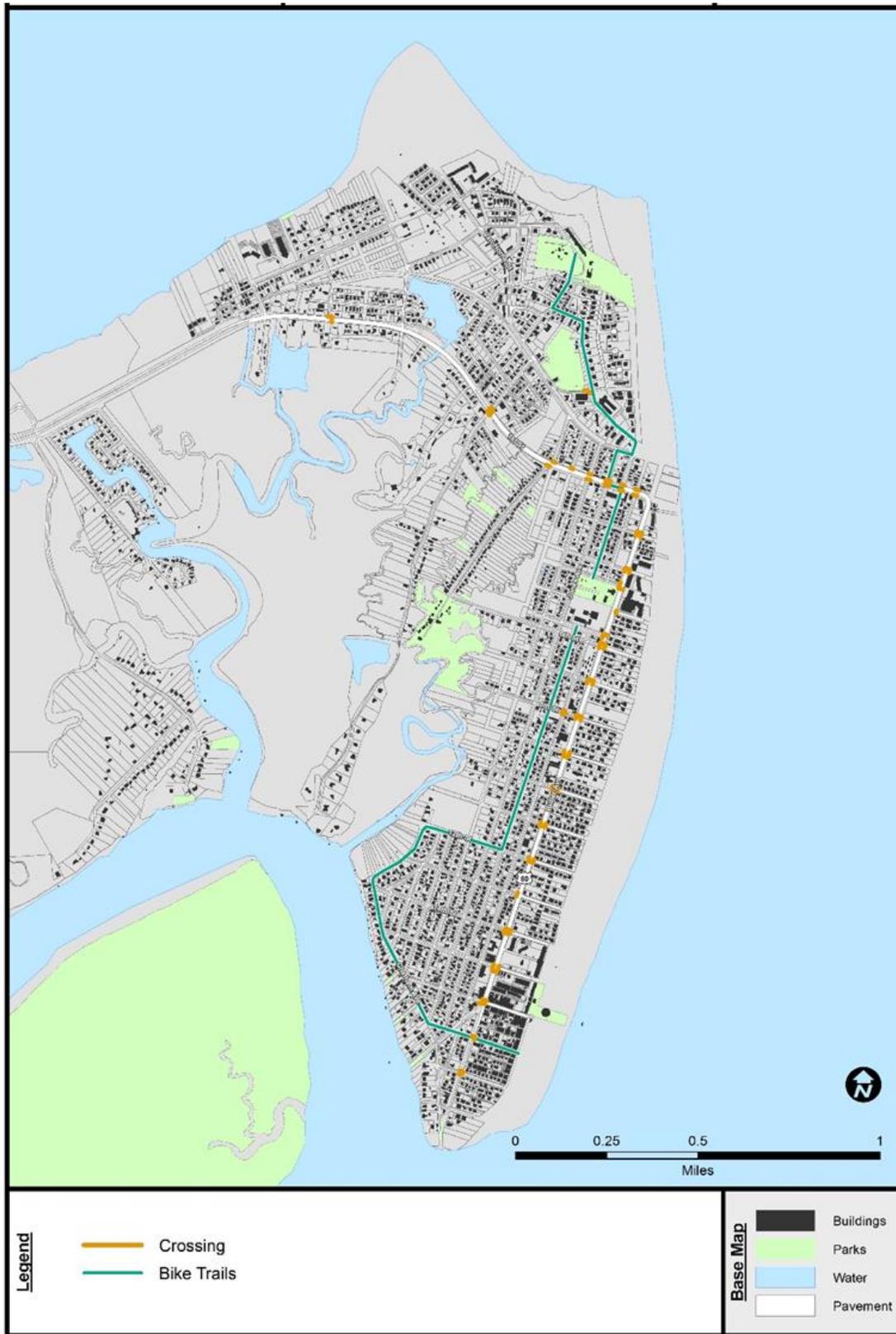
Alternative Modes: Bicycle and Pedestrian

With the resort nature of the City of Tybee Island, there are numerous bicyclists and pedestrians, both local and tourists and the City has a long-standing commitment to the provision of a connected bicycle and pedestrian network, providing access to activity centers and amenities and providing safe and pleasant alternatives to vehicular use. The City works closely with the CORE MPO on the implementation of trails and greenways, as well as coordinating with GDOT on the implementation of pedestrian safety measures.

The City has recently installed clearly marked pedestrian crossings along US 80/Butler Avenue, including pedestrian activated signals and pedestrian refuges to increase safety. In addition, the City has recently installed pedestrian facilities, with marked crosswalks and sidewalks on numerous local streets. The map shown in Figure 4 shows the designated bicycle trails and pedestrian crossings. The City also has the Marsh Hen Trail project currently under development and is utilizing funding through the CORE MPO.



Figure 4. Tybee Island Bicycle and Pedestrian Facilities





Parking

The City of Tybee Island owns and operates parking facilities on both the south and north ends of the island, providing visitors and residents with parking and access to the beaches. In addition, on-street parking is allowed in designated spots. These parking facilities are pay to park, with the City collecting the resulting revenues. The need for parking, as with traffic congestion, peaks during the summer season with the large number of tourists visiting the island. The City does monitor parking during the peak season and provides information to tourists and visitors on the availability of parking in specific locations.

Railroads/Trucking/Port Facilities/Airports

As a resort community, there are no railroads serving Tybee Island. The nearest airport facility is the Savannah-Hilton Head International Airport located west of Savannah. Freight movement is not prevalent on Tybee, other than service vehicles. The Georgia Ports Authority terminals do not impact the surface transportation system on Tybee.

Transportation and Land Use Connection

The CORE MPO understands the need for the integration of transportation and land use and their related impacts and as an MPO member, the City of Tybee Island is also committed to the integration of the two elements. The MPO, as part of their long range planning process, recently adopted a Thoroughfare Plan, developed in conjunction with its member governments. This plan, which was fully coordinated with the Non-Motorized Plan is intended to

- Increase accessibility and mobility
- Promote safe and efficient travel for all users
- Support local development and land use goals, promoting a sense of place through complete streets and context sensitive design approaches

The thoroughfare types are defined both by their function, as well as by the context of the area the facility serves. This combination of transportation function with the character of the adjacent areas, defines the parameters for the facility and incorporates the most appropriate design elements to serve both the transportation needs and the adjacent land uses.

Needs and Issues

Through the community input and participation process, combined with the data analysis, the needs and issues relating to transportation both within and onto the Island were identified. These issues include:

- Needed improvements to US 80
- Needed improvements to bicycle and pedestrian routes and connections
- Parking
- Traffic Congestion, particularly seasonal traffic

Opportunities/Strategies

A wide array of strategies were identified to address the needs and to take advantage of existing opportunities. These opportunities and strategies include:



- Work with the Coastal Region MPO and GDOT on planned and future improvements, including the exploration of alternative means of transportation on and off the Island
- Document issues/events to substantiate funding requests
- In coordination with GDOT, explore opportunities for roundabouts at intersections, including US 80/McKenzie, US 80/Estill Hammock Rd, and Butler/Tybrisa
- Explore various funding opportunities, such as grant programs and the Transportation Alternatives Program to leverage local funding for implementation
- Identify areas in need of pedestrian facilities or in need of upgrading existing pedestrian facilities and strategies to address the identified needs
- Identify appropriate areas and types of additional parking facilities, specifically in the North Beach area
- Explore opportunities to incorporate mix of uses with potential additional parking
- Develop an additional parking lot in C-2 on city owned easement
- Explore the potential for a multi-use parking garage in C-1 to ease visitor intrusion into residential neighborhoods, including an assessment of recent traffic counts
- Lessen parking requirements for new businesses to encourage commercial use of C-2 properties
- Develop a parking fee structure that maximizes income opportunities based on peak season and times.
- Coordinate with local officials and agencies to provide assistance with seasonal traffic, particularly during events
- Identify strategies to minimize traffic impacts on residential streets

Consistency with Goals

The table below depicts the consistency of the identified opportunities/strategies in meeting the established goals for transportation.

<p>GOAL: Provide for and encourage the use of transportation alternatives, including bike, pedestrian, golf carts and public transportation.</p>
<ul style="list-style-type: none"> • Explore various funding opportunities, such as grant programs and the Transportation Alternatives Program to leverage local funding for implementation • Identify areas in need of pedestrian facilities or in need of upgrading existing pedestrian facilities and strategies to address the identified needs
<p>GOAL: Promote and encourage transportation safety, parking, and traffic solutions for Tybee including US 80 and its bridge infrastructure</p>
<ul style="list-style-type: none"> • Work with the Coastal Region MPO and GDOT on planned and future improvements, including the exploration of alternative means of transportation on and off the Island • Document issues/events to substantiate funding requests • In coordination with GDOT, explore opportunities for roundabouts at intersections, including US 80/McKenzie, US 80/Estill Hammock Rd, and Butler/Tybrisa • Identify appropriate areas and types of additional parking facilities, specifically in the North Beach area • Explore opportunities to incorporate mix of uses with potential additional parking • Develop an additional parking lot in C-2 on city owned easement



- Lessen parking requirements for new businesses to encourage commercial use of C-2 properties
- Explore the potential for a multi-use parking garage in C-1 to ease visitor intrusion into residential neighborhoods, including an assessment of recent traffic counts
- Develop a parking fee structure that maximizes income opportunities based on peak season and times.
- Coordinate with local officials and agencies to provide assistance with seasonal traffic, particularly during events
- Identify strategies to minimize traffic impacts on residential streets

HOUSING ELEMENT

The housing element is a requirement for the Comprehensive Plan. Housing availability and affordability are important pieces to the viability and sustainability of the community and a stable, year-round population.

Data Analysis

Population

There are three population groups on Tybee Island that must be considered within any planning assessment. These groups include:

- Resident Population: Year-round homeowners and long-term rentals
- Overnight Population: Short-term rentals and second homeowner population, in addition to the resident population
- Daytime Population: Day-trippers, in addition to the resident and overnight population

The 2010 US Census shows that the City of Tybee Island had a population of 2,990, which is a decrease from the 2000 Census population of 3,392. This population has a median age of 53.2 years. While the resident population showed a decrease, the total number of housing units increased over the same time period. The decrease in population and permanently occupied units, combined with the increase in the total housing units, results in a significant increase in the number of units not occupied by permanent residents. According to the 2010 Census, approximately 60% of the housing units are not occupied by permanent residents. Table 2 displays the housing occupancy characteristics.



Table 2. Housing Occupancy Characteristics

Housing Unit Type	2000	Percent 2000	2010	Percent 2010	Percent Change
Total Housing Units	2,696	--	3,366	--	24.9%
Occupied Housing Units	1,568	58.2%	1,360	40.4%	-13.3%
<i>Owner-Occupied</i>	1,078	40.0%	918	27.3%	-14.8%
<i>Renter-Occupied</i>	490	18.2%	442	13.1%	-9.8%
Vacant Housing Units	1,128	41.8%	2,006	59.6%	77.8%
<i>Seasonal, Recreational, Occasional Use</i>	676	25.1%	1,473	43.8%	117.9%
<i>For Rent/For Sale/Other</i>	452	16.8%	533	15.8%	17.9%

Source: City of Tybee Island Carrying Capacity Study – Data Assessment

Tybee Island’s prominence as a vacation destination has increased from a state level to the national level over the last decade. Tourism is a major economic driver for the City of Tybee Island and it is critical that the impacts of the huge seasonal growth in population during the tourist season be understood. This visitor population and peak usage burdens the City’s services and infrastructure.

In order to quantify the peak season population and the demands, the Carrying Capacity Study developed an estimate of the overnight population based on 2010 Census data and the City’s Occupational Tax records for short term vacation rentals and hotel/motels. The total number of short term rental opportunities is 1,738, which also includes the campsites in the City operated RV campground. To estimate the overnight population associated with the short term rentals, data from previous studies, including the Local Option Sales Tax Population Study (2013) and the City of Tybee Island Tourism Study (2014) were referenced. It is important to note that the overnight populations vary by type of unit, for example, short term vacation rental homes are typically used by families and hotel/motel units serve fewer people. Based on the data, an average number of people per rental unit was calculated for the various unit types. The short term rental unit occupancy calculation shows a total maximum rental population of 7,146. Adding the maximum short term rental population to the resident population, estimated at 3,082 in 2014, results in a maximum overnight population of 10,228¹. This maximum overnight population does not include the second home owners who do not rent their property, but use as a vacation spot. Based on the Census data and the Tybee Island Occupational Tax database, the estimated second home maximum overnight population is 4,030, which added to the maximum overnight population and permanent resident population, brings the total maximum overnight population to 14,258.

In addition to the overnight and resident population, Tybee also experiences an increase in daytime population due to visitors accessing the beach for the day. This added daytime population also burdens the City of Tybee Island’s infrastructure and services. In order to quantify the daytime population, several previous reports were reviewed as part of the Carrying Capacity Study. These studies/reports include:

¹ City of Tybee Island Carrying Capacity Study – Data Assessment, 2016



- City of Tybee Island Pedestrian and Traffic Study (2010)
- Tybee Island Wave Ecology and The Highway 80 Challenge (2011)
- City of Tybee Island Tourism Study (2014)
- City of Tybee Island Sea Level Rise Study (2016)

Figure 5 displays the average monthly, weekend and peak day one way trips from May, 2014 through September, 2015.

Figure 5. One Way Trips (May 2014 – September 2015)



Source: City of Tybee Island Carrying Capacity Study – Data Assessment

Table 3 provides a summary of the population.

Table 3. Population Summary

Population Metric	Population
Resident Population (2014, est.)	3,082
Annual Average Overnight Population	7,223
Peak July Overnight Population ¹	10,168
Maximum Overnight Population ²	14,198
Annual Average Daytime Population	13,453
Peak Daytime Population	30,000 +

Source: City of Tybee Island Carrying Capacity Study – Data Assessment

Housing Adequacy, Types and Mix

According to the US Census estimates (2014), there are a total of 3,393 housing units within Tybee Island of which 40.4% are occupied. The median value of the owner occupied homes is \$356,300. The remaining



units are for rent, for sale, sold but not occupied and for seasonal use. Table 4 displays the units within the housing structures.

Table 4. Housing Units

Type of Housing Unit	Estimate	Percent
1 unit detached	1,768	52.1%
1-unit attached	235	6.9%
2 units	221	6.5%
3-4 units	271	8.0%
5-9 units	278	8.2%
10-19 units	171	5.0%
20+ units	449	13.2%

Source: US Census Estimates 2014

The majority of Tybee Island has already been developed and includes a mix of housing types, including single family and multi-family. The potential for residential growth is centered on the development of existing residential parcels through subdivision. Based on the recent development activity, the trend is in subdivisions of parcels zoned R-2, which also contains the majority of the undeveloped residential property. The R-2 category allows for one and two family residential units and provides a transition in density between the single family R-1 zoning to the commercial zoning. According to the Carrying Capacity Study, approximately 40% of Tybee Island is currently zone R-2, of which the majority is in single family use. Within the R-2 category, there are 1,694 parcels of which approximately 80% are currently developed. Table 5 depicts the number of R-2 parcels and residential units.

Table 5. Number of R-2 Parcels and Residential Units

Category	Number of R-2 Parcels	Number of Units
Single Family	1,337	1,337
Duplex	85	170
Non-Residential	11	0
Undeveloped	261	0
Total	1,694	1,507

Source: City of Tybee Island Carrying Capacity Study – Data Assessment

Affordable Housing

According to the US Census 2014 estimates, there are 342 occupied units paying monthly rent. The monthly rental fees ranges from a low of \$500 - \$749 per month (2.6%), to \$1,500 or greater per month (12.0%). The majority of the rental property fees range from \$750 - \$999 per month (36.5%) to \$1,000 - \$1,499 per month (48.8%). The median rent per month is \$1,117. A review of the gross rent as a percentage of household income shows that 57.9% of the occupied units are paying 35% or more of the monthly household income. In comparison, in 2010, only 26.9% of the renters paid 35% or more of their household income in rent. The escalating popularity of Tybee Island, the number of property conversions to short term rental units, and the lack of development potential has led to increased housing expenditures.



Needs/Issues

Through the community input and participation process, combined with the data analysis, the needs and issues relating to housing were identified. These issues include:

- Affordable/workforce housing
- Adverse impacts on housing options with increasing conversion to short term rental properties
- Loss of year round residents especially those with children due to the high cost of living

Opportunities/Strategies

Opportunities and strategies were identified through the analysis and the community input process to address the needs and take advantage of the opportunities. These opportunities and strategies include:

- Encourage a variety of housing types with a range of costs
- Investigate the approaches of other communities and develop incentive programs for the provision of affordable housing appropriate for Tybee
- Allow for multi-use upstairs rentals in commercial areas that provide affordable year-round housing
- Investigate the feasibility of a rent subsidy program so critical city personnel (police, fire, etc.) can live on the Island
- Review and assess the number of short-term rental properties and impacts on adjacent properties, including parking, noise and numbers of tenants
- Require licensing for vacation rentals and minimize adverse impacts on Island residents
- Investigate the need to provide services and facilities for an older, retired population
- Identify needed services that are lacking for year-round residents

Consistency with Goals

The table below depicts the consistency of the identified opportunities/strategies in meeting the established goals for housing.

GOAL: Encourage a range of housing sizes, costs, and densities to meet the diverse needs of the population
<ul style="list-style-type: none"> • Encourage a variety of housing types with a range of costs • Investigate the approaches of other communities and develop incentive programs for the provision of affordable housing appropriate for Tybee • Allow for multi-use upstairs rentals in commercial areas that provide affordable year-round housing • Investigate the feasibility of a rent subsidy program so critical city personnel (police, fire, etc.) can live on the Island • Review and assess the number of short-term rental properties and impacts on adjacent properties, including parking, noise and numbers of tenants • Require licensing for vacation rentals and minimize adverse impacts on Island residents • Investigate the need to provide services and facilities for an older, retired population • Identify needed services that are lacking for year-round residents



COMMUNITY PRESERVATION ELEMENT

The City of Tybee Island has long held its unique character and place among coastal cities along the southern Atlantic coast. The City and its residents have been very careful in how their community developed and have taken measures to ensure that its unique coastal character remains intact. While growth is inevitable, the City of Tybee Island recognized the importance of community preservation and their special sense of place in the planning process and has included a Community Preservation element as part of the comprehensive plan.

Data Analysis

As a coastal barrier island, the City of Tybee Island is home to a unique set of natural resources, including the ocean and tidal creeks, as well as fresh water ponds. Significant coastal marshlands exist and along with the beaches, comprise approximately 35% of the land area. These areas are not only significant environmental resources, but are also the foundation for the economy of the City.

In addition to the significant presence of natural resources, the City is also home to diverse historic and cultural resources. There are nationally designated historic districts on the Island, as well as the consideration of locally designated districts. Major historic resources include the Old Tybee Lighthouse, Fort Screven Museum and many civil war batteries. The Historic Tybee Post Theater, constructed in 1930 by the US Army for Fort Screven, was one of the first movie theaters in the state that had the capability of showing talking movies. Restoration of the historic theater was completed in 2015. The Tybee pavilion is also significant community resource and gathering place. A number of historic homes exist on the Island, many of which display unique architectural styles that have been utilized over the years. Many of the houses have been restored and are a significant part of the Tybee character.

Needs/Issues

Through the participation process and data analysis, the needs and issues focused on the preservation of the community, its unique sense of place, and the quality of life for residents and visitors. The needs/issues identified include:

- Historic preservation and zones
- Identification and protection of historic properties
- Maintaining unique Tybee sense of place
- Need for a growth management vision
- Protecting the interests of full time residents balanced with tourism

Opportunities/Strategies

Opportunities and strategies were identified in conjunction with the community members to take advantage of existing opportunities and strategies to address the identified needs. These opportunities and strategies include:

- Review and assess the current historic preservation ordinance and update as needed



- Establish incentives for restoration projects
- Coordinate with appropriate agencies and historic preservation groups to identify funding for preservation projects
- Historic Preservation and zones and consideration of establishing architectural standards for historic structures
- Protect the existing character of the island by limiting the mass, scale, density and height according to established ordinances
- Provide facilities and services needed by tourists and residents while lessening the impacts of tourism on permanent island residents
- Provide showers at dune crossovers if/when the deep well treatment facility is completed
- Incorporate the results of the carrying capacity study into regulations to ensure growth does not outpace resources and infrastructure
- Enforce existing rules through cart and beach patrols with possible surveillance video in problem areas
- Explore the potential for a multi-use parking garage in C-1 to ease visitor intrusion into residential neighborhoods, including an assessment of recent traffic counts
- Explore the feasibility of Transfer of Development Rights for the implementation of a parking garage in exchange for public park or greenspace
- Actively enforce existing ordinance violations for short term rentals

Consistency with Goals

The table below depicts the consistency of the identified opportunities/strategies in meeting the established goals for community preservation.

<p>GOAL: Maintain and preserve our traditional community character and sense of place</p> <ul style="list-style-type: none"> • Enforce existing rules through cart and beach patrols with possible surveillance video in problem areas • Actively enforce existing ordinance violations for short term rentals by warning for first offense and loss of license for second offense • Protect the existing character of the island by limiting the mass, scale, density and height according to established ordinances
<p>GOAL: Maintain, preserve and enhance our historic and cultural resources</p> <ul style="list-style-type: none"> • Review and assess the current historic preservation ordinance and update as needed • Establish incentives for restoration projects • Coordinate with appropriate agencies and historic preservation groups to identify funding for preservation projects • Historic Preservation and zones • Consider establishing architectural standards for historic structures
<p>GOAL: Maintain, preserve and enhance our community open spaces, such as parks, greenbelts, and wildlife corridors</p> <ul style="list-style-type: none"> • Explore the feasibility of Transfer of Development Rights for the implementation of a parking garage in exchange for public park or greenspace



GOAL: Develop coastal hazard preparedness, or crisis management responses for hurricane preparedness and recovery from a financial, physical, and safety perspective
<ul style="list-style-type: none"> • Incorporate the results of the carrying capacity study into regulations to ensure growth does not outpace resources and infrastructure
GOAL: Support non-profit organizations that enhance the quality of life, economy and culture of the island
GOAL: Encourage a range of educational and enrichment opportunities within the community.
<ul style="list-style-type: none"> • Provide facilities and services needed by tourists and residents while lessening the impacts of tourism on permanent island residents
GOAL: Encourage and support recreational opportunities and amenities, including the existing campground.
<ul style="list-style-type: none"> • Provide showers at dune crossovers if/when the deep well treatment facility is completed

SUSTAINABILITY ELEMENT

The City of Tybee Island is a leader in the area of environmental preservation and sustainability. Recognizing the need to understand growth and the impacts on the facilities and services, particularly with water/wastewater and impacts on the environment, the City undertook a Carrying Capacity Study to identify the impacts, needs and issues. With its coastal location and already feeling the impacts from climate change through increased flooding of coastal areas, the City has also conducted a sea level rise study, with which the Carrying Capacity Study coordinated. With its sensitive and vulnerable location, the community identified sustainability as a critical element in the development of the comprehensive plan. This sustainability element encompasses facilities and infrastructure, such as water/wastewater, as well as disaster preparedness and the development of strategies to ensure growth does not exceed the capacity to provide necessary services. This sustainability element also includes a focus on economic sustainability and viability for the permanent and long-term residents, as well as visitors and part-time residents.

Data Analysis

Water

The City of Tybee Island’s water supply system includes three water withdrawal wells that access water from the Upper Floridan Aquifer. The city is currently permitted to withdraw an annual average of 0.916 million gallons per day, with a month average of 1.6 million gallons per day, which allows for the peak usage in the summer tourist season.²

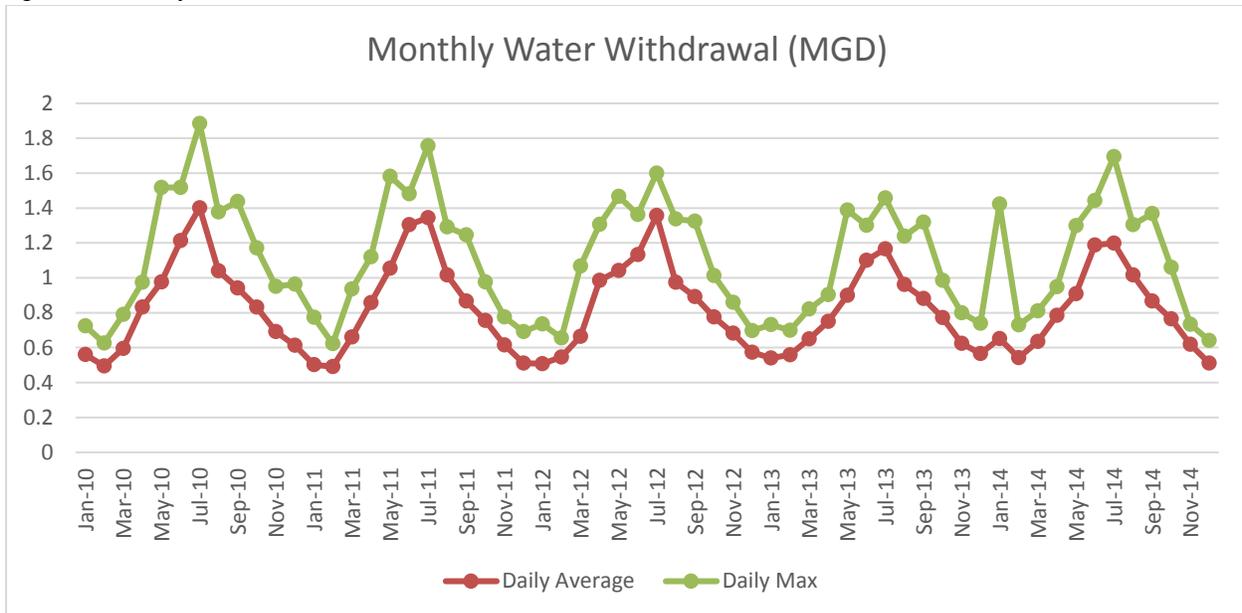
As part of the Carrying Capacity Study, the per capita water usage for 2015 was calculated for the City. The calculation methodology included using the daily average water usage for the months of January only from 2010 to 2014 to reduce water usage attributed to tourism, commercial and irrigation use. This number was then divided by the minimum overnight population that was calculated for January. The resulting per capita water usage is 117 gallons per day. In an effort to understand and document the

²



impacts associated with the summer overnight population, a review of the City's monthly average water usage was conducted. The results of this review are shown in Figure 6.

Figure 6. Monthly Water Withdrawal



Source: City of Tybee Island Carrying Capacity Study – Data Assessment

The peak summer month is July and there is a significant peak in water usage that consistently appears over the five year period.

Tybee Island’s water withdrawal permit allows a monthly average of 1.6 million gallons per day. During the summer months, the maximum daily withdrawal limits have been exceeded due to the increased populations during peak season; however, the monthly daily average was within the limits of the water withdrawal permit. Although the City has not exceeded its annual average permit limits, the projected water usage exceeds the proposed annual average limits for 2025.

The City’s water distribution system is relatively new, with an estimated 80% of the system less than 20 years old. The location of the well pump houses were found to be vulnerable to flooding, storm surge and sea level rise as part of the Tybee Island Sea Level Rise Study.

With the current limits on the water supply source of the Upper Floridan Aquifer, the City is working in partnership with the State of Georgia to install and test a Cretaceous well that will provide an alternative waster source.³ Although the work is not yet completed, it is expected that the well will produce sufficient water for the projected annual needs. However, the associated operational, capital and treatment costs will have direct and major impacts on existing water rates.

³ City of Tybee Island Carrying Capacity Study – Data Assessment, 2016



Wastewater

The City of Tybee Island operates a water pollution control plant with the following permitted discharge limitations:

Flow - MGD	Monthly Average	Weekly Average
May – September	1.15	1.44
October – April	0.89	1.11

Source: *City of Tybee Island Carrying Capacity Study – Data Assessment*

As part of the Carrying Capacity Study, the discharge reports from October, 2012 through August, 2015 were reviewed. Wastewater discharge has exceeded or been close to exceeding the permit limitations during the summer seasons of 2013, 2014 and 2015, even though higher discharge limitations are providing to deal with the peak demands of tourist season. As with the water system, approximately 50% of the wastewater collection system is less than 20 years old. In addition, the City is currently upgrading pump stations and associated force mains.

Stormwater Quality and Quantity

The City of Tybee Island operates a public drainage system that conveys stormwater runoff to the rivers, creeks, marshes and ocean. The City is required to implement a stormwater management program in compliance with the NPDES Phase I Medium MS4 Permit, as required by provisions of the Georgia Water Quality Control Act and the Federal Clean Water Act. This permit requires the development of a Stormwater Management Plan (SWMP), to address the following program elements, as stipulated in CFR 122.26(d)(2)(iv)(A) through 122.26(d)(2)(iv)(D):

- Structural and Source Control Measures
- Illicit Discharge Detection and Elimination
- Industrial Facility Stormwater Runoff Control
- Construction Site Runoff Management

The Georgia Environmental Protection Division (EPD) has previously required the City of Tybee Island to expand its SWMP to include Best Management Practices (BMPs) to address the following required modifications:

- Impaired Waterways, i.e. 303(d) listed stream segments
- Highly Visible Pollutant Sources
- Public Education/Public Involvement
- Pollution Prevention/Good Housekeeping
- Development of an Enforcement Response Plan
- Development of a Green Infrastructure Plan
- Post Construction Stormwater Control

Compliance with this permit and implementation of the City’s SWMP is intended to protect and improve water quality in local rivers, marshes and creeks by reducing the amount of non-point source pollution that is conveyed through the City’s drainage system. Through this program, the City has educated the public and businesses about best practices to reduce stormwater pollution, and has developed a more



proactive approach to drainage system maintenance. The City also performs illicit discharge and water quality monitoring that will provide useful data, over time, to evaluate the success of this program⁴.

Sea Level Rise

The City of Tybee Island recently completed the *Tybee Island Sea Level Rise Adaptation Plan*, which explores and identifies steps that the City can take to become more resilient to sea level rise and flooding issues. This study was completed in partnership with the Georgia Sea Grant, the University of Georgia, and Stetson University.

Sea level rise has been documented from a long-term tidal gauge at Fort Pulaski; since installation in 1935, sea-level has risen 10 inches. In addition, the records of nuisance flooding have steadily increased with 23 separate incidents recorded in 2015. US 80 typically floods during these periods, cutting off all access from the mainland to the Island. In addition to the flooding of US 80, which occurs during king tide events, flooding of low lying areas on the Island also occur, particularly in the southwestern portion of the Island. The problem flooding is exacerbated when rain events occur during high tides.

Solid Waste

The City of Tybee Island provides solid waste, yard waste and recycling services through a contract with a private entity. Recycling is single stream and includes paper, cardboard, newspapers, magazines, junk mail, plastics (1-7), and metal cans. Plastic bags, Styrofoam, film, glass and bubble wrap are not accepted.⁵

The City began an initiative to address plastic bag and other plastic littering through a separate recycling program with drop off locations in different areas of the Island. These locations include Chu's Convenience Store on Inlet Avenue and the City of Tybee Island Police Department on Van Horn. The City's Department of Public Works is responsible for trash and recycling collection from the beach and the recycling stations and are deposited at the transfer station for collection by the contracted waste company. During the peak tourist season, an estimated 6 - 15 tons of trash per day are collected from the beach areas and other public facilities, with approximately 4 tons per day collected in the off season.

Needs/Issues

Through the participation process and data analysis, the needs and issues focused on the sustainability of the Island and the ability to meet the needs of the population while preserving the environmental resources that make the City of Tybee Island a unique resource. The needs/issues identified include:

- Sustainable development that does not outpace resources and infrastructure
- Beach and shoreline protection
- Water supply and the need for public education
- Wastewater plant upgrades
- Businesses that serve year round residents as well as tourism
- Emergency/disaster preparedness and rebuilding planning

⁴ City of Tybee Island Carrying Capacity Study – Data Assessment, 2016

⁵ City of Tybee Island Carrying Capacity Study – Data Assessment, 2016



Opportunities/Strategies

Opportunities and strategies were identified in conjunction with the community members to take advantage of existing opportunities and strategies to address the identified needs. These opportunities and strategies include:

- Review results of the carrying capacity study and implement recommendations as feasible
- Work with agencies on preservation of beach and marshes
- Provide education for visitors on the fragile ecosystem and appropriate actions and activities
- Continue water conservation efforts and assess needed upgrades to the system
- Develop educational materials on water conservation techniques for visitors
- Develop a prioritized plan for implementing the needed infrastructure improvements
- Fast track funding substructure for water/sewer plant upgrades and new facilities
- Complete a peer review of other island communities and the various approaches for conserving/managing water resources
- Develop strategies focusing on the retention of small businesses
- Provide incentives to encourage new businesses to locate on Tybee
- Create policies to encourage off peak visitors
- Work with local, state and federal agencies to develop a plan for dealing with disasters

Consistency with Goals

The table below depicts the consistency of the identified opportunities/strategies in meeting the established goals for sustainability.

GOAL: Encourage a diverse, stable and year round population with a high quality of life
<ul style="list-style-type: none"> • Develop strategies focusing on the retention of small businesses • Provide incentives to encourage new businesses to locate on Tybee • Create policies to encourage off peak visitors
GOAL: Encourage a focus on quality development within the carry capacity of the island
<ul style="list-style-type: none"> • Review results of the carrying capacity study and implement recommendations as feasible • Continue water conservation efforts and assess needed upgrades to the system • Develop educational materials on water conservation techniques for visitors • Develop a prioritized plan for implementing the needed infrastructure improvements • Fast track funding substructure for water/sewer plant upgrades and new facilities • Complete a peer review of other island communities and the various approaches for conserving/managing water resources
GOAL: Ensure that existing water, wastewater, solid waste, and transportation infrastructure is sufficient to support the current population.
<ul style="list-style-type: none"> • Review results of the carrying capacity study and implement recommendations as feasible • Continue water conservation efforts and assess needed upgrades to the system • Develop educational materials on water conservation techniques for visitors • Develop a prioritized plan for implementing the needed infrastructure improvements • Fast track funding substructure for water/sewer plant upgrades and new facilities



<ul style="list-style-type: none"> • Complete a peer review of other island communities and the various approaches for conserving/managing water resources
<p>GOAL: Plan for infrastructure improvements, including water, wastewater, solid waste, and transportation, to support future growth.</p>
<ul style="list-style-type: none"> • Continue water conservation efforts and assess needed upgrades to the system • Develop educational materials on water conservation techniques for visitors • Develop a prioritized plan for implementing the needed infrastructure improvements • Fast track funding substructure for water/sewer plant upgrades and new facilities • Complete a peer review of other island communities and the various approaches for conserving/managing water resources
<p>GOAL: Adapt to a changing climate.</p>
<ul style="list-style-type: none"> • Work with local, state and federal agencies to develop a plan for dealing with disasters
<p>GOAL: Protect and preserve our environmentally sensitive areas, including beaches, natural terrain, drainage areas, vegetation, coastal marshlands, wildlife habitat and corridors, and floodplains.</p>
<ul style="list-style-type: none"> • Work with agencies on preservation of beach and marshes • Provide education for visitors on the fragile ecosystem and appropriate actions and activities
<p>GOAL: Encourage and support sustainable businesses that serve both year round residents and visitors.</p>
<ul style="list-style-type: none"> • Develop strategies focusing on the retention of small businesses • Provide incentives to encourage new businesses to locate on Tybee • Create policies to encourage off peak visitors
<p>GOAL: Promote a balance of diverse employment opportunities for both the year round and seasonal workforce.</p>
<ul style="list-style-type: none"> • Develop strategies focusing on the retention of small businesses • Provide incentives to encourage new businesses to locate on Tybee • Create policies to encourage off peak visitors

GOVERNMENTAL/INTERGOVERNMENTAL COORDINATION ELEMENT

The City of Tybee Island provides significant services for the citizens of the island and communication of information to the citizens of the City is an important function of the City. In addition, the City of Tybee Island is also a part of the regional transportation planning body (CORE MPO), and is also included in the Coastal Regional Commission. With its sensitive coastal location, coordination with various state agencies is also critical.

Needs/Issues

Through the participation process and data analysis, the needs and issues focused on the governmental/intergovernmental coordination and the ability to meet the needs of the population. The needs/issues identified include:

- Needs/Issues Better methods for educating and informing the public
- Litter control and trash removal
- Regulatory enforcement
- Lack of public amenities (i.e. bathrooms)



Opportunities/Strategies

Opportunities and strategies were identified in conjunction with the community members to take advantage of existing opportunities and strategies to address the identified needs. These opportunities and strategies include:

- Continue to work with the Coastal Region MPO and GDOT on planned and future improvements
- Identify issues with trash removal and work to address those issues
- Develop programs to reduce the amount of trash generated
- Assess current enforcement practices and identify areas of needed improvement
- Identify areas where additional permanent public restrooms may be feasible
- Provide portable restrooms at public beach crossovers in the summer
- Develop and implement informational signage for visitors regarding amenities and their locations
- Improve information dissemination through enhancements to the City website
- Develop programs for educating visitors and residents on littering
- Investigate opportunities to utilize social media and smart phone apps for information sharing

Consistency with Goals

The table below depicts the consistency of the identified opportunities/strategies in meeting the established goals for governmental/intergovernmental coordination.

GOAL: Continue to participate and promote the regional efforts to develop solutions for issues affecting Tybee, the region and the State
<ul style="list-style-type: none"> • Continue to work with the Coastal Region MPO and GDOT on planned and future improvements,
GOAL: Promote and preserve Tybee’s unique identity within the regional context of Coastal Georgia.
<ul style="list-style-type: none"> • Identify issues with trash removal and work to address those issues • Develop programs to reduce the amount of trash generated • Assess current enforcement practices and identify areas of needed improvement • Identify areas where additional permanent public restrooms may be feasible • Provide portable restrooms at public beach crossovers in the summer • Develop and implement informational signage for visitors regarding amenities and their locations
GOAL: Develop and achieve our own vision with State technical and financial support.
<ul style="list-style-type: none"> • Improve information dissemination through enhancements to the City website • Develop programs for educating visitors and residents on littering • Investigate opportunities to utilize social media and smart phone apps for information sharing

CHAPTER 5

ACHIEVING THE VISION



The City of Tybee Island and its residents utilize their comprehensive plan as their day to day business is conducted. The community approach is a plan that is more than the “check the required box”, but one that is implementable and useful in charting the course for the future. The implementation element of the Comprehensive plan is the Short Term Work Program (STWP). The STWP provides the specific action items, identifies the time frame, responsibilities and anticipated budget requirements. This STWP is also a required element of a compliant Comprehensive Plan.

In addition to the STWP, the community must develop policies that will be adopted by the local government that will provide ongoing direction for making decisions that will be consistent with the vision and ultimately achieving the identified goals.

Community Short Term Work Program

Project Description	Year Begin	Year End	Responsible Party	Cost Est. / Source
LAND USE/DEVELOPMENT PATTERNS				
Review and update the Land Development Code in accordance with the Vision of this plan	2017	2020	City	Staff time/ Gen. Fund
Enforce existing height restrictions	2017	Ongoing	City	Staff time/ Gen. Fund
Review and revise the current zoning ordinance as necessary to ensure development compatibility with existing neighborhoods	2017	2020	City	Staff time/ Gen. Fund
Allow upstairs residential in commercial areas when commercial is the main use	2017	Ongoing	City	Staff time/ Gen. Fund
Discourage downzoning in commercial areas	2017	Ongoing	City	Staff time/ Gen. Fund
Increase minimum required square footage for duplex or multi-family construction in R-2	2017	Ongoing	City	Staff time/ Gen. Fund
Continue development of comprehensive GIS database for the City	2017	Ongoing	City	Staff time/ Gen. Fund
COMMUNITY PRESERVATION				
Review and assess the current historic preservation ordinance and update as needed	2017	2019	City / Hist. Pres. Committee	Staff time/ Gen. Fund
Develop an education packet to be distributed to visitors about the available activities/services/resources, as well as information regarding protection of natural resources and work with various agencies/rental companies on distribution	2017	2018	City/Tourism Council	\$25,000/ Gen. Fund; H/M Tax
Explore the feasibility of establishing incentives for restoration projects	2017	2018	City / Hist. Pres. Committee	Staff time/ Gen. Fund



Project Description	Year Begin	Year End	Responsible Party	Cost Est. / Source
COMMUNITY PRESERVATION (continued)				
Develop a program to buy and remove grandfathered billboards in the marsh	2018	2022	City/Tourism Council	Gen. Fund/DNR
Coordinate with appropriate agencies and historic preservation groups to identify funding for preservation projects	2017	Ongoing	City/Hist. Pres. Committee	Staff time/ Gen. Fund
Adopt local historic district designations	2017	2017	City	Staff time/ Gen. Fund
Continue the economic development planning for the business district	2017	Ongoing	City/Main Street	Staff time/ Gen. Fund
Consider establishing architectural standards for historic structures	2017	Ongoing	City/Hist. Pres. Committee	Staff time/ Gen. Fund
Protect the existing character of the island by limiting the mass, scale, density and height according to established ordinances	2017	Ongoing	City	Staff time/ Gen. Fund
Provide facilities and services needed by tourists and residents while lessening the impacts of tourism on permanent island residents	2017	Ongoing	City/Tourism Council	Staff time/ Gen. Fund
Provide showers at dune crossovers if/when the deep well treatment facility is completed	2019	2021	City	\$100,000 Gen. Fund
Incorporate the results of the carrying capacity study into regulations to ensure growth does not outpace resources and infrastructure	2019	2023	City Staff/City Council	Staff time/ Gen. Fund
Enforce existing rules through cart and beach patrols with possible surveillance video in problem areas	2019	Ongoing	City Staff/City Council	\$50,000/ Gen. Fund
Explore the feasibility of Transfer of Development Rights for the implementation of parking facilities in exchange for greenspace	2019	2021	City Staff/City Council/DCA	Staff time/ Gen. Fund
Continue to implement beautification/façade improvements in the business district through a revolving loan program	2017	Ongoing	City/Main Street	Staff time/\$25,000/ Gen. Fund
Review the Tree Ordinance and develop incentives to promote the retention of trees as opposed to removal and replacement	2018	2020	City/Main Street	Staff time/\$25,000/ Gen. Fund
Actively enforce existing ordinance violations for short term rentals by warning for first offense and loss of license for second offense	2018	Ongoing	City/City Council	Staff time/ Gen. Fund
Consider annexation of McQueen's Island from Lazaretto creek Bridge to the western terminus of the Bull River Bridge	2019	2024	City/City Council	Staff time/ Gen. Fund
Continue to support the Lighthouse Museum	2017	Ongoing	City	\$25,000/yr Gen. Fund



Project Description	Year Begin	Year End	Responsible Party	Cost Est. / Source
COMMUNITY PRESERVATION (continued)				
Continue to support and work with the Marine Science Center	2017	Ongoing	City	Staff time/ Gen. Fund
Continue to support the Tybee Post Theater	2017	Ongoing	City	\$25,000/yr Gen. Fund
Support continued planning and program development for the Rivers End Campground to attract off-season visitors	2017	Ongoing	City	\$30,000 Gen. Fund/DNR
Continue to maintain/replace as necessary all public works equipment	2017	Ongoing	City	\$100,000 Gen. Fund/SPLOST
Develop a master plan for Memorial Park, including walking paths and shade trees	2019	2019	City/Tourism Council	\$75,000/ Gen. Fund
SUSTAINABILITY				
Review results of the carrying capacity study and implement recommendations as feasible	2018	2021	City	\$1,000,000/Gen. Fund/DNR/SPLOST
Work with agencies on preservation of beach and marshes	2017	Ongoing	City	\$50,000/Gen. Fund/DNR
Provide education for visitors on the fragile ecosystem and appropriate actions and activities	2017	Ongoing	City/Tourism Council	\$25,000/Gen. Fund/DNR
Continue water conservation efforts and assess needed upgrades to the system	2017	Ongoing	City/Tourism Council	\$25,000/Gen. Fund/DNR
Consider an island ban on outdoor watering (sprinkling, irrigation and drip lines)	2018	2021	City	Staff time/ Gen. Fund
Develop educational materials on water conservation techniques for visitors and residents	2017	2019	City/Tourism Council	\$15,000/Gen. Fund/DNR
Develop a prioritized plan for implementing needed infrastructure improvements	2019	2020	City	\$50,000/Gen. Fund/DNR/DCA
Fast track funding substructure for water/sewer plant upgrades and new facilities	2018	2020	City	\$1,000,000/Gen. Fund/DNR/DCA
Continue to implement the NPDES Phase 1 MS4 Permit SWMP	2017	Ongoing	City	Staff time/ Gen. Fund
Complete a peer review of other island communities and the various approaches for conserving and managing water resources	2017	2018	City	\$45,000/Gen. Fund
Continue to monitor drainage issues in dunes	2017	Ongoing	City	Staff time/ Gen. Fund/DNR
Continue to update dune crossovers	2019	2025	City	\$100,000/ Gen. Fund/DNR
Continue the upgrade of sewer collection system; improve efficiency, reduce stormwater intrusion and explore the feasibility of connecting existing septic systems users to the treatment facility	2017	2025	City	\$3,000,000/ SPLOST
Continue to seek funding and implement beach re-nourishment	2020	Ongoing	City	Staff time/ Gen. Fund/DNR



Project Description	Year Begin	Year End	Responsible Party	Cost Est. / Source
SUSTAINABILITY (continued)				
Continue to provide for the use of native plants/xeriscape through the development of landscaping guidelines	2017	Ongoing	City	Staff time/ Gen. Fund
Develop strategies focusing on the retention of small businesses	2018	2019	City/Main Street	\$30,000/ Gen. Fund
Provide incentives and assistance to encourage new businesses to locate on Tybee	2017	Ongoing	City/Main Street	\$40,000/ Gen. Fund
Create policies to encourage off peak visitors	2018	2019	City/Main Street	\$30,000/ Gen. Fund
Encourage small conventions to locate on the island during off-season	2018	2019	City/Main Street	Staff time/ Gen. Fund
Develop and adopt a Catastrophic Disaster Rebuild Plan for the Island	2019	2020	City	\$100,000/Gen. Fund/DCA/DNR
If deep well tests are successful, construct water treatment facility for deep well water	2021	Ongoing	City	\$2,225,000/ SPLOST
Develop ordinance changes to encourage non-FEMA compliant homes to be lifted to become FEMA compliant	2019	2021	City	\$50,000/Gen. Fund/DCA/DNR
Work with local, state and federal agencies to develop a plan for dealing with disasters	2020	2021	City/CEMA	\$100,000/Gen Fund/DCA
HOUSING				
Encourage a variety of housing types with a range of costs	2017	Ongoing	City	\$10,000/Gen. Fund
Investigate the approaches of other communities and develop incentive programs for the provision of affordable housing appropriate for Tybee	2018	2019	City	\$30,000/Gen. Fund
Allow for multi-use upstairs rentals in commercial areas that provide affordable year-round housing	2017	Ongoing	City	Staff time/ Gen. Fund
Investigate the feasibility of a rent subsidy program so critical city personnel (police, fire, etc.) can live on the Island	2019	2021	City	\$30,000/Gen. Fund/DCA
Review and assess the number of short-term rental properties and impacts on adjacent properties	2017	2018	City	Staff time/ Gen. Fund
Require licensing for vacation rentals and minimize adverse impacts on Island residents, including parking, noise, and numbers of tenants	2018	2019	City	Staff time/ Gen. Fund
Investigate the need to provide services and facilities for an older, retired population	2018	2019	City	Staff time/ Gen. Fund
Identify needed services that are lacking for year-round residents	2018	2019	City	Staff time/ Gen. Fund
TRANSPORTATION				
Work with the Coastal Region MPO and GDOT on planned and future improvements, including the exploration of alternative means of transportation on the Island as well as access to and from the Island	2017	Ongoing	City	Staff time/ Gen. Fund



Project Description	Year Begin	Year End	Responsible Party	Cost Est. / Source
TRANSPORTATION (continued)				
Document issues/events to substantiate funding requests	2018	Ongoing	City	Staff time/ Gen. Fund
Establish active subcommittee of infrastructure committee to investigate funding opportunities for projects	2018	2018	City	Staff time/ Gen. Fund
In coordination with GDOT, explore opportunities for roundabouts at intersections, including US 80/McKenzie, US 80/Estill Hammock Rd, and Butler/Tybrisa	2019	2020	City/GDOT	\$50,000/ Gen. Fund/GDOT
Explore various funding opportunities, such as grant programs and the Transportation Alternatives Program to leverage local funding for implementation	2017	Ongoing	City	Staff time/ Gen. Fund / CORE MPO
Continue to develop multi-use paths and linkages throughout the City connecting greenspace, parks, cultural, and historic resources	2017	Ongoing	City	Staff time/ Gen. Fund/ CORE MPO
Identify areas in need of pedestrian facilities or in need of upgrading existing pedestrian facilities and strategies to address the identified needs	2018	2019	City/CORE MPO	\$50,000/ Gen. Fund/GDOT/ CORE MPO
Support the ongoing beautification/landscaping of Highway 80	2017	Ongoing	City/GDOT	Staff time/ Gen. Fund
Educate residents and visitors about transportation related routes and ordinances	2017	Ongoing	City/GDOT	\$10,000/ Gen. Fund
Identify appropriate areas and types of additional parking facilities, specifically in the North Beach area	2017	2018	City	\$20,000/ Gen. Fund
Explore the opportunity for a parking garage in coordination with Chatham County	2018	2020	City/ Chatham Co	Staff time/ Gen. Fund
Explore opportunities to incorporate mix of uses with potential additional parking	2018	2021	City/ Chatham Co	Staff time/ Gen. Fund
Consider the development of an additional parking lot in C-2 on city owned easement	2018	2021	City/ Chatham Co	Staff time/ Gen. Fund
Lessen parking requirements for new businesses to encourage commercial use of C-2 properties	2018	2021	City	Staff time/ Gen. Fund
Provide discounted parking decals for businesses for employees who do not live on Tybee	2018	2020	City	\$40,000/ Gen. Fund
Develop a parking fee structure that maximizes income opportunities based on peak season and times.	2018	2019	City	\$40,000/ Gen. Fund
Coordinate with local officials and agencies to provide assistance with seasonal traffic and to alleviate traffic impacts, especially on residential streets and particularly during events	2017	Ongoing	City/ CORE MPO/ GDOT	Staff time/Gen. Fund



Project Description	Year Begin	Year End	Responsible Party	Cost Est. / Source
TRANSPORTATION (continued)				
Create Marsh Hen Trail to connect the current bicycle route to the Lazaretto Bridge,	2017	2018	City	\$717,612/Gen. Fund, GDOT TE Grant, Other Grants
GOVERNMENTAL/INTERGOVERNMENTAL COORDINATION				
Improve information dissemination through enhancements to the City website	2017	Ongoing	City	Staff time/Gen. Fund
Investigate opportunities to utilize social media and smart phone apps for information sharing	2018	Ongoing	City	Staff time/Gen. Fund
Develop programs for educating visitors and residents on littering	2018	2018	City	\$10,000/Gen. Fund
Identify issues with trash removal and work to address those issues	2017	Ongoing	City	Staff time/Gen. Fund
Provide brightly painted trash cans on the beach between crossovers and explore the opportunity for trash can sponsorships	2018	2019	City	\$40,000/Gen. Fund
Develop programs to reduce the amount of trash generated	2019	2024	City	\$15,000/ Gen. Fund
Assess current enforcement practices and identify areas of needed improvement	2017	2019	City	Staff time/Gen. Fund
Assess number of staff needed and identify any shortfalls	2017	2019	City	Staff time/Gen. Fund
Identify areas where additional permanent public restrooms may be feasible	2017	2020	City	Staff time/Gen. Fund
Provide portable restrooms at public beach crossovers in the summer	2018	Ongoing	City	\$50,000/ Gen. Fund/DNR
Develop and implement informational signage for visitors regarding amenities and their locations	2018	2018	City/Tourism Council	\$10,000/ Gen. Fund
Utilize a broad spectrum of information dissemination, including traditional hard copy (mailers, newsletters) as well as technology based (website, social media) methods to reach all members of the community	2018	Ongoing	City/Tourism Council	\$10,000/ Gen. Fund
Coordinate with CEMA, Chatham County and other local regional planning agencies to implement Tybee Island's Hurricane Disaster Management Plan	2017	Ongoing	City	Staff time/Gen. Fund
Continue to work with Chatham County and Savannah economic development agencies	2017	Ongoing	City	Staff time/Gen. Fund
Continue to participate in regional transportation efforts	2017	Ongoing	City	Staff time/Gen. Fund



Policies

Policies identified in the planning process provide guidance for City officials ensuring the local decisions support and focus on achieving the identified community vision. The policies below were identified during the planning process.

Land Use

The City of Tybee Island will review all land use decisions within the context of the Master Plan. Areas of focus will be on maintaining height limits and managing growth to ensure the context of the community is preserved. Development will be compatible with adjacent areas and neighborhood character will be protected. Policies include the following:

- Enforcement of existing height restrictions
- Encourage the limitation of downzoning in commercial areas
- Review and support the results of the Carrying Capacity Study
- Support and encourage ordinance to ensure compatible development

Housing

The City of Tybee Island is committed to the provision of various housing options, type and mix to meet the needs of existing and future residents, as well as seasonal residents. Policies include the following:

- Promote the restoration and preservation of historic homes
- Promote the provision of affordable workforce housing
- Encourage a range of housing types with a diverse range of costs
- Investigate the need to provide services for an aging population

Transportation

The City is focused on the provision of a safe, connected, multimodal transportation network that provides mobility for all users. This effort includes the provision of pedestrian and bicycle facilities that are pleasant and provide access to activity centers throughout the Island. Policies include the following:

- Encourage multimodal connections that provide safe access to community activity centers
- Coordinate with regional and state agencies to address major transportation issues
- Support the exploration of various funding opportunities to address transportation needs
- Encourage development patterns that facilitate multimodal transportation access
- Encourage regional bicycle connections to Tybee Island

Community Preservation

The City of Tybee Island has a unique character and has preserved that special community character over the years. The City will continue efforts focused on the preservation of the traditional community character and sense of place. A key component of the effort is the enhancement and protection of community open spaces and parks, historic and cultural resources, and natural resources. In addition, the focus will be on the protection of the interests and needs of the full time residents while balancing tourism. Policies identified include the following:

- Encourage the preservation and protection of historic and cultural resources



- Encourage and support the preservation of the traditional community character and sense of place
- Support the development of crisis management plan
- Support the development of a growth management plan

Sustainability

The City of Tybee Island has a long-standing commitment to a sustainable future for the community. This commitment includes ensuring development does not outpace the ability to provide services and infrastructure; the protection of the beaches, which is critical to economic viability; a commitment to supporting businesses that serve both year round residents and tourists; and the development of an emergency/disaster preparedness plan. Policies identified include the following:

- Support the implementation of the Carrying Capacity Study results and recommendations
- Coordinate with local, regional and state agencies on beach and marsh preservation
- Encourage programs providing education to residents and visitors regarding water supply and usage
- Encourage the development of a rebuilding plan in the case of a disaster

Governmental/Intergovernmental Coordination

The City of Tybee Island provides numerous services in support of the residents of, and visitors to, Tybee Island. In addition, the City is actively coordinating with other local governments and state agencies on regional initiatives. Policies include the following:

- Support and encourage active participation in regional and statewide efforts
- Promote the coordination between agencies and other government on planned and future improvements affecting the City
- Promote the preservation of Tybee's unique identify
- Continue to promote Tybee as a state and national tourist destination
- Encourage enhanced information sharing with citizens and visitors regarding services and facilities
- Continue coordination with local governments and agencies, including CEMA and Chatham County to implement Tybee Island's Hurricane Disaster Management Plan.

Supplemental Plans

Joint Service Delivery Strategy with Chatham County

The Chatham County Joint Service Delivery Strategy was developed by the Chatham County-Savannah Metropolitan Planning Commission and covered all local governments within Chatham County, including the City of Tybee Island. This Service Delivery Strategy was adopted February, 2010. The City will continue to work with the MPC and other local governments in the development of the required update.

Solid Waste Management Plan

The City of Tybee Island adopted a Solid Waste Management Plan in 2008 with a horizon year of 2018. This plan is compliant with the state guidance for solid waste management planning at the local level and ensures that future solid waste management needs are identified and incorporated in the plan. The plan covers the five core elements of waste reduction, waste collection, waste disposal, land limitation and education and public involvement.



Tybee Island Sea Level Rise Adaptation Plan

The Tybee Island Sea Level Rise Adaptation Plan was completed in partnership with the NOAA Sea Grant and the Georgia Department of Natural Resources Coastal Resources Commission. The plan provides a process to identify and evaluation potential adaptation actions to mitigate issues resulting from sea level rise. The plan includes five focus areas of infrastructure, access and connectivity, coastal dynamics, image and character, and management and stewardship.

Stormwater Management Plan

Phase I communities are required by the Environmental Protection Division to complete a stormwater management plan. This plan addresses structural and source control measures, discharge oversight, stormwater runoff control, and construction site runoff control. The City of Tybee Island's plan covers these areas, as well as an approach for impaired waterways, public education and pollution prevention.

Carry Capacity Study

The Carrying Capacity Study is being prepared by the City of Tybee Island with support from a Coastal Incentive Grant awarded from the Georgia Department of Natural Resources, the Office for Coastal Management, and the National oceanic and Atmospheric Administration. The study provides an assessment of the current conditions with regard to infrastructure and services and an assessment of the impacts of future growth in a build out scenario. The study will be completed in November, 2016.

Beach Management Plan

The City of Tybee Island Beach Management Plan provides standard operating procedures for management of Tybee's beaches, including the identification of management and maintenance responsibilities, as well as recommendations of specific duties for stakeholders and government officials. The plan is the official policy of the City of Tybee Island and provides long term planning for beach best management practices.

Tybee Island Corridor Charrette

A 3-day charrette, hosted by the Coastal Regional Commission, was held on Tybee Island to identify issues and obtain consensus on within the C-2 Zoning of the Arts, Eats, Eco-Tourism Business Corridor. The goal of the charrette was to reach consensus through the public engagement process on issues related to land use, zoning and compatible uses within and adjacent to the corridor. The charrette was held in 2012.

Tybee Island Tourism Study

The Tourism Study was completed in May, 2015 by the Armstrong Center for Regional Analysis in cooperation with the Armstrong Public Service Center. The purpose of the study was to analyze the different elements of the tourism economy. The total annual visitation was estimated in conjunction with the economic impacts of the tourists. In addition, a survey was administered to visitors to obtain information regarding economic behavior to better understand the behavior of visitors to the Island.

APPENDICES



Community Participation Documentation

Survey Results

Character Area Map

Carrying Capacity Study – Data Assessment

Work Program Report of Accomplishments

Quality Community Objectives Assessment

Desired Design Patterns and Architectural Styles Guidebook

Transmittal Resolution

APPENDICES

*COMMUNITY PARTICIPATION
DOCUMENTATION*



City of Tybee Island Comprehensive Plan Update

Community Participation Plan

February, 2016



Table of Contents

<u>I. Introduction</u>	1
<u>1.1 Purpose</u>	1
<u>II. Goals and Objectives</u>	1
<u>III. Stakeholders and Participants</u>	4
<u>3.1 Key Participants</u>	4
<u>3.2 Stakeholder Coordination Structure</u>	5
<u>IV. Community Participation Techniques</u>	5
<u>4.1 Public Participation Opportunities</u>	5
<u>V. Schedule for Plan Completion</u>	7



Community Participation Plan

I. Introduction

The Georgia Department of Community Affairs requires that local governments prepare local Comprehensive Plans. This requirement ensures the status as a qualified local government which ensure the local government is eligible for grants and assistance. . The comprehensive plans must include the following elements:

- Community Goals
- Needs and Opportunities
- Community Work Program
- Land Use
- Transportation
- Housing

Members of the community must be provided opportunities for input, for each of these elements, during the planning process.

1.0 1.1 Purpose

The Community Participation Plan describes the processes and procedures that will be employed during the development of the Comprehensive Plan to ensure that the members of the public have ample opportunities to provide input. It is critical that the public be integrally involved in the development of the plan and the Participation Plan forms the foundation for the overall planning process. Three general steps for ensuring input and involvement of stakeholders and the public have been identified by the State and include:

- Identification of Stakeholders
- Identification of Participation Techniques
- Conduct Participation Program

It is through the public participation and input that the community-based vision can be developed, as well as the strategies and guiding principles that will be employed to attain the vision. The involvement of the public is a key element of the plan and opportunities for input will be provided throughout the development of the plan and particularly, at key times during the planning process.

II. Goals and Objectives

The following goals and objectives are outlined for the Community Participation Plan and are designed to

Community Participation
Plan



meet the identified steps described above. The goals are high level expressions of the approach to public involvement activities and the objectives provide more detailed strategies on achieving the identified goals.

Goal:

Identify all stakeholders and members of the public who need to participate in the planning process and provide input in the development of the plan.

Objectives:

- Coordinate with local government staff to identify community members who should be actively involved in the plan, particularly community elected officials and other local government committee members
- Ensure participation of these identified community members which will foster the ongoing implementation of the plan

Goal:

Form a citizens committee that will meet regularly throughout the planning process and provide input and guidance in the development of the plan.

Objectives:

- Provide opportunities for members of the committee to review and understand detailed technical analyses
- Provide opportunities for members of the committee to provide input on an ongoing and regular basis throughout the plan development

Goal:

Provide opportunities for stakeholders, interested parties and members of the general public to learn about and help shape strategies through an active involvement process that is open, inclusive and accessible to all citizens and their perspectives.

Objectives:

- Provide participation and educational opportunities for any citizen
- Develop partnerships among the local governments, agencies and community organizations
- Build trust among all project participants

Goal:

Provide clear, accurate and understandable information that can be transmitted to citizens and interested parties through a variety of means



Objectives:

- Use clear and understandable language, as well as graphics to clearly communicate technical issues
- Use a variety of media, including websites, fact sheets, and public meeting presentations to disseminate information and data, particularly at key decision points during the process
- Identify opportunities to obtain input from a diverse spectrum of stakeholders, including those populations that are traditionally underserved in the planning process

Goal:

Provide avenues to efficiently receive input from the public and to integrate the input into the development of the plan

Objectives:

- Monitor the progress of the technical analysis through project team meetings, workshops, public forums and other stakeholder involvement activities to identify issues and concerns
- Provide documentation of these issues and concerns
- Provide acknowledgement of input received from stakeholders

Goal:

Monitor the effectiveness of the planning process and the public involvement process through communicating and receiving information among stakeholders, citizens, planning partners and the project team

Objectives:

- Conduct questionnaires of participants during activities, such as workshops, to gauge the effectiveness of the format
- Collect input from the community through additional methods, such as surveys
- Solicit feedback from the advisory committees and any technical committees on their satisfaction with the input opportunities and activities



■ III. Stakeholders and Participants

The comprehensive planning process will involve many participants, including community stakeholders and citizens from the county and the municipalities. Because of the varied interests, issues, opportunities and community focus, an organized approach will be required to efficiently maintain the stakeholder involvement process. The following section describes the overall organization of the stakeholder coordination element of the project as well as the key players involved in the study.

2.0 3.1 Key Participants

The individuals and groups expected to be involved in the study are likely to fall into the following major groups of participants.

■ **Advisory Working Group**

Volunteers to serve on the Advisory Working Group will be requested at the first scheduled public meeting. It is anticipated that this working group will meet frequently and regularly throughout the process to review detailed technical data and analyses and provide input and guidance.

■ **Community Members**

All members of the community members will be invited to participate in public workshops and meetings of the Advisory Working Group.

■ **City of Tybee Island Planning Commission/City of Tybee Island Committees**

The City of Tybee Island Planning Commission is the board that represents the wide variety of interests that exist within the City. The purpose of the board is to “*promote the health, safety, morals convenience, order, prosperity and general welfare, and to provide for the orderly development of the City of Tybee Island.*” This 7-member board is appointed by the Mayor and City Council. Members of the Planning Commission will be invited to participate in the process and updates on the planning process provided at Planning Commission meetings.

In addition to the Planning Commission, there are other appointed committees for the City. These various committees will also be invited to participate throughout the development of the plan as members of the Advisory Working Group or through community workshops and meetings.

■ **Elected Officials**

The input and involvement of state and local elected officials is critical in addressing the planning issues which benefit and/or impact their communities. Elected officials will have multiple opportunities to participate in the planning process.



3.0 3.2 Stakeholder Coordination Structure

The structure of the Project Team and the elements related to public involvement and coordination ensures that three important principles guide the structure of the participation process:

- Continuous communication and exchange of key information through the coordination and involvement processes are conveyed to the project team for use in the development of the plan.
- The process also provides for a direct communications and interaction link between the local staff, the consultant team and the various committees and groups to minimize any confusion in the overall direction of the project at the policy level.
- Continuous communication is maintained throughout the project between the project team and all of the parties interested in participating in the study.

▪ IV. Community Participation Techniques

The information below details how the public will be involved on the purpose and role of the Comprehensive Plan, how the public can provide input on the plan's development, opportunities for public interaction, and methods of public partnership on plan implementation.

4.0 4.1 Public Participation Opportunities

The planning process will include numerous opportunities for members of the community to participate and provide input. These opportunities include public meetings, as well as meetings of the Advisory Working Group.

Public Meetings / Workshops

A series of public meetings/workshops and meetings of the Advisory Working Group have been identified, along with each of the overall agenda items for discussion at each meeting. All meetings are scheduled to be held on Tuesday evenings from, 6:00 pm to 8:00 pm, in order to avoid other regularly scheduled city/community meetings. Meetings will be held at the Tybee City Hall at 403 Butler Avenue.

Public Meeting # 1: February 16, 2016

An initial meeting will be held to discuss the Comprehensive Plan and its elements, as well as describing the planning process. This meeting will include a presentation covering the plan's purpose and general approach for completion. In addition, volunteers will be solicited to serve on the Advisory Working Group. The workshop portion of the meeting will include a review and



discussion of the Community Goals identified in the previous Comprehensive Plan and a discussion on the issues facing the community.

Advisory Working Group # 1: March 15, 2016

This meeting of the Advisory Working Group will be focused on several elements. Based on the review of the Community Goals at the public meeting, the group will review and refine the goals and objectives for presentation at the next public meeting. The development of the existing and future conditions will be underway, and this information will also be presented. In addition, the group will identify needs and opportunities of the community.

Public Meeting # 2: April 5, 2016

The second public meeting will be held to review the suggestions for refinement of the goals from the Advisory Working Group and to finalize the Community Goals. The workshop will also include a review of the existing and future conditions and the review of the needs and opportunities, also developed by the Advisory Working Group. With the completion of the review, the workshop groups will discuss and identify additional needs and opportunities.

Advisory Working Group # 2: April 12, 2016

The second meeting of the advisory group will focus on the refinement of the needs and opportunities based on the results from the public meeting held on April 5. Based on these needs and opportunities, the group will begin the development of draft recommendations to address the identified needs and take advantage of the opportunities.

Advisory Working Group # 3: May 5, 2016

The third meeting of the Advisory Working Group will continue with the development/refinement of the draft recommendations. Based on this discussion, the group will finalize the draft recommendations.

Public Meeting # 3: June 14, 2016

The third public meeting will focus on reviewing and finalizing the draft recommendations and plan.

Tybee Planning Commission

The draft recommendations and plan will be presented to the Tybee Planning Commission at their meeting scheduled for June 20, 2016.

Tybee City Council

Regular updates on the plan development will be provided to the City Council, as requested by staff and based on need. A presentation of the plan kick-off will be made to the City Council at their meeting scheduled for February 11, 2016. This presentation will introduce the project team and provide information regarding the planning process and the schedule.



The draft plan will be presented to the City Council on July 14, 2016. At this meeting, the Council will be requested to adopt a resolution submitting the plan to the Coastal Regional Commission for the required agency review.

Upon completion of the agency review and all comments have been addressed, the final plan will be presented to the City Council for adoption on October 13, 2016. This adoption date meets the required deadline of adoption by October 31, 2016.

Public Hearings

Two public hearings are scheduled and will be held in conjunction with City Council meetings. The first public hearing will be held at the July 14, 2016 Council meeting before the adoption of the submittal resolution. The second public hearing will be held at the October 13, 2016 meeting before the adoption of the final plan by Council.

▪ **V. Schedule for Plan Completion**

City of Tybee Island Comprehensive Plan Update Project Schedule

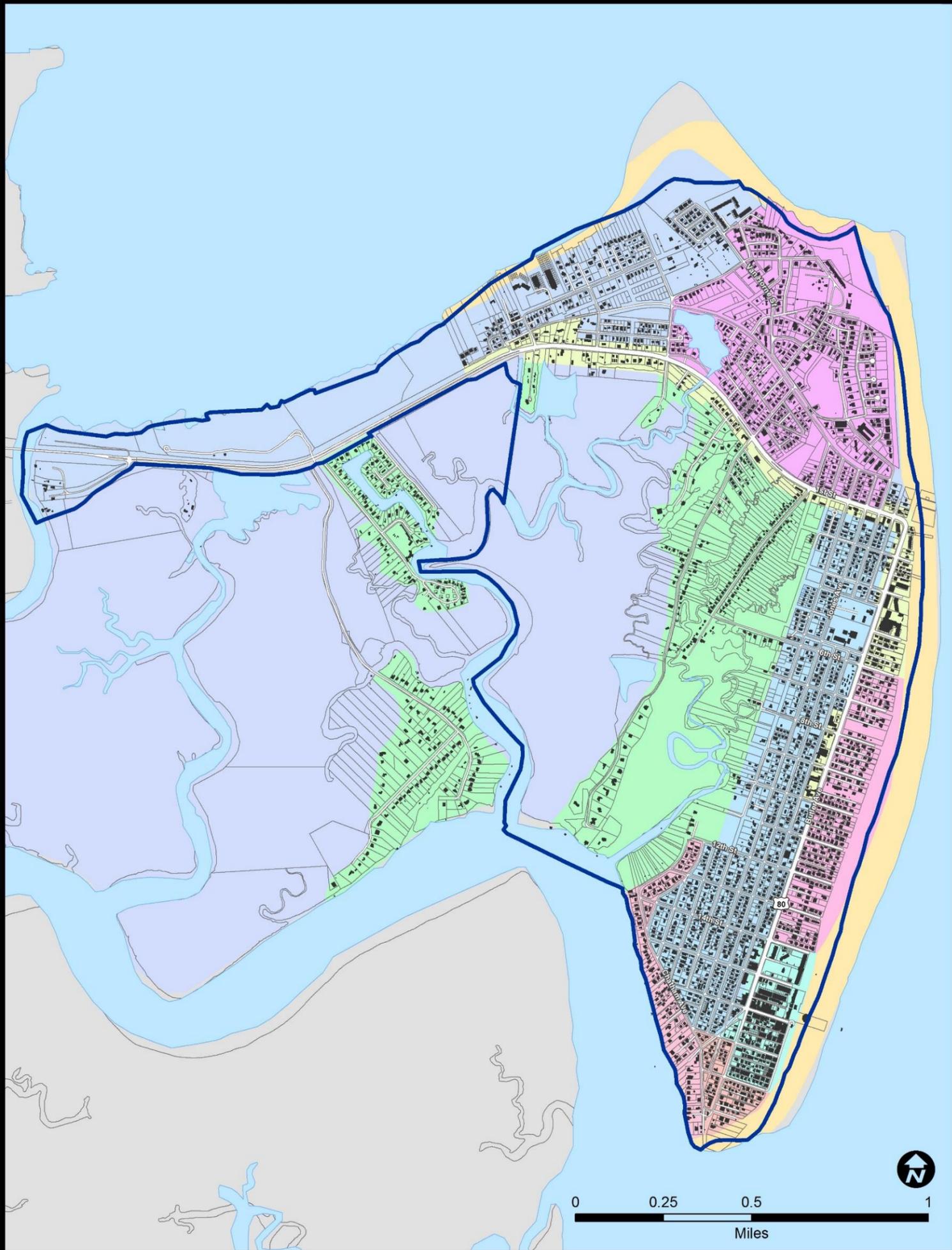
Tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept.	Oct
Kick Off Meeting	★									
Data Collection		■								
Existing/Future Conditions		■								
Needs and Opportunities			■							
Draft Recommendations and Plan				■						
Final Recommendations and Plan					■					
Public/Community Involvement		▲	●	▲ ●	●	▲	▲			▲
Plan Submittal for Agency Review							★			
Agency Review (CRC and DCA)							■			
Address Agency Comments									■	
Plan Adoption										★

- ▲ Public Meeting
- Advisory Working Group

APPENDICES
SURVEY RESULTS

APPENDICES

CHARACTER AREA MAP

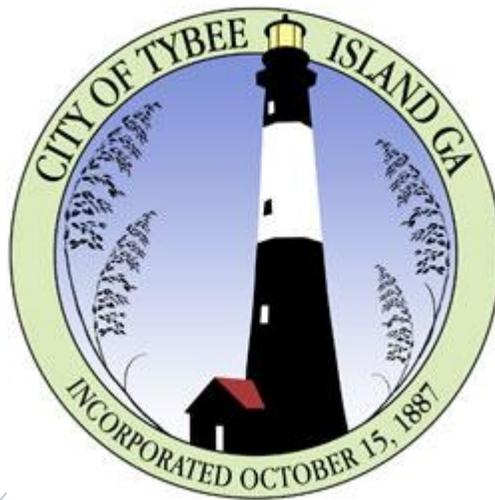


Legend			Base Map	
	17th Street Neighborhood			Buildings
	Arts, Eats, Eco Activity Center			Parcels
	Back River			Water
	Beaches			Pavement
	Beachfront			City
	Coastal Marshlands			

APPENDICES

*CARRY CAPACITY STUDY
DATA ASSESSMENT*

City of Tybee Island Carrying Capacity Study



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a. Acknowledgements

This study was prepared by the City of Tybee Island under a Coastal Incentive Grant awarded from the Georgia Department of Natural Resources (DNR) and from the Office for Coastal Management (OCM), National Oceanic and Atmospheric Administration (NOAA). The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of DNR, OCM or NOAA.

Ecological Planning Group, LLC assisted the City of Tybee Island with preparation of this report.



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Many thanks to the Coastal Resources Commission members, elected and appointed City officials, and citizens who dedicated their time, expertise and resources for this project. Their assistance and participation in the planning process and data gathering exercises made this study possible.

A special thanks also goes to the Georgia DNR, Coastal Resources Division. This project would not have been possible without the funding and assistance provided through the Coastal Management Program.



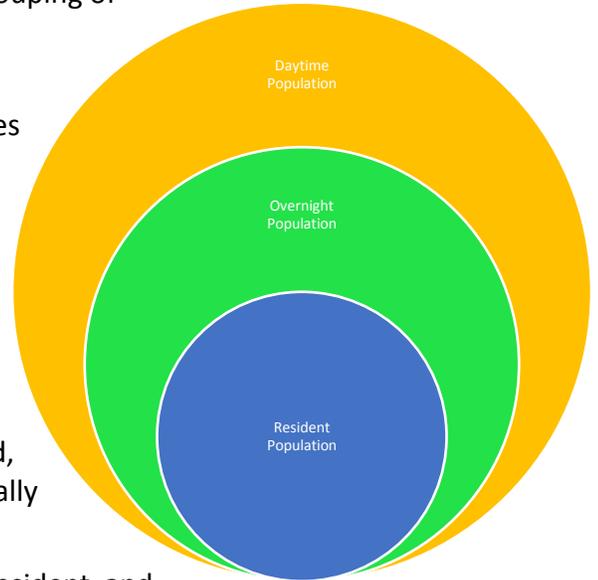
TABLE OF CONTENTS

1.	POPULATION DYNAMICS ON TYBEE ISLAND	1
1.1.	RESIDENT POPULATION	2
1.2.	OVERNIGHT POPULATION	3
1.3.	DAYTIME POPULATION	6
1.4.	POPULATION SUMMARY	8
2.	RESOURCE LIMITATIONS	9
2.1.	WATER WITHDRAWAL & WATER USE	9
2.1.1	<i>Correlation of Overnight Population with Water Usage</i>	11
2.1.2	<i>Tybee Island Water Withdrawal Permit Limitations</i>	12
2.1.3	<i>Water Distribution Infrastructure System</i>	14
2.1.4	<i>Alternative Water Supply</i>	14
2.2.	WASTEWATER DISCHARGE	16
2.3.	TRANSPORTATION & PARKING	18
2.3.1	<i>U.S. Highway 80 (US 80) Capacity and Road Network Capacity</i>	18
2.3.2	<i>Parking</i>	21
2.4.	STORMWATER QUALITY AND QUANTITY	27
2.4.1	<i>Tybee Island Sea Level Rise Adaptation Plan</i>	28
2.5.	SOLID WASTE	35
2.5.1	<i>Solid Waste Collection</i>	35
2.5.2	<i>Disposal Trends</i>	36
2.6.	ENERGY USE	37
2.6.1	<i>Solarize Tybee</i>	38
2.7.	ZONING	39
2.7.1	<i>Zoning Analysis</i>	39
2.7.2	<i>Methodology</i>	39
2.7.3	<i>Analysis</i>	40
2.7.4	<i>Population in the R-2 District Based on Current Development</i>	41
2.7.5	<i>Full Build-Out Scenario</i>	42
2.7.6	<i>Additional Population Based on Build-Out Scenario</i>	44
2.7.7	<i>Zoning Assessment Findings</i>	44

1. POPULATION DYNAMICS ON TYBEE ISLAND

Due to Tybee Island's prominence as a vacation destination, there are three distinct types of population that must be considered, as each type of population is necessary for the economic viability of the island but may be affected by a different grouping of limiting factors:

- 1.) Resident Population. This number includes homeowners and long term rentals.
- 2.) Overnight Population. This number includes the resident population, but it also includes the short-term rental population which is proportionately significant, when compared to the resident population, and variable throughout the year. Also included in this population is the "second home" owners who own a second home on Tybee Island, which they do not rent, but at which they periodically vacation.
- 3.) Daytime Population. This number includes the resident and overnight populations as well as the day-tripper population, which is even more variable than the overnight population and the largest population during certain holidays such as the 4th of July.



This memorandum includes a summary of the following information regarding the City's population:

- Census 2000 and 2010 Data
- Analysis of the 2010 Census Data conducted by Tybee Island in support of the 2012 LOST negotiation
- Data from the City's Business License database regarding short-term rental units and hotel/motel rooms.
- Occupancy data from the Tybee Island Campground and short-term rental agencies
- Assessment of water use and sewage discharge data and its correlation to proposed resident population
- City of Tybee Island Tourism Study

This memorandum also includes a projection of overnight and daytime populations based on the following information:



- Data on rental units provided by the City’s Business License Tax Database and private rental agencies.
- Water withdrawal and wastewater discharge
- Parking data and transportation studies maintained and/or performed by Tybee Island

B. RESIDENT POPULATION

Table 1 shows the Census data and trends related to population for 2000 and 2010. Table 2 presents the Census data and percentage change for every census since 1900. Please note that the 2010 Census showed the first population decrease on the island since 1920.

Table 1: Population for Tybee Island, GA

Source: Census Bureau

Census Data Type	2000	2010	Percent Change
Population	3,392	2,990	-11.9%

Table 2: Historical Population Trends

Source: Census Bureau

Census	Pop.	% Change
1900	381	—
1910	786	106.3%
1920	117	-85.1%
1930	202	72.6%
1940	644	218.8%
1950	1,036	60.9%
1960	1,385	33.7%
1970	1,786	29.0%
1980	2,240	25.4%
1990	2,842	26.9%
2000	3,392	19.4%
2010	2,990	-11.9%
Est. 2014	3,082	3.1%

Table 3 presents the Housing Occupancy characteristics and associated trends over the same time period. Between the time period of 2000 and 2010, while resident population was decreasing, the number of total housing units increased. The increase in the total number of living units combined with the reduction in the number of permanently occupied units, resulted in a significant increase in the number of units that are not occupied by a permanent resident. Per the 2010 Census, approximately 60% of the units on the island are not permanently occupied.

**Table 3: Housing Occupancy Characteristics for Tybee Island, GA**

Source: US Census Bureau

Housing Unit Type	2000	Percent 2000	2010	Percent 2010	Percent Change
Total Housing Units	2,696	--	3,366	--	24.9%
Occupied Housing Units	1,568	58.2%	1,360	40.4%	-13.3%
<i>Owner-Occupied</i>	1,078	40.0%	918	27.3%	-14.8%
<i>Renter-Occupied</i>	490	18.2%	442	13.1%	-9.8%
Vacant Housing Units	1,128	41.8%	2,006	59.6%	77.8%
<i>Seasonal, Recreational, Occasional Use</i>	676	25.1%	1,473	43.8%	117.9%
<i>For Rent/For Sale/Other</i>	452	16.8%	533	15.8%	17.9%

C. OVERNIGHT POPULATION

As a national tourist destination, it is reasonable to assume that Tybee Island has a significant increase in overnight (non-resident) population that stresses the City's infrastructure and resources. Since tourism on Tybee Island is an economic driver for the region, it is necessary to assess and plan for the impact of increased summertime population.

Tybee Island is a national tourism destination and this overnight, short-term population places a significant burden, in the form of "peak usage" upon Tybee Island's services and infrastructure, including water, sewer, and roadways. Peak usage can be defined as the result of a period of simultaneous, strong consumer demand.

In order to quantify this additional population and the associated demand placed on City infrastructure and services, EPG has prepared an estimate of overnight population based on data provided by the Census 2010, the City's Occupational Tax records for short term rentals and hotel/motel units. In addition to the short-term rental units, the City of Tybee Island operates a campground that contains RV and tent campsites that would not have been included in the Census. Adding the total number of short-term rental units and hotel/motel units to the total number of campsites results in a total number of 1,738 short-term rental opportunities, as shown in Table 4.

In order to estimate the average overnight population associated with the short-term rental units and campsites on Tybee Island, the Local Option Sales Tax (LOST) Population Study conducted by Tybee Island in 2013 was referenced. As part of this study, information was solicited from the various rental agencies and campsite operator, including the estimated average percent occupancy per month, and the average number of people per rental event. This information was further updated as part of this Carrying Capacity Study, and confirmed through comparison to the City of Tybee Island Tourism Study (2014). This report also included percentage occupancy averages for short-term rental units on Tybee Island for each month of the year (Table 5).

The different types of short-term rental units (i.e. house/condo, hotel/motel, and RV/campsite), have different rental characteristics, and therefore should have a different average for people



per rental event. For example, rental houses and condominiums on Tybee Island are typically rented by families, and therefore the number of people per occupied short-term rental units should be five or greater. Hotel and motel units typically fit less people, so an average number of people per rental event is much less at 2.5. The campsite actually maintains data on the average number of people per rental event, which was reported as 2.58 in the LOST Study referenced above. Utilizing the average number of people per rental event for the various short-term rental unit types, the monthly average short-term overnight population is projected in Table 6.

Table 4: Short Term Rental Unit Occupancy for Tybee Island, GA

Source: City of Tybee Occupational Tax Database and Tybee Island Campground

Rental Unit Type	Number of Units	Average Persons Per Unit	Maximum Rental Population
Hotel	420	2	840
Housing Unit	1,200	5	6,000
Campground	118	2.6	306
Total	1,738		7,146

* Tybee Tourism Study does not differentiate between short-term rental unit types and estimates 4.3 people per unit, which equals a maximum short-term rental population of 7,473.

If you add the maximum short term rental population of 7,146 to the 2014 resident population number of 3,082, the resulting maximum overnight population for the island is 10,228.

Table 5: Short-Term Rental Occupancy Rates

Source: Short-Term Rental Agencies on Tybee Island

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
22%	31%	62%	70%	64%	91%	96%	74%	57%	52%	33%	24%

Table 6: Short-Term Rental Population by Month

Rental Unit Type	Hotel Unit	House/Condo	Campground	Total Short-Term Rental Population	
Number of Units	420	1,200	118		
Average Persons Per Unit	2.5	5	2.6		
Occupancy	Hotel Unit Rental Population	House/Condo Unit Rental Population	Campground Rental Population		
Jan	22%	231	1,319	67	1,617
Feb	31%	329	1,883	96	2,308
Mar	62%	649	3,711	190	4,550
Apr	70%	735	4,200	215	5,150
May	64%	674	3,851	197	4,721



Rental Unit Type		Hotel Unit	House/Condo	Campground	Total Short-Term Rental Population
Number of Units		420	1,200	118	
Average Persons Per Unit		2.5	5	2.6	
Occupancy		Hotel Unit Rental Population	House/Condo Unit Rental Population	Campground Rental Population	
Jun	91%	952	5,438	278	6,667
Jul	96%	1,011	5,780	296	7,086
Aug	74%	773	4,419	226	5,418
Sep	57%	595	3,401	174	4,169
Oct	52%	545	3,114	159	3,818
Nov	33%	346	1,976	101	2,422
Dec	24%	253	1,443	74	1,769
Annual Average	56%	591	3,378	173	4,141

Based on this information, the annual average for additional overnight population from short-term rentals is 4,141, the minimum (in January) is 1,617 and the maximum (in July) is 7,086. Adding this number to the 2014 estimated year-round average resident population of 3,082, results in an average overnight population of 7,223. Based on the occupancy rates during the months of July and January, the peak monthly average overnight population is 10,168 and the minimum monthly average population is 4,699.

It is important to note that the overnight population numbers above do not address one segment of the overnight population, and that is “second home” owners, i.e. those people who own a second home on Tybee Island, which they do not rent, but at which they occasionally vacation. The second home owners also have the potential to affect the peak overnight population numbers as they are likely to be occupying their second homes during peak tourism months. This number, however, is more difficult to quantify and can only be estimated using the data sources described herein, and this estimated population is described in Table 7.



Table 7: Second Home Maximum Overnight Population

Source: US Census and Tybee Island Occupational Tax Database

Total number of “vacant units” per the 2010 Census	2,006
Total number of vacation rental units per Tybee Island	1,200
Number of remaining units, with the potential to be “Second Home” Units	806
Average number of guests per “Second Home” unit	5
Maximum “Second Home” overnight population	4,030

Adding the maximum “second home” overnight population number of 4,030 to the maximum overnight population of 10,228, results in a potential maximum overnight population of 14,258. While peak occupancy may only happen during the summer season, and the maximum estimated overnight population may only occur once or twice a year, the City of Tybee Island must be maintain the infrastructure to service this maximum overnight population year-round.

D. DAYTIME POPULATION

As a popular beach destination, Tybee Island not only has an increase in overnight population during the peak summer months, it also has an increase in daytime population. This metric is important because daytime visitors also place an additional strain on the City of Tybee Island’s infrastructure and services during their brief stay on the Island. In an attempt to quantify the additional daytime population during the summer months, EPG has reviewed the following transportation studies/information sources to gather data on traffic counts:

- City of Tybee Island Pedestrian and Traffic Study (2010)
- Tybee Island Wave Ecology and The Highway 80 Challenge (2011)
- City of Tybee Island Tourism Study (2014)
- City of Tybee Island Sea Level Rise Study (2016)

The City of Tybee Island Police Department also maintains a traffic counter on Highway 80 near Breezy Point that has been fully operational since May of 2014. The graph in Figure 1 was generated utilizing the available data from this counter and illustrates the average, weekend day average, and peak daily one-way traffic counts by month for the time period of May 2014 – September 2015.

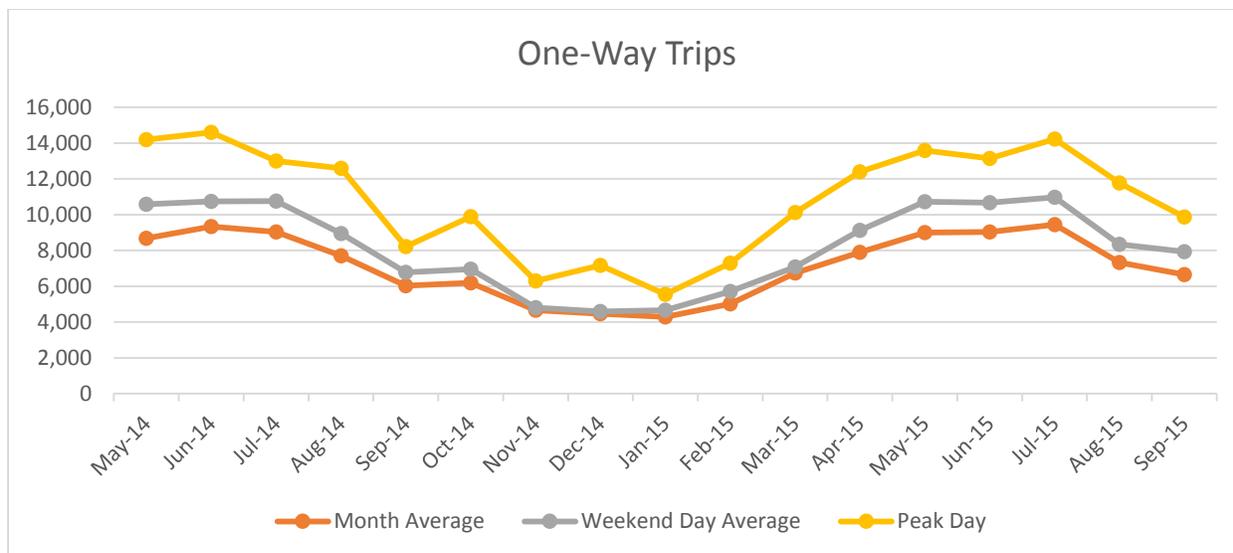


Figure 1: Automobile Trips onto Tybee Island

The highest volume of traffic is during the peak summer months of May through July, further corroborating the projected increase in summertime overnight population. As expected, the average number of one-way trips onto Tybee Island is also greater on the weekends than during mid-week, and the difference increases during summer months. The Tybee Island Traffic and Parking Study reported that “during the summer, traffic on the weekend (Saturday) represents an increase of between 38 and 60 percent over a typical weekday (Thursday).”

The Tybee Island Wave Ecology Report provides a peak daily traffic count of 16,173 for the week of July 3, 2010, and estimates that each trip would represent an average of 2 people. The report goes on to estimate that during peak times/events, such as the July 3rd fireworks event, the daytime population could exceed 30,000 people. If the metric of 2 people per trip were applied to the daily traffic count data during the twelve-month period from October 2014 – September 2015, this would result in the daytime population estimates provided in Table 8.

Table 8: Traffic Counts and Daytime Population Estimate

Source: Tybee Island Police Department Traffic Counts

	On-Island Trips	Daytime Population
Daily Average	6,726	13,452
Peak Day (July 2015)	14,233	28,466

The data above is fairly consistent with the data presented in the Wave Ecology Study, and while peak daily on-island trips can vary by a few thousand trips each year depending on which part of the week major events like the July 3rd fireworks fall on, both studies indicate that there is currently potential for a peak daytime population of at least 30,000 people. As much of the overnight and resident populations are likely to say “on-island” during big events, it is reasonable



to assume that these populations may not be fully included in this estimate, and that the maximum daytime population likely exceeds 30,000 people.

E. POPULATION SUMMARY

A summary of the various populations for Tybee Island is presented in Table 9 and Figure 2.

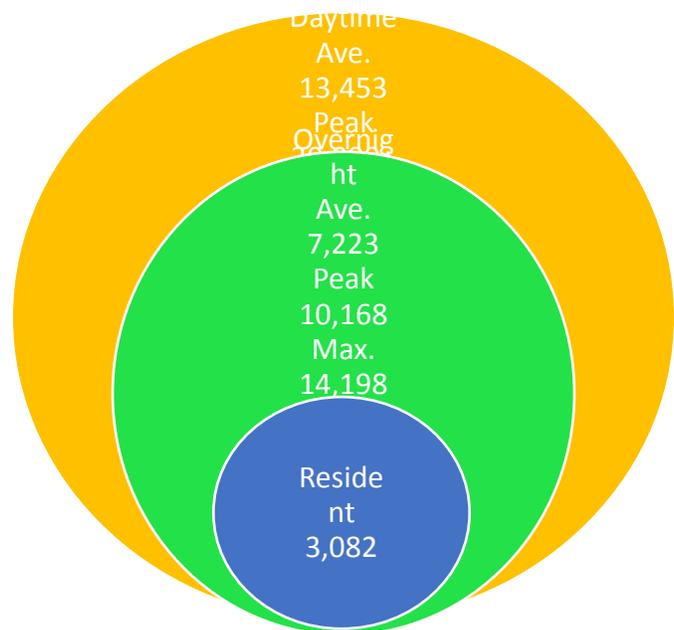
Table 9: Population Count Summary

Population Metric	Population
Resident Population (2014, est.)	3,082
Annual Average Overnight Population	7,223
Peak July Overnight Population ¹	10,168
Maximum Overnight Population ²	14,198
Annual Average Daytime Population	13,453
Peak Daytime Population	30,000 +

¹Does not account for second home population

²Assumes 100% occupancy of all units on Tybee

Figure 2: Populations on Tybee Island





2. RESOURCE LIMITATIONS

Due to Tybee Island's status as a national tourism destination, the resident population, as presented in the Census, is not an accurate depiction of the resources necessary to provide City services. City infrastructure and public services must be sufficient enough to serve the overnight and daytime populations, even as they peak during summer months. Since tourism based on Tybee Island is a significant regional economic driver, it is to the benefit of the region as a whole that the City has the resources necessary to serve this tourist population.

F. WATER WITHDRAWAL & WATER USE

The City of Tybee Island operates a water supply system that consists of three (3) water withdrawal wells that pull water from the Upper Floridan Aquifer. The City is currently permitted to withdraw an annual average of 0.916 million gallons per day (MGD), with a monthly average limit of 1.6 MGD to allow for the peak usage associated with the summer tourism season.

In order to project peak water demands, it is first necessary to understand the per capita daily water usage on Tybee Island. The Chatham County Water Supply Plan 2006 Update reported the per capita daily water usage for Tybee Island at 216.7 gallons. However, this number is misleading because it was calculated by simply dividing the annual average daily water usage in 2005 by the 2005 resident population number. The average annual daily water usage will include the following elements that will skew the per capita water usage number 1) peak summer water usage associated with peak short-term rental season, 2) the increase in commercial water usage that occurs during the summer season, and 3) water used for irrigation purposes during the growing season. All three of these factors will cause per capita water usage to appear larger than it truly is. In addition, the resident population number was used, not the overnight population. At no point during the year are the short-term rental units at 0% occupancy so not including these people in the calculation further compounds the skew in the per capita water usage. Lastly, and perhaps most importantly, the City of Tybee Island has implemented a comprehensive Water Conservation Program since the per capita water usage number was calculated in 2006, and it is likely that the per capita water usage has decreased as a result.

Accordingly, EPG has utilized the following methodology to limit the undesirable variables and recalculate the City's per capita water usage for 2015. In order to reduce water usage attributed to tourism, commercial use, and irrigation, the daily average water usage for the months of January only from 2010 – 2014 was used and is presented in Table 10. Furthermore, this number was divided by the minimum overnight population calculated in the month of January (4,699). This number is greater than the resident population because, even though January represents the low point of the tourism season, there is still a non-resident overnight population on the island based on the occupancy numbers presented in the section above. As



shown in Table 11, the resulting per capita water usage is 117 gallons per day (GPD) which is almost half of the usage reported in the 2006 report.



Table 10: January Average Daily Water Usage

Source: Tybee Island Water and Sewer Department

Year	January Daily Average Water Withdrawal (MGD)
2010	0.56
2011	0.50
2012	0.51
2013	0.54
2014	0.65
5-Year Average	0.55

Table 11: Per Capita Water Usage

5-Yr Ave Water Withdrawal in January (GPD)	Minimum Overnight Population in January	Per Capita Water Usage (GPD)
550,000	4,699	117

i. Correlation of Overnight Population with Water Usage

In an effort to provide documentation of the surge in summertime overnight population, EPG reviewed the City’s monthly average water usage. The graph in Figure 3 illustrates the significant increase in water usage, primarily associated with an increase in population during summer months.

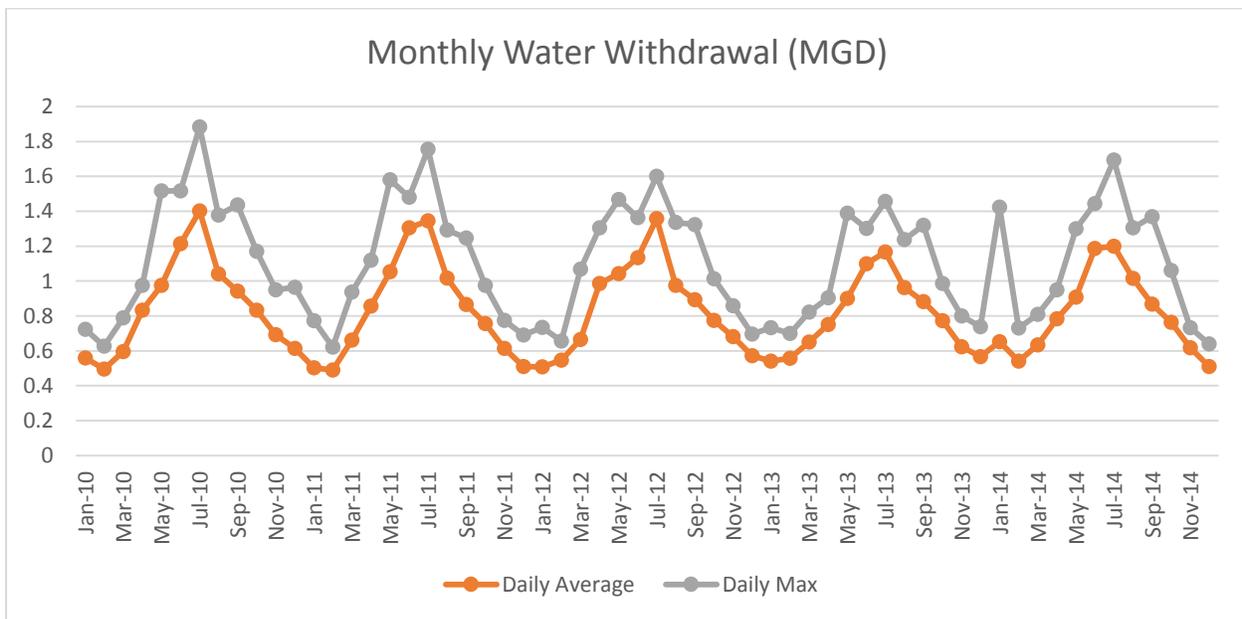


Figure 3: Monthly Average and Maximum Water Withdrawal



Tybee Island’s peak summer month for tourism is July. An obvious and significant peak in usage occurs during this month in all five years. In fact, in 2010, the water usage during the peak month of July was 2.8 times greater than the usage in the off-season month of February.

ii. Tybee Island Water Withdrawal Permit Limitations

The Water Withdrawal Permit for the City of Tybee Island contains the following withdrawal limits:

- Monthly Average of 1.6 MGD
- Existing Annual Average of 0.916 MGD
- 2020 Annual Average of 0.916 MGD
- 2025 Annual Average of 0.516 MGD

Figures 4 and 5 show the permit limits as they compare with the 2010 – 2014 water usage data.

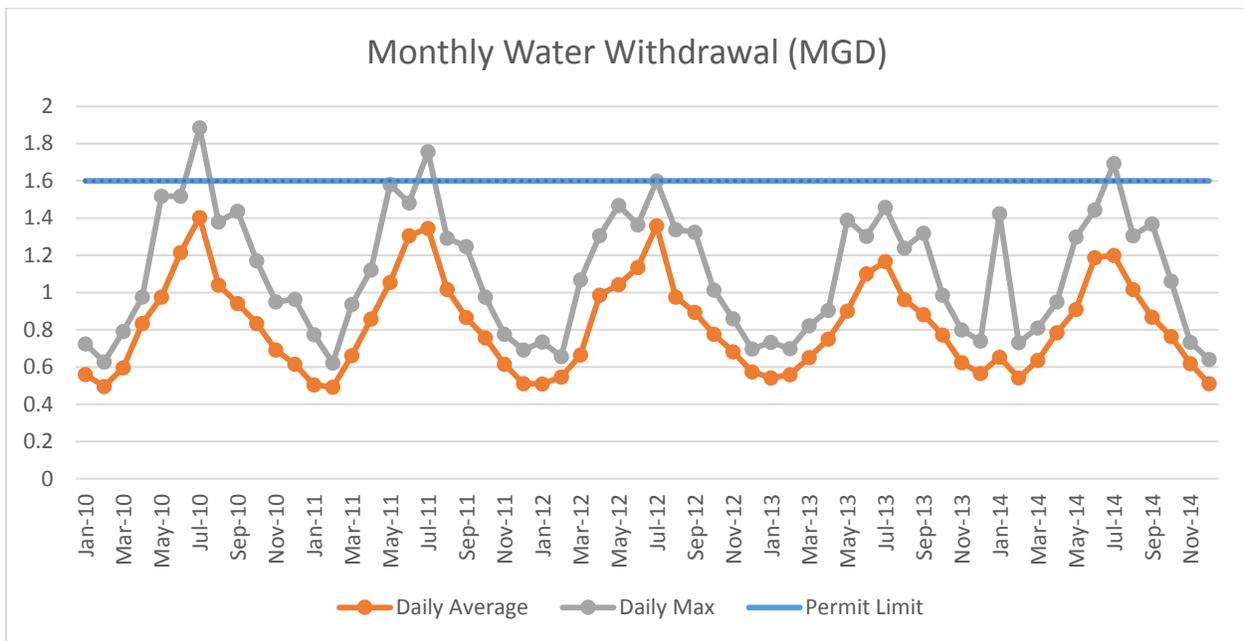


Figure 4: Monthly Average Water Usage and Permit Limit

Figure 4 indicates that during summer months in four out of the last five years, the maximum daily withdrawal exceeded 1.6 MGD, but the monthly daily average for all years was still within the water withdrawal permit.

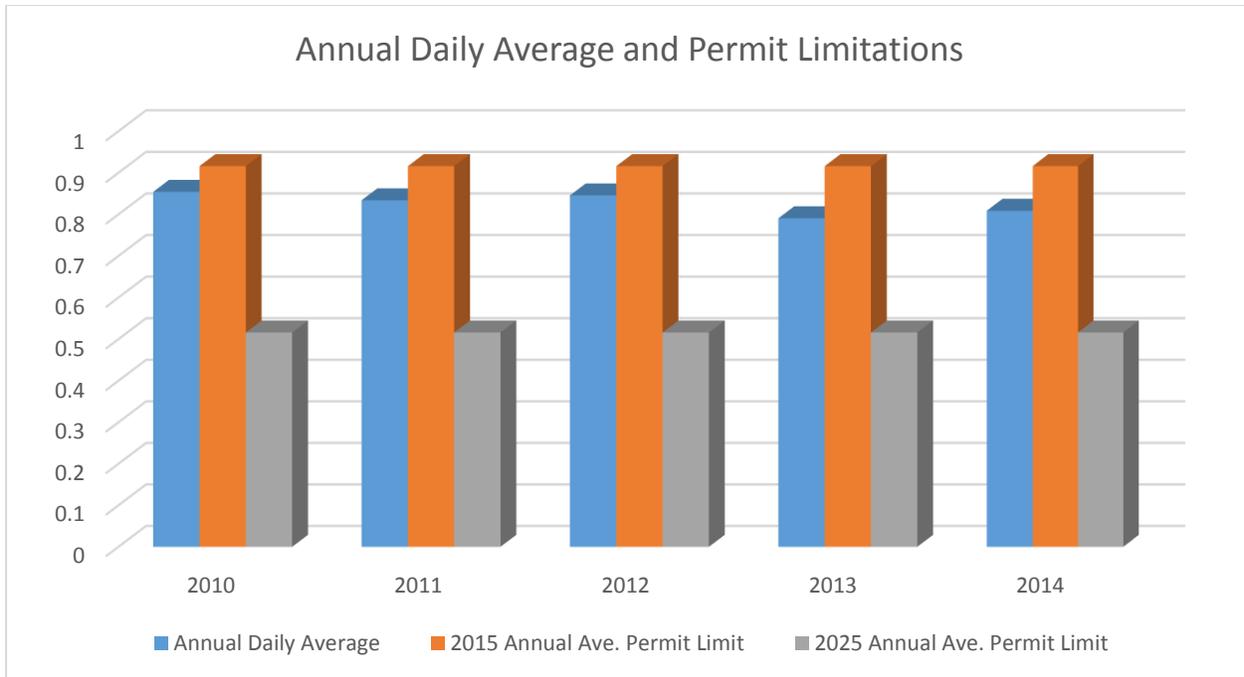


Figure 5. Annual Daily Average Water Usage and Permit Limits

While Figure 5 shows that the City has not exceeded its annual average permit limitation during the time period of 2010 – 2014, it shows that the City’s current water usage exceeds the proposed annual average permit limit for 2025.

Using the per capita water usage number calculated above (117 GPD), the maximum population that could be supported under Tybee Island’s current and future water withdrawal permit is calculated in Table 12.

Table 12: Projected Maximum Population Supported under Water Withdrawal Permit Limits

	Water Withdrawal MGD	Population Supported
Monthly Average (Peak)	1.6	13,675
Existing Annual Average	0.916	7,829
2025 Annual Average	0.516	4,410

When comparing the numbers in Table 12 above with the overnight population estimates below, it becomes clear that Tybee is currently close to or at the water withdrawal capacity needed to serve the existing average annual population. Furthermore, the City’s annual average overnight population will well exceed the 2025 water withdrawal limit, even without consideration for any population or tourism industry growth.



In addition, the maximum overnight population number also exceeds the population that could be supported under the current permit limitations in 2016 and 2025. This is consistent with the water usage data illustrated in Figure 5 above.

It is also important to consider that there will be additional withdrawal capacity needed to serve the additional commercial and irrigation needs in the summer, and that is not necessarily accounted for in the estimates in Table 13.

Table 13: Population that Can Be Supported within Water Withdrawal Permit Limits

Metric	Population Based on Occupancy	Population Supported by Water Permit	Population Supported by Water Permit
		2016	2025
Annual Average Overnight Population	7,223	7,829	4,410
Peak Overnight Population (July)	10,168	13,675	13,675
Maximum Potential Overnight Population	14,258	13,675	13,675

iii. Water Distribution Infrastructure System

The City’s water distribution system is relatively new, and the City’s engineer estimates that 80% of the system is less than 20 years old. There is still about 100 ft. of asbestos pipe that needs to be replaced, but the majority of the capital improvements needed to address deficiencies in the distribution system have been completed.

The well pump houses associated with Tybee Island’s three wells are located on Van Horne Ave, Butler Ave, and 14th Street. The Tybee Island Sea Level Rise Study has found that these well houses, due to their low elevation at 11.3’, 8.0’, and 9.3’ respectively, are vulnerable to flooding, storm surge, and sea level rise. After performing a cost benefit analysis based on the potential capital damage and economic loss associated with flooding, the report recommends elevating the Butler Ave and 14th Street well houses above the 100-year floodplain, (the area subjected to a 1% chance of flooding in any given year). Discussions with the City’s engineer recommended elevating the wells to 21.5 feet above MHT (mean high tide) which would be above the projected storm surge for a Category 4 Hurricane. All three wells would need to be elevated to exceed this benchmark and the project cost would be approximately \$600,000.

iv. Alternative Water Supply

Due to the future limitations on the City’s current water supply source, the Upper Floridan Aquifer, the City is working in partnership with the State of Georgia to install and test a Cretaceous well, in the hope that this will provide an alternative source for potable water, as it



has on Hilton Head Island. Hilton Head Island had to decommission several Upper Floridan Wells due to high chlorides resulting from the same salt water intrusion event that is the cause of Tybee Island's current permit limitations for water withdrawal from this aquifer. This \$5 million project was made possible by a grant from the Georgia Environmental Finance Authority.

At the time of this report, the well is being drilled and the test is ongoing; however, it is expected that Tybee's Cretaceous well is likely to produce sufficient water for the projected additional need of approximately 0.8 MGD. In fact, the well will be sized to produce up to 1.5 to 2.0 MGD. Due to its depth, the water it will produce is expected to be hot and relatively high in chlorides, requiring treatment through a chiller and a reverse osmosis (RO) system, as well as mixing with Upper Floridan water. The anticipated capital costs for the treatment system for a 1.0 MGD well is \$5 million with another \$1.5 million needed to address discharge of the briny wastewater produced through the RO process.

In addition to the capital costs of building the RO treatment plan, operational costs to produce water on an ongoing basis are expected to increase from approximately \$0.25 - \$0.30/1,000 gallons of water withdrawal from the Upper Floridan to as much as \$1.50/1,000 gallons for RO of water from the Cretaceous Aquifer. Hilton Head's current treatment costs to operate their RO plant are reported to be approximately only \$0.60/1,000 gallons; however, that would still be a 100% increase in the cost to produce 1,000 gallons of water.

There is also the challenge of disposing of the brine produced as a waste product of the RO treatment process. Disposal may be achieved through pipes that run under the bed of the Savannah Harbor, or through diffusers that are directed out into the open ocean. Both of these options have significant challenges related to environmental permitting, impacts to aquatic life, and construction. The City may also consider mixing the brine with the discharge from the WWTP, to reduce the potential environmental impacts of discharging briny water into the local estuarine environment. However, this would necessitate an additional or upsized discharge pipe as the current WWTP discharge pipe is not sized to handle the combined capacity. Construction on the currently WWTP discharge pipe would also have environmental permitting challenges; nevertheless, discussion with the City's engineer indicated that this may be the least impactful way of discharging the briny waste from a future RO water treatment plant.

The alternative of buying and pumping water from the City of Savannah is not really a viable option. Aside from the \$10 - \$12 million cost of the infrastructure to deliver Savannah water to Tybee Island, it would also require additional treatment due to holding time in the long conveyance system, further increasing the cost. In addition, environmental permitting of the infrastructure would be difficult as the pipes would travel through some major wetland areas.

If the City elects to use the Cretaceous well for water supply and invests in construction of the RO treatment plant, this new well will have a major impact on water rates. Further compounding this effect, is Tybee Island's limited ability to collect aide-to-construction, impact or tap fees from new construction to pay for the capital costs of building the RO treatment system. The capital and operational costs must instead be included in the water use rates. The City completed a rate study several years ago and the recommendations have since been implemented; however, the potential costs associated with the Cretaceous Well were not considered.



G. WASTEWATER DISCHARGE

Tybee Island operates a water pollution control plant (WPCP), and the permitted discharge limitations are described in Table 14.

Table 14: Tybee Island NPDES Wastewater Discharge Permit Limits

Flow - MGD	Monthly Average	Weekly Average
May – September	1.15	1.44
October – April	0.89	1.11

A review of Tybee Island’s monthly Discharge Monitoring Reports (DMR) from October 2012 through August of 2015, submitted to EPD per the City’s NPDES Wastewater Discharge Permit, indicates that the wastewater discharge has exceeded or come close to exceeding permitted limitations during the summer seasons of 2013, 2014, and 2015 (Figure 6). This has occurred despite the higher discharge limitations afforded to the City of Tybee Island during the summer months to allow for peak demands associated with the tourism season.

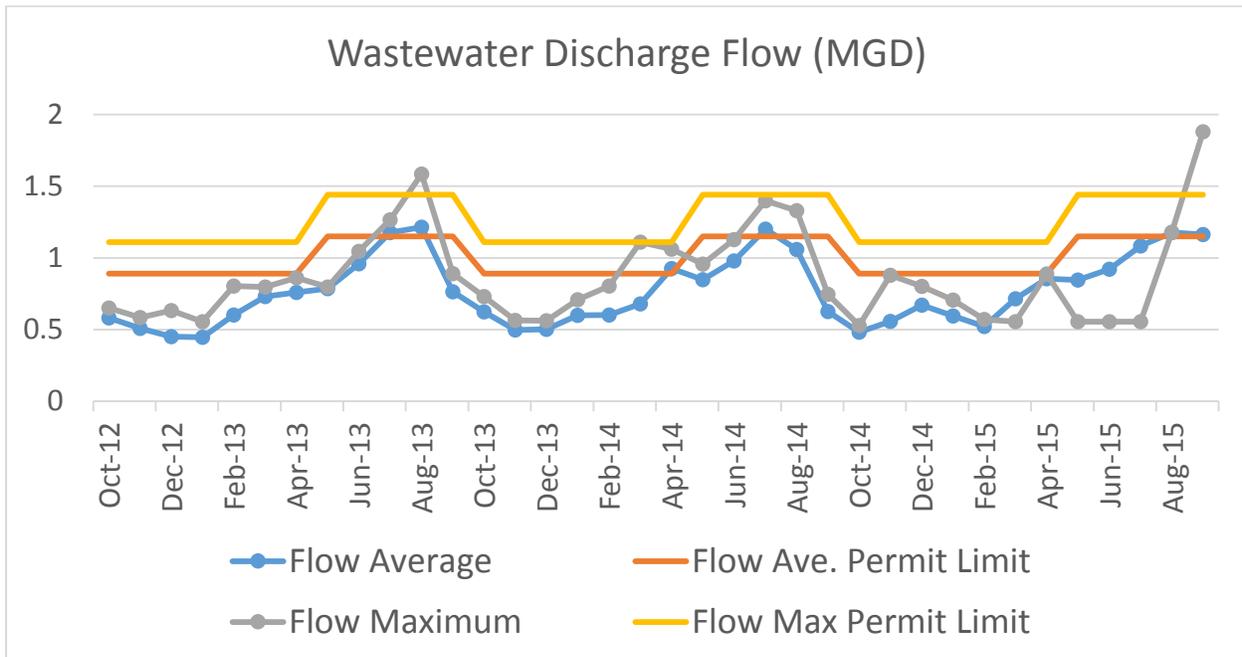


Figure 6: Wastewater Discharge Flow and Permit Limits

Tybee Island’s WPCP has also experienced a few daily water quality violations for ammonia and total suspended solids (TSS), and there were historic permit violations for Ammonia, as shown in



Figure 7. To address this issue, the City has recently installed a new digester which will ameliorate the WPCP's ability to process TSS and ammonia.

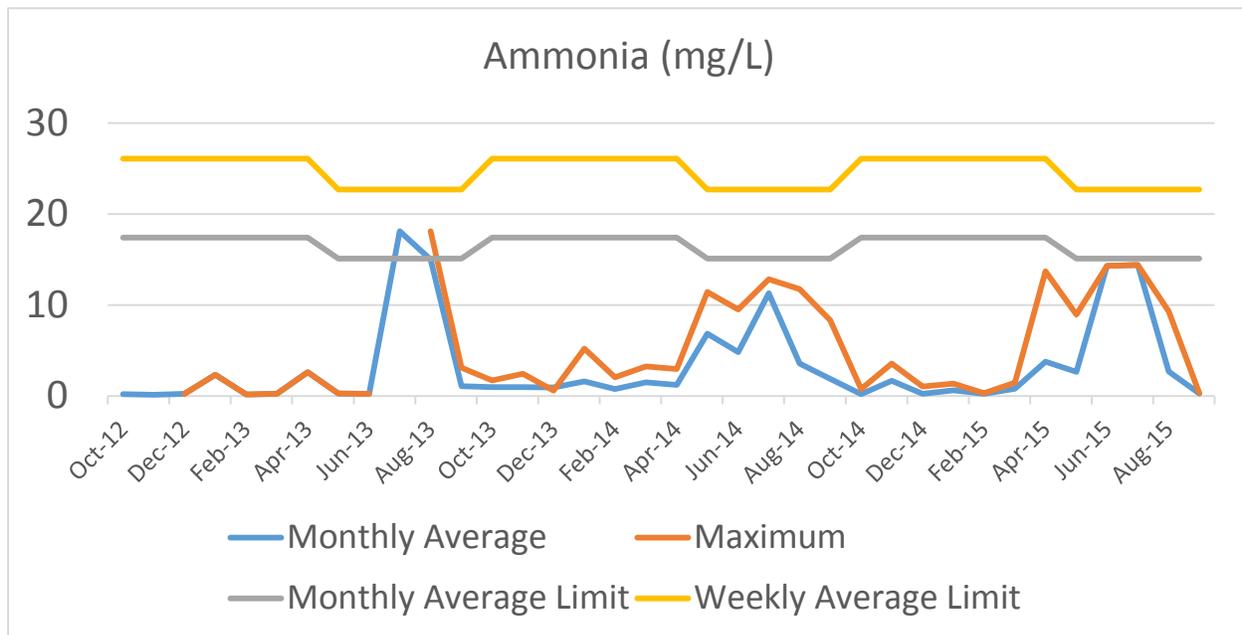


Figure 7: WPCP Ammonia Discharge and Permit Limits

Review of the discharge data and discussions with the City's Engineer indicate that the WPCP is essentially at capacity for treatment. The WPCP in its current configuration can process 1.6 MGD of wastewater flow for treatment; however, the WPCP discharge pipe is sized to handle 3.0 MGD.

Due to space limitations at the site, there is not room for expansion of the existing WPCP. Therefore, if the City elects to upgrade the plant, the type of treatment process will have to be upgraded from aerobic digesters to a membrane system in order to occupy the same footprint. A permit increase for wastewater discharge flow will also result in the need to upgrade the WPCP treatment system. As discharge flow allowances are increased, the limits for the individual water quality parameters will be reduced, necessitating a higher level of treatment. A membrane system would also allow the City to treat wastewater discharge to a higher degree, but the cost to upgrade the WPCP would be substantial. Combined with the looming costs associated with the RO treatment system for the Cretaceous well, the implications for the water and sewer rate payers on Tybee Island is significant. While the City can treat its wastewater discharge to reuse standards, distribution of reuse water (as opposed to direct discharge) is not a viable option due to the limited places that could receive the irrigation water, the tight location of existing utilities, and the need for an entirely new distribution system that would be likely be cost prohibitive.

The City's Engineer reports that the wastewater collection system is in good condition, and that 50% collection system is less than 20 years old or has been relined in the last 20 years. The City completed an Inflow and Infiltration (I&I) Study a few years ago, and 90% of the recommended projects have been completed. The I&I projects left to be completed are limited, and it is the



belief of the City Engineer that I&I is no longer a significant problem on the island. The City is in the process of upgrading the pump stations and the associated force mains, which should further reduce any remaining I&I. The City is performing these upgrades at a rate of one per year; two have been completed and there are seven pump stations remaining. The cost of the pump station upgrades are running between \$25,000 and \$100,000 each.

H. TRANSPORTATION & PARKING

i. U.S. Highway 80 (US 80) Capacity and Road Network Capacity

The City of Tybee is connected to the mainland by US 80. Between Talahi Island and Tybee Island, US 80 is an approximately 5.5 mile, two-way, two-lane rural highway with intermittent passing lanes. Two bridges exist along this stretch of US 80, 1) the Bull River Bridge and 2) Lazaretto Creek Bridge. This roadway is the only connection from Tybee Island to the mainland and is the sole evacuation route for Tybee Island residents and visitors. It has also been designated as a future bikeway in the Coastal Region Metropolitan Planning Organization (CORE MPO)'s Long Range Plan.

Currently, US 80 does not have any dedicated bicycle or pedestrian facilities and the Bull River and Lazaretto Creek Bridges only support one lane of traffic in each direction with limited to no shoulders to allow for traffic to pass an accident or for pedestrian/bicycle access. The McQueen's Island Historic Trail, a six-mile, former railroad right-of-way turned multi-use trail, runs along the north side of US 80 between Bull River and the Fort Pulaski National Monument. Currently, this trail can only be accessed by driving to the trail and parking at either the Fort Pulaski National Monument or at a small parking area east of Bull River Bridge that is dedicated parking for trail access. Currently, this trail does not extend to or connect to either of the bridges along US 80. The trail is well utilized by the local community as well as tourists, but its use and ability to serve as a safe alternative transportation route to and from Tybee Island, is limited because of its lack of connectivity.

Travel between Tybee Island and the mainland and Talahi Island is also currently hampered by limited passing lanes along this stretch of US 80 and these limitations become more challenging when traffic incidents occur and during peak tourism season, weekends, special events and festivals. The existing roadway also experiences flooding during King Tide events and coastal storms, and, as a result, is periodically closed. The Georgia Department of Transportation (GDOT) has also determined that Lazaretto Creek Bridge is structurally deficient and eligible for replacement.

Various improvements to this corridor have been suggested and studied over the past 20 years because of these community concerns about the reliability and safety of access to and from Tybee Island. These various improvements and studies have at times been the subject of political and public debate because of conflicting needs and concerns regarding public safety and road congestion, environmental impacts, and construction costs, as well as concerns regarding potential impacts to the "character" of Tybee Island that could indirectly result from expansion of Highway 80. After completing various studies and gathering public input, GDOT and CORE MPO concluded that widening US 80 into a four-lane highway was infeasible because their



transportation models indicated this highway functions at a high level of service most of the time and that construction and environmental impacts would be too costly. Planning efforts subsequently focused on roadway and bridge improvements that could be made to the existing two-lane highway.

In May 2011, the CORE MPO helped coordinate a study of US 80 and Tybee Island to document the mobility challenges associated with tourism and special events on Tybee Island and develop short-term strategies to address public safety concerns along US 80. The results of the Study were presented in a Technical Report titled Tybee Island Wave Ecology and The Highway 80 Challenge, dated May 2011.

Four short-term strategies were selected for implementation to address transportation deficiencies along US 80, including:

- 1) Installing road public safety signage
- 2) Establishing a bus or shuttle service during special events and during peak tourism events as well as an ongoing bus/shuttle service
- 3) Utilizing signal timing and Intelligent Transportation Systems (ITS)
- 4) Using social media for dissemination of information to the general public.

Concurrently, the CORE MPO also commissioned an additional study that began in 2010 to examine current and future transportation deficiencies along the segment of US 80 that connects Tybee Island to the mainland, including Bull River and Lazaretto Creek bridges, and recommended alternatives to address those deficiencies. The Study, titled “US 80 Bridges Replacement Study (P.I. No. 0009379),” was concluded and released in 2012. A copy of this Study may be accessed through the CORE MPO’s website at:

<http://www.thempc.org/docs/lit/corempo/studies/us80/finalreport.pdf>

The CORE MPO’s Study of deficiencies along this US 80 corridor included an evaluation of current and future deficiencies related to travel demand and operational conditions (i.e., road capacity), system linkages, safety, and roadway design. The following is a summary of findings from this study:

- Roadway capacity was found to be generally sufficient, according to a comparison of the capacity calculations with the estimated demand from the travel demand model and with the observed demand from special traffic counts during a summer holiday period. Capacity is sometimes exceeded when holidays overlap weekends.
- System linkages are poor for bicyclists and pedestrians, due to current characteristics of the road and bridges and lack of connections to the existing McQueen’s Island Trail. Narrow shoulders, or shoulders filled with rumble strips, as well as high motor vehicle speeds are the problematic characteristics for bicyclists and pedestrians.
- Regarding safety in general, the concerns include crash rates, bridge sufficiency ratings, and roadway flooding. The crash rate, from 2006 through 2008, was higher in the corridor



than the statewide average for rural principal arterials in that period, 45% higher on average, although there was much variation among years.

- The Lazaretto Creek Bridge had a sufficiency rating of 41.45 at the time of this evaluation; a rating below 50 means it is a candidate for some type of improvement in the bridge prioritization process by the Georgia Department of Transportation.
- Flooding, due to peak high tides, affects both directions of travel on US 80 for one to three hours and for an average of three days per year. The eastbound lane is affected for an additional two times per year.
- The usable shoulders on the bridges and the causeway are narrower than recommended for a high-speed road that serves as a bikeway, and also do not allow space for disabled vehicles to be adequately cleared from traffic flow. Expectations of drivers wishing to go through the corridor with no delay are in conflict with the needs of some drivers to access local sites [Ft. Pulaski and McQueen's Trail], as the latter must slow or stop in the travel lane, sometimes even in a passing lane.

The CORE MPO's Study developed suggested options to address the identified deficiencies and then combined these into six Alternatives that were then scored and evaluated for feasibility. The construction of additional thoroughfares (i.e., road widening by constructing additional lanes along this stretch of US 80) were not included in these Alternatives. "Alternative 3" scored the highest in the Study evaluation and was recommended as the option to move forward in the next stages of project development overseen by GDOT. Recommendations for improvements to the existing two-lane highway for this Alternative included the following:

- Replacement of the Lazaretto Creek and Bull River Bridges with new bridges that included two traffic lanes, ten-foot bikable shoulders and a ten-foot barrier separated multi-use path. The new bridges would be located adjacent to the existing bridges on the north side of US 80 and the existing bridges would be removed.
- Roadway improvements in the form of ten-foot paved bikable shoulders along each lane of US 80;
- Re-striping the roadway near Fort Pulaski to allow for a left hand and right hand turn lane;
- Extension of the existing McQueen's Island Trail to the new Lazaretto Creek Bridge; and
- Construction of an 18-space parking area at the entrance to McQueen's Island Trail with a left hand turn lane. A side-path would connect the existing trail to the path on the new Bull River Bridge.

GDOT is using the results and recommendations from the CORE MPO's 2012 US 80 Bridges Replacement Study as a baseline for their ongoing, multi-phase planning efforts for this corridor. Possible roadway elevations in some sections will also be evaluated for sections of US 80 where



flooding has been an issue. GDOT has also proposed that, if constructed, the ten-foot paved bikable shoulders along each lane of Highway 80 could be used as additional lanes for automobile traffic in the event of an emergency to ease traffic congestion.

GDOT is now funding the implementation project (US 80 Bridges and Road Improvements, P.I. No. 0010560). GDOT's Scoping and Preliminary Engineering Phase is expected to start by July 2017. GDOT's scoping phase will look at need, feasibility, and issues that may arise if the recommended improvements are implemented. Scoping will take three years due to the various required phases such as surveying, environmental analysis, and public involvement. Environmental studies required by the National Environmental Policy Act (NEPA) will be conducted, including environmental approval of a preferred Alternative. Future phases will include right-of-way (ROW) assessments and acquisitions and a Final Design study. According to GDOT, the National Park Service (NPS) owns 90% of the land within the project limits and GDOT maintains an easement for the current US 80 ROW. The schedule for these future projects has not been released to the general public at this time.

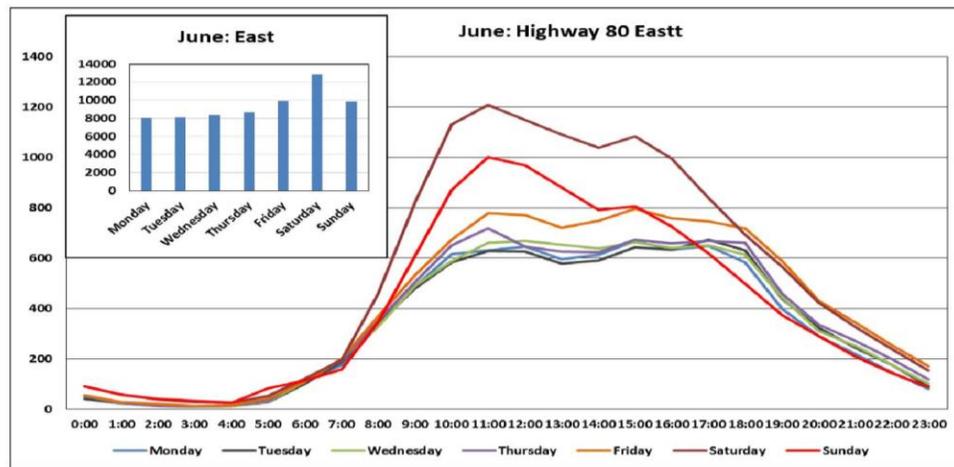
As noted above, GDOT has proposed that side path connections from both bridges be constructed to connect to the McQueen's Island Historic Trail, and these side path connections will be designed and funded by GDOT in conjunction with the other US 80 improvements. However, while GDOT does support the eastern extension of the McQueen's Island Historic Trail towards Lazaretto Creek Bridge, they are not currently assuming financial or planning and design responsibility for this trail extension.

ii. Parking

The average number of day trips on to the island, as reported in Section 1.3, was 6,726, and the maximum number recorded during the July 4th weekend in 2015 was 14,233. The Tybee Island Tourism Report found that Tybee Island has 1,044,000 visitors annually. Understandably, a percentage of these trips represent the automobiles of island residents or overnight visitors commuting onto the island, and their vehicles would be parked at their home or rental unit. However, if every resident and one person from every occupied short-term rental unit made one vehicle trip a day on and off of Tybee Island, that would only reduce the daily average to 2,762 trips and daily maximum to 9,505 trips. Each trip likely results in a need to park for some length of time. While trip counts are recorded over the course of a 24-hour period, this still represents a significant parking need, especially at peak hours during festival events and during "beach hours" in the summer months. The Tybee Island Tourism Study looked at peak travel issues and provided the following graph, in Figure 8, to illustrate typical travel patterns onto Tybee Island during the month of June. This graph clearly demonstrates that majority of vehicles traveling onto Tybee Island during the peak summer season do so between the hours of 10:00 AM and 4:00 PM, creating a significant parking demand during those hours.



VOLUME OF VEHICLE FLOW: PEAK SEASON



CENTER FOR REGIONAL ANALYSIS

ARMSTRONG STATE UNIVERSITY

Figure 8: Volume of Vehicle Flow During the Peak Season

Inevitably the demand for and lack of available parking during peak hours can have an impact on the island and its residents. Vehicles idling and circling the island looking for available parking can cause traffic congestion; present a safety hazard for pedestrians, bicyclists and other vehicles accessing the beach; and cause air quality issues. During these high demand periods, some residential property owners have also experienced illegal parking on their private property, limiting their access and potentially damaging their property.

i. Parking Space Inventory & Availability

The City of Tybee Island completed a Traffic and Parking Study in 2005 to evaluate existing traffic and parking conditions in the City of Tybee Island and to make recommendations to address identified issues. As part of the parking inventory, observations were made regarding utilization of the available spaces. The following observations were made during the peak mid-day period on Saturday, July 17, 2004.

- North Beach Parking Lot was full by 2:00 PM.
- South Beach Parking Lots were full by 1:00 PM.
- Mid-Island Beach Access On-Street Parking (metered spaces located at the beach access points and along US 80) were predominantly utilized, but no single location was 100 %, except for Tybrisa Street.

As part of this study, a Parking Facility Inventory was completed and included public pay lots, private lots and on-street parking along the US 80/Butler Avenue corridor. At the time this study was conducted, the consultant identified 1,654 public parking spaces. The Study went on to make



the following observations and recommendations regarding the actual and perceived lack of parking on Tybee Island.

1. Beach Access Signage

The utilization of on-street parking along US 80, especially in the Mid-Island area, is relatively low; however, visitors believe that there is no available parking. Signage should be added indicating the location of public beach access to encourage utilization of this available parking, and spread out the demand focused on the pay lots serving the North Beach and South Beach areas.

2. Satellite Parking and Shuttle System

The City needs to increase its overall inventory of available parking spaces; however, there is limited available land to do so in the South and North Beach areas near beach access. Identify satellite/remote parking areas and use shuttle service to deliver people to South Beach and North Beach.

3. Parking Lot Improvements

The circulation patterns, at that time, in the North Beach and South End Public Parking Lots was poor and in the North Beach area, parking spots were not completely defined.

This study stated that “[future] visitor demand will be limited to the availability of parking spaces on the island,” as opposed to access to the island provided by the Level of Service on US 80.

Since this time, the City has made some improvements to public parking lots and has converted much of the public parking meters to Pay and Display (P&D) Parking Kiosks. This has allowed for expansion of the parking inventory and better tracking of utilization. The City’s current inventory of public, delineated spaces is 2,091. There are also a total of 234 approved private parking spaces, for a total of 2,325 total delineated parking spaces. The private parking space inventory can vary from year to year as private parking lots require annual permit approval by the Tybee Island City Council. The 2016 private parking lots are described in Table 15.

Table 15: 2016 Private Parking Inventory

Name	Location	Number of Spots
Sunrise Parking	1511 Butler Ave	39
Ocean Plaza Beach Resort	1401 Strand	128
Renee G Bridges	1001 Butler Ave	30
Bramble Family	215 Lovell	13
Joyce Prescott	214 2 nd Ave	12
Jack Rosenberg	203 14 th Street	12

Interviews with Tybee Island’s Parking Services staff indicate that there are still some non-delineated public parking locations within the City ROW. If the ROW area is not near a P&D kiosk,



then Parking Services does not typically consider these areas to be delineated spaces and will not ticket the vehicle for not paying. The City has determined that it is not financially beneficial to purchase and maintain P&D kiosks in remote areas where parking only occurs on busy summer weekends. In addition, many local visitors to Tybee Island may know someone who owns a residential property on the island where friends and relatives are permitted to park when they visit the island. Estimating the number of additional private parking spots this creates is not possible; however, it is important to recognize that these areas do represent additional parking opportunities for visitors to Tybee Island.

j. Parking Issues Identification

In order to identify current issues related to parking availability on Tybee Island, EPG reviewed the findings of the 2005 Traffic and Parking Study, conducted interviews with City staff, and received comments from stakeholders. The following issues were identified.

1) Perception of Parking Availability

In order to address the issues with perceived availability of parking, first identified in the 2005 Traffic and Parking Study, the City created a Parking Application for smart phones. This app is designed to let visitors know where parking is available on the island and the percent utilization. Parking Services staff update this app on an hourly basis during the summer to show how full (percentage-wise) the three main parking areas are. Parking Services divides the Island into three parking areas: 1) South End (south of 14th), 2) Middle Island (14th north to 2nd), and 3) North Beach (the Lighthouse area). The app does not currently store previously entered information regarding the percent utilization of the parking areas; however, Parking Service staff who enter the data into the app reported that every weekend in the summer and on big holidays and festival days, North Beach and South End parking areas are 99% full. Mid-Island is typically 85%, mirroring the findings in the 2005 Traffic and Parking Study.

2) South End Parking Demand

Parking Services staff stated that the South End is the most overtaxed parking area. During summer weekends, visitors potentially spend significant time circling the area looking for parking, as opposed to looking for parking in other areas such as Mid-Island. The City has implemented, and then discontinued, a couple of initiatives to address this issue to little effect. The City erected gates on Butler Ave. past Tybrisa Ave. to block traffic from entering the South End when parking was at capacity; however, cars then proceeded to line up on Butler Ave, outside the gate, causing a traffic issue. Public Works has also used signage in the South End to direct people to other parking areas with limited success. Parking Services staff explained that, in their experience, people would prefer to wait to park close to the beach area they wished to visit, i.e. the Pier and Pavilion area, as opposed to parking in a more distant location and carrying all of their belongings to the beach.



3) Commercial Parking Requirements

The City Planning and Zoning staff have received comments from potential commercial developers that parking requirements are hampering future commercial development along US 80. The Zoning ordinance requires that any new commercial development or use provide parking on-site if it is not within 1,000 feet of a public parking lot. Therefore, vacant buildings and properties on US 80 that are developed as commercial businesses have to provide on-site parking. Because space available for commercial development along this corridor is already limited, the requirements for on-site parking can be cost-prohibitive and impede commercial development of this corridor. The City has had preliminary discussions regarding using some portion of the City's unopened ROWs along this corridor to provide public parking. The potential benefits to pursuing this concept would be: 1) to provide public parking so that future business on US 80 don't have to use their valuable lot space to do so and 2) to provide additional parking for visitors to Tybee Island.

4) Satellite Parking Lots

There have been previous attempts at staging satellite parking areas and operating a shuttle service to move people from their vehicles to their desired beach access point, but the City staff did not perceive it as a successful initiative. As stated above, there was consensus that most visitors to the beach want to be within walking distance to their car since they are likely carrying a lot of personal items. Furthermore, there was concern about how the City would charge for this service. Specifically, if the City charged for the remote parking itself, the City staff felt that any parking shuttle service must be free of charge lest it become cost prohibitive for people to use. However, under this model, the cost burden of the shuttle service would fall on the City, and would likely need to be subsidized.

5) Parking Garage

Due to their perceived cost/benefit ratio, the City has never seriously considered the construction of a public parking garage, despite the fact that it has been mentioned in several planning documents including the 2005 Traffic Study and the City's 2008 Masterplan. Parking Services staff stated that while there is a great deal of pressure for parking during summer weekends and special events, there is sufficient available parking during the rest of the year. Their perspective is that a public garage would only be full for approximately 16 – 24 weekends per year, and it would not result in a viable financial model for such a project. However, Parking Services staff did identify the Hotel Tybee property as a location with the potential to support a parking garage, due to its proximity to the beach. The City could potentially consider a public/private partnership to build a parking garage at this location which could make the project more feasible.



Public input provided by a member of the TAG expressed support for the idea of a parking garage in the C1 district on the South End of the island and called attention to the cost to the City in terms of lost revenue from visitors and quality of life for island residents to NOT address the parking issue. A parking garage could be sited to “funnel” visitors to the downtown commercial district with places to shop, dine, and lay in the sun. Having ample parking in C1 could accomplish the following:

- Direct traffic to a parking facility conveniently located near the most popular beach for day visitors - with the pier, public restrooms, and tourism-based businesses. This could provide additional support to these business by pedestrian use in this commercial zone once visitors find a parking spot.
- Reduce traffic congestion and idling cars circling for parking in the South End where it is most difficult to find parking during peak weekends.
- Reduce illegal parking in residents’ front and side yards.
- Stop traffic from overflowing into neighboring residential areas west of Butler Ave., thereby protecting the quality of life and pedestrian environment in these residential neighborhoods

A parking garage could be designed to serve dual purposes. In addition to parking, it could offer public green space or recreational area on top, such as a pool, waterslide, or putt-putt. Public restrooms and/or a public safety office could also be located in the structure. This would increase the benefit and utilization of the structure in the off season, and potentially address stormwater issues created by the construction of the garage.

6) Special Events Parking

City staff do not feel that lack of parking prevents people from holding or attending special events on Tybee Island. The City requires special event planners to identify parking areas and use remote parking when necessary. The event planner is then responsible for providing signage and volunteers to direct vendors/visitors to the satellite parking and providing shuttle service when necessary. For example, if an event is planned on the south end of Tybee Island, event planners often identify satellite parking at the North Beach parking lot. City staff did note that there have been instances where illegal parking on residential ROWs became a problem during certain events, and they are more likely to experience these types of issues when the event takes place in a parking lot and parking spaces are lost.

7) Lack of Alternative Modes of Transportation

It is generally accepted that if there were more viable alternative transportation opportunities, there would be less of a need for visitors to drive and park their vehicles



on Tybee Island, thereby lessening parking concerns and reducing traffic congestion. However, there are very limited options for getting to or around the island for people without a personal vehicle. Staff indicated that the City is reluctant to develop a formal program for shuttling visitors on and off island due to the liability and cost implications. The Coastal Regional Commission operates the Savannah – Tybee Island Shuttle, which runs Friday – Sunday, four times per day. However, the ridership is low, and the stakeholders felt that there is not enough promotion of this service locally.

K. STORMWATER QUALITY AND QUANTITY

The City of Tybee Island operates a public drainage system that serves to convey stormwater runoff to local rivers, tidal creeks, marshes, and the ocean. The system components have been inventoried and are summarized in the table below.

Table 16: Stormwater System Inventory

Structure	Number or Length
Inlets & Catch Basins	363
Outfalls	38
Ditches	10,000 feet
Storm Sewer Lines	41,700 feet

The City is required to implement a stormwater management program in compliance with the NPDES Phase I Medium MS4 Permit, as required by provisions of the Georgia Water Quality Control Act and the Federal Clean Water Act. This permit requires the development of a Stormwater Management Plan (SWMP), to address the following program elements, as stipulated in CFR 122.26(d)(2)(iv)(A) through 122.26(d)(2)(iv)(D):

- Structural and Source Control Measures
- Illicit Discharge Detection and Elimination
- Industrial Facility Stormwater Runoff Control
- Construction Site Runoff Management

The Georgia Environmental Protection Division (EPD) has previously required the City of Tybee Island to expand its SWMP to include Best Management Practices (BMPs) to address the following required modifications:

- Impaired Waterways, i.e. 303(d) listed stream segments



- Highly Visible Pollutant Sources
- Public Education/Public Involvement
- Pollution Prevention/Good Housekeeping
- Development of an Enforcement Response Plan
- Development of a Green Infrastructure Plan
- Post Construction Stormwater Control

Compliance with this permit and implementation of the City’s SWMP is intended to protect and improve water quality in local rivers, marshes and creeks by reducing the amount of non-point source pollution that is conveyed through the City’s drainage system. Through this program, the City has educated the public and businesses about best practices to reduce stormwater pollution, and has developed a more proactive approach to drainage system maintenance. The City also performs illicit discharge and water quality monitoring that will provide useful data, over time, to evaluate the success of this program.

i. Tybee Island Sea Level Rise Adaptation Plan

As a barrier island, Tybee Island has unique stormwater and flooding issues which are complicated by tidal influences and sea level rise. The “Tybee Island Sea Level Rise Adaptation Plan” explores several steps that the City of Tybee Island can take to become more resilient over time to sea level rise and the resulting flooding issues. Overall, the report serves as an initial effort to characterize vulnerabilities, explore potential adaptation actions, and recommend implementation of those identified actions that show clear benefit. The City of Tybee Island partnered with researchers and outreach professionals from Georgia Sea Grant, the University of Georgia, and Stetson University on this project.



Figure 9: Flooding on U.S. Highway 80 during a King Tide Event in October 2015 (Credit: Tybee Island Police Department)



Sea-level rise has been documented from a long-term, NOAA, tide gauge at Fort Pulaski, located within several miles of the City of Tybee Island. Since installation in 1935, sea-level has risen 10 inches. Records from this station have also shown the frequency of “nuisance” flooding steadily increasing in the past several decades, including a record of 23 separate “nuisance” floods in 2015, the most of any year since the tide gauge was installed. NOAA defines a “nuisance” flood when the water level exceeds 5.2 ft. above NAVD88 (~9.2 ft. above MLLW), and at this depth, minor saltwater flooding occurs on roads and yards in Tybee Island. Figure 9 shows an example of US 80 being flooded during a king tide event in October 2015. When this roadway is flooded, it has significant impact on public safety and the local economy, as it is the sole access road for the Island. Adaptive planning efforts for the City of Tybee Island were focused on a 50-year time frame. When meeting participants worked with the project team to decide on the rate of sea-level rise to be used in the planning efforts, they decided on three scenarios of sea-level rise: (1) Low, (2) Intermediate, and (3) High. The Low scenario was based on a linear extrapolation of the Fort Pulaski record, and the Intermediate and High scenarios were based on the widely cited sea-level rise curves that were developed by climate scientists Martin Vermeer and Stefan Ramhstorf.¹ Using 2010 as the base year, the predicted sea-level rise by 2060 is 6 in., 14 in., and 31 in. for the Low, Intermediate, and High scenarios, respectively. Figure 10 presents NOAA’s predictions for global sea level rise.

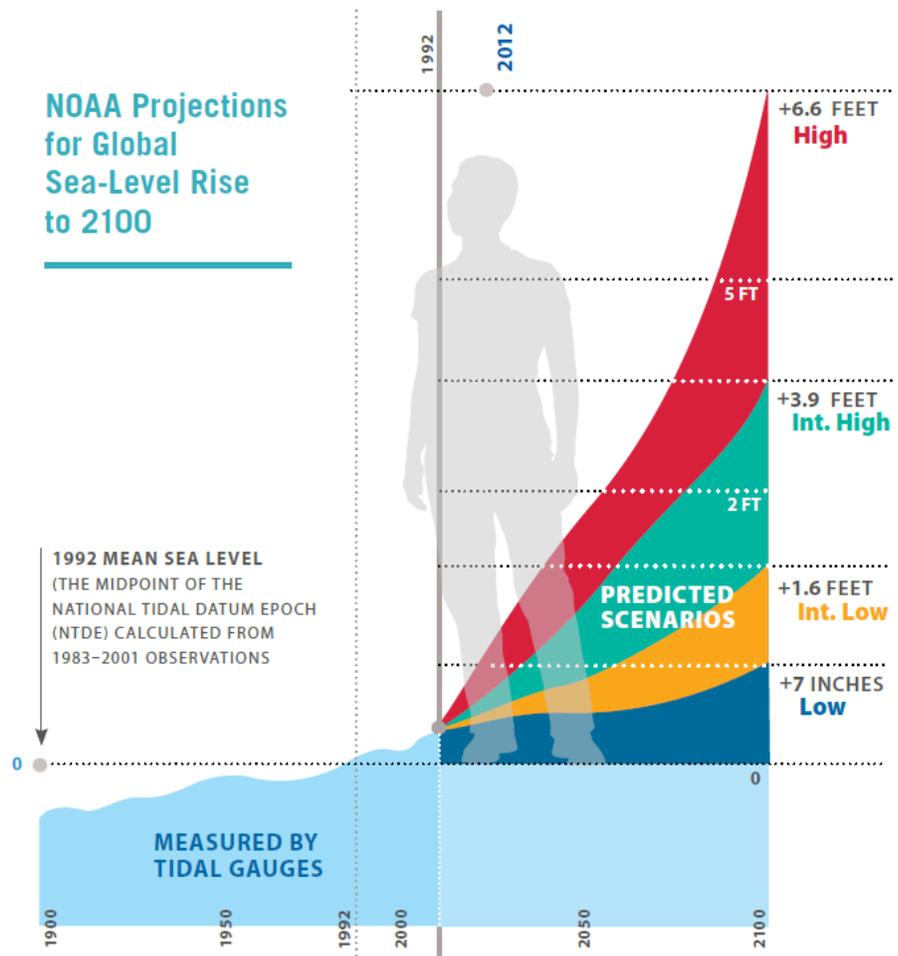


Figure 10: NOAA Predictions for Global Sea Level Rise (Courtesy of Evans et al., 2016)

Table 17 illustrates the expected increase in flooding events over the 50-year planning horizon for US 80 under the three sea level rise scenarios.

Table 17. Analysis of Flooding Frequency and Duration



Metric	2009-2012 Average	Sea-Level Rise Scenario (2060)		
		Low	Intermediate	High
Annual Frequency of Flood Events	8	30	125	540
Annual Duration of Flooding (hours)	5.5	37	200	1,250

Note: Flood conditions are categorized as nuisance flooding (5.2 ft. above NAVD88).

Tidal flooding during king tide conditions is regularly observed in several areas on Tybee Island, including many in the southwestern quadrant of island. Many of these flooding events are caused by a back-up of stormwater systems when higher tides push flow back into swales, ditches, and underground pipe conveyances. This problem is exacerbated when high tide events occur simultaneous with significant rain events. An example is presented in Figure 11.



Figure 11: Saltwater Flooding of Yards and Streets during a King Tide on November 14, 2012 (Courtesy of Evans et al., 2016)

Based on topography from the 1-foot LIDAR as well as the assessed value of property, the authors identified those areas on Tybee Island most at risk for flooding and economic damage due to King Tide event in a 1-foot sea level rise scenario. The map in Figure 12, illustrates potential economic losses due to high tide flooding on a block by block basis.



Annual flood risk damages by City block were modeled under a scenario assuming 1 foot of sea level rise. Expected flood frequencies, flood heights, and expected damages were determined using several sets of data: 1) tide gage data from Ft. Pulaski over the period of 2009-2011; 2) high resolution coastal LiDAR elevation data; and 3) dollar values determined from property tax assessments and economic activity generated from hotel night stays.



Figure 0-4. Tybee Sea Level Rise Adaptation Plan Flood Damage

Figure 12: Annual Expected Damage from High Tide Flooding (Courtesy of Tybee Island Sea Level Rise Executive Summary)



Through a series of public meetings, researchers solicited input from public officials and local citizens about unique flooding issues they face. The authors worked with the public to identify local assets at-risk from sea-level rise, review sea-level rise adaptation strategies, and choose the rates of sea-level rise to be used in the adaptation planning process. This process was essential to gain institutional knowledge on vulnerable areas and anecdotal information on historic flooding events. The five major adaptation actions that were identified through this process are:

1. Elevate the first floor of the City’s three well houses and electronic components to 3 ft. above the 100-year floodplain.
2. Elevate the US 80 causeway between Wilmington Island and Tybee Island to 3 ft. above current grade.
3. Retrofit low-lying stormwater infrastructure to prevent flooding from tidewater backflow.
4. Construct a back-island sea wall, at a height of 3 ft. over the current nuisance tidal flooding level, to prevent bank overflow in low-lying areas.
5. Increase frequency of beach nourishment relative to increased sea-level rise out to 2060.

For three of the five action items, a benefit-cost ratio was calculated by evaluating the potential in cost savings from avoided capital and economic damage. The cost savings from damage avoided and the benefit-cost ratios for these action items are summarized in Table 18. When the benefit-cost ratio is less than 1.0, pursuing the action item is not favorable at this time. Details of the benefit-cost analysis and calculations can be found in the report. As a reference, the estimated cost to elevate a well pump house was \$150,000 each, add stormwater backflow preventers and upgrade the stormwater system (including recent expansion of capacity along the 14th St. corridor) was \$3 million, and install an engineered concrete sea wall at a height of 8.2 ft. above NAVD88 was \$35 million.

Table 18: Summary of Sea Level Rise Mitigation Actions with Calculated Benefit-Cost Ratios.

Action Item (Cost)	Evaluation Method	Estimated Cost of Damage for Each Sea Level Rise Scenario		
		Low	Intermediate	High
Elevate Well House on Van Horne Ave. (\$150,000)	Cumulative 50-yr Total Loss Damage Assessment	\$17,034	\$29,713	\$65,551
	Benefit-Cost Ratio	0.11	0.2	0.44
Elevate Well House on 14th St. (\$150,000)	Cumulative 50-yr Total Loss Damage Assessment	\$458,740	\$534,054	\$828,181
	Benefit-Cost Ratio	3.06	3.56	5.52
Elevate Well House on Butler Ave.	Cumulative 50-yr Total Loss Damage Assessment	\$2,125,737	\$2,329,927	\$2,974,840



Action Item (Cost)	Evaluation Method	Estimated Cost of Damage for Each Sea Level Rise Scenario		
		Low	Intermediate	High
(\$150,000)	Benefit-Cost Ratio	14.17	15.53	19.83
Stormwater Backflow Preventers and Stormwater System Upgrades (\$3,000,000)	Damage Avoided (Net Present Value)	\$15,400,000	\$36,200,000	\$39,200,000
	Benefit-Cost Ratio	5.13	12.07	13.07
Sea Wall (\$35,000,000)	Damage Avoided (Net Present Value)	\$700,000	\$3,600,000	\$60,800,000
	Benefit-Cost Ratio	0.02	0.1	1.74

Note: Highlighted cells indicate that Benefit-Cost ratio is greater than 1.0, meaning that the potential cost savings from capital and economic damage avoided outweighs the cost of installing the action item.

Based on the assessment for elevating the well pump houses, the Butler Ave. pump house had the highest risk of flooding and highest benefit-cost ratio (range: 14.17–19.83), so it should be elevated as soon as is practical. The 14th St. pump house should also be elevated in the near term because it had a benefit-cost ratio ranging from 3.06 to 5.52. The benefit-cost results for the third pump house, Van Horne Ave., did not indicate an immediate need for action. The authors noted that conservative estimates of water supply disruption following a catastrophic flood event were used, and the results do not account for possible contamination of the water source associated with storm surge flooding. Therefore, the Van Horne Ave. pump house should still be included in future assessments to determine suitability for elevation or other improvements to improve flooding resilience.

Tidal flooding during king tide conditions is regularly observed in several areas on Tybee Island, including many in the southwestern quadrant of island. Many of these flooding events are caused by a back-up of stormwater systems when higher tides push flow back into swales, ditches, and underground pipe conveyances. Stormwater backflow preventers alone are expected to provide significant prevention of floodwater penetration for tides up to 6.2 ft. NAVD88, 1 ft. above the current tidal flooding stage, but then bank overflow would render the backflow preventers ineffective as a stand-alone flood prevention strategy. Overall, the stormwater retrofits were considered to be a good initial investment. The sea wall is not expected to provide benefit until the tides regularly exceed 6.2 ft. Based on the large cost of the sea wall, the High sea-level rise scenario is the only one where cost-saving benefits outweigh the cost, but it is only marginal (1.74). Further pursuit of a sea wall adaptation is not recommended at this time.

I. Beach Renourishment



The Army Corps of Engineers recently completed the most recent beach renourishment project in early 2016. The 3.5-mile-long project was initially constructed in 1974 with a 50-year project life, with periodic renourishments planned to occur every 7 years. The beach was last renourished in 2008. The renourishment process involves using a cutterhead dredge to move about 1.7 million cubic yards of high quality sand from an area located 1.5 miles from the southern tip of Tybee Island. The deposited sand would be enough to compensate for the erosion expected to occur over the subsequent nine years. The project included placing sand up to the north terminal groin.

The Tybee Island Sea Level Rise Adaptation Plan noted that beach renourishment is an important action item for flood protection and the tourism economy. In 2024, the U.S. Army Corps of Engineer's current authorization from Congress for beach renourishment projects on Tybee Island expires. The Plan suggests that a priority for future beach renourishment projects and the negotiation of a new authorization should include maintenance of flood protection under a condition of accelerating sea-level rise. Based on the damages sustained by some communities in the Northeast during Superstorm Sandy, the City of Tybee is already investigating the possibility of augmenting their sand dune system to help protect the Island from storm surge during hurricanes.

m. US Highway 80 Considerations

The authors did not include a benefit-cost analysis for raising US 80 because the project lacked the scope to perform an engineering-scale benefit-cost assessment of a major highway corridor. However, the substantial tidal flooding of US 80 in 2015 (23 separate events) highlights the vulnerabilities of the existing roadway elevation and provides renewed motivation for ensuring that concerns about long-term public safety, infrastructure maintenance, and disaster resilience are incorporated into the final US 80 bridge replacement and road bed improvement project. As described earlier in this plan, GDOT is in the process of planning and designing Highway 80 improvements which will include elevation of the road bed. In the recently released letter, issued by GDOT on June 13, 2016 in response to public comments received at the November 17, 2015 Public Information Open House, DOT states that they are currently considering elevating the road surface to 7.5 above MSL, which equates to an elevation of approximately 12 to 18 in. above the current road surface. *Per the comment and recommendation in the Tybee Island Sea Level Rise Adaptation Plan about flooding conditions only worsening for the sole access road for Tybee Island, US 80, it is important for sea-level rise to be factored into ongoing engineering plans when replacing the two bridges along US 80 and modernizing and elevating the roadway.*



N. SOLID WASTE

i. Solid Waste Collection

Atlantic Waste Services currently provides municipal solid waste collection, yard waste collection, and recycling services to the City of Tybee Island. The Island is split into (4) four zones, each representing a service day Monday through Thursday. Garbage and recycling are picked up on the same day in each of the four zones. Yard waste will be collected on the entire island on Fridays. Garbage collection of “landfill only waste” will be picked up once per week in 96 gallon carts with identifying colors.

Recycling is collected single stream in 96 gallon carts with identifying colors, and includes paper, cardboard, newspapers, magazines, junk mail, plastics (1-7), and metal cans (aluminum and steel.) Grocery store plastic bags, styrofoam, film, glass and bubble wrap are not accepted. Atlantic Waste Services reports that the current market does not support glass recycling because it costs more to process, and it’s a lower quality material than the raw virgin sand material needed to make new glass.

In an effort to address the issue of plastic bag littering and marine plastics pollution, the City has initiated a plastic film recycling program that is detailed in the image to the right. Drop off locations are located at the Campground, Chu’s Department Store, City Hall, Tybee Market IGA, Visitor’s Center, and the YMCA.

The Tybee Island Department of Public Works collects the trash and recyclables daily from solid waste and recycling stations located at the beach and other public facilities and brings that material to the transfer station at the Polk Street Yard, where they are collected by Atlantic Waste. VisitTybee.com reports that the Tybee Island Department of Public Works collects approximately 4 tons of trash daily from the beach areas during the off-season. In season, the amount of trash removed ranges from 6 to 15 tons daily. The day after special events, the total can reach 35 tons. The Department of Public Works will accept municipal solid waste, recycling and yard waste from residents at the transfer station

Recycle clean, dry, plastic bags and film packaging

PLASTIC BAG/FILM RECYCLING DROP-OFF LOCATIONS

- Campground
- Chu's Department Store
- City Hall
- Tybee Market IGA
- Visitor's Center
- YMCA

how2recycle.info

- NO frozen food bags
- NO prewashed salad mix bags
- NO degradable bags

plasticfilmrecycling.org

Recycled plastic bags and wraps can become new packaging or durable home building products.



for a fee; however, residents are strongly encouraged to use the curbside service provided by Atlantic Waste.

ii. Disposal Trends

Information regarding disposal trends was provided to the City by the City's previous solid waste contractor Waste Pro. Monthly data on disposal of municipal solid waste and recycling was provided for the time period of October 2008 through August of 2015. Weight of municipal solid waste and recycling collected through curbside collection service as well as directly from Public Works transfer stations is summarized in the Figures 13 and 14.

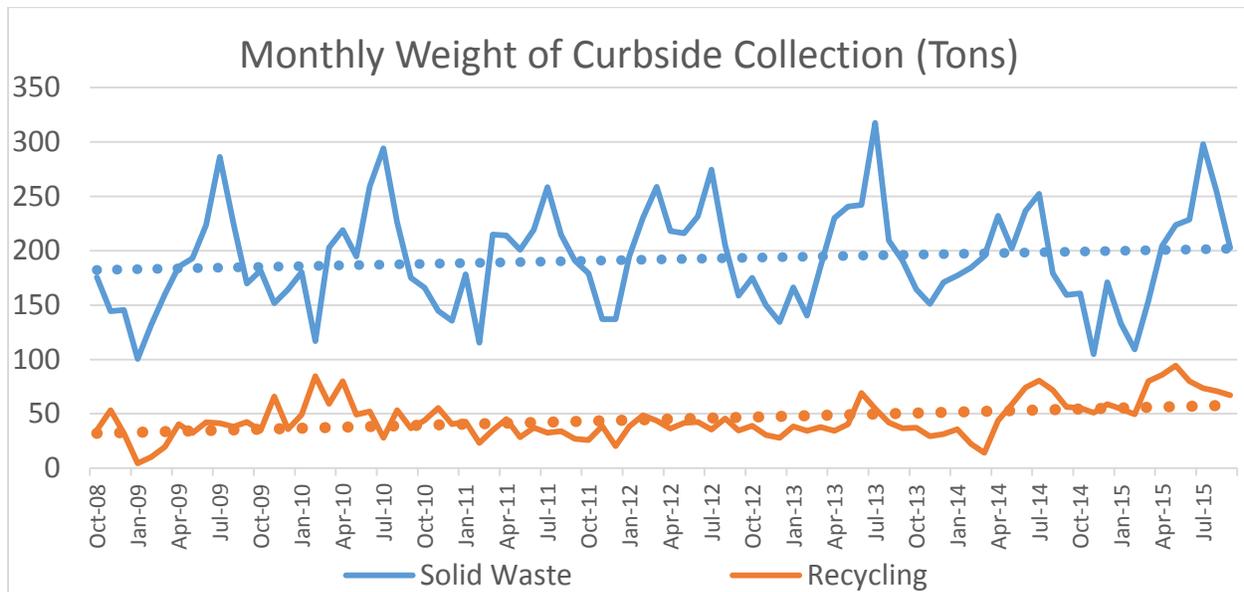


Figure 13: Municipal Solid Waste and Recycling Collection and Trends for Curbside Collection

Figure 13 illustrates an increase in both municipal solid waste disposal and recycling over the time period of 2008 through 2015, which indicates an increase in the generation of solid waste over that time period. There is also an obvious increase in solid waste disposal during the summer months each year, coinciding with the tourism season. There does not appear to be a similar cyclical trend in recycling tonnage, which indicates that tourists are not properly utilizing recycling services. It is also important to note that glass is no longer accepted, and as one of the heaviest materials that is typically recycled, it is likely to decrease the tonnage of materials being recycled in the future.

The data provided for solid waste and recycling collected from Public Works only spans the time period of April 2013 through September of 2015. This data shows a substantial increase in the tonnage of solid waste collected. This can be attributed primarily to collection of trash from the beach and other public facilities, as most residents utilize the curbside service for disposal of their household garbage. There is also a dramatic cyclical nature to the amount of trash collected, with the peaks again occurring during tourist season. There are not similar trends in recyclables collection, which remained relatively steady during this time period.

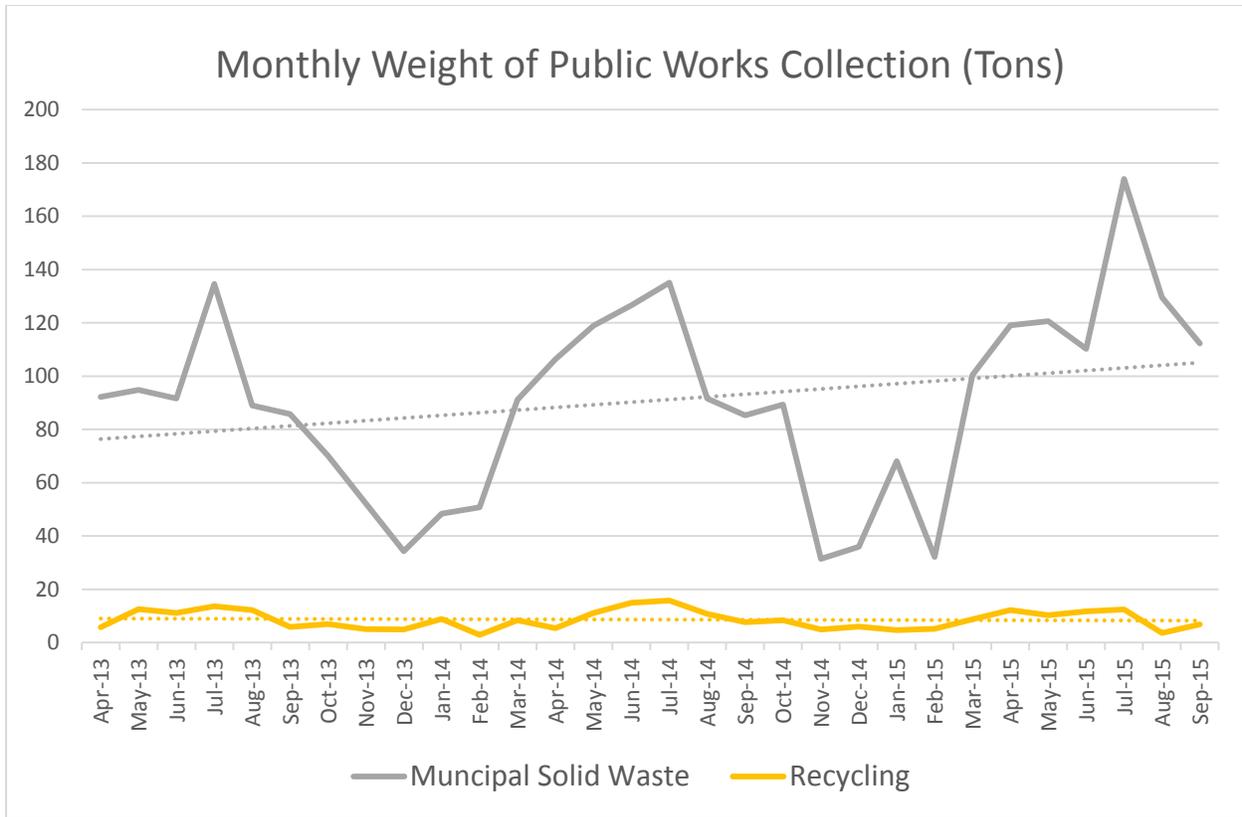


Figure 14: Solid Waste and Recycling Collection and Trends for Department of Public Works

O. ENERGY USE

Electrical demand continues to increase in the Southeast, and one of the fastest growing regions is Georgia. Georgia Power, a division of Southern Company that services the City of Tybee, estimates that by 2025, Georgia expects almost 1.5 million new residents and by 2030, electrical demand is projected to increase 27% in the Southeast.

According to Georgia Power Company, the utility company has been able to reliably meet Tybee’s current electrical demands, even during peak demand, and has sufficient electrical generating capacity to meet increased energy demands in the future as population growth continues to increase. Georgia Power utilizes a variety of power generating sources, its main sources including nuclear, coal and natural gas, and to a lesser extent, renewables such as solar, hydroelectric, and wind. According to Georgia Power, nuclear energy, which is the most economical method of producing electricity and does not produce greenhouse gases, will continue to be an important power generating source to meet current and future electrical demands in Georgia, including Tybee Island, and for complying with current and pending environmental standards that regulate coal-generated electricity. Georgia Power already operates two nuclear facilities: Hatch and Vogtle, both with multiple generating units. Plant Vogtle, located near Augusta, Georgia, is currently under construction to expand, with 2 new nuclear units expected to be operational by 2019 and 2020. Georgia Power is also constructing a new transmission line to add the infrastructure needed to support these new units.



To keep up with the growth, Georgia Power has made extensive upgrades to its electrical system, including an \$80 million upgrade to the Savannah underground network. Within the last few years, the utility company has also made upgrades to the electrical infrastructure for Tybee Island, including the large transmission lines along the US 80 corridor connecting Tybee Island to Talahi Island, the City's substation, and distribution systems along Butler Avenue and other areas. The majority of planned upgrades for the City of Tybee have now been completed.

Georgia Power offers a commercial rebate program that provides cost incentives for incorporating energy-efficient improvements. Rebates are offered to help offset initial costs associated with replacement of outdated, inefficient equipment or installation of high-efficiency equipment during new construction. The utility company also offers free audits that provide recommendations for increased energy efficiency. In April 2015, Georgia Power conducted an audit of Tybee's Memorial Park buildings. Recommendations included:

- Continue to incorporate occupancy sensors in strategic locations of the buildings for lighting savings
- Consider energy efficient construction practices and premium efficiency equipment when renovating the city hall building or when equipment fails
- Double check the programmable thermostat settings in the gymnasium to make sure they are set to adjust during unoccupied times. They appeared to be on hold temps when visited.
- Replace the water heater in the YMCA building. At its age, scale on the elements is likely and will cause the heater to operate much less efficiently.
- Continue to promote energy management/conservation to city employees and tenants of city building space.
- Make sure all computers are set to go into energy management mode when they are not in use.

i. **Solarize Tybee**

Approved by the Georgia Public Service Commission in November 2012, the original Georgia Power Advanced Solar Initiative (GPASI) is an innovative solar program designed to procure 210 MW of solar capacity. GPASI was primarily created to spur economic growth within the solar community in Georgia, while offering pricing that encourages more renewable development and avoids any upward rate pressure and reliability impacts to Georgia Power customers.

With this goal in mind, Georgia Power designed two programs to continue to develop solar in Georgia: 1) offer existing Georgia Power customers additional options to sell distributed solar generation back to Georgia Power through small- and medium-scale power purchase programs; and 2) offer solar developers the opportunity to bring large photovoltaic (PV) solar arrays to market through a competitive utility-scale RFP. In July 2013, the Public Service Commission



approved an additional 525 MW of solar capacity as part of the 2013 Integrated Resource Plan (IRP) order. These additional megawatts of solar capacity were similarly allocated between the distributed generation and utility-scale programs.

In 2015, the City of Tybee Island, in cooperation with the Tybee Community Resources Committee, initiated the Solarize Tybee program to bring solar power to Tybee Island and Chatham County, Georgia, by eliminating some of the complexity of selecting a qualified installer and by driving down costs through the power of bulk purchasing. This program offered competitive pricing in a tiered system, i.e., prices decreased with increased participation. The solar contractor, Hannah Solar, performed free assessments for interested property owners to determine if their building was suitable for solar panel installation. Once a site was judged suitable, and the customer scheduled installation directly with Hannah Solar.

Solarize Tybee was open to all residents, businesses, and governmental entities within Chatham County, Georgia, provided the governing body in each jurisdiction did not object to having its citizens participate. In total, 61 contracts for solar panel installation were completed, generating 335 KW of renewable energy.

P. ZONING

i. Zoning Analysis

Since most of the island has been developed, subdivision and subsequent development of existing residential parcels presents the greatest opportunity for growth on the island. Recent development activity indicates that there is a growing trend in subdivisions of parcels zoned R-2. In addition, much of the remaining undeveloped residential property on the island is zoned R2, which allows for the high density of residential development. The City of Tybee Island's R-2 zoning category was established to allow for one and two family residential development, and allows for the smallest minimum lot size for residential parcels on the island. The schedule of development regulations (Sec 3-090) defines the allowable lot sizes for residentially zoned property in the City. The minimum lot size for development of a single family dwelling unit is 4,500 square feet in the R-2 district. The minimum lot size for a two-family structure in this district is 6,750 square feet. These numbers are the basis for determining the impact of potential future build out.

Roughly 40% of the island is currently zoned R-2, much of which is currently developed as a single-family residential use. There is reason for concern from a carrying capacity perspective when considering the future development potential for these properties. The following analysis evaluates these properties to determine the population impact that different development scenarios would have on the City.

ii. Methodology

The methodology used for this analysis began with the identification of all parcels currently zoned R-2. These properties were then broken down into the following categories based on lot size:



- Less the 6,750 square feet. Parcels in this category could only be developed as single-family homes.
- 6,750 - 11,250 square feet. Parcels in this category could be developed as two-family residential, either as a duplex, or as two, single-family residential parcels (if over 9,000 square feet).
- 11,250 - 13,500 square feet. These parcels could be split and developed with one-single family and one, two-family structure.
- Over 13,500 square feet. Parcels that can be developed as two, two-family structures.
- Unique. Certain unique conditions were also considered. This includes significantly large parcels that could be sub-divided a number of different ways. For example, a large property with a significant amount or marsh may limit its development potential. Additionally, a large undeveloped property may have be large enough for a larger subdivision of land.

iii. Analysis

There are currently 1,694 R-2 parcels in the City. Roughly 80% of these parcels are currently developed. The general land uses shown in Table 18 were determined using data from the Chatham County Tax Assessors Office. This data was then vetted in GIS using aerial photography and other online resources. Table 19 shows the current breakdown of land uses within the R-2 zoning district.

Table 19: Number of R-2 Parcels and Residential Units

Category	Number of R-2 Parcels	Number of Units
Single Family	1,337	1,337
Duplex	85	170
Non-Residential	11	0
Undeveloped	261	0
Total	1,694	1,507

Please note, one of the undeveloped R-2 properties listed above is not developable, one is in a conservation easement, and the last parcel (shown in Figure 15), is the likely the last parcel on Tybee with significant developable acreage, approximately 600,000 square feet.



Figure 15: Large Undeveloped Parcel on Tybee

iv. Population in the R-2 District Based on Current Development

The 2010 Census reports that only about 40% of housing units in the City of Tybee Island are occupied by year-round, full-time residents. Therefore, the remaining 60% of housing on the island is potentially available as seasonal rentals or vacation housing (i.e., second homes), both of which can have a dramatic effect on peak population numbers during summer months. As stated earlier in this report, the US Census Bureau found that the average household size for residents of Tybee Island is 2.1 people per unit. While the number of people occupying a short-term rental or vacation unit can vary greatly, the Carrying Capacity Stakeholder group agreed to use an estimate of 5 people per unit when approximating short-term rental or vacation overnight population. Table 20 shows the maximum population (both resident and short-term rental) that is likely supported within the R-2 district, in its current development state.

Table 20: Maximum Population Based on Current Development

Category	Number of R-2 Parcels	Number of Units	Resident Population 40% (2.1 people/ unit)	Short Term / Vacation Population 60% (5 people/ unit)
Single Family	1,337	1,337	1,124	4,011
Duplex	85	170	143	510



Category	Number of R-2 Parcels	Number of Units	Resident Population	Short Term / Vacation Population
			40% (2.1 people/ unit)	60% (5 people/ unit)
Non-Residential	11	0	0	0
Undeveloped	261	0	0	0
Total	1,694	1,507	1,267	4,521

This analysis shows that the maximum potential overnight population in the R-2 at 100% occupancy for both resident and short-term rental/vacation units is currently 5,788 people.

v. Full Build-Out Scenario

In order to understand the potential impacts of a full build-out scenario in the R-2 district, it was first necessary to determine the maximum number of units that could be developed within the areas zoned R-2. Based on current land use breakdown shown in Table 19, the total number of residential units in R-2 today is 1,507. However, if these same parcels were subdivided and developed to the maximum extent, in accordance with the lot size standards for R-2, the number residential units would increase by 1,321, for a total of 2,828 residential units, as presented in Table 21. This represents an increase of approximately 88% in the number of residential units in R-2. This analysis assumes that each parcel, both developed and undeveloped, are built out to their maximum capacity, based on the current standards for R-2. The map in Figure 16 illustrates the breakdown of lots based on their developable acreage.

Table 21: Full R-2 Build-Out Scenario

Category	Developable Area within Parcel	Total Existing Parcels	Potential Units
Single Family Residential	<i>Less than 6,750 Sq. Ft</i>	1,087	1,087
Two Family Residential	<i>6,750 - 11,250 Sq. Ft</i>	335	670
One Single Family, One 2-Family	<i>11,250 - 13,500 Sq. Ft</i>	93	279
Two 2-Family Structures	<i>Greater than 13,500 Sq. Ft</i>	176	704
Residential development*	<i>600,000 Sq. Ft of Developable Area</i>	1	88
Total		1,692	2,828

* For the purposes of this study, it was assumed that 50% of the developable acreage could be included in the parcels, and that the parcels would be 6,750 Sq Ft, each containing a duplex unit.

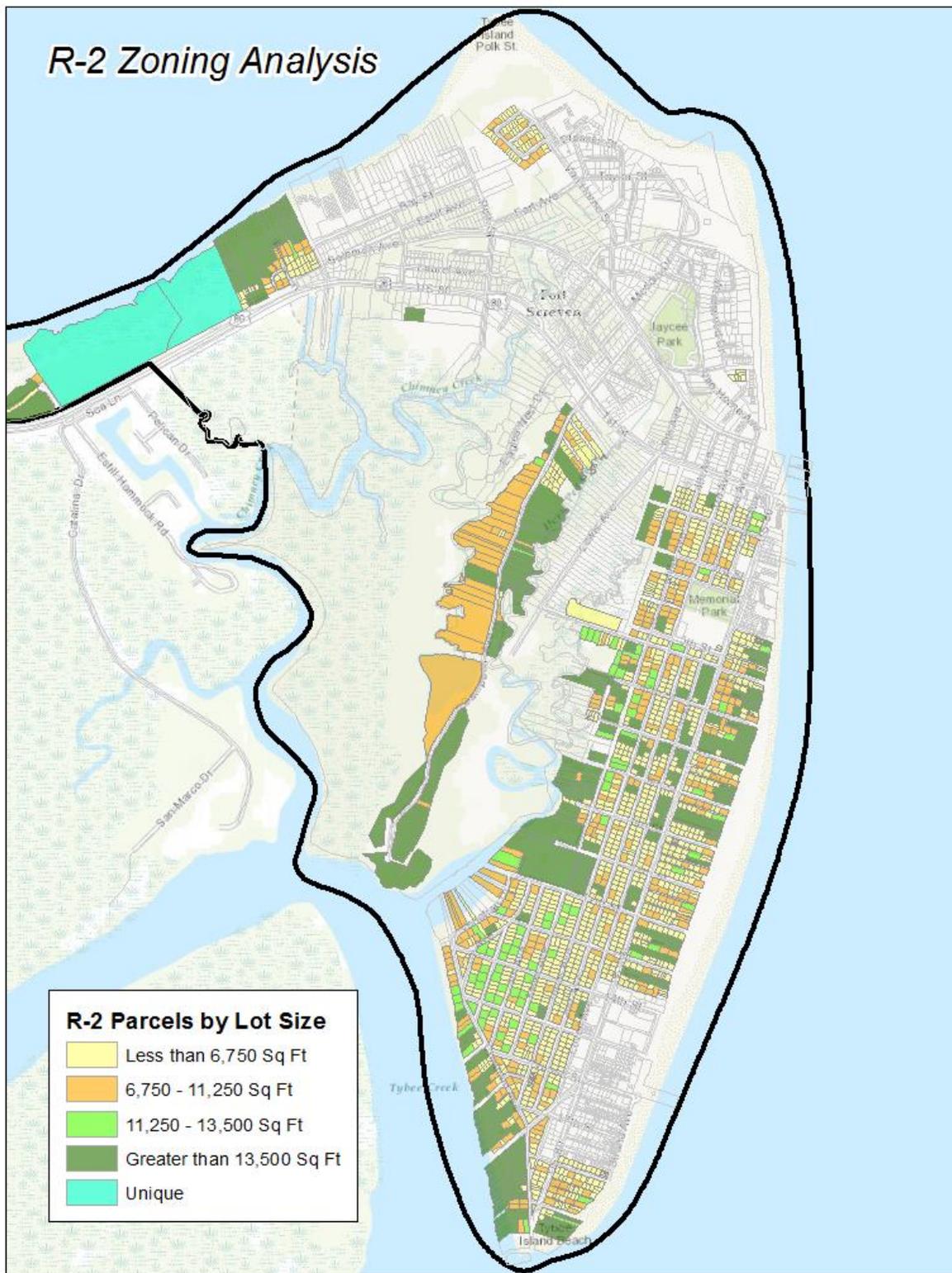


Figure 16: R-2 Parcels by Lot Size



vi. Additional Population Based on Build-Out Scenario

Table 22 shows the total potential population (both resident and short-term rental) that would result from the full-build out scenario described above.

Table 22: Maximum Population of Build-Out Scenario

Category	Total Existing Parcels	Potential Units	Resident Population 40% (2.1 people/ unit)	Short Term / Vacation Population 60% (5 people/ unit)
Single Family Residential	1,087	1,087	914	3,260
Two Family Residential	335	670	563	2,010
One Single Family, One 2-Family	93	279	235	835
Two 2-Family Structures	176	704	592	2,110
Residential development*	1	88	74	264
Total	1,692	2,828	2,378	8,479

This analysis shows that the maximum potential overnight population in the R-2 at 100% occupancy for both resident and short-term rental/vacation units in the full build-out scenario would be 10,857. This represents a potential maximum population increase of 5,069.

vii. Zoning Assessment Findings

Table 23 summarizes the findings of the R-2 analysis.

Table 23: R-2 Buildout Population Increase Summary

Condition	Potential Units	Resident Population 40% (2.1 people/ unit)	Short Term / Vacation Population 60% (5 people/ unit)	Total Overnight Population
Existing Development	1,507	1,267	4,521	5,788
Build-Out Scenario	2,828	2,378	8,479	10,857
Increase	1,321	1,111	3,958	5,069



Based on the existing zoning standards for the R-2 District, this build-out scenario has the potential to significantly increase the overnight population on the island, resulting in a dramatic impact on peak demand issues related to water supply, wastewater discharge, and transportation discussed earlier in this report. In Section X of this report, it was calculated that the maximum overnight population on the island under current development conditions is 14,198. Adding the additional overnight population that could be experienced under a full-build out scenario for R-2, brings the maximum overnight population to 19,327. This is well beyond the peak capacity of both the current water supply and wastewater discharge systems, and would clearly increase congestion along US 80 and the internal road network.

This future build out scenario is affected by both the geographic extent of the R-2 district as well as standards for subdivision and development of the R-2 district. While subdivisions and redevelopments of parcels within this district are currently happening slowly, parcel by parcel, the pace at which it is occurring is likely to increase as property value increases and available land for development on Tybee Island decreases. This analysis is not suggesting that the full build-out scenario is likely to occur in the near future, only that over time it is possible that development density could significantly increase to the levels proposed here. Furthermore, the City needs to consider the impacts of this zoning classification under a post-disaster redevelopment scenario.

APPENDICES

*WORK PROGRAM REPORT OF
ACCOMPLISHMENTS*

City of Tybee Island Master Plan Short Term Work Program Assessment

Population	Status
Develop a tourism marketing campaign that focuses on drawing identified tourist groups to the Island.	Ongoing
As part of carrying capacity study determine sufficiency of services and facilities for the aging population.	Underway; Completion 11/16
Develop an education packet to be distributed to visitors about available activities/services/resources (include information about natural resources protection, local ordinances, etc.	Ongoing
Work with various rental agencies, realtors. hotels/bed and breakfast establishments to distribute the packet to Island visitors .	Ongoing
Economic Development	Status
Reactivate the DDA upon completion of the Market Study.	Done
Prepare economic development plan for business district. Consider identified Issues and opportunities for economic development.	Ongoing
Evaluate potential for an Urban Redevelopment plan and creation of an enterprise zone. <ul style="list-style-type: none"> Initiative cancelled after preliminary review showed criteria was not met within the community. 	Cancelled
Support the development of heritage tourism.	Ongoing
Provide assistance to new businesses developing on the Island.	Ongoing
Develop a strong working relationship with Savannah Development & Renewal Authority.	Ongoing
Work with the Tourism Council and local business groups to encourage revitalization of business district	Accomplished/Ongoing
Encourage the development of off season events and activities.	Accomplished/Ongoing
Develop and promote eco-tourism businesses and resources.	Accomplished/Ongoing
Investigate potential for developing a convention center on the Island.	Ongoing
Encourage small conventions to locate on the Island during off-season.	Accomplished/Ongoing
Implement beautification / facade improvements in business districts through a revolving loan program.	Accomplished/Ongoing
Housing	Status
Develop recommendations for new development, redevelopment, and restoration that address mass, scale and density of development.	Accomplished/Ongoing
Ensure that new development is consistent with the character of the neighborhood as defined in the Master Plan.	Accomplished/Ongoing
Consider adopting a standard for maximum lot coverage.	Underway - Local Historic Districts
Consider allowing upstairs residential development In commercial areas, if the use is primarily commercial.	Ongoing



Consider the need for variances for rooflines where floodplains restrict first floor development, but do not allow fourth floor development <ul style="list-style-type: none"> Initiative was considered, deemed not feasible and cancelled. 	Cancelled
Land Use	Status
Update Land Development Code in accordance with recommendation of the Task Force and vision of this Plan.	Review Underway
As part of the update, restrict residential down-zoning in commercial areas.	Ongoing
As part of the update, ensure zoning regulations are consistent with the Master Plan.	Ongoing
Improve the level of code enforcement.	Accomplished/Ongoing
Educate residents about zoning, allowable land uses, and the rezoning process.	Ongoing
Develop and adopt a Catastrophic Disaster Rebuild Plan for the Island.	Ongoing
Develop a comprehensive GIS database for the City.	Accomplished/Ongoing
Transportation	Status
Conduct transportation engineering study In accordance with issues and opportunities identified in this Plan	Accomplished/Ongoing
As part of this study, explore possibility of taking control of Butler/Highway 80. <ul style="list-style-type: none"> Based on the expense and liability issues associated with taking control of the facility, the initiative was deemed not feasible and was cancelled. 	Cancelled
As part of the study, explore potential to offer subsidized open-air trolley services around the Island to reduce traffic. <ul style="list-style-type: none"> Due to the expense involved with the provision of this type of service, the initiative was deemed not feasible and cancelled. 	Cancelled
As part of this study, explore charging additional "hotel tax" to help fund a city subsidized on and off Island transportation system. <ul style="list-style-type: none"> Considered but the initiative resulted in significant opposition and was cancelled. 	Cancelled
As part of this study, investigate potential to make Highway 80 a toll road. <ul style="list-style-type: none"> Based on the intensive process and implications resulting from implementation of a toll, the initiative was deemed not feasible and cancelled. 	Cancelled
As part of this study, Investigate need and potential to locate a parking garage on the Island.	Ongoing
As part of this study, investigate the feasibility of using commercial parking lots for public parking. <ul style="list-style-type: none"> This initiative was considered not feasible and cancelled based on the results of the feasibility investigation. 	Cancelled
As part of this study, develop "peak use" contingency for parking.	Ongoing
Coordinate with GDOT to ensure that any widening of the Lazaretto Creek bridge includes a separate bike lane	Accomplished/Ongoing
Encourage development of the bikeway to connect Tybee	Accomplished/Ongoing



As part of Land Code Update, develop zoning overlay to require easements from property owners along Highway 80 to complete the Tybee/Wilmington Island bikeway. <ul style="list-style-type: none"> Environmental and other transportation considerations resulted in the abandonment of this initiative as not feasible and cancelled. 	Cancelled
Develop multi-use paths throughout the City.	Accomplished/Ongoing
Support and Implement beautification and streetscaping along Butler Avenue/Highway 80	Accomplished/Ongoing
Bring level of service up to streets designated use. <ul style="list-style-type: none"> Based on transportation and traffic studies, the level of service on the transportation network is currently appropriate, outside of peak times, such as the Fourth of July and the element was cancelled. 	Cancelled
Clearly define parking requirements for seasonal rentals and educate visitors about requirements.	Accomplished/Ongoing
Educate residents and visitors about transportation related ordinances, alternative transit, and alternative transportation routes.	Ongoing
Cultural and Historic Resources	Status
Revisit the potential for establishing "Local Historic Districts" on the Island.	Underway/Ongoing
As part of Land Code Update, review and update section 14 of Tybee's Land Development Code.	Done
Use Historic Review Committee to determine appropriate design guidelines	Ongoing
Pursue Certified Local Government Status.	Done
Establish a GIS inventory of historic structures.	Accomplished/Ongoing
Educate residents and developers with regard to cost of effective materials, and treatments <ul style="list-style-type: none"> Upon investigation, the majority of residents and developers were already educated on this initiative and it was cancelled. 	Cancelled
Work with historic preservation groups to seek funding to assist with restoration projects.	Accomplished/Ongoing
Educate owners of historic structures about economic benefits such as tax credits, conservation easements, tax freezes, etc.	Accomplished/Ongoing
Support the City's Arts Commission and the development of additional cultural resources	Accomplished/Ongoing
Continue to support the renovation of Guard House Tybee Post Theatre.	Done
Consider the development of a public arts center/artist incubator center	Accomplished/Ongoing
Continue to support Lighthouse Museum.	Accomplished/Ongoing
Natural Resources	Status
Develop complete GIS inventory of City's natural resources.	Accomplished/Ongoing
Prioritize acquisition and preservation of greenspace, parks and conservation easements.	Accomplished/Ongoing
Create linkages between green space, parks, cultural, and County, DNR, historic interest points.	Accomplished/Ongoing
Identify various tools that support preservation efforts such as grants, conservation easements, etc.	Accomplished/Ongoing



INTRODUCTION

Continue to implement the NPDES Phase I MS4 Permit SWMP.	Accomplished/Ongoing
Implement a citywide bacteria monitoring program to identify the source of contamination on the beaches.	Accomplished/Ongoing
Implement a sanitary sewer Inspection and rehabilitation program in compliance with NPDES requirements.	Accomplished/Ongoing
Provide education to visitors on natural resource protection efforts including recycling, water conservation, stormwater pollution and respect of marine and marsh life	Accomplished/Ongoing
Develop a targeted education program from developers that covers topics such as E & S control, buffers, tree protection and stormwater management <ul style="list-style-type: none"> This was identified as redundant as state and federal requirements are already in place that address this element. 	Cancelled
As part of the Land Code Update, allow for and encourage Low Impact Development practices such as rain barrels, green roofs and rain gardens in public and private projects	Accomplished/Ongoing
As part of the Wayfinding Project, place Interpretive signage on dune crossings and along trails to educate residents and visitors about the fragile coastal environment	Accomplished/Ongoing
Continue to work with DNR for wetlands/marsh protection	Accomplished/Ongoing
As part of the Land Code Update, review Tree Ordinance; develop incentives to promote the retention of trees as opposed to removal and replacement	Accomplished/Ongoing
Support the Marine Science Center Relocation.	Accomplished/Ongoing
Continue to support work of Marine Science Center.	Accomplished/Ongoing
Continue urban reforestation program.	Accomplished/Ongoing
Continue to monitor drainage issues in dunes.	Accomplished/Ongoing
Continue to seek funding and implement beach re-nourishment	Accomplished/Ongoing
Promote the use of native plants/xeriscape through the development of landscaping guidelines.	Accomplished/Ongoing
Facilities and Service	
Conduct a study to determine the carrying capacity of the Island as it relates to infrastructure and natural resources.	Underway; Completion 11/16
Develop a capital improvement plan to be implemented conjunction with road rehabilitation	Done
As part of carrying capacity study, develop a water supply contingency plan that evaluates and plans for alternative sources.	Done
Conduct a GIS inventory of the number of shallow wells and septic tanks on the Island.	Accomplished/Ongoing
Work with YMCA to develop programs at the gym.	Accomplished/Ongoing
Continue to upgrade sidewalks/public facilities to be ADA compliant	Accomplished/Ongoing
Continue upgrade of sewer collection system; improve efficiency, reduce stormwater intrusion and explore feasibility of connecting existing septic systems users to the treatment facility.	Accomplished/Ongoing



INTRODUCTION

Make improvements to the public works complex.	Accomplished/Ongoing
Continue to maintain/replace as necessary all public works equipment	Accomplished/Ongoing
After completion of master plan, make recommended improvements to Storm Drainage System.	Accomplished/Ongoing
Develop conceptual design and architectural drawings for project to replace Public Safety Facility	Done
Update dune crossovers.	Accomplished/Ongoing
Support continued planning and program development for the Rivers End Campground to attract visitors in the off season	Accomplished/Ongoing
Continue to participate in regional transportation efforts.	Accomplished/Ongoing
Coordinate with CEMA, Chatham County and other local and regional planning agencies to implement Tybee Island's Hurricane Disaster Management Plan.	Accomplished/Ongoing

APPENDICES

*QUALITY COMMUNITY OBJECTIVES
ASSESSMENT*

Quality Community Objectives Local Assessment

The Georgia Department of Community Affairs (DCA) has developed Quality Community Objectives which provide communities with a framework for preservation of unique cultural, historical and natural resources while achieving the future vision. This assessment is a tool to measure the progress of the community towards reaching their overall goals and objectives.

The City of Tybee Island, through its collaborative and coordinated planning process, developed specific goals tailored towards the unique Tybee character and community. These goals correlate directly to the Quality Community Objectives identified by DCA, as shown in the table below.

Quality Community Objectives	City of Tybee Island Goals
<i>Development Patterns: Traditional Neighborhoods</i>	
<p>Traditional neighborhood development patterns should be encouraged, including use of more human scale development, compact development, mixing of uses within easy walking distance of one another, and facilitating pedestrian activity</p>	<ul style="list-style-type: none"> • Encourage development and re-development in residential areas that is within the context of traditional neighborhoods
<i>Development Patterns: Infill Development</i>	
<p>Communities should maximize the use of existing infrastructure and minimize the conversion of undeveloped land at the urban periphery by encouraging development or redevelopment of sites closer to the downtown or traditional urban core of the community</p>	<ul style="list-style-type: none"> • Encourage development and re-development to be compatible with the existing, land uses and development patterns in adjacent areas
<i>Development Patterns: Sense of Place</i>	
<p>Traditional downtown areas should be maintained as the focal point of the community or, for newer areas where this is not possible, the development of activity centers that serve as community focal points should be encouraged. These community focal points should be attractive, mixed-use, pedestrian friendly places where people choose to gather for shopping, dining, socializing and entertainment</p>	<ul style="list-style-type: none"> • Maintain and preserve our traditional community character and sense of place
<i>Development Patterns: Transportation Alternatives</i>	
<p>Alternatives to transportation by automobile, including mass transit, bicycle routes, and pedestrian facilities, should be made available in each community. Greater use of alternate transportation should be encouraged.</p>	<ul style="list-style-type: none"> • Provide for and encourage the use of transportation alternatives, including bike, pedestrian, golf carts and public transportation.



	<ul style="list-style-type: none"> Promote and encourage transportation safety, parking, and traffic solutions for Tybee including US 80 and its bridge infrastructure.
<i>Development Patterns: Regional Identity</i>	
<p>Each region should promote and preserve a regional "identity", or regional sense of place, defined in terms of traditional architecture, common economic linkages that bind the region together, or other shared characteristics.</p>	<ul style="list-style-type: none"> Promote and preserve Tybee's unique identity within the regional context of Coastal Georgia.
<i>Resource Conservation: Heritage Preservation</i>	
<p>The traditional character of the community should be maintained through preserving and revitalizing historic areas of the community, encouraging new development that is compatible with the traditional features of the community, and protecting other scenic or natural features that are important to defining the community's character.</p>	<ul style="list-style-type: none"> Maintain, preserve and enhance our historic and cultural resources
<i>Resource Conservation: Open Space Preservation</i>	
<p>New development should be designed to minimize the amount of land consumed and open space should be set aside from development for use as public parks or as greenbelts/wildlife corridors. Compact development ordinances are one way of encouraging this type of open space preservation.</p>	<ul style="list-style-type: none"> Maintain, preserve and enhance our community open spaces, such as parks, greenbelts, and wildlife corridors. Protect and preserve our environmentally sensitive areas, including beaches, natural terrain, drainage areas, vegetation, coastal marshlands, wildlife habitat and corridors, and floodplains.
<i>Resource Conservation: Environmental Protection</i>	
<p>Environmentally sensitive areas should be protected from negative impacts of development, particularly when they are important for maintaining traditional character or quality of life of the community or region. Whenever possible, the natural terrain, drainage, and vegetation of an areas should be preserved.</p>	
<i>Social and Economic Development: Growth Preparedness</i>	
<p>Each community should identify and put in place the pre-requisites for the type of growth it seeks to achieve. These might include infrastructure (roads, water, sewer) to support new growth, appropriate</p>	<ul style="list-style-type: none"> Develop coastal hazard preparedness, or crisis management responses for hurricane preparedness and recovery from a financial, physical, and safety perspective



<p>training of the workforce, ordinances and regulation to manage growth as desired or leadership capable of responding to growth opportunities and managing new growth when it occurs.</p>	<ul style="list-style-type: none"> • Encourage a focus on quality development within the carry capacity of the island • Ensure that existing water, wastewater, solid waste, and transportation infrastructure is sufficient to support the current population. • Plan for infrastructure improvements, including water, wastewater, solid waste, and transportation, to support future growth. • Adapt to a changing climate.
<p><i>Social and Economic Development: Appropriate Businesses</i></p>	
<p>The business and industries encouraged to develop or expand in a community should be suitable for the community in terms of job skills required, long term sustainability, linkages to other economic activities in the region, impact on the resources of the area, and future prospects for expansion and creation of higher skill job opportunities.</p>	<ul style="list-style-type: none"> • Encourage a diverse, stable and year round population with a high quality of life • Encourage and support sustainable businesses that serve both year round residents and visitors. • Promote a balance of diverse employment opportunities for both the year round and seasonal workforce.
<p><i>Social and Economic Development: Employment Options</i></p>	
<p>A range of job types should be provided in each community to meet the diverse needs of the local workforce</p>	<ul style="list-style-type: none"> • Encourage a range of housing sizes, costs, and densities to meet the diverse needs of the population.
<p><i>Social and Economic Development: Housing Choices</i></p>	
<p>A range of housing size, cost and density should be provided in each community to make it possible for all who work in the community to also live in the community (thereby reducing commuting distances), to promote a mixture of income and age groups in each community, and to provide a range of housing choice to meet market needs.</p>	<ul style="list-style-type: none"> • Encourage a range of educational and enrichment opportunities within the community. • Support non-profit organizations that enhance the quality of life, economy and culture of the island.
<p><i>Social and Economic Development: Educational Opportunities</i></p>	
<p>Educational and training opportunities should be readily available in each community to permit community residents to improve their job skills, adapt to technological advances, or to pursue entrepreneurial ambitions</p>	<ul style="list-style-type: none"> • Encourage and support recreational opportunities and amenities, including the existing campground



<i>Government Relations: Regional Solutions</i>	
Regional solutions to needs shared by more than one local jurisdiction are preferable to separate local approaches, particularly where this will result in greater efficiency and less cost to the taxpayer.	<ul style="list-style-type: none">• Continue to participate and promote the regional efforts to develop solutions for issues affecting Tybee, the region and the State.
<i>Government Relations: Regional Cooperation</i>	
Regional cooperation should be encourage in setting priorities, identifying shared needs, and finding collaborative solutions, particularly where it is critical to success of a venture, such as protection of shared natural resources or development of a transportation network.	<ul style="list-style-type: none">• Promote and preserve Tybee’s unique identity within the regional context of Coastal Georgia.• Develop and achieve our own vision with State technical and financial support.

Character Area Analysis

Using the Quality Community Objectives identified by DCA, an assessment of the City's progress towards a sustainable community with a high quality of life was completed. The assessment tool created by DCA includes a yes/no designation, as well as areas for comments. A "yes" indicates the community has options in place of managing development patterns. A "no" may provide insight for the community on how to better focus planning to achieve these Quality Community Objectives. The following tables provide an assessment of each Character Area in relation to the Quality Community Objectives.

Character Area: Back River Neighborhood			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional island homes and cottages. New development should be consistent with the existing character of the neighborhood.
Infill Development	✓		There are some opportunities for infill development. Infill development should be consistent in the terms of mass, size and scale with the existing development.
Sense of Place	✓		The unique architectural styles and the proximity to the Back River give this neighborhood a specific sense of place.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation		✓	There is little open space available for preservation in this neighborhood.
Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.



Appropriate Businesses	✓		Low impact commercial services exist in the neighborhood and are compatible with the existing character.
Employment Options		✓	Not applicable to this neighborhood.
Housing Choices	✓		There are a variety of housing styles and options in the area.
Educational Opportunities		✓	Not applicable to this neighborhood.
Regional Solutions	✓		The City coordinates and works with its regional partners, including the CORE MPO and the Coastal Regional Commission.
Regional Cooperation	✓		The City coordinates and works with its regional partners, including the CORE MPO and the Coastal Regional Commission.

Character Area: Beaches			
Category	Yes	No	Comments
Traditional Neighborhoods		✓	Not applicable in this area.
Infill Development		✓	Not applicable in this area.
Sense of Place	✓		The beaches are the major tourist attraction for Tybee and provides the framework for its sense of place and community character.
Transportation Alternatives		✓	Not applicable in this area.
Regional Identity	✓		As a coastal Georgia barrier island, the beaches are a key element in the regional identity.
Heritage Preservation		✓	Not applicable in this area.
Open Space Preservation	✓		It is critical for Tybee to preserve and protect its beaches and dune systems.
Environmental Protection	✓		It is critical for Tybee to preserve and protect its beaches and dune systems.
Growth Preparedness	✓		It is critical for Tybee to preserve and protect its beaches and dune systems and to ensure there are no negative impacts from growth and development.
Appropriate Businesses		✓	Not applicable in this area.
Employment Options		✓	Not applicable in this area.
Housing Choices		✓	Not applicable in this area.
Educational Opportunities	✓		The beaches and dune systems provide educational opportunities through eco-tourism and the TIMSC programs.



Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.

Character Area: Beachfront Neighborhood			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional island homes and cottages. New development must be consistent with the existing character of the neighborhood.
Infill Development	✓		There are some opportunities for infill development. Infill development should be consistent in the terms of mass, size and scale with the existing development.
Sense of Place	✓		The unique architectural styles and the proximity to the ocean/beaches give this neighborhood a specific sense of place.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation	✓		There is little open space available for preservation in this neighborhood.
Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations



			focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses		✓	Not applicable to this area.
Employment Options		✓	Not applicable to this area.
Housing Choices	✓		There are a variety of housing choices and styles available in this area.
Educational Opportunities		✓	Not applicable to this area.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.

Character Area: Coastal Marshlands			
Category	Yes	No	Comments
Traditional Neighborhoods		✓	Not applicable in this area.
Infill Development		✓	Not applicable in this area.
Sense of Place	✓		The coastal marshlands are a unique resource and are a vital element in the sense of place for Tybee.
Transportation Alternatives		✓	Not applicable in this area.
Regional Identity	✓		The coastal marshlands are a unique resource and occur only in the coastal areas from the South Carolina lowcountry to south Georgia.
Heritage Preservation		✓	Not applicable in this area.
Open Space Preservation	✓		Preservation of the coastal marshlands is critical and a high priority,
Environmental Protection	✓		Environmental protection is critical; the coastal marshlands are unique environmental features and must be protected.
Growth Preparedness	✓		It is critical that the marshlands are not adversely impacted from growth and development.
Appropriate Businesses		✓	Not applicable in this area.
Employment Options		✓	Not applicable in this area.



Housing Choices		✓	Not applicable in this area.
Educational Opportunities		✓	Not applicable in this area.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.

Character Area: Commercial Gateway			
Category	Yes	No	Comments
Traditional Neighborhoods		✓	Traditional neighborhoods are not a major element.
Infill Development	✓		Vacant and underutilized properties existing within the corridor. Compatible infill development will ensure the vitality of this gateway corridor.
Sense of Place	✓		Unique businesses and attractions are a key element in the sense of place and community character for the island.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic structures exist in this area. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation	✓		There is little open space available in this corridor. When possible, the incorporation of open space is important for the community.
Environmental Protection	✓		Environmental protection is a high priority, and appropriate planning is important within the corridor.



Growth Preparedness	✓		Preparing for redevelopment and the retention of existing businesses is a higher priority than addressing new development in this area.
Appropriate Businesses	✓		The City should focus efforts on business retention, including those that serve both year round residents as well as tourists.
Employment Options	✓		The majority of opportunities are in the service related industries
Housing Choices		✓	Housing options include the potential for residential over commercial and the connections to adjoining neighborhoods is important.
Educational Opportunities		✓	Not applicable in this area
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.

Character Area: Ft. Screven Historic District			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes a variety of development styles, including traditional cottages and homes. New development must be consistent with the existing character of the neighborhood.
Infill Development	✓		Any new development/redevelopment should be consistent with the existing neighborhood and community character.
Sense of Place	✓		The unique architectural styles and the proximity to the ocean/beaches give this neighborhood a specific sense of place.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.



INTRODUCTION

Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood, including Ft. Screven and the Lighthouse. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation	✓		Preservation of open space is important, particularly the preservation of the existing parks and public open spaces.
Environmental Protection	✓		Environmental protection is critical; the unique coastal environmental features must be protected.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses	✓		Low impact commercial services exist in the neighborhood and are compatible with the existing character.
Employment Options		✓	Not applicable in this area.
Housing Choices	✓		There are a variety of housing choices and styles available in this area.
Educational Opportunities	✓		The Tybee Island Marine Science Center is relocating to this area.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.



Character Area: Inland Cottage Neighborhood			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional island homes and cottages. New development must be consistent with the existing character of the neighborhood.
Infill Development	✓		There are some opportunities for infill development. Infill development should be consistent in the terms of mass, size and scale with the existing development.
Sense of Place	✓		The unique architectural styles and the proximity to the ocean/beaches give this neighborhood a specific sense of place.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation	✓		There is little open space available for preservation in this neighborhood.
Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses		✓	Not applicable in this area.
Employment Options		✓	Not applicable in this area.
Housing Choices	✓		There are a variety of housing choices and styles within this neighborhood.
Educational Opportunities	✓		The Tybee Gymnasium, YMCA and Charter School are located within this area.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.



Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.
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Character Area: Marshfront Neighborhood			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional island homes and cottages. New development must be consistent with the existing character of the neighborhood.
Infill Development	✓		There are some opportunities for infill development. Infill development should be consistent in the terms of mass, size and scale with the existing development.
Sense of Place	✓		The sense of place for this area are enhanced by the significant scenic views of the coastal marshlands and tidal creeks.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation		✓	There is very little open space to be preserved in this area
Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses		✓	Not applicable in this area.
Employment Options		✓	Not applicable in this area.



Housing Choices	✓		There are a variety of housing choices and styles within this neighborhood.
Educational Opportunities		✓	Not applicable in this area.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.

Character Area: North Beach/Maritime District			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional island homes and cottages, commercial and recreational uses, and public and government use buildings. New development must be consistent with the existing character of the neighborhood.
Infill Development	✓		There are opportunities for infill development. Infill development should be consistent with and support the sense of place and community character.
Sense of Place	✓		The unique mix of uses and the proximity to the water gives this neighborhood a specific sense of place.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation	✓		There is little open space available for preservation in this neighborhood.



Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses	✓		Commercial/retail services exist and are primarily focused on eco-tourism and services.
Employment Options		✓	Employment exists within this area, but is primarily focused on service industries.
Housing Choices	✓		There is a mix of housing options and styles in this area.
Educational Opportunities	✓		Educational opportunities exist through the eco-tourism industry.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.

Character Area: The Strand/Historic Downtown District			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional island homes and cottages and commercial/retail. New development must be consistent with the existing character of the area.
Infill Development	✓		Although there are limited opportunities for infill development, any infill development should be consistent with and support the sense of place and community character.
Sense of Place	✓		The unique mix of uses and the proximity to the water gives this traditional downtown area and adjacent residential neighborhood a specific sense of place.



INTRODUCTION

Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation		✓	There is very limited open space within this area.
Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses	✓		Land available for new business opportunities is limited, so the City is concerned with the retention of existing businesses and the attraction of new businesses that serve the needs of the beach community.
Employment Options	✓		There are employment opportunities, which include some professional positions, but primarily are tourist/service related industries.
Housing Choices	✓		There are a variety of housing choices/styles within this area.
Educational Opportunities		✓	Not applicable in this area
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.
Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.



Character Area: South End Neighborhood			
Category	Yes	No	Comments
Traditional Neighborhoods	✓		The neighborhood includes traditional cottage style residences. Any new development should be consistent with the existing community character.
Infill Development	✓		There are some opportunities for infill development. Any infill should be compatible in size, mass and scale with the adjacent properties.
Sense of Place	✓		The unique architectural styles and the proximity to the ocean/beaches give this neighborhood a specific sense of place.
Transportation Alternatives	✓		Improving safe, connected and accessible bicycle and pedestrian alternatives are a focus for the City.
Regional Identity	✓		Tybee Island is a unique barrier island and a major tourist destination. This special coastal Georgia identity is the primary draw for visitors.
Heritage Preservation	✓		Historic homes and structures exist in this neighborhood. Preservation and restoration of historic structures are high priorities for Tybee residents.
Open Space Preservation		✓	There is very limited open space within this area.
Environmental Protection	✓		Environmental protection is a high priority, particularly on the beaches and other water and marsh resources.
Growth Preparedness	✓		The Carrying Capacity Study currently under development will include recommendations focused on managing growth with the provision of infrastructure and services.
Appropriate Businesses		✓	Not applicable in this area.
Employment Options		✓	Not applicable in this area.
Housing Choices	✓		There is a mix of housing styles and options within the area.
Educational Opportunities		✓	Not applicable in this area.
Regional Solutions	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional solutions are important in the preservation and protection of this resource.



INTRODUCTION

Regional Cooperation	✓		Coastal Georgia beaches, including Tybee Island are critical regional resources and regional cooperation and coordination is important in the preservation and protection of this resource.
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APPENDICES

*DESIRED DESIGN PATTERNS AND
ARCHITECTURAL STYLES GUIDEBOOK*

APPENDICES
TRANSMITTAL RESOLUTION

**City of Tybee Island
Resolution to Submit
Comprehensive Plan Update**

WHEREAS, the City of Tybee Island Council has completed the required Comprehensive Plan Update.

WHEREAS, this document was prepared according to the Chapter 110-12-1 Minimum Standards and Procedures for Local Comprehensive Planning effective March 1, 2014 and the required public hearing was held on July 11, 2016.

BE IT THEREFORE RESOLVED, that the City of Tybee Island Council does hereby transit the Comprehensive Plan Update to the coastal Georgia Regional Commission and the Georgia Department of Community Affairs for official review.

BY: _____

DATE: _____

ATTEST: _____

DATE: _____

RESOLUTION

**A RESOLUTION BY THE MAYOR AND
COUNCIL OF TYBEE ISLAND,
GEORGIA, ADOPTING THE TYBEE ISLAND
2016-2036 COMPREHENSIVE PLAN**

WHEREAS, Tybee Island prepared a 2016 update to the comprehensive plan in accordance with the rules of the Georgia Department of Community Affairs Minimum Standards and Procedures for Local Comprehensive Planning (Chapter 110-12-1); and,

WHEREAS, The Mayor and Council of Tybee Island, in consultation with the contracted consultant, selected both a technical group and stakeholder group consisting of a cross-section of the community to facilitate development of the 2016-2036 Comprehensive Plan (the Plan); and,

WHEREAS, the groups met regularly with staff and the consultant over the eight month period to establish goals, objectives, and strategies to guide the future of the community; and,

WHEREAS, the Tybee Island and consultant staff assembled the recommendations of the groups and prepared documents in the Comprehensive Plan format required by the Georgia Department of Community Affairs Minimum Standards and Procedures for Local Comprehensive Planning (Chapter 110-12-1); and,

WHEREAS, the Tybee Island 2016-2036 Comprehensive Plan was prepared in accordance with the Standards and Procedures for Local Comprehensive Planning (Chapter 110-2-1) effective March 1, 2014, and established by the Georgia Planning Act of 1989; and,

WHEREAS, on August 22, 2016, the City transmitted the Plan to the Coastal Regional Commission (CRC) and the Georgia Department of Community Affairs for official review; and,

WHEREAS, the Plan has been found by the Georgia Department of Community Affairs to be in compliance with the above-mentioned Minimum Standards and Procedures;

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF TYBEE ISLAND, GEORGIA, AND IT IS HEREBY RESOLVED that Tybee Island 2016-2036 Comprehensive Plan is hereby approved and adopted.

BE IT FURTHER RESOLVED that the City staff be directed to provide a copy of this adoption resolution within seven (7) days of local adoption of the approved Plan to the CRC, and to publicize the availability of the adopted Plan as public information by posting the Plan on the City's website.

SO RESOLVED, this the 27 day of October, 2016.

CITY OF TYBEE ISLAND, GEORGIA

By: 
Jason Buelterman, Mayor

ATTEST:

By: 
Clerk of Council