CITY OF OCEAN SPRINGS, MISSISSIPPI

Comprehensive Plan

Remembering our Past,
Protecting our Environment and
Celebrating the Arts on the Mississippi Gulf Coast

ADOPTED 2010

PLANNING WORKS

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ACKNOWLEDGEMENTS

FROM THE CONSULTANT TEAM

Comprehensive planning is an undertaking that requires the involvement of a wide range of stakeholders – concerned citizens, interest groups, local developers, City staff and elected and appointed officials all working together to reach consensus on how a community should grow and develop. Without the interest and concern of the many people involved in the planning process the recommendations presented in this plan document would not have been possible. The efforts put forth to develop this Comprehensive Plan update are excellent examples of community cooperation and involvement.

Recognition and thanks are extended to the Ocean Springs Board of Aldermen, Planning Commission, Zoning and Adjustment Boards and Historic Preservation Commission for having the insight to recognize the benefit of updating the Comprehensive Plan to reaffirm and establish City land use and development policy as a foundation for the creation of a Unified Development Code to implement the Plan and protect the City's quality of life. Special recognition and thanks also are presented to Mayor Connie Moran for her ongoing support of community planning and citizen participation in the planning process. She brought many stakeholders to the table for the benefit of the City of Ocean Springs and this planning process.

Sincere thanks and appreciation are also extended to Planning Director Eric Meyer, Planner Kyle Smith, Planning Clerk Ashley Bearfield and the other members of the City's professional staff for their assistance and involvement during the planning process.

It has been a pleasure to assist the City of Ocean Springs in the update of Comprehensive Plan 2008.

Bruce G. Peshoff, JD, Planning Works
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1   INTRODUCTION

1.1   Plan Update

This document is a statement of the Ocean Springs community's vision for its own future and a guide to achieve that vision through the year 2030. The view of the future expressed in the Comprehensive Plan is shaped by local community values, ideals and aspirations about the best management and use of the community's resources. The Plan uses text, maps and diagrams to establish policies and programs which the City may use to address the many physical, economic and social issues facing the community. Thus, the Plan is a tool for managing community change to achieve the desired quality of life.

The 2008 Comprehensive Plan updates the 2001 Comprehensive Plan and builds on the efforts of several recent and concurrent planning processes. This is a strategic document that defines a discreet work program. It prioritizes action tasks for the City to complete in order to achieve the vision of the combined planning efforts.

While the 2001 Plan adequately addressed the community's concerns and established a foundation for an integrated growth management system, the community's focus shifted dramatically with the landfall of Hurricane Katrina on August 29, 2005. The Mississippi Gulf Coast was devastated by the storm surge, with catastrophic damage spread across the three coastal counties and severely impacting each of the eleven coastal communities. Neighborhoods, homes, businesses, critical infrastructure and city governments were destroyed, but little time passed before residents of the Gulf Coast began massive efforts to rebuild their lives and communities. Communities across the Gulf Coast embraced planning efforts to build back their communities even better than before, restoring the best parts and rethinking past challenges.

The 2008 Comprehensive Plan Update is therefore not a planning process that starts from the "ground up," but rather builds on the strong foundation of the 2001 Plan to assess the community's status and priorities in light of the massive challenges it has faced since Hurricane Katrina. The Plan Update is a measure of whether Ocean Springs is still going in the "right direction" and is meant as a tool to keep the community on-track as it works to achieve its goals. It is also meant as a tool to catalog and coordinate the many planning and implementation projects that have been completed since 2001 or are currently in progress. Finally, the role of the Plan Update is to set the stage for major revisions to the City's development regulations.

1.1.1   Why Plan?

Successful communities do not just happen; they must be continually shaped and guided. A community must actively manage its growth and respond to changing circumstances if it is to continue to meet the needs of its residents and retain the quality of life that initially attracted those residents to the community.

Residents of Ocean Springs value the high quality of the natural environment, the character and diversity of their neighborhoods, the quality of public services, the cultural resources and breadth of recreational opportunities, as well as the strong sense of "community." Concern about the impact of new growth has increased as residents have experienced increased traffic congestion, school crowding, commercial encroachment on neighborhoods and the inappropriate development of natural, open areas. In the past several years, the City has worked with developers to permit mixed-use projects that embrace new smart growth techniques. Effective growth management can help the community address each of these concerns.

The City recognizes the importance of coordinating growth management efforts with Jackson County and adjacent communities. Much of the recent growth is located within the unincorporated portions of the Planning Area. By shifting urban and suburban service demands to areas that lack adequate services and facilities, this growth threatens to create detrimental fiscal impacts in addition to its impacts on the character of urban and rural areas. The City and County must develop a joint strategy for growth management to make efficient use of both valuable infrastructure that is already in place, and to prevent unnecessary loss of the surrounding open space areas where such infrastructure is not yet in place. A good plan and effective plan implementation measures can curb the trend towards sprawl development and promote appropriate and available infill development and redevelopment. This is important as the City is extending water and sewer service eastward along Bienville Boulevard and northward on Highway 57 to Interstate 10. While allowing appropriate development opportunities in outlying areas,

this plan seeks to promote development and economic growth in areas that can be effectively and efficiently served by public facilities and utilities.

This Comprehensive Plan, once adopted and implemented consistently and carefully, also will strengthen the partnership between the public and private sectors. This partnership can achieve infinitely more for both parties than either acting alone. An important premise of an effective comprehensive plan is that it creates a "win/win" situation for the public and private sectors, for existing and new neighborhoods, for economic development and open space land conservation, and for fiscal integrity and enhanced quality of life.

1.1.2   How Should the Plan Be Used?

The Comprehensive Plan is a guide to action. It is not, itself, an implementation tool. By ensuring that individual actions are consistent with the goals, objectives and policies of the Comprehensive Plan, the City can effectively achieve the vision. For example, the Planning Commission and the Board of Aldermen will use the Plan's policies and maps to decide whether to approve a proposed re-zoning of land within its City limits. Zoning, subdivision, building and construction codes and standards should regulate development in conformance with the Comprehensive Plan. This Comprehensive Plan Update precedes a major revision to the City's development regulations, and serves as a tool to

assess community needs and preferences in terms of the regulatory structure.

The Plan also should guide the preparation of detailed facility master plans and capital improvement programs for the City's water, wastewater, flood control, parks and transportation systems. The Plan should be a dynamic document, subject to periodic amendment when conditions within the City change significantly. Periodic updates of the Plan will be needed to ensure that it continues to meet the needs of City businesses and residents.

1.1.3   Who Implements the Plan?

The policies and strategies of the Plan must be implemented in a timely manner in order to ensure that the vision of the Comprehensive Plan becomes a reality. Who should be charged with the implementation of the goals, policies and strategies? It should be a joint effort of the Board of Aldermen, the Planning Commission and City staff, the private sector and other service providers. The implementation program identifies and prioritizes strategies to ensure that the vision becomes a reality. The schedule establishes priorities for public action and also guides private decisions that support Plan priorities.

1.1.4   Coordination with Other Jurisdictions

The Planning Area extends beyond existing City boundaries to reflect a *comprehensive* approach to growth management – community issues typically don't start and end at precise boundaries, but reflect development practices and pressures within a general geographic area. Preparing for growth means that development proposals should be encouraged in appropriate areas, based on land use intensity and available infrastructure, and discouraged in inappropriate areas. The determination of infrastructure availability often is dependent upon the potential of undeveloped land to permit expansion, based on a fiscal impact analysis to ascertain the economic feasibility of such an expansion. A base map of Ocean Springs and the surrounding communities is shown in **Map 1**. The Planning Area is shown in **Map 2**.

Many problems faced by local governments are regional in nature. Issues such as population growth, environmental preservation, growth patterns, and the adequacy of public facilities and services often transcend local, neighborhood or city boundaries. This Plan strongly supports partnerships between Ocean Springs, Jackson

County and communities adjacent to the planning area. These partnerships should focus on coordinated growth management and service provision strategies. Through effective coordination, residents and business owners will enjoy the benefits of more cost-effective service provision and a more stable, sustainable region. Failure to coordinate will result in excessive consumption of valuable open space land, as well as the inefficient use of existing public investments in infrastructure.

In other communities, lack of intergovernmental coordination has resulted in the loss of population and economic development. Such losses undermine the stability of neighborhoods and businesses within the City, and reduce public facility and service efficiencies, thereby increasing costs for both City residents and County residents. This makes the City less attractive for major economic development that would benefit the entire planning area and the region, and generates a need for more expansive roads and highways to transport workers longer distances to their jobs. These adverse consequences can be avoided by: coordinated (joint) comprehensive planning; the adoption and implementation of key growth management goals, objectives and policies; and sustained monitoring of development over the planning period.

1.2   Context for Planning

The City of Ocean Spring's 1965 Comprehensive Plan stated, "Those responsible for planning in Ocean Springs have two choices. They can allow the City to develop as it has in the past with only limited regard to land planning, street alignment, compatible land uses, zoning controls, or codes and ordinances. This lax attitude of no controls will continue to curse the land, increase taxes, reduce revenue, and encourage traffic congestion. The other choice, and the most desirable, is to intelligently evaluate the economic background and potential of Ocean Springs, to adhere to the land use plan, enforce the zoning ordinance and building code, review all subdivision developments in the light of the subdivision regulations, and intelligently recommend placement of schools, playgrounds, parks, major roads, and other community facilities."

In light of the alternatives presented to the City leaders forty-five years ago, what choices were made? Has the City been allowed to develop as it has in the past without any regard to land planning or have intelligent evaluations been made to require proper growth and development? Visual inspections of the City coupled with citizen input indicate that progress has been made; however, choices also have been made that have eroded the character of what people perceive Ocean Springs to be. The City of Ocean Springs, Mississippi Comprehensive Plan's purpose is to

evaluate previous planning efforts and documents, identify the shortfalls and problems, assess the City's current environment, and recommend alternatives for future development based heavily on citizen comments.

MISSION STATEMENT
To identify the unique characteristics and resources of Ocean Springs, and provide for their preservation and enhancement, with balance between quality of life and economic growth.

The plan sets forth a vision to emphasize, develop, and strive to be widely recognized as an aesthetically pleasing small town community, providing a superior quality of life, and family environment. The plan's intent is to make the preceding vision a reality by focusing on creating a place that feels, not just looks, like a community and functions like a community; offering charitable goals; addressing health, educational, social and cultural needs; and providing recreational amenities. This involves the development of places designed, constructed and maintained to stimulate and please the senses, to encourage community use, and to promote civic and personal pride. If the City leaders adopt policies meeting the aforementioned criteria, then Ocean Springs will not only continue to be a great place to live as its residents strongly believe it is, but also, by cultivating a sense of well-being among its residents, it will encourage value-added development.

1.2.1   Historical Development

Ocean Springs, purported to be the second oldest city in the country, was founded by the French in 1699 with the establishment of Fort Maurepas. Located on a peninsula, the City is bordered by Biloxi Bay, Davis and Old Fort Bayou. The area became settled as a colonial fishing village and experienced only limited growth until steamer service began between Mobile and New Orleans in 1820-30s. In the 1800s, Ocean Springs provided a safe haven to those escaping yellow fever by steamboat from New Orleans and began to grow as a resort community with the discovery of mineral springs near the Old Fort Bayou in the 1850s. This heralded the construction of numerous hotels and boarding houses, as well as elaborate resort homes. Also, during this time, live oaks were planted along the streets of the town. During the 1870s the railroad was built and the central business district transitioned from the waterfront to the railroad – as the primary transportation mode changed, so did the location of the community's focal point for commercial activity.

The streetscape of old Ocean Springs has not changed much in the last sixty to seventy years. Most of the commercial space available in the downtown area is rented by retail businesses, especially along Washington Avenue, the main street of old Ocean Springs. At the turn of the past century, as in many towns nationally and internationally, there was a significant mix of land uses which allowed people to walk to nearby businesses and even live above some of the shops in the downtown area. During the Depression of the 1930s, many property owners tore down the older buildings to avoid paying the taxes on them. Most of the buildings not torn down were destroyed by fire. During the post-World War I era the downtown began growing to the east of Washington Avenue. As Highway 90 was completed, businesses began relocating along the commercial strip.

It has been noted residents of the community are frequently characterized by their love of the arts. Ocean Spring's most famous citizen, Walter Anderson, was known for his colorful paintings and murals of the creatures and plant life of the nearby

Mississippi Sound and Gulf of Mexico. Ocean Springs is also recognized for houses designed by famous architects. Architect Louis Sullivan frequently visited the town and that Frank Lloyd Wright may have designed several cottages there, while he was working for Sullivan.

Map 1 - Base Map

OCEAN SPRINGS
BLUEPRINT
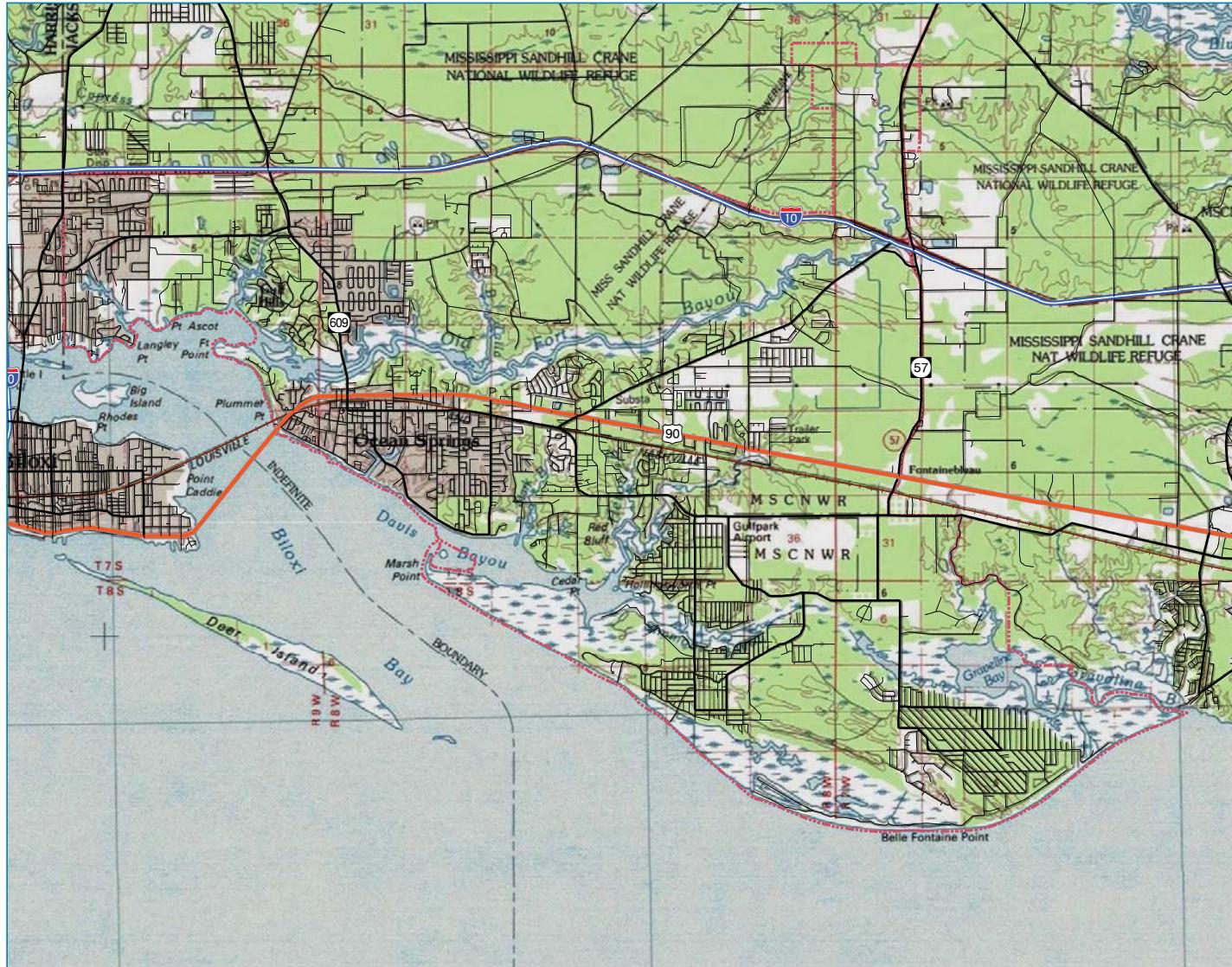
Legend

Legend

— Interstate Highway
— Highway
— Major Road
— Local Road
— Minor Road
┼┼┼ Railroads (Local)
▫ Planning Area

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Please use this map as a guide and not as definitive information. The areas depicted by this map are approximate and are provided for illustrative purposes only. While every effort has been made to ensure the accuracy, completeness, correctness, and timeliness of information presented within this map, the burden for determining appropriateness for use rests solely with the user. This map is provided "as is" with no warranties, express or implied.

0   0.5   1   2 Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, USGS, ESRI

Map 2 - Planning Area and Places
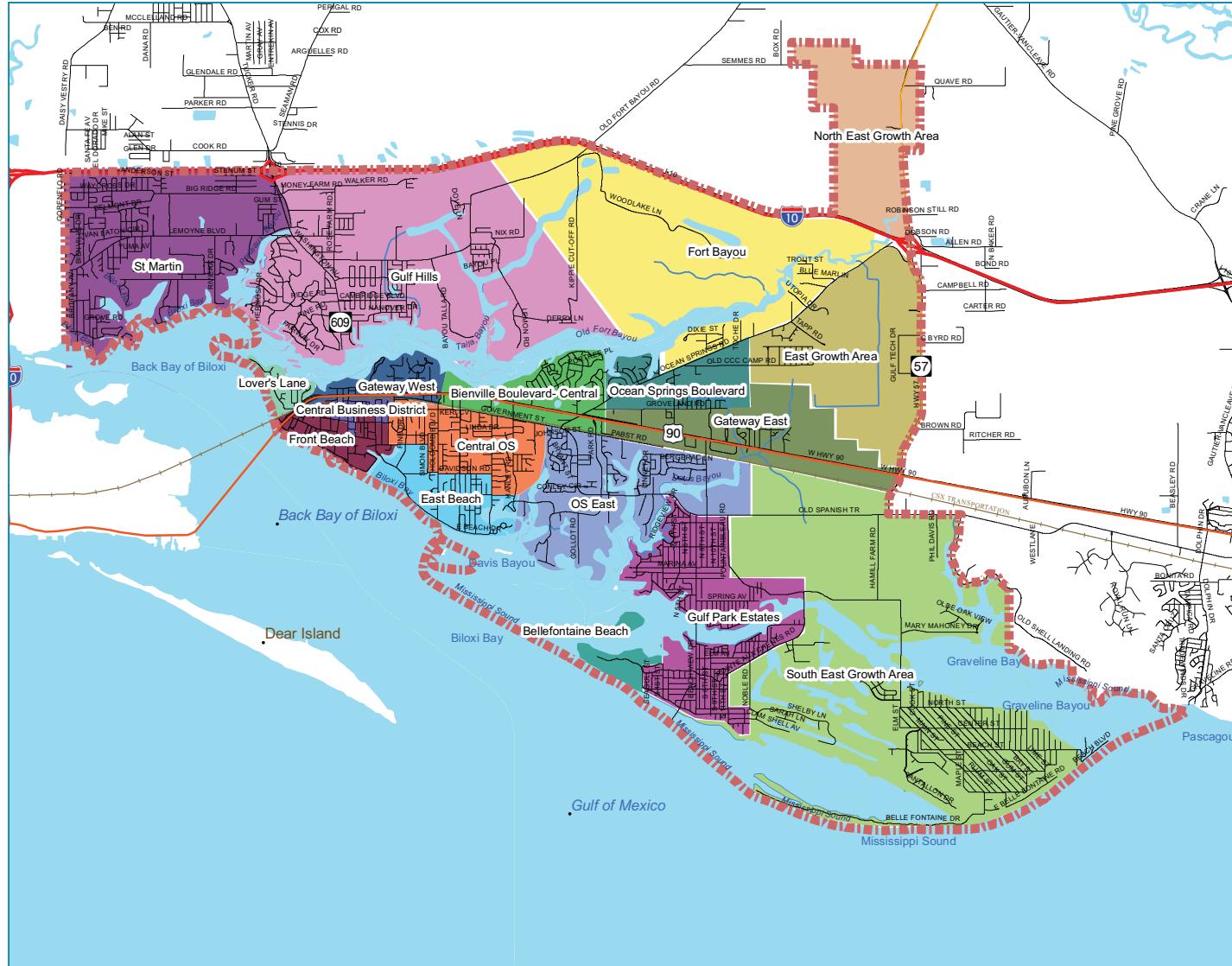
Legend

Legend

- Planning Area
- Bellefontaine Beach
- Bienville Boulevard- Central
- Central Business District
- Central OS
- East Beach
- East Growth Area
- Fort Bayou
- Front Beach
- Gateway East
- Gateway West
- Gulf Hills
- Gulf Park Estates
- Lover's Lane
- North East Growth Area
- North Fort Bayou
- OS East
- Ocean Springs Boulevard
- South East Growth Area
- St Martin

PlanningWorks

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Map labels: North East Growth Area, Fort Bayou, East Growth Area, St Martin, Gulf Hills, Lover's Lane, Gateway West, Bienville Boulevard- Central, Ocean Springs Boulevard, Central Business District, Front Beach, Central OS, East Beach, OS East, Gateway East, Gulf Park Estates, South East Growth Area, Bellefontaine Beach

Water bodies: Back Bay of Biloxi, Davis Bayou, Mississippi Sound, Biloxi Bay, Dear Island, Gulf of Mexico, Graveline Bay, Graveline Bayou, Pascagoula

0   0.5   1   2 Miles

Data Sources: City of Ocean Springs, MARIS

1.2.2   History of Planning in Ocean Springs

There have been several distinct planning efforts undertaken by the City. The City of Ocean Springs began its first formalized planning process in the late 1950s that led to the report *Evaluation of the Economy - Long Range Land Use Plan for Ocean Springs, Mississippi (1965)*. Subsequent publications that were part of that Plan included the *Major Thoroughfare Plan (1966), Community Facilities Plan (1966)* and *Public Improvements Program, Capital Improvements Budget, Planning Continuation Program (1966)*.

The *Evaluation of the Economy - Long Range Land Use Plan* may be characterized as being insightful in that many of the problems facing the City today were clearly identified and predicted. Several examples are:

- "Strip commercial development is beginning to show up . . . and [unless] this strip commercial is controlled through codes and ordinances, the strip development and scattered land use will prove to be deleterious to the land in the fringe area and to the traffic circulation in the fringe area and to the control and use of commercial districts in Ocean Springs."

- "As mentioned earlier in this report, there is an abundance of vacant land within the City and within the fringe area for the suggested population increase during the planning period; however, extreme caution should be exercised in the utilization of this vacant land because this is the last opportunity for the City to obtain organized land development, traffic circulation, and the placement of recreational areas in the proper places."

- "Ocean Springs is one of the many 'bedroom' or 'satellite' communities on the Gulf Coast. This does not mean that it is a 'good' or 'bad' city ... but it is evident that Ocean Springs is destined to be a residential community since the urban areas of Pascagoula, Biloxi, and Gulfport have much more to offer industry. Ocean Springs is blessed with a long history. The rich history of the community, the topography, and the tranquility of the beautiful live oaks and the serenity of the landscaped views from Ocean Springs put it in an enviable position to attract 'bedroom' residential development. It is not the intention of this land use plan or zoning ordinance or the major thoroughfare plan to change the history or the character of the City, however, it is believed that the people of Ocean Springs should not rest on their laurels and boast of their heritage or turn away from the facts of population growth and development or the dilapidated houses or deteriorating neighborhoods."

In the early 1970s, to justify expanding the City limits beyond the planning area established in the 1965 Plan, the City undertook efforts to develop its second comprehensive plan. The adopted *Comprehensive Plan (1971)* consists of the following reports:

Community Goals, Objectives, and Standards;
- Economic and Population Study;
- Inventory and Analysis;
- Initial Housing Element;
- Public Improvements Program; and
- Comprehensive Development Plan.

The Plan was written on the basis of studies that analyzed again and re-evaluated the Ocean Springs economy, history and growth pattern through the year 1970. Goals, objectives, and standards were set forth in the Plan for City growth and development to 1990. As was identified in the 2001 Comprehensive Plan, several of the goals identified in the 1971 Plan have been accomplished. The 2001 Plan was the first official land use strategy and set of standards the City adopted.

The planning effort that resulted in the 2001 Comprehensive Plan, adopted June 19, 2001, began in August 1995. The intention was to begin data collection and issue identification to serve Ocean Springs for a twenty-year period, from 2000 to 2020. The data provided was monitored incrementally and reviewed in detail by the Ocean Springs Growth and Development Committee, created under the authority of the Board of Aldermen, to operate as an ad hoc committee reporting to the Ocean Springs Planning Commission.

The process of recovery from Hurricane Katrina resulted in a number of public and private planning and investment projects, which have completed many of the tasks included in the implementation program of the 2001 Plan. Within weeks of the storm, Governor Haley Barbour convened a Commission on Recovery, Rebuilding and Renewal to lead the Gulf Coast recovery

effort. The centerpiece of this effort was a weeklong workshop called the "Mississippi Renewal Forum," that was held in Biloxi on October 12-17, 2005. Teams of professionals, many associated with the Congress for the New Urbanism, worked with community leaders to design and plan for the Gulf Coast. The Renewal Plan created for Ocean Springs during this effort was the beginning of many planning projects that have occurred in Ocean Springs since Katrina.

Since the participation in the Renewal Plan was particularly passionate and inspired, and it has informed so many subsequent plans, it is important to repeat the guiding principle of that Plan here:

> **Grow more, but grow more of the real Ocean Springs.**
> Extend the best of the historic patterns of architecture, urbanism and green networks found in Old Ocean Springs into
> 1. new growth areas,
> 2. infill development in the City's traditional neighborhoods,
> 3. strategic redevelopment of Bienville Boulevard (Hwy 90).

Many of the Strategic Actions identified in the Renewal Plan for Design, Policy and Management have been accomplished or are currently in-progress. The strategies that have not been completed are included in the work program of this Comprehensive Plan Update.

The City of Ocean Springs suffered considerably, but is in a place physically, fiscally, and in terms of community reputation and quality of life to capture new growth and investment as the Gulf Coast rebuilds. It is paramount for the City to re-assess its policies and standards for development to ensure that this new development complements rather than detracts from the urban form, character, levels of service and fiscal health of the City.

In December 2007, voters passed a local referendum to apply a two percent (2%) food and beverage levy within the City limits on restaurants and lounges to fund a new public safety complex and three recreation complexes. Without commercial growth, revenues for public services were not keeping up with demand. There is a growing concern among Ocean Springs residents and business leaders that conception of Ocean Springs as a "bedroom" community is no longer generating sustainable revenue for the City to provide public services as in the past.

This Plan Update revises the background and analysis sections of the 2001 Plan and emphasizes the key changes since the 2001 Plan and the City's current priorities. The goals and policies of the 2001 Plan were assessed to verify if they are still valid, and new goals and policies have been added to reflect new principles and priorities. The implementation program was assessed and the action items (strategies) were assessed to verify if they are still valid, and, if so, if they have been completed or if they are still "to-dos." New strategies are added to support the updated policy framework. The Plan Update process was based around the use of Public Design Forums, described in detail in the **Chapter 2 – Vision & Guiding Principles**.

In addition to the Ocean Springs Renewal Plan, the 2008 Plan Update summarizes other important plans, goals and data studies that have been developed since Katrina. While these efforts are all valid as stand-alone components of the City's planning and growth management framework, this Plan develops policies and strategies to achieve the desired outcomes in a coordinated work plan.

2   VISION & GUIDING PRINCIPLES

Broad-based community support for development of a Comprehensive Plan is achieved by directly involving citizens and stakeholders and "vesting" them in the planning process. Any interested person or group should be encouraged to provide input and review and discuss key recommendations. A participatory planning process that addresses the concerns of citizens will set the stage for successful implementation of Plan strategies.

2.1   Public Design Forum Process

The 2008 Comprehensive Plan update process was centered around a Public Design Forum that took place June 2 – 5, 2008. Also known as a 'Charrette,' the Public Design Forum process is a multi-day collaborative land use and design process that provides a consensus-based foundation for the Comprehensive Plan.
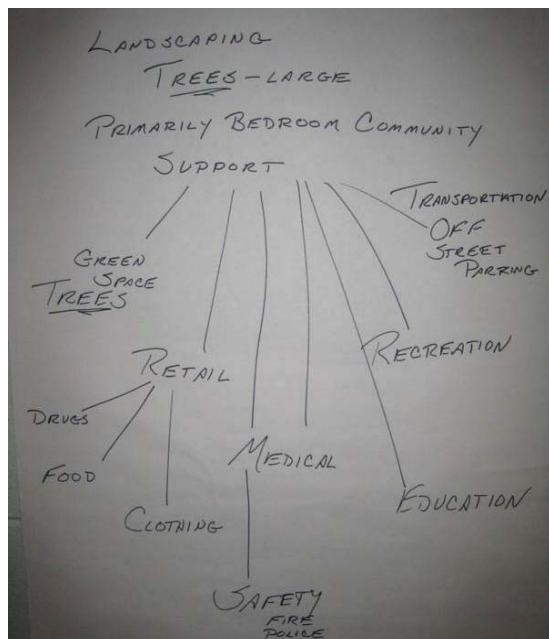
The public was invited to participate in the process during three day-long open houses, and three scheduled evening workshops the week of the Forum. All Forum activities occurred at the Ocean Springs Civic Center at 3730 Bienville Boulevard. The Forum was advertised in a four page pull-out section of the Ocean Springs Record that was printed and distributed the week before the Forum. It was also advertised on the project website, and was publicized formally and informally at public events and civic group meetings by City staff and elected and appointed board members.

In the months leading up to the Public Design Forum, the Planning Team gathered the most current data possible from local, regional and national sources. The Team obtained and reviewed copies of relevant studies and reports to become familiar with the important issues and opportunities. In addition to weekly conference calls with City Planning Staff to plan for the Forum, the Planning Team also scheduled and participated in a series of conference calls with consultant firms associated with other planning efforts and City Department Heads in order to understand the planning context and build support for the process.

While some members of the Planning Team had visited Ocean Springs during the 2001 Plan process, for the kick-off in February 2008 and/or during the Front Beach and Downtown Public Design Forum in March 2008, the Planning Team began the week on Monday morning by taking a staff-led driving tour of the planning area. The Team observed and discussed current planning and land use issues, including the potential growth areas, the major corridors, existing development, historic neighborhoods and examples of different development patterns.

The first public workshop was held Monday evening (June 2). It was based on two small group activities, including development of a community vision and a hands-on growth alternatives tiling exercise. The purpose of the Growth Alternatives Exercise is to help the community visualize the distribution of future development in the planning area. Residential and non-residential growth in the planning area was projected through 2030, based on the *Gulf Coast Area Transportation Study (GCATS)*, managed by the Gulf Regional Planning Commission. Groups were given large base maps of the planning area and a set of development tiles representing projected growth and future land use types. Maps portraying helpful information, such as storm surge areas, environmental hazards and existing land uses were posted on the walls of the Civic Center for reference. The groups were asked to allocate projected growth by sticking the tiles on their base map.

The second workshop was held Tuesday evening (June 4). At the second workshop, the Planning Team presented key elements of a vision statement and an overview of the key issues and opportunities that were discussed during the first public workshop and the focus group meetings.

The Planning Team also presented potential development scenarios to participants. While the meeting was intended to focus on a digital mapping and Geographic Information Systems (GIS) presentation, the workshop became a more informal discussion among participants and the Planning Team, as members of the community had many questions regarding the planning process, general planning principles and theory, existing land use patterns, the development review process and preservation of community character, among others. The Planning Team also presented the GIS-based digital mapping analysis to the community, and explained how different growth scenarios have different qualitative and quantitative impacts on the character of the community.

The final public workshop included presentations by Dover, Kohl and Partners and Hall Planning & Engineering regarding the corridor plan for Bienville Boulevard (Hwy 90), which illustrates design components that can be implemented to transform the corridor from a primarily single mode automobile-oriented multi-lane thoroughfare into a true urban boulevard. Members of those Planning Teams worked on the Boulevard Plan throughout the week of the Forum. Details of this discussion are included in Chapters 3 and 4. Finally, the Planning Team presented an overview of the week's work and members of the community participated in a keypad polling exercise. Participants responded to a series of questions regarding their planning priorities, and the keypad technology allowed the results of the survey to be tabulated and displayed after each question.

The Public Design Forum process is intended to not only involve the public, but also to address complex planning issues by bringing together multiple disciplines, stakeholders and viewpoints to solve problems holistically.

To that end, the Planning Team met in a special call meeting with the Planning Commission, Zoning & Adjustment Board and Historic Preservation Commission on Monday, and in an additional special call meeting with the Board of Aldermen on Tuesday. A number of topical focus groups were also convened during the four days of the Forum, including:

- Development
- Neighborhoods, Arts & Historic
- Transportation
- Emergency Services
- Education
- 'Green' Issues; focused on drainage and green infrastructure
- Greenways & Blueways; focused on trails
- Affordable Housing
- Coordination of Plans for the Old Fishing Pier

Participants in the Public Design Forum shared their local expertise with the Planning Team and asked the Planning Team for guidance relating to specific challenges. The June Forum established a basis for the Future Land Use Map and provided initial direction in terms of Plan goals and policies. Based on the input and participation, the Planning Team scheduled an additional set of meetings during a second Public Design Forum, held July 21-24, 2008, at which the Team worked on both the Plan Update and began work to update the City's zoning and subdivision regulations in a Unified Development Code.

On Monday afternoon (July 21) representatives of different neighborhoods within Ocean Springs were invited to share their viewpoint on the development of Comprehensive Plan as it relates to the development of policies and strategies generally impacting their neighborhoods, including specific needs and preferences of their neighborhoods. The workshop, held Monday evening, built on the input received at the prior Forum and asked the participants more in-depth questions about their preferences and priorities for development. A keypad polling presentation was used to ask participants about growth preferences, land use, adequacy of public facilities, and strategies for achieving Plan goals, specifically related to topics such as quality of life and codes enforcement, community design and natural resource protection.

In addition to the Public Design Forum focus groups, meetings and open houses, as well as subsequent meetings held during the process, the Planning Team established a dedicated project website to share information with the public. The website contained announcements of meetings, links to planning resources, a 'Comment Center' for users to submit messages to the Planning Team, copies of the presentations made at workshops and other information to keep participants up-to-date on the

process. Website users were able to register at the site to receive e-mail notification of upcoming meetings and other project news.

Through the Forum process, the community established a draft Plan vision, guiding principles, key issues and alternatives, a Development Tiers Map and goals, policies and strategies.

2.2 Key Issues

The following key issues emerged from the Public Design Forum process. The key issues lay the foundation for the Plan Update and provide policy direction for developing the goals and objectives of the Plan. The key issues also help the City to set priorities as it implements strategies to achieve the Plan vision. Key issues include:

Land Use
- Land use should be suitable for and compatible with environmental characteristics
- Development in new growth areas should integrate a mix of land uses, preserve open space, be fiscally responsible, and provide transportation options
- New development and redevelopment should reflect the character of traditional Ocean Springs
- Bienville Boulevard should evolve into a multi-lane urban boulevard that maximizes the corridor's role as the economic engine for the City, emphasizing retail uses facing the street, with service-oriented and office uses as a second tier of uses located behind the main frontage
- Emphasize the preservation and development of mixed use and walkable centers
- Gateways and corridors should present a positive image in terms of use and design
- Coordination with the State, County and other local municipalities is critical to preventing impediments to future urban growth
- Amend development regulations to implement desired development patterns
- Continue to use design standards to assure land use compatibility

Community Design & Character
- A higher level of property maintenance should be encouraged
- Preserve cultural amenities and community character in existing areas and reflect the character of traditional Ocean Springs in new development
- Identify and preserve the community's historical assets

- Identify alternative architectural and landscaping design standards
- Provide additional access to Ocean Spring's waterfront while protecting existing development
- Protect and enhance the tree canopy and encourage landscaping that reflects native plants

Neighborhoods
- Provide more sidewalks and trails in developed neighborhoods and require the development of such amenities in new growth areas
- Protect neighborhood character while allowing additional pedestrian connections
- Maintain small school sizes that provide neighborhood identity and a community focal point, as well as allowing children to walk to school

Housing
- Support affordable workforce housing for working professionals and young families
- Support life-long communities providing opportunities for people of all ages to live within all neighborhoods
- Encourage and support opportunities for a range of housing products, such as housing units over commercial spaces, row homes and patio homes, zero lot line development and retirement housing as an alternative to conventional

apartment development and single family homes

Natural Resources
- Protect environmental resources, including marshes and wetlands, habitat for flora and fauna, water and air quality
- Pursue ways to restore the urban ecology
- Take pro-active steps to address wetlands protection and drainage issues
- Protect the viewsheds and environmental features that contribute to the visual beauty and natural aesthetic of Ocean Springs
- Limit development's impact on the environment
- Identify strategies to protect people and property from natural and environmental hazards

Facilities & Services
- Use post-Katrina funds and grants to maximize City planning and CIP efforts
- Support and fund a CIP that protects our high quality of life
- Identify alternative strategies to equitably fund projected demand for facilities and services
- Identify multi-modal transportation alternatives
- Mitigate surface water flow problems due to increased impervious surfaces
- Ensure that adequate public facilities exist for new development

Economic Development
- Support the Ocean Springs School District as a key asset to existing residents and in terms of economic development and business recruitment
- Maximize tax revenues from commercial development as a main funding source for City services
- Expand the City's role as a medical, retail, restaurant and entertainment center for the region
- Consider the careful use of economic development incentives in order to provide public benefits and amenities from new development

Implementation & Governance
- Regulatory requirements and processes should be fair, predictable, and protect the interest of the community as a whole
- Intergovernmental cooperation will be essential for meeting the planning goals

- Consider the full range of regulatory options, including traditional zoning, form-based coding and Smart Code in order to achieve community planning goals

2.3 Vision & Guiding Principles

A long-term, consensus-based vision, rooted in community values, is the foundation of the Ocean Springs planning process. The *vision statement* helps citizens and decision-makers remember the ends to which the Plan aspires. In concert with Plan goals, it should temper and guide the interpretation, application and amendment of the Comprehensive Plan over time. The *guiding principles* are intended to clarify the intent of the vision statement and establish the context for the goals, objectives and policies.

Ocean Springs Vision

Ocean Springs is a community that:
- Preserves and respects its character, history and charm;
- Maintains a pedestrian-oriented scale;
- Protects its natural resources, environment and trees;
- Respects its relationship with the Gulf and Bayou;
- Promotes appropriate business development; and
- Recognizes the importance of Bienville Boulevard and other major thoroughfares to define and connect places.

Guiding Principles

Principle 1: We will protect and enhance our natural environment.
- We will pursue ways to restore the urban ecology.
- We will protect our trees and natural landscapes that define our community.
- We will support land uses that are compatible with environmental characteristics.
- We will create natural and built connections among our protected natural resources.
- We will support outreach efforts to teach our community about our many resources.

Principal 2: We will foster balanced, compatible development.
- We will encourage development that integrates a mix of land uses, preserve open space, is fiscally responsible and provides transportation options.
- New development and redevelopment should reflect the character of traditional Ocean Springs.
- We will create opportunities to diversify our economy in order to support our high quality of life.
- We will be mindful of natural hazards and mitigate risks to life and property.
- We will foster livable neighborhoods, with a variety of housing options and adequate community services, amenities and infrastructure.
- We will support and expand sustainable mobility options through our development patterns and transportation investments.
- Regulatory requirements and processes should be fair, predictable, and protect the interest of the community as a whole.

Principal 3: We will seek opportunities for local and regional coordination and partnership.
- We will coordinate with the County and surrounding communities to accommodate urban growth while protecting our natural resources and promoting a positive image of the community.
- We will coordinate infrastructure provision and development decisions with other public and private providers to increase efficiency and maximize our investment.
- We will coordinate service provision with other public and private providers to increase customer service and maintain a high quality of life.

3   COMMUNITY GROWTH & DEVELOPMENT

3.1   Growth Trends

The City experienced tremendous growth from 1970 to 1980, when its population grew from 9,580 to 14,504 people due primarily to annexation. From 1980 to 1990 the City grew in population by 5 percent, although the 1990 Census population figure was believed to be lower than what the actual population was. The Mayor in office at the time the 1990 Census figures were published filed a formal protest with the Census Bureau and an adjustment was made. However, the Census Bureau was limited in the amount of adjustment that could be made in response to the protest. As shown in **Table 1**, from 1990 to 2000, the City's population increased 18%, which is slightly above the Jackson County growth rate but comparable to the growth rate on the entire Mississippi Gulf Coast. Much of the population growth occurred as a result of the entrance of the gaming industry in 1992 in neighboring Harrison County.

While the City and County have not maintained the high growth rate of the 1990s, the population has remained relatively steady since 2000, as shown in **Table 2.**   Population in the City of Ocean Springs fell 3.3% from January 2005 to January 2006, following Hurricane Katrina, however Ocean Springs has fared better than other Gulf Coast communities, losing approximately one-half percent of population since 2000. As the damage suffered due to Hurricane Katrina was lighter in Ocean Springs relative to the surrounding communities, the City is expected to capture additional regional growth as rebuilding efforts continue. However, there are many barriers to population growth, such as high insurance costs and limited buildable land supply within the City limits that will limit additional population growth.

Figure 1 on the following page shows a historic perspective of growth in Ocean Springs.

Table 1: Gulf Coast Population Comparison (1980-2000)

	1980	1990	Change, 1980-1990	2000	Change, 1990-2000
Ocean Springs	14,504	14,658	1%	17,225	18%
Biloxi		46,319		50,644	9%
Pascagoula		25,899		26,200	1%
Gautier		10,088		11,681	16%
D'Iberville		6,566		7,608	16%
Jackson County		115,243		131,420	14%
MS Gulf Coast		312,238		363,988	17%

Source: U.S. Bureau of the Census, 2000.

Table 2: Gulf Coast Population (2000-2007)

	Census 2000	2000	2001	2002	2003	2004	2005	2006	2007
Gautier	11,681	16,864	16,864	16,684	16,663	16,818	16,814	16,251	16,096
Moss Point	15,851	15,837	15,645	15,432	15,267	15,256	15,078	14,583	14,199
Ocean Springs	17,225	17,264	17,279	17,263	17,373	17,635	17,726	17,140	17,246
Pascagoula	26,200	26,173	26,074	25,859	25,819	25,738	25,101	23,719	23,452
Balance of Jackson County	60,463	55,743	57,044	57,657	58,313	59,488	60,852	58,884	59,208
Jackson County	131,420	131,881	132,906	132,895	133,435	134,935	134,243	127,961	130,201

Source: U.S. Census, Population estimated as of August 1 each year.

Figure 1: Growth in Ocean Springs
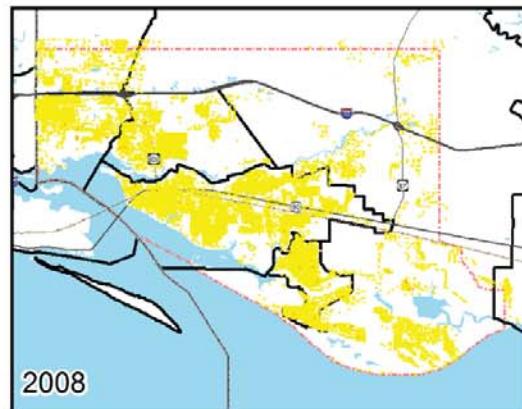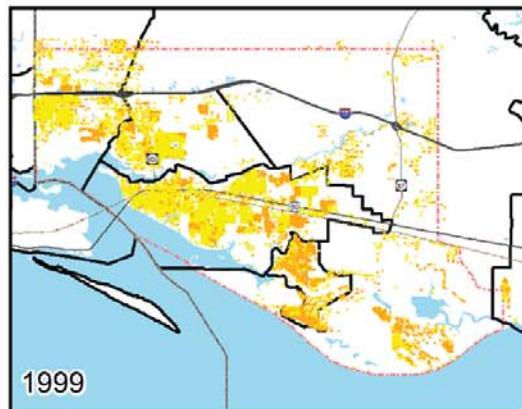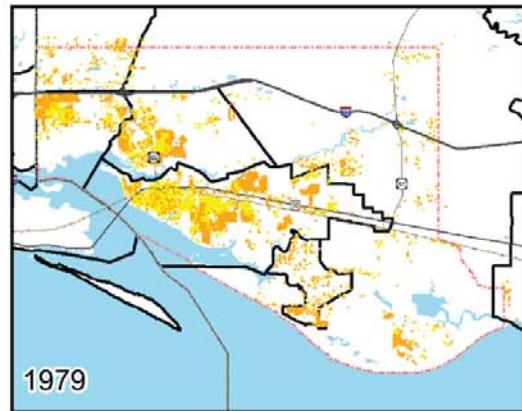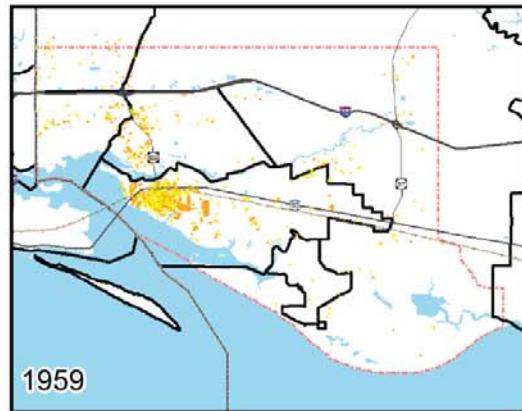
Legend

Buildings or houses built previous to labeled decade

Buildings or houses built through labeled decade

Please use this map as a guide and not as definitive information. The areas depicted by this map are approximate and are provided for illustrative purposes only. While every effort has been made to ensure the accuracy, completeness, correctness, and timeliness of information presented within this map, the burden for determining appropriateness for use rests solely with the user. This map is provided "as is" with no warranties, express or implied.

Data Source: Jackson County GIS

3.2   Growth Projections

Traffic Analysis Zones (TAZs) are defined in order to predict future traffic trends. The Gulf Coast Area Transportation Study (GCATS) includes current and future population (Pop.), dwelling units (DUs) and employment (Employ.) estimates for each TAZ. **Table 3** shows projected growth in the Planning Area (**Map 2)** defined for the Comprehensive Plan process, based on the TAZs. Note that the TAZs do not align with the Census boundaries, so there are slight differences in the reported numbers in comparison to Census data. Additionally, one of the TAZs ("Split Gautier") includes part of the Planning Area and part of the City of Gautier. All of the growth projected for that TAZ is included in the table, although it can be assumed that growth in the TAZ will be divided between the Planning Area and Gautier. Likewise, a portion of the Planning Area in the unincorporated County is located in parts of two TAZs ("Split North"), one of which includes portions of Gautier. The total growth for those TAZs is included in the table. It is likely that much of the growth in those TAZs will occur within the Planning Area due to proximity to the highway and provision of City facilities and services, if and when they become available.

While the Regional Transportation data is from 2000, GRPC revised the numbers post-Katrina. Since growth from 2000-2006 in the City and County has been relatively flat, the planning process is based on the assumption that the 2000 estimates reflects existing development in 2008.

According to the projections, and assuming the incorporated boundaries remain static, the City of Ocean Springs is expected to gain 1,982 people, 1,541 dwelling units and 3,681 jobs between 2000 and 2030. The Planning Area is expected to gain 17,927 people, 9,996 dwelling units and 5,705 jobs. While Ocean Springs has historically been a bedroom community, it is increasingly becoming a retail, entertainment and employment center for the County and region. The projections suggest that this trend will continue, with the City's employment growth outpacing the population growth. While there are many positive effects of employment growth, such as increased revenues and job opportunities, the City will need to recognize its new role in the region and work to mitigate possible negative externalities, such as traffic congestion, loss of character and increased need for facilities and services. Generally, the City is in a good position to capture the positive impacts of economic growth and strengthen its position as a regional destination.

While the 2001 Plan was premised on the continuation of the high growth rates of the 1990s, the current atmosphere regarding future population and economic growth is somewhat different than it has been in past years. While the growth projections discussed above are still considered to be valid and the economic outlook is generally positive for the Ocean Springs area, uncertainty at the national level regarding the economic outlook and the downturn in the housing market has informed some policy discussions throughout the planning process. While these issues did not come to the forefront of the Plan Update, it is important to note that resource limitations, including funding constraints, rising energy costs, and limited local economic diversity are challenges the City must address as it plans for the future.

Table 3: Projected Population, Dwelling Units & Employment in the Planning Area (2000 – 2030)

	2000			2030			2000 - 2030 Change		
	Pop.	DUs	Employ.	Pop.	DUs	Employ.	Pop.	DUs	Employ.
Gulf Hills	5,958	2,459	493	7,989	3,540	1,185	2,031	1,081	692
Gulf Park Estates	4,743	1,808	399	10,267	4,936	337	5,524	3,128	-62
Ocean Springs	16,735	6,889	6,509	18,667	8,430	10,307	1,932	1,541	3,798
OS Planning Area	2,756	1,080	941	6,677	2,975	1,126	3,921	1,895	185
Split Gautier	1,316	543	14	2,535	1,162	63	1,219	619	49
Split North	502	195	122	1,639	652	276	1,137	457	154
St Martin	6,675	2,533	767	8,838	3,808	1,655	2,163	1,275	888
Planning Area Total	**38,685**	**15,507**	**9,245**	**56,612**	**25,503**	**14,950**	**17,927**	**9,996**	**5,705**

Source: Gulf Coast Area Transportation Study (GCATS), available from the Gulf Regional Planning Commission

Figure 1: Population Change 2000-2030
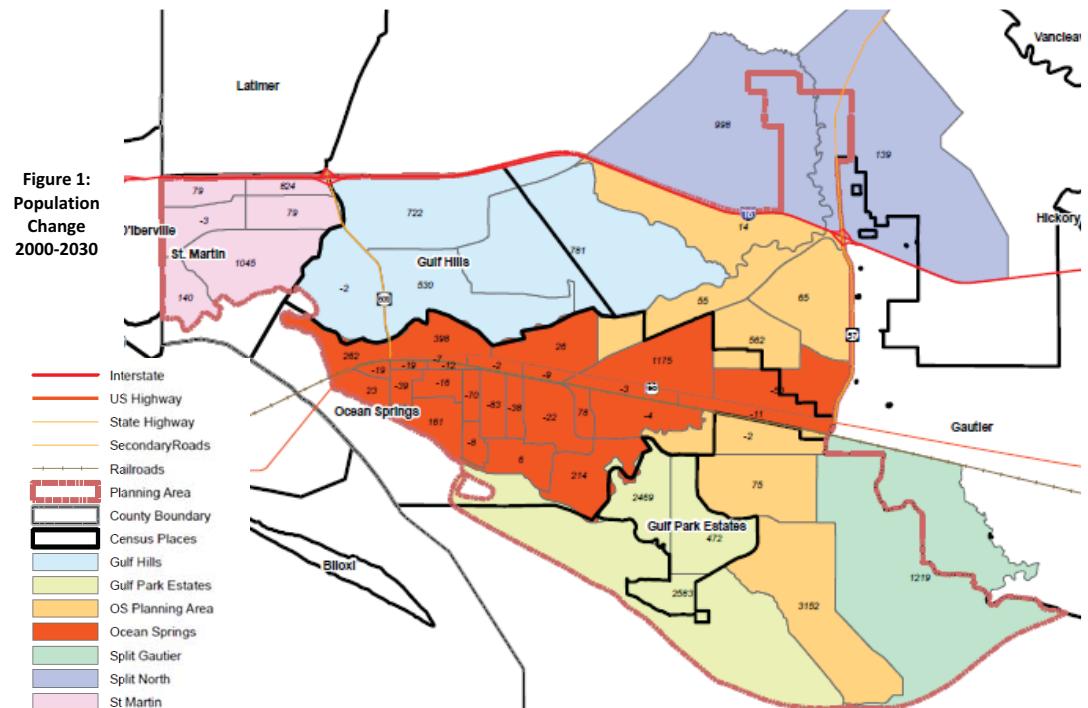
3.3   Housing

Sustainable communities provide housing options for all residents, so that people can stay vested and involved within their community though their housing needs may change over time.   In terms of housing, social sustainability means that housing is available for people of all racial, ethnic and socioeconomic backgrounds, as well as all household types (families, singles, un-related individuals, elderly, etc.).   Sustainable neighborhoods provide a mixture of housing forms, sizes, prices and densities, as well as opportunities for social interaction, such as neighborhood parks or neighborhood-based schools. Conventional subdivisions are often designed and marketed to separate housing products based on small pricing increments, for instance, homes with two bedrooms priced very closely to one another are all located in one pod, while slightly larger homes with three bedrooms priced just higher are located in a different pod. While this is presented as a way to maintain property values, it really serves to isolate people based on very small economic factors and matters of preference.

From an economic perspective, adequate workforce housing should be available to support a high-quality employment base for local and regional employers.   Workforce housing is necessary if the community and region are to maintain and enhance their economic health and vitality. Additionally, the provision of adequate, attainable housing helps to prevent neighborhood deterioration and a declining tax base. It is normal in the Gulf Coast and in many other regions of the country for workers to seek

housing in other more affordable communities, often forcing them to

commute long distances to work. This economic factor influences social and personal health aspects of people's lives as well as the environment, as long-distance commutes have huge impacts on local and global air quality.

Finally, from an environmental perspective, housing should be sustainable in terms of energy efficiency and its ecological footprint, both of which are discussed in greater length in the Environmental section of this Plan. The design of neighborhoods should support alternative transportation methods and public health goals through the integration of pedestrian facilities and proximity to employment opportunities.

3.3.1   Overview

The median home value in Ocean Springs in 2006 was $139,500. This is well above the Jackson County median of $113,300, and while housing in the County is less expensive than in the City, there is a relative lack of affordable housing along the Gulf Coast. According to the Board of Realtors, the 2008 average sales value was $185,573 in the Ocean Springs area. The United States Department of Housing and Development Fiscal Year 2006 median family income for the Gulfport-Biloxi metropolitan statistical area, of which the City of Ocean Springs is part, is $46,600. Consequently, housing costs should be in the range of $69,900 to $81,500 at a maximum to assure affordability in the region.

Ocean Springs has a significantly large portion of its housing stock in single family detached units (85.4%); this figure includes both site-built and manufactured units.   In general, the houses are situated on moderately sized lots (12,000 square feet or greater) which has led to a relatively low density, by urban standards, development pattern.

Higher density, attached residential units account for approximately 12.5% of the remaining housing stock. Almost all of these units are assumed to be renter-occupied. For two- to four-family units, the density is low, averaging five units per acre. The highest percentage of multi-family units (five or greater residences) primarily range from 15 to 24.99 units per acre. The average number of units per complex is 53 units.

Ocean Springs' housing trends follow many of the trends that have occurred nationally. The fast pace of residential construction has fueled concerns about "sprawl." In the midst of prosperity, the home ownership gap between whites and minorities has not narrowed.   Very low income households still lack adequate, affordable housing at a time when losses of subsidized units are rising. National figures indicate that record numbers of very low

income households are devoting more than half their incomes for housing. Renting remains the only option for many who are either unable to qualify for a mortgage loan or to cover the costs associated with buying a home. For many others, though, renting is an attractive lifestyle as well as a prudent financial choice. It is an especially appealing option for people who expect to move again within a few years, because they can avoid the steep transaction costs associated with buying and selling a home. It also may be the first independent step for younger persons in making a long term commitment to a community; as trends have shown, initially they may rent, but as they become "settled," they seek to purchase property in the community where they have been living.

3.3.2   Workforce Housing Challenges

Two issues related to housing dominate the 2008 Plan Update: housing affordability and maintenance.   These issues were identified in the 2001 Plan, but have only increased in importance and priority since Hurricane Katrina due to lost and damaged structures as well as increased insurance and construction costs. In particular, the cost of insurance makes owning a home in or near Ocean Springs particularly unaffordable.   While rates have been extremely high since Katrina, anecdotal information shared by building industry representatives indicated that the price of insurance appeared to be declining somewhat in the spring and summer of 2008, remaining quite high, however, relative to other housing markets. The median price of housing in Ocean Springs in 2000 was much higher than the County or State, as is shown in **Table 4.**

Table 4: Median Home Values (2000-2006)

	2000 Median Home Value	2006 Median Home Value	Percent Increase in Median Home Value
Ocean Springs	$98,900	S139,500	41.1%
Jackson County	$80,300	$113,300	41.1%
Mississippi	$71,400	$88,600	24.1%

Apartment housing in Ocean Springs is also rising in cost, with rates rising significantly between October 2004 and March 2007 in the Ocean Springs Area, as shown in **Table 5.** The average rental rate for a one-bedroom apartment in the area rose by almost 27% during that time frame.   This is due in part to the 111 market-rate

rental units in the Ocean Springs Area that were destroyed by Hurricane Katrina. Somewhat low vacancy rates in Ocean Springs also contribute to housing prices. The overall apartment vacancy rate on the Mississippi Gulf Coast in March 2007 was 6.7%, which is near the top of the four to six percent range considered "normal" in areas experiencing a "moderate" rate of growth, as shown in **Table 6.** The City of Ocean Springs apartment housing market is stronger than that of the Ocean Springs Area submarket and the region as a whole, with a vacancy rate of only 5.5%.

Table 5: Ocean Springs Area Average Rental Rates (March 2007)

Number of Bedrooms	Number of Apartments	Average Rental Rate (March 2007)	Percent Increase in Rental Rate (October 2004 - March 2007)
1	377	$696	26.9%
2	752	$779	24.6%
3	118	$947	23.2%

Table 6: Apartment Housing Vacancy Rates (March 2007)

	Number Apartments	Vacancy Rate
Ocean Springs	456	5.5%
Ocean Springs Area	1,247	7.1%
Mississippi Gulf Coast	13,594	6.7%

According to the John C. Stennis Institute of Government at the University of Mississippi, since Hurricane Katrina,

> "broad economic factors and issues that are geographically specific to coastal Mississippi have converged with national and regional issues to create obstacles to rebuilding affordable residential housing. These factors include increasing costs of building materials, increased land costs and escalating property taxes, more stringent building and elevation codes, increased insurance costs, and labor shortages and escalating labor costs due to the paucity of workforce housing and high demand[i]."

The preceding quotation sums up the struggle to provide affordable housing in Ocean Springs. In addition to the factors listed above, land within the City limits available for construction is quite limited

and therefore quite expensive. Add to that the local bias against apartment housing and density, particularly building height, and the challenge to provide affordable housing is escalated. Through the Public Design Forum process, the Planning Team identified the poor quality and design of local apartment complexes as one of the factors implicating apartment housing in the eyes of the public. While the City has taken steps to improve the design of multi-family housing, revisions to the development regulations should be made in order to increase the types and improve the design of multi-family and other more affordable housing types. For instance, row homes, patio homes, clustered developments and other home types may be more amenable to neighbors and renters, in comparison to conventional three-story apartment housing or traditional duplexes, while fulfilling the same need. These home types are not allowed in most areas under the current zoning and subdivision codes.

3.3.3   Workforce Housing Definitions

Local housing issues often involve a broad range of considerations and terminology. Before any meaningful discussion can occur on housing policy, it is important to clarify specific definitions frequently used by those who are addressing local housing issues in the community. This clarity is especially important in discussing issues surrounding "affordable housing" in Ocean Springs.

National definitions of housing are created by the U.S. Department of Housing and Urban Development (HUD). According to HUD, the term **affordable** refers to the ability of a person or household to pay no more than 30% of their (gross) income for housing. **Low/Moderate income** household is HUD's definition for families earning 80% or less of Area Median Income (AMI). The majority of federal and state subsidy programs are geared to assist Low/Moderate income households. The United States Department of Housing and Development Fiscal Year 2006 median family income for the Gulfport-Biloxi metropolitan statistical area, of which the City of Ocean Springs is part, is $46,600. For non-family households the 2006 median income was $26,500.

However, in many communities, households earning more than 80% of the Area Median Income are also in need of some form of housing assistance, due to locally unsustainable wage levels or high housing prices. **Attainable housing** is a term that Ocean Springs may use to refer to the needs of households earning between 80% and 125% of AMI. Housing programs to meet the needs of both low/mod income households as well as families earning above 80%

of AMI can contribute to the social and economic sustainability of growth.

An umbrella term used to refer to both target populations is **workforce housing**. This term refers to the concept of providing programs that meet the Planning Area's diverse housing needs, consisting of both owner- and renter-occupied housing that is affordable to the local workforce and carefully located to meet their needs. Lack of housing that is affordable to the local workforce causes increased commuting times, increased pollution, increased roadway congestion and less time at home with family. Quality of life suffers and the social balance of the community is disrupted.

Workforce housing is the primary type of affordable housing needed in Ocean Springs. Essential service workers, including teachers, nurses, city employees, law enforcement and fire safety professionals find it unaffordable to live in the City of Ocean Springs. Many of the workers in Ocean Springs live in the County where homes are more affordable, though increasingly less so due to insurance costs.

3.3.4   Workforce Housing Partnerships

As part of the Public Design Forum process, the City began exploring options to expand affordable workforce housing in Ocean Springs, including public-private partnerships. Though there is no existing affordable housing program or provider in the City, there are opportunities to coordinate with regional entities to create such a provider in Ocean Springs. The City has discussed partnership opportunities with Dependable, Affordable, Sustainable Housing (DASH), a non-profit provider of home buyer programs and education and a developer of affordable housing based in LaGrange, GA and Mobile, AL that is increasing its presence in the Mississippi Gulf Coast. Additionally, the City has discussed working with the Gulf Coast Renaissance Corporation, which focuses its efforts in the three coastal counties (Hancock, Harrison, and Jackson) through a wide variety of programming, funding and partnerships for affordable housing, particularly through the development of mixed use, mixed income communities.

During the Public Design Forum process and during subsequent meetings, options were discussed for revitalizing the historic Railroad District, as identified in the Downtown Area Plan and roughly defined as the area between Washington Street and Holcomb Street on the east and west, and the railroad track to

Government Street on the north and south. Creating a successful outreach program with the community, coordinating with existing community leaders and defining successful outcomes for a revitalization program are all tasks that must be accomplished as partnerships are defined to revitalize the Railroad District. A productive workshop with residents was held in December 2008 to build on the input received during the earlier forum.

Affordable housing strategies may also include the use of Mississippi Emergency Management Agency (MEMA) cottages, which are being made available to local governments, with the Gulf Coast Renaissance Corporation acting as an intermediary for the siting of the cottages. Cottage Square, a local privately owned development, is an example of how local developers can work with non-profit organizations.

3.3.5   Senior Housing

Retired people often have smaller household sizes, reduced incomes, and can suffer impaired abilities and mobility as they age. Without housing choices, long-time residents may be forced to leave the community they have always lived in to find appropriate housing as they age. It is expected that senior housing will be a growing concern as baby boomers age.

Ocean Springs is attractive to seniors due to the presence of high quality medical services. The ability to receive on-going health care and emergency response, especially for seniors with declining health, supports a high quality of life. The maintenance and expansion of Ocean Springs' medical services community will continue to support Ocean Springs as an attractive community for residential and related commercial development.

Senior housing is generally based on market-rate rents, and provides a community for seniors to live in that provides for their increasing needs. Communities that are designed for those 55 years of age and older are increasingly committed to an "active lifestyle" for seniors and cater to the increased health and vitality of today's seniors. Community input has indicated that there are seniors living within the community that are interested in market rate, senior-specific housing. Many middle-income seniors that are looking for housing do not qualify financially for government-subsidized senior housing. The preference of many seniors is to obtain modestly-sized residences where they can live near to their children and grandchildren.

As discussed in terms of workforce housing, the allowance of alternative housing types in the City will also serve to provide alternative housing for seniors. The concept of designing communities for "aging in place" may provide improved quality of life for Ocean Springs seniors. Participants in the Public Design Forum Process indicated that maintenance-free housing options for retirees are desirable within the community.

3.3.6   Housing Condition

Housing maintenance, condition and related "code enforcement" issues were issues discussed during the 2008 Plan Update. While some areas and structures are still awaiting renovation or repairs necessitated by Hurricane Katrina, other areas are simply struggling with issues of deferred maintenance, exterior storage and inadequate off-street vehicle storage. These areas typically include some of the earlier post World War II suburbs of the City of Ocean Springs, but include newer areas of development as well. While stricter enforcement of the existing City regulations may help address this problem, a more comprehensive approach may be necessary in order to bring general level of property maintenance to a higher level City-wide. In addition to Codes Enforcement, such an approach may include a "community pride" campaign, education and outreach, financial or materials assistance programs and other strategies for raising the bar.

3.3.7   Neighborhood Connectivity

While the historic and pre-1960s development in Ocean Springs, located generally west of the hospital and south of Hwy 90, is based on a traditional street grid and is well connected, post 1960 development in east Ocean Springs has less connectivity. Obstacles to restoring neighborhood connectivity in both developed and new neighborhoods include physical constraints, both natural and man-made. The abundance of natural drainage areas, bayous, and areas of sloping terrain make inter-connectivity difficult without having a significant environmental impact. Social perceptions have prevented mixed-use or mixed-income neighborhoods, and roads purposefully have been designed not to interconnect to discourage through-traffic.

While participation at the Public Design Forum indicates that these social perceptions still exist, residents are open to some positive change. For instance, while improvements to make the street network more connected in existing neighborhoods don't appear to be strongly supported, improvements to the sidewalks

and trails network to support connectivity are supported. Likewise, while many residents do not support higher density apartment housing as a desirable housing product in the City, products that meet similar objectives, such as row homes, patio homes and zero lot line homes are supported.

3.4   Economic Development

Most jurisdictions cannot rely exclusively on residential property taxes to fund a high level of services. Ocean Springs is no exception. To overcome budget shortfalls created by the high service costs of residential uses, sales and property tax revenues from industrial and commercial uses within the County are essential. In addition, property taxes are a significant expense for most households, adding to the cost of owning a home and making the goal of housing affordability even harder to achieve. By supporting land uses that are less expensive to service and create positive revenue streams, the City can keep residential property tax rates down, contributing to a higher quality of life for residents through greater housing affordability. In sum, economic development and diversity is needed to maintain the fiscal health of the City and its residents.

The City of Ocean Springs has more retail and service businesses than any other type of establishment, with this sector playing a dominant role in the City's local economy. Nearly 50% of land used for commercial purposes is for retail trade. A growing portion of the retail trade is developing in response to the promotion of the City as cultural tourist destination. The City is home to the Walter Anderson Museum of Art, the Mary C. O'Keefe Cultural Center for Arts and Education, and Shearwater Pottery as well as other small galleries

Arts-related institutions draw visitors and support economic development. Revenues generated from museums and galleries contribute to local employment, business prosperity and tax revenues. A city's overall image is directly related to its arts and cultural institutions, which can play a major role attracting and retaining skilled professionals in the area. Moreover, there is renewed awareness that collaborations among arts institutions and business interests can be mutually beneficial. In theory a cultural district should offer diverse attractions and be incorporated into the sensibly developed patterns of the city.

To engender its own individuality, an "arts district" should have at least four to five "attractors" within a three- to -four- block radius of one another, and the walkways between them should be inviting. Success also depends on the intermixed private enterprises, including cafes, restaurants, and bars; frame and print stores, hotels, nightclubs, and various specialty retail shops that are open at night. To compliment the institutions and their supporting businesses, public art and murals, artist-in-residence programs, and festivals should be encouraged. Ocean Springs has many of the preceding in place or in development.

The Health Care industry also contributes significantly to the City's economy. Roughly 19% of the City's land in commercial use is for health related professions. Other services make up 28.9% of the commercial land. Only 5% of the City's non-residential land is dedicated to manufacturing and related type uses. The City needs to maintain and encourage investment in the commercial sector of its economy, while at the same time diversifying into other sectors such as manufacturing, technology, and research and development.

An estimated 80% of Ocean Springs' population commutes to places of employment outside of the City. Harrison County provides a significant source of employment through the gaming industry. The cities of Pascagoula and Moss Point in Jackson County have several major industrial facilities, including Northrup Grumman Ship Building and Chevron, which employ many Ocean Springs residents. The high commuter rate has caused Ocean Springs to be recognized as a "bedroom" community.

The City's economy has not changed significantly since the 2001 Plan, however as indicated by the discussion of growth trends, the proportion of new commercial development in the City is expected to outstrip residential development, resulting in an Ocean Springs that is characterized less as a "bedroom" community in the future. The City's budget is funded largely through sales tax revenues, with businesses along Bienville Boulevard funding facility and service provision City-wide. Thus it is important for the City to regulate development along Bienville Boulevard to the highest standards in order to protect this valuable corridor as a successful

commercial center and economic engine for the City. Land use planning along Bienville Boulevard should recognize that retail uses are best sited along the highway frontage, with destination office and service uses located in a second tier off of the main frontage. This is not to indicate that those service uses aren't important to the City. The development and expansion of medical services in Ocean Springs has set the community up as a center for high quality and specialty medical services on the Gulf Coast, which is an important economic development success. Supporting the development of medical services and the high wage employment that the industry provides should be a continuing effort.

Large economic development projects are difficult in Ocean Springs because of a lack of appropriate large sites with adequate infrastructure. Incentives, such as tax increment financing, may be used to spur economic development and bridge the financing gap created by the local "barriers to entry," including design costs, wetlands mitigation, insurance costs and infrastructure provision. Another key to economic development identified through the Public Design Forum is the development of a non-casino hotel in Ocean Springs, that would support business recruitment and provide a local alternative for tourists and visitors who now stay at hotels in the County or at casinos in Gulfport-Biloxi as opposed to within the City limits.

The ten largest employers, ten largest manufacturers and ten most recent new or expanding project announcements in Jackson County are shown in **Tables 7 -9. Table 10** shows the tenants of the Sunplex Light Industrial Park as of April 2009.

Table 7: Jackson County Largest Employers (December 2008)

Company	Industry	Type	Employees
Northrop Grumman Ship Systems	Naval Shipbuilding	Manufacturing	12,300
Singing River Hospital System	Healthcare	Administration & Health Services	2,250
Chevron USA, Inc.	Petrochemical	Manufacturing	1,300
Pascagoula Public Schools	Education	Administration & operation of schools	1,150
Jackson County School District	Education	Administration & operation of schools	1,100
V.T. Halter Marine	Commercial Shipbuilding	Manufacturing	890
Signal International	Oil rig manufacturing	Manufacturing	620
Omega Protein	Chemical for food industry	Manufacturing	615
Wal-Mart in Ocean Springs	Retail	Retail Store	520
AT&T Mobility Center	Inbound Call Center	Call Center	475

Table 8: Jackson County Largest Manufacturers (December 2008)

Company	Industry	Type	Employees
Northrop Grumman Ship Systems	Naval Shipbuilding	Manufacturing	12,300
Chevron USA, Inc.	Petrochemical	Manufacturing	1,300
V.T. Halter Marine	Commercial Shipbuilding	Manufacturing	890
Signal International	Oil rig manufacturing	Manufacturing	620
Omega Protein	Chemical for food industry	Manufacturing	615
MS Phosphates Corporation	Chemical	Manufacturing	220
First Chemical Corporation	Chemical	Manufacturing	150
Tindall Corporation	Prefabricated Concrete Products	Manufacturing	145
Knights Marine and Industrial Services	Marine Construction	Manufacturing	125
First American Printing and Direct Mail	Printing and Publishing	Printing	110
Sea-Fab, Inc.	Seafood Processing	Food Processing	105

Table 9: Jackson County Most Recent New or Expanding Project Announcements (December 2008)

Company	Industry	Type	Employees	Year
Tindall Corporation	Prefabricated Concrete Products	Manufacturing	145 - new	2008
Vision Tours	Tour Bus Operator	Administration and tour bus company	35 - new	2008
Ferson Technologies	Homeland Security	Manufacturing & assembly	25 - new	2006
Northrop Grumman Integrated Systems	Aviation Defense	Assembly	100 - new	2006
Omega Protein	Chemical for food industry	Manufacturing	300 - new	2005
Rolls-Royce Naval Marine	Naval Marine	Foundry/Manufacturing	30 - new	2005
BP America Gas Processing Plant	Gas/Chemical	Processing	40 - new	2004
VT Halter Marine	Commercial Shipbuilding	Manufacturing	350 - new	2004
Colle Towing	Marine Construction and Services	Administration and construction	50 - new	2004
AT&T Mobility Center	Inbound Call Center	Call Center	475 - new	2003

Table 10: Sunplex Light Industrial Park Tenants (April 2009)

Company	Type	Employees
BGJ, LLC	McDonald's central office	11
CARL B. HAMILTON DEVELOPERS	Building and construction	4
CAROLL CONSTRUCTION	Construction projects	10
CENTRAL VENDING	Vending machine operator	23
DIXIE DOORS	Garage doors and openers	10
EARTH CONSULTING GROUP	Environmental Enineering	under construction
F&S MOVING and STORAGE	Storage and Moving Warehouse	10
F&S MOVING and STORAGE	Storage and Moving Office	8
FERSON TECHNOLOGIES/RAPISCAN SYSTEMS	Optical glass lenses, coatings	20
F.L. CRANE and SONS, INC.	Commercial contracting	60
LIQUI-CHEM, INC.	Professional lawn care	8
MERCIER WOODWORKING	Furniture manufacturing	7
MICRO METHODS LABORATORY, INC.	Environmental testing	17
MIGHTY DISTRIBUTING SYSTEMS, INC.	Auto parts distribution	3
NORTHROP GRUMMAN DATA SYSTEMS	Electronics and software dev.	100
PHARMACEUTICAL TRADE SERVICES	Pharmaceutical Exports	22
RTS ACCELERATOR TECH, INC.	Radiation therapy	15
SOUTHERN LOGISTICS GROUP		under construction
STEIN and ASSOCIATES	Nursing home management	5
EAGLE MECHANICAL		7
SUNPLEX SUBACUTE CENTER	Long term nursing care	50
SUPERIOR OPTICAL LABS, INC.	Eye glass lenses	17
VISION TOURS	Tour Bus company	15
WADE TILE	Granite countertops	4

4   PLANNING "PLACES"

The 2001 Plan identified "Planning Areas" as neighborhoods within the City with unique or distinct characteristics and planning needs. The Plan Update uses those Planning Areas as the basis for "Places," which are similar to the 2001 Planning Areas with some modifications. The key changes to the "Places" include breaking the Gateway Corridor District into three discreet sections of Bienville Boulevard, including areas outside of the City limits but within the 2008 Plan Update Planning Area, and changing the Places in the Downtown and historic areas of Ocean Springs to better accommodate the boundaries of completed and in-progress Area Plans. While Area Plans are currently underway for some of the Places, future planning projects will include creation of Area Plans for the remainder of the Places. The Places are shown in **Map 2**, and include:

- **Gateway Corridor Places**
  - Gateway West
  - Bienville Boulevard Central
  - Gateway East
- **Central Business District**
- **Developed Places in the City**
  - Lover's Lane
  - Front Beach
  - East Beach
  - Central Ocean Springs
  - Ocean Springs East
- **Places North of the City**
  - Gulf Hills
    St. Martin
  - Fort Bayou
- **Places South of the City**
  - Gulf Park Estates
  - Bellefontaine Beach
- **Growth Area Places**
  - Ocean Springs Boulevard
  - Northeast Growth Area
  - East Growth Area
  - Southeast Growth Area

The following section includes an overview of the Places within the City and those that are considered Growth Area Places. Detailed descriptions are not included for the other Places located outside of the City limits. However, it is important to note that those places influence, and are influenced by, the City of Ocean Springs, and the health and vitality of those Places is important to the health of Ocean Springs. Opportunities for joint planning, intergovernmental cooperation and other partnerships and coordination should be pursued for mutual benefit of those in the Planning Area, both inside and outside of the City limits.

4.1. Gateway Corridor Places: Gateway West, Bienville Boulevard Central & Gateway East

The Gateway Corridor includes Gateway West, Bienville Boulevard Central & Gateway East. While the 2001 Plan identified just one Gateway Corridor, which stretched east to west along the entirety of Bienville Boulevard (Hwy 90), the 2008 Update recognized that this corridor is far too long to think about in terms of a single district. Since it does traverse the entire latitude of the City, it is easier to think of Bienville Boulevard in terms of smaller character areas in order to define appropriate goals, policies and desired improvements. Splitting the corridor allows the City to think about the corridor as a series of activity centers, where intensive uses can be grouped and public amenities provided to add to the character of these destination areas. The creation of more intensive centers allows for future transit to be provided efficiently and pedestrian access to be provided within and between centers.

Generally, the Gateway Corridor Places are the key entryways into and through the City, and consists of properties adjoining and visible from the major arterial corridors. Pragmatically, corridors are extremely important to identifying community image. The Gateway Corridor is an urban area located and designed for access via the automobile. In contrast to the vegetation characteristic of older commercial districts, such as the downtown, roads and parking lots dominate the Gateway Corridor.

Within the Gateway Corridor Places, the effect of accommodating the automobile has determined the character of the environment. Characteristically, the area, with few exceptions, has witnessed increasing amounts of land being consumed for parking, driveways, and roads than for buildings and site design (landscaping, open space, *etc*), which has decreased the significance and function of the architecture and has encouraged the elimination of natural features. Traditional design and "image elements" that defined Ocean Springs, such as well-defined enclosures, pedestrian access and human-scale design, have been minimized. Widely-spaced one-story buildings have given the area an indistinct character.

The primary land uses in the Gateway Corridor are retail, office and services (medical, professional, *etc*). Fast food restaurants, convenience stores, strip shopping centers and big box stores dominate the landscape of the Gateway Corridor. Planning issues include:

- Additional infrastructure investment, primarily for water and sewer improvements/extensions, stormwater management;
- Corridor and gateway design standards and traffic calming;
- Adequate transportation levels of service and multimodal options;
- Loss of community character; and
- Preservation of natural resources and "greening" of the district.

In Spring 2009, the City began a $4.3 million infrastructure project to extend water and wastewater services eastward along Bienville Boulevard, north on the west side of Highway 57 to Interstate 10, and back down Ocean Springs Road to the City limits. This investment will enable more growth opportunities. The easements obtained by the City provide additional right-of-way for constructing a "boulevard" concept for Highway 90.

Since 2001, the City has adopted commercial and multi-family design guidelines to improve the quality and character of non-residential development, which particularly applies to businesses along Bienville Boulevard. While the City has experienced some success through applications of the standards, improving the image of the City's gateways remains a key issue during the Plan Update. A new welcome sign was built at Highway 57 and 90 to improve the image of this gateway. Evidence that this area is one of the fastest-growing in the City can be found in the volume of development activity. Most recently, two mixed use projects along Hwy 90 have been approved – Bay Village and Bienville Commons.

4.1.1   Bienville Boulevard Plan

Concurrent with the 2008 Comprehensive Plan Update process, during the June Public Design Forum, work was done on a conceptual Plan to re-configure and transition Bienville Boulevard (Hwy 90) into a true urban multi-way boulevard. A true boulevard is a multi-way arterial divided with a median down the center. The center lanes are for through traffic. Additional lanes for local traffic are separated from the through traffic by additional medians. These separate local traffic lanes are generally designed for one-way traffic, with on-street parking and buildings fronting the lane with little or no setbacks. Sidewalks and on-street parking generate a pedestrian-friendly setting. Boulevards feature landscaped medians with street trees which slows traffic speeds and creates a pleasant experience for automobile traffic, cyclists and pedestrians alike.

One of the key principles of boulevards is that they are designed for multiple types of users and multiple types of trips, as opposed to the current configuration of Bienville Boulevard, which is designed solely for automobiles visiting single-destinations points. Since Bienville Boulevard is designed primarily for auto users, it is not convenient or comfortable to use via foot or bicycle. The typical user of Bienville Boulevard drives and parks at each destination point, as parking once and walking between destinations is inconvenient.

While a long-term plan to re-configure Bienville Boulevard as an actual boulevard will take a massive capital outlay, there are interim goals that can be reached. For instance, some blocks are already configured with frontage roads, which can be re-designed as one-way travel lanes as the areas redevelop. Setbacks for new construction can be reduced in order to bring buildings up to the street, and sidewalks can be added along the street and between destination points. The important part is that the City begin defining and applying standards along the Bienville corridor to move development consistently towards achieving the long-term vision.

4.2   Central Business District

The Central Business District is the urban core of Ocean Springs. It is the traditional and historic center for government, commerce and culture, and remains a vital, vibrant link between Ocean Springs old and new. The area commonly is described as the "heart" of Ocean Springs and for many embodies the character of what people perceive Ocean Springs to be. The sense of space in the downtown is defined clearly by physical architectural elements and the canopy of live oaks. Historically, the area has been a place where commerce and cultural opportunities have been concentrated. The environment was and is designed to bring people into close contact and maximize personal interaction. One result of the more intense interaction is a perception of congestion. Although congestion usually is considered undesirable, the downtown retail activities are dependent on intense pedestrian activity. Commercial and residential buildings are set close to the public rights-of-way, which enhances pedestrian access and contributes to the enclosed spatial quality.

Downtown Ocean Springs is a unique place for its residents and visitors alike. It is crucial that Ocean Springs maintain this area as a vital business district while remaining resident-friendly by accommodating and promoting pedestrian activity. The central business district should provide better connections to anchoring institutions in the community, such as the old Depot, City Hall, and the Walter Anderson Museum. Several options exist to develop a pedestrian path within the blocks combined with the sidewalk of Washington Avenue forming a loop that promotes alternative routes through the downtown. Along alternate routes particular attention should be focused on improving pedestrian orientation. This requires developing an inventory of existing parking as well as identifying new parking areas not overpowering to the pedestrian.

Parking is perceived to be a problem by some of the merchants in the central business district and must be resolved by balancing the desire for pedestrian orientation with the use of the automobile. More appropriately, the perception of a lack of adequate parking may be better described as a sensed lack of convenient parking (i.e., directly in front of a business). In 2001, the Growth and Development Committee the City formed identified three critical areas related to parking in the central business district: (1) the square footage requirement for individual bays; (2) limiting parking to one side of the street on narrow streets; and, (3) building off-site parking facilities. The parking issue should be studied further and an appropriate course of action decided both by the public sector and the private sector, so not to hinder business retention and attraction to the central business district.

Much of the CBD was developed prior to the advent of the automobile. With the reliance on the automobile that has evolved significantly since World War II, the Downtown District faces urban design constraints. Pedestrians, generally, do not prefer to walk distances greater than six hundred (600) feet. With a large majority of people arriving to the downtown area via automobile, parking issues must be addressed so walking distances are minimized.

Within walking distance of the commercial core is a mix of residential uses. The residential uses have been important for providing additional activity within the downtown. The residents also benefit from the proximity to the concentration of social, cultural, and recreational activities in and adjacent to the planning area. While the residences are located in a more urban setting, personal privacy is maintained by the relatively low density (by urban standards) of single-family residential development and fenced yards. In addition, the near-by Little Children's Park, Freedom Field and the beach provide refuge from the high level of public interaction and congestion of the urban setting. Planning issues include:

- Central business district stability and investment;
- Encouraging and increasing pedestrian access;
- Preservation and revitalization of residential areas;
- In-fill development; and
- Cultural development.

4.2.1   Economic Development in the CBD

There has been a surge of planning and improvements for the Central Business District that will ensure that the CBD remains an important part of the local culture and economy. The Downtown Area Plan and improvements to the streetscape along Government Street will enhance the area for residents, businesses and visitors to the CBD. The City is also working to enhance available parking in the CBD through the purchase and improvement of City-owned public parking lots, located at near the intersection of DeSoto Street and Cash Alley. Other strategies are also being considered to enhance the perception of the availability of public parking, such as signage. Allowing development to proceed in the CBD area despite the lack of perceived parking is an important part of maintaining the vitality and walkability of the area, therefore provision of public parking is a strategy to support CBD businesses.

The 2008 Plan Update affirms that the CBD successfully serves a niche market with upscale dining, professional offices and specialty retail shops. The provision of additional pedestrian amenities, infrastructure improvements and compatible redevelopment, as presented in the Downtown Area Plan, is likely to enhance the success of the CBD and the surrounding neighborhoods.

The perceived parking problem is one of the issues that the City, the Chamber of Commerce, and private property owners in the central business district will have to address for business retention, expansion and attraction. A second retention, expansion, and attraction issue is the integrity of some of the buildings in the central business district. Some of the buildings are very old and poorly maintained, especially in terms of plumbing, electrical and

drainage. The City should evaluate the development of financial incentives to make it more cost-effective for property owners to address building deficiencies.

The third retention, expansion and attraction issue is geographic space. Existing buildings will have to be rehabilitated in order for larger businesses to make the most efficient use of floor area. The alternative is for a new business to demolish and remove an existing building; however, without proper design controls in place, the City would encounter the risk of having new construction being incompatible with the existing mass and scale of existing buildings. In-fill and redevelopment standards are discussed in the Downtown Area Plan.

Obstacles to continued growth and diversification aside, private and public entities have been extremely successful in keeping the central business district a key focal point for existing local businesses and residents through festivals throughout the year. The most notable festival is the annual Peter Anderson Festival.

Within the area of the central business district, one of the most pleasing attractions and characteristics is the live oak lined streets. As noted in the *Strategies for Redevelopment: Master Planning and Guidelines for the Redevelopment of Ocean Springs* (1999), it is essential that the City preserve and protect historic live oaks lining the streets. The community needs to preserve existing green spaces and provide new ones in the area. The live oaks in the City are important both for their historical value as well as function of providing shade and creating a "common thread" throughout the community. The trees are large in the central business district and provide shade and shelter. Existing green spaces are small and intimate, not overwhelming and empty. Coupled with the trees and green spaces, the buildings are well scaled to the pedestrian. Except for the Villa Maria retirement building, the buildings do not overpower people in size or proportion.

The CBD is Ocean Springs' greatest asset according to many residents and should be given considerable attention to preserve that character and vitality.

4.2.2   In-fill Development

Due to the lower density nature of residential development, there is strong potential for in-fill development in the CBD. In-fill development consists of using vacant, underused, or orphaned land for new development. It can create more affordable development since it uses existing infrastructure. It also can be used to

encourage population growth needed to sustain commercial activities and vitality in the heart of the City. Furthermore, by using land in mature areas, in-fill development can reduce the demand for housing in undeveloped areas that require new services and reduce the cost to taxpayers. Forms of potential in-fill development include:

- The addition of new dwellings on vacant lots or other undeveloped parcels surrounded by existing residential development
- Dwelling units added to existing houses and businesses (e.g., upstairs apartments)
- Small, detached dwellings added to lots of sufficient size with existing houses (e.g., "granny" flats)
- Redevelopment of properties
- Neighborhood-related, non-residential development

In-fill development inevitably leads to higher density and a mixing of uses. Historically, the City has been encumbered with zoning and subdivision battles fought by residents trying to prevent new development in the downtown planning area. Residents used expected diminished property values as the reason for requesting the City's Planning Commission and Board of Aldermen to deny such rezoning and subdivision requests. Upon occasion, the argument that the new development would diminish existing property values was supplemented by arguments that it also would harm the character of the area. Most national studies have shown that in-fill development if designed properly enhances property values. The adverse impact on community character may have some validity, but proper design can mitigate potential and perceived adverse results of new development. It is inescapable that the City will have to develop a means to balance the interests of existing property owners in the downtown development area with the economic and environmental sustainability of the community as a whole.

The City has adopted commercial design guidelines to enhance land use compatibility and encourage high quality design, which will positively impact development in the CBD.

4.2.3   Mississippi Renewal Forum

Following hurricane Katrina in 2005, Ocean Springs was one of eleven coastal communities studied during the Mississippi Renewal Forum, organized by the Congress for the New Urbanism. Held in Biloxi, the study proposed the reconstruction of areas that were affected by the hurricane with an emphasis on building compact, pedestrian-friendly and mixed-use neighborhoods. The public process included residents from Ocean Springs and throughout the region. Dover, Kohl & Partners was the lead consultant on the plan which proposed a "City of Neighborhoods" planning framework for the entire City of Ocean Springs. Appropriate building densities and land uses were planned within walking distance of transit stops along a proposed commuter transit line on the existing CSX rail corridor. The plan provided the conceptual groundwork for specific area plans for Plummer's Point (the triangular area on Biloxi Bay between the Bay Bridge and CSX railroad track), Ocean Springs Harbor, Downtown Ocean Springs, Front Beach, Bienville Boulevard and the Historic Railroad District.

4.2.4   Ocean Springs Design Forum

The Public Design Forum held in March of 2008, involved both Dover, Kohl & Partners and Torti Gallas and Partners and resulted

in a Master Plan for Downtown Ocean Springs, Front Beach, Bienville Boulevard and the Historic Railroad District. A SmartCode form-based code and Transect Map were also calibrated for the City to implement the plan. The plan integrated infill buildings into the existing urban pattern, included a strategy for revitalizing the Historic Railroad District, and envisioned a concrete walkway for Front Beach. East of the Downtown the plan proposed the extention of the best historic patterns of architecture, urbanism and green networks found in the City. Bienville Boulevard was planned as a multi-way boulevard to serve pedestrians, bicycles, and vehicles with tree-lined sidewalks, median promenades, low-speed access lanes and high-speed through lanes. The process involved a hands-on workshop with the public and two open design studios. Proposals for strategic redevelopment areas included: Washington Avenue, Government Street, the Historic Railroad District, State Street and the Broome's Grocery neighborhood.

4.2.5   Downtown Streetscape Improvements

Approximate funding of $4.5 million from the Mississippi Development Authority's Community Development Block Grant (CDBG) program has been committed to streetscape improvements within the downtown area, focused on Government Street. While Washington Avenue is recognized as one of the best streets in Ocean Springs, Government Street has not matured as well. Improvements will include fundamental components of a functional and attractive corridor, including curbs, gutters, drainage structures, greenspaces, street trees and other pedestrian amenities.

As part of the project, currently underway, infrastructure will be reviewed to assure the numerous functions of the corridor receive equal consideration. While vehicular traffic is important, pedestrian access and safety, utility poles and street lighting, parking, landscaping, and overall aesthetics will receive equal considerations toward improvements. Additionally, funding provided through this program should be sufficient to allow for the purchase of "pocket parking lots". The additional parking will be beneficial to existing businesses and foster economic growth within the area.

4.3   Developed Places in the City: Lover's Lane, Front Beach, East Beach, Central Ocean Springs & Ocean Springs East

4.3.1   Lover's Lane & Front Beach

Historic Ocean Springs is characterized by development patterns communities across the country try to emulate, now referred to as "new urbanist" or neo-traditional development practices. The Historic District planning area exemplifies the qualities that define the City of Ocean Springs. Five (5) historic districts are within the boundaries of this area: the Old Ocean Springs, Indian Springs, Marble Springs, Lover's Lane, and Shearwater Districts. The planning area embodies many of the characteristics found in the Downtown District, such as:

- Green spaces and vegetation, including live oak tree lined streets;
- Accommodations for pedestrian and other non-vehicular traffic;
- A high degree of architectural cohesiveness, yet with distinct variations between historic districts; and
- Appropriate scale of buildings relative to their setback.

One of the main differences between the downtown district and the historic districts, however, is their respective land uses – the historic districts are residential, whereas the downtown district primarily is commercial with residential uses at the periphery that transition to adjacent historic districts. Planning issues include:

- Preservation of community character;
- Maintaining high level of public safety to encourage further investment;
- Protection and enhancement of natural landscape; and
- Encouraging compatible in-fill development.

4.3.2   Front Beach Master Plan

In May of 2006 Dover, Kohl & Partners conducted a four day mini-charrette as a follow-up to the Mississippi Renewal Forum which focused on Plummer's Point and Ocean Springs Harbor. The plan for Plummer's Point included landmark mixed-use buildings and spaces that would form a visible gateway to the city while demonstrating how higher density development could take shape without overwhelming the scale of neighboring residences. The plan for the harbor featured a neighborhood park framed by two-story, mixed-use buildings with an architecture that respected local precedent. For several days members of the community and its representatives worked to shape the vision for these significant areas.

The Community Pier on Front Beach was rebuilt with concrete pilings to be more storm resistant. It is located across from Fort Maurepas Park which began construction in Spring 2009. It will feature a pavilion with restrooms, parking, splash pad, small stage with green space, and ship-themed playground equipment. This park commemorates the fort built by French explorers who settled here in 1699.

The County is building a new fishing pier adjacent to the old Highway 90 pier. The new pier will be 1,300 feet long with covered areas. Also, the County is constructing public parking for the new pier and Bay Bridge walkers.

4.3.3   East Beach District

The East Beach District is comprised of two distinct character areas. The first is an estate-type area in which the development pattern predominantly is low density residential. They mainly are waterfront properties, and include the Sullivan-Charnley Historic District. The second area is comprised of more suburban style development located mainly in the interior of the district. Both areas are similar in that there is significant landscaping that

provides for effective contrast and balance to the buildings.

Along the waterfront, lots have been platted and buildings have been set back to facilitate more privacy, less crowding, and a clear sense of spaciousness. The landscape is a more prevalent physical attribute of the area than the buildings. An "open" feeling has been created in the area through low-density development on larger, more heavily landscaped properties. Architectural and "man-made" elements are apparent from the public rights-of-way, but are secondary to the landscaping.

The development in the interior of the district is more intensive, single-family residential in character and use. Current open space is simply areas not yet developed or unable to be developed due to environmental constraints; in essence, the natural open spaces or views are borrowed from adjoining land. Few of the developments have significant internal open space. Planning issues include:

- The loss of the historic estate character as the area has transitioned to a more suburban character type;
- Preservation of existing residential character;
- Preservation of open space and scenic views and protection of natural resources; and
- Connecting the district, with adequate pedestrian ways, bikeways, or other alternatives to the automobile, to

schools, recreation areas, cultural centers, and retail shopping in other planning areas.

4.3.4   Central Ocean Springs District

Central Ocean Springs is characterized by the initial post-World War II development that occurred in the City and outside of the City that later was annexed. The area consists of primarily residential development mixed with some institutional uses. Within the district, pockets of blight have emerged as the housing stock has aged and not been maintained. The district also has several large vacant parcels that may provide opportunities for in-fill development that could enhance the area if properly planned and designed. Planning issues include:
- Lack of land use patterns and traditional architectural and landscape elements representative of the historic character of Ocean Springs;
- Prevention of spread and further deterioration of pockets of urban blight;
- Additional infrastructure investment, primarily for water and sewer improvements/extensions and stormwater management;
- Lack of multimodal transportation options; and
- Preservation of open space and protection of natural resources.

4.3.5   Ocean Springs East

Ocean Springs East houses a significant number of newer residential developments that occurred in part as a result of the gaming industry coming to the Mississippi Gulf Coast. As with the Fort Bayou District, the development patterns and character are typical suburban. The land uses are a mix of residential, institutional, conservation, and limited neighborhood commercial along Government Street with the predominant use being single family residential in the district. The remaining vacant land in the district does provide the City one of its last opportunities within its present corporate limits to reclaim its character and prevent further loss of natural resources that provide much of the character to Ocean Springs. Planning issues include:
- Loss of open space and lack of natural resource protection;
- Loss of community character;
- Connecting the district to schools, recreation areas, cultural centers, and retail shopping with adequate pedestrian ways, bikeways, or other alternatives to the automobile, ;
- Maintaining public safety through traffic calming measures and design encouraging safety and livability;

- Additional infrastructure investment, primarily for water and sewer improvements/ extensions and stormwater management; and
- Encouraging compatible mixed uses.

In 2008, the City made substantial improvements to Clay Boyd Park, including a popular splash park and access road. Sidewalks were extended on Old Spanish Trail and across the bayou with a boardwalk.

4.4 Growth Area Places: Forth Bayou, Northeast, East & Southeast Growth Areas

The 2008 Plan Update identifies Ocean Springs Boulevard, the Northeast Growth Area, East Growth Area, the Southeast Growth Area and Gateway East, as shown on **Map 2** as the primary growth areas of the City, and as areas which might be appropriate for annexation. The Gulf Park Estates Area is not included in the Annexation Study, although the area along Old Spanish Trail east to Highway 57 is under consideration. Gateway East is discussed as one of the Gateway Corridor Places. The City has engaged a consultant to prepare an Annexation Study for these areas.

4.4.1 Fort Bayou

The majority of the remaining vacant land within the present corporate limits of Ocean Springs is in the Ocean Springs Boulevard area. The topography of the area is flat and much of the soil, vegetation, and hydrology are characterized as pine savannah wetlands. While the environmental constraints in the area do not prohibit development altogether, they do require special planning and design to assure minimal impact to the health, safety, and welfare of the public and environment. Prior development in the area, some of which occurred prior to annexation into the City, was not designed with the environmental constraints in mind and has resulted in costly drainage and related infrastructure improvements.

The emerging development pattern and character in Ocean Springs Boulevard is suburban. The land use is predominantly single family residential. The function, spatial qualities, and encounter levels all are similar to those in the Fort Bayou and East Ocean Springs districts. The landscaping, open space, and other environmental qualities are lacking more than other predominantly residential districts. Even though there are parks in the planning area, the Ocean Springs Boulevard area does not have a distinct public realm that serves as a center of the neighborhood. Earlier developed

subdivisions are showing the initial signs of blight as evidenced by property maintenance and nuisance code violations. The lack of a public realm, which is a component of creating a sense of place in which people can have pride, may be one factor contributing to the declining quality of life in earlier developments. Planning issues include:

- Creating a sense of community and character;
- Creating a safe physical environment through quality design;
- Proper management and maintenance of codes property maintenance, nuisance, and environmental;
- Connecting the district, with adequate pedestrian ways, bikeways, or other alternatives to the automobile, to schools, recreation areas, cultural centers, and retail shopping in other planning areas;
- Additional infrastructure investment, primarily for water and sewer improvements/extensions and stormwater management; and
- Encouraging compatible mixed uses.

The City has made improvements to two parks in this area and is planning a multi-purpose recreational facility at the current Gay-Lemon Park. Also, the City has obtained federal transportation funds to improve Ocean Springs Road with sidewalks, bicycle lanes and operational enhancements.

4.4.2 East Growth Area

The East Growth Area has been identified as one of the primary new growth areas in the Planning Area. Though it is outside of the City limits, an annexation study is currently underway. The area currently contains the Sunplex Light Industrial Park, and the intersection of Hwy 57 and Bienville Boulevard (Hwy 90) is expected to become the City's eastern gateway as development moves eastward along Hwy 90. The opportunity to regulate development along this greenfield commercial corridor and capture the significant benefits of growth is an important step for the City to take. Without acting before significant development begins, the City could lose a great opportunity. The City is extending water and sewer east along Hwy 90 and north on Hwy 57 to I-10.

Despite these investments, developing this area is not without its challenges and costs, the most significant being drainage. The area is very flat, with little natural drainage. Any development occurring in the area without drainage infrastructure is likely to experience flooding as well as cause flooding on nearby parcels. Providing drainage infrastructure is expected to be very expensive.

Protecting environmentally sensitive lands is also a challenge. The area contains wetlands, which provide a valuable role for water storage, stormwater storage and treatment, wildlife habitat and vegetation and species diversity. Any development of the East Growth Area should group protected lands and connect them with undeveloped corridors in order to provide migration and movement corridors for wildlife. Physically connected preservation areas are more valuable than discreet, separated areas because they provide a critical mass of area to promote species diversity and preserve the wetlands function.

Achieving goals of environmental preservation, fiscal sustainability and infrastructure efficiency requires that the East Growth Area be treated as a master planned area. Master planning avoids a piecemeal approach to development approval and achieves a balanced community. A major component of this is a new approach to wetlands permitting. Currently, the Army Corps of Engineers issues permits to projects individually, based on the protection of wetland areas and the purchase of wetlands mitigation credits. While this is meant to preserve the function of wetlands and prevent flooding, the wetlands mitigation credits are balanced regionally, meaning that an applicant may purchase mitigation credits outside of Jackson County. This results in a local loss of wetlands and the associated benefits and functions of those lands. A master wetlands permitting system would enhance the development of the East Growth Area in that it could provide predictability to the development review process, a funding mechanism for infrastructure improvements and a comprehensive approach to environmental lands protection.

Its size, location in relation to Ocean Springs and the region, highway access and environmental features indicate that the East Growth Area should be developed as a master planned community. Planned communities are essentially "new towns," where most aspects of the development are planned before construction takes place. Generally, a master developer determines the mix and layout of land uses and is responsible for the construction of new infrastructure to serve the new community. A master builder can be in charge of the on-site construction, or, individual builders can purchase tracts of land from the master developer to build out, in accordance with the master plan. A town architect is usually engaged to provide design guidelines and set architectural standards for the entire community.

Planned communities typically range from 500 to 3,000 acres in order to include the various elements that create a functioning community, such as homes, schools, neighborhood-oriented

commercial development, an employment center and community gathering places. This scale, in conjunction with elements such as these, is necessary in order to achieve the various social and economic benefits that are the goal of planned communities. Additionally, a development area of 500 to 3,000 acres allows a long horizon for planning and build-out. With this flexibility, the developer can respond to changing market conditions by adjusting the mix of land uses or housing types as the initial stages of the development mature. The Northeast Growth Area offers 1,955 acres for a planned community.

Benefits of a planned community Include:
- Adequate public facilities are ensured through the use of a development agreement
- The developer and new residents of the community absorb the costs of necessary infrastructure
- Existing community residents are not forced to underwrite the costs of new development
- Development occurs in accordance with a master plan and set design guidelines to maintain appeal and functionality of community
- Planning ensures a minimum jobs/housing balance (i.e. not entirely residential)
- Additional public benefits including amenities such as trails or open space can be included as part of development agreement
- Phasing allows the plan to be tweaked as market conditions dictate and to respond to community desires

Planned communities are an advantageous approach to use when development is considered for a large site with some type of historical or natural resources that are beneficial for both the existing communities nearby and the potential new residents. There are many successful examples of planned communities that have been built over the past ten to twenty years that incorporate a mixture of uses, open space preservation and infrastructure provision. By planning for new development and establishing desired development patterns within planned growth areas, Ocean Springs can enhance established areas and prioritize new development in economic and residential growth corridors, centers and areas.

4.4.3   Northeast Growth Area

Bounded by Hwy 57 on the east and I-10 on the south side, the Northeast Growth Area extends north from the top boundary of Forth Bayou and the East Growth Area. The area currently contains very limited development, and is considered largely vacant. As it includes the northwest intersection of I-10 and Hwy 57, this Growth Area has potential for highway-serving commercial development. As such, the area should be considered as a "Gateway Corridor" place as future land use, development and design policies and regulations are crafted to ensure that the area develops in concert with the goals of the City of Ocean Springs. This area has potential as an employment activity center due to its highway location, and strip commercial development should be managed to ensure adequate access and prevent piecemeal development that limits the potential for mixed-use, integrated, master planned development.

Due to the proximity of the Northeast Area to the East Growth Area, development plans, storm water management plans, connectivity and access, and other critical infrastructure and services should be coordinated.

4.4.4   Southeast Growth Area

The Southeast Growth Area is the largest in area of the Places identified in the 2008 Plan Update. It is located just to the east of Gulf Park Estates and extends east to the boundary of the City of Gautier's planning area. As with the Northeast Growth Area, much of the Southeast Growth Area contains wetlands, and the area was flooded extensively during Hurricane Katrina. However, as the eastward expansion of population from Ocean Springs continues, especially as families seek more affordable housing options, this area is expected to experience population growth.

The Ocean Springs School District is currently in the process of locating an appropriate site for the new high school, with the proposed site located in this Area. The bond issue to fund the new school was approved in summer 2008. The location of the high school itself will likely induce new development as it is a valuable amenity to families with children. The Ocean Springs School District is widely recognized as one of the highest quality school districts on the Gulf Coast and it is an attractor for residential development and economic development in the Ocean Springs Area.

5   LAND USE

5.1   Smart Growth

Smart Growth is the management of growth in a community through fiscally sound, environmentally responsible means.   Among other components, this means efficient provision of infrastructure and a greater emphasis on the mix of uses, transportation options and environmental sensitivity.   Smart Growth means looking into the growth management toolbox, assessing the community's needs and desires, and choosing the appropriate tools, making sure that they will work together to implement a community's growth management goals.   Smart Growth cannot be achieved through the use of a single tool that accomplishes all of the community's objectives, but is achieved through the use of an integrated approach that uses carefully chosen tools calibrated to the City's needs and ability to implement specific programs.

"Smart Growth" is the antithesis of sprawl.   "Sprawl" refers to unplanned, single use, auto dependent development built without regard to availability of infrastructure, facilities and services.   Unplanned growth can have extensive negative externalities, such as inducing more growth in areas that

Benefits of Smart Growth Include:

- More compact, mixed use development through clustered, higher density centers, corridors and infill development

- Greater preservation of open space, natural resources, and critical environmental lands

- More sustainable growth and cost-effective infrastructure provision through the linking of available infrastructure and development phasing decisions

- Alternative transportation opportunities and increased energy conservation through the encouragement of walking, cycling and public transit

- Better variety of housing choices and easier access to housing, jobs, shopping, recreation, entertainment and community services

- A jobs/housing balance that allows people to live and work in the same community and supports the fiscal sustainability of the municipal government.

are unsuitable due to environmental constraints.   It can create traffic congestion and overcrowded schools.   If unplanned, low density development prevents the orderly growth of urban development contiguous to the existing urban center, it can cause long-term fiscal stress for a jurisdiction.   New growth should be planned to create positive fiscal impacts for the City, and should not burden existing residents with higher taxes to pay for infrastructure that serves new residents.

Smart Growth channels growth into compact and sustainable development patterns within areas already served with infrastructure, or in areas where infrastructure provision is planned, and included in a Capital Improvement Program (CIP). Smart growth does not seek to change the character of the community, but instead builds on the community's existing characteristics and supports amenities that improve the quality of life for residents.   It is a framework for achieving Ocean Springs's vision for the future.

5.1.1   Sustainability

Rising energy costs across all sectors, especially in regard to natural gas and gasoline, have had a large and immediate impact on personal, corporate and public budgeting and wealth over the past few years.   Diminishing supplies and global politics are likely to accelerate these cost increases.   Budgetary impact, combined with a strong feeling of personal and public responsibility to minimize human impact on the environment, has fueled the impetus for energy conservation in the community, including increased interest in green building techniques and standards as well as support for alternative forms of transportation.

"Sustainability" is one of the key principles of Smart Growth and includes economic, social and environmental sustainability, which are most comprehensively addressed when viewed as interdependent elements.   These concepts are addressed throughout this Plan as they relate to current conditions in Ocean Springs and the larger national and global trends that will impact how we live, work and play in the coming decades.

5.1.2   Land Use Compatibility

One of the primary purposes of the planning process is to ensure compatibility among various land uses in order to preserve and protect the health, safety and general welfare of the populous. Future land use planning provides predictability and security by protecting property values and public and private investments in property improvements.   Land use compatibility provides compatible edges between communities, ensures adequate transportation network capacity and establishes connectivity between existing and new development.

Key components of land use compatibility include the intensity of development and how transitions between uses are addressed. Intensity of use is measured by density in residential zones – typically dwelling units per acre.   In commercial areas, intensity is typically measured by floor area ratio (FAR), which compares the area of a building's footprint on a lot to the amount of total area that the building is allowed to encompass.   A higher FAR ratio indicates a more intense land use.

Land use compatibility issues include how well a proposed land use achieves the goals of the Comprehensive Plan, if there are adequate facilities to serve the proposed use, and how performance standards can be used to promote employment and economic growth while protecting residential areas from noise, traffic, diesel fumes and brownfield sites.

5.1.2.1   Developments of Community Impact

Some development types produce greater challenges for cities, due to their likelihood to have impacts beyond the immediate site on which they are located.   Large-scale developments, industrial uses, adult uses, resource extraction and other uses have the potential to impact the surrounding neighborhood, city, county or even region in which the use is located.

As a small Gulf Coast city with limited land resources, historic character and high natural hazard risk, Ocean Springs must carefully review certain uses that may have excessive negative externalities.   Prevention and mitigation of potential negative impacts is the most efficient way the City can accommodate appropriate development while maintaining levels of service and community character.

In Ocean Springs, a special review process for Developments of Community Impact (DCI) may be used to prevent land use incompatibilities, similar to the process used to review Developments of Regional Impact (DRI) in many jurisdictions. Developments of Regional Impact, as defined by the 1971 Model State Land Development of the American Law Institute, are large-scale developments that are likely to have effects outside of the local government jurisdiction in which they are located.   Several states, including Georgia and Florida, have passed legislation modeled after the ALI Code establishing procedures for intergovernmental review of Developments of Regional Impact, which are intended to assess the impacts of

those developments on the region in which they are located, not just the host community.

Similar to a defined DRI, a Development of Community Impact (DCI) is any development that may have a substantial negative effect upon the health, safety, or welfare of citizens of a neighborhood or defined area, the City or region, due to its character, magnitude or location. Such a development may include any residential or commercial project above a maximum acreage, density or intensity; any industrial use above a maximum acreage; any coastline development beyond single-family dwelling units; any post-secondary school; any hospital or non-City institutional use; any landfill, recycling center or other solid or liquid waste disposal center; any resource extraction or refinement; any adult-oriented uses; and any other uses that may have excessive negative impacts to environment or the efficient provision of public facilities and services.

Developments of Community Impact should be reviewed on a case-by-case basis prior to approval. Such a process should include an assessment of character, environmental and economic impacts, including an analysis of impacts to provision of adequate public facilities, with particular regard to transportation and public safety. Applying this type of assessment allows for a broader planning and regulatory perspective, with procedures designed to improve communication among affected property owners, service providers and jurisdictions. It provides a means of identifying, assessing and mitigating potential impacts before conflicts relating to them arise. A location-based sensitivity analysis may be designed through the City's development regulations to identify areas that are appropriate for certain types of uses as well as areas that are not appropriate for such uses.

5.1.2.2   *Site Design*

Site design plays the most significant role in assuring land use compatibility. Factors must include transitioning between land use types, intensities, and densities using buffers and floor area ratios; conserving environmental assets using standards to preserve open space and to limit impervious surfaces; providing adequate vehicular and pedestrian traffic circulation and connectivity; mitigating potential nuisances, such as signage, excessive noise, smoke, heat, light, vibration or odors detectable to human senses off the premise; and, designing for public safety.

5.1.2.3   *Fiscal Impacts*

Land use decisions have broad fiscal implications for public and private entities related to the costs to serve and revenue generated by various land uses. While commercial land uses are generally revenue generators that contribute positively to a City's budget, residential uses generally cost more to serve than they contribute through fees and taxes. Therefore it is important to balance residential and commercial growth to maintain the fiscal stability of the City and its ability to provide a high level of facilities and services.

Infrastructure efficiency (through maximizing the use of infrastructure investments) is a key component of fiscal sustainability for municipalities and service providers. Many uses and development styles preclude the provision of urban facilities and services, or make the provision of such prohibitively expensive. For instance, when large-lot developments are approved in planned urban areas, infrastructure must be extended through those areas to reach other development that occurs farther from the City at higher densities. It is important for the City to influence and guide development that occurs in the Growth Area to protect its future ability to provide services efficiently. The Transect model is a method for land use planning to encourage infrastructure and transportation efficiencies.

5.1.3   Land Use / Transportation Linkage

Transportation is an important and costly component of a community's infrastructure base that has a profound influence on its land use patterns and rate of growth. Consideration of traffic demands is a critical aspect of an overall Smart Growth framework. The traffic impacts of new development on the transportation system of the existing City of Ocean Springs and the Gulf Coast region must be considered as part of the land use planning process. Impacts to both local streets and neighborhoods and the region's arterials and highway system should be considered. Traffic congestion increases the costs of doing business in the region, potentially discouraging new businesses from locating in the area. Pollution and congestion will have harmful affects on the quality of the natural environment and the area's quality of life if necessary transportation improvements are not funded as needed.

Transportation is inextricably linked to land use. Community-wide development patterns and site specific lot design influence the availability and efficiency of various transportation modes.

Development intensity/density, street lay-out, connectivity and access, and public improvement requirements are some of the many components that contribute to the viability of transportation options.

Moderate to high-density mixed use development is widely regarded as a land use that maximizes transportation options. The benefit of mixed use development and higher density residential include land conservation and increased mobility options, such as car pooling, biking/walking, bus or fixed-route transit since uses aren't artificially separated and population densities support viable ridership. Mixed uses allow people to live, work and shop in the same neighborhood, reducing their need to travel long distances in the course of daily living. Increased mobility options can reduce household transportation costs, reduce pollution and traffic congestion and increase interaction between neighbors.

5.1.4   Jobs / Housing Balance

The jobs / housing balance within a community has implications for residents and employers as well as for service providers. A balanced community has employment options for residents, so that they can live and work in the same community; and an educated workforce for employers, so that they are able to hire employees who are vested in their community and in their job. Communities with an imbalanced ratio of jobs to housing are unsustainable for both residents and employers. As discussed, commercial uses generate more revenues for municipalities than residential uses, and therefore an imbalanced land use mix can negatively impact the ability of service providers to maintain levels of service.

Critical to the achievement of jobs / housing balance is the designation of appropriate sites for non-residential development. The availability of appropriate sites, while necessary, isn't likely to induce economic growth on its own. However, the lack of appropriate sites is certain to limit economic growth.

5.1.5   Annexation

In Mississippi, annexation is the public process by which cities may extend municipal services, voting privileges, regulations and taxing authority to new areas with the specific intent of protecting the public's health, safety, and welfare. With Ocean Springs' rapid growth and need to diversify land-use to attract new business and industries, annexation of new land may be necessary for the intelligent and effectual extension of City services. If the City does annex, it must be prepared to provide public facilities and services

to new residents within a reasonable time, typically within a five-year period. Public services and facilities, when offered, may be required to be provided at the same level of service as provided to existing residents, a factor which is critical to implementation of a legally defensible impact fee program (which has been proposed to fund growth-related costs). The City is currently in the process of an annexation study for the Northeast Growth Area, Southeast Growth Area, and Gateway East (excluding St. Andrews), as shown in the Places Map **(Map 2).**

To prepare for long-term growth, it may become necessary for Ocean Springs to annex adjoining lands for the long term well-being of the community. However, annexation must be done in accordance with State law and established policies and plans and not on an ad hoc basis. It is imperative that the City establish a defined, long-term annexation and growth strategy, as a natural extension of the Comprehensive Plan process – a strategy that identifies opportunities, constraints and fiscal impacts.

This section of the land use element identifies key issues relating to annexation, growth and development within the Planning Area. Most significantly, this element focuses on cooperative and coordinated growth management with the County and neighboring jurisdictions and assessing the fiscal impact on City resources prior to committing the City to a course of action.

Coordinating with Jackson County. Growth management strategies directly affect growth in and around Ocean Springs. Planning and preparing for growth, and improving inter-governmental and service provider coordination, particularly in matters relating to capital improvements and development standards is critical. Particularly important is the coordinated limitation of development in inappropriate locations (*i.e.*, in open space or in outlying portions of the Planning Area) or where infrastructure is inadequate.

Expanding boundaries to provide for and encompass new urban development. The City will face increasing challenges in addressing growth at its edges. As a regional service provider, the City has some ability to influence the intensity and character of urban development at its fringe. Coordination with the County is essential to ensure that the rural development does not create an obstacle to logical growth of the urban area. Some form of extraterritorial jurisdiction (ETJ) may be negotiated through the use of an intergovernmental agreement.

Extending facilities to efficiently serve new development. The City has the ability to grow to the northeast, east and southeast with relative ease. The challenge is to set investment priorities and identify development policies to ensure that facilities are extended in a manner that does not inequitably burden existing rate payers or taxpayers. In addition, facilities and services need to be extended in a coordinated fashion to avoid service gaps (*e.g.*, an area with urban sewer service, but inadequate fire protection).

Upgrading deficient facilities in perimeter development. As the City grows and expands, it will need to provide for or upgrade a variety of facilities, such as streets, parks, stormwater facilities and fire stations. The City will need to determine an equitable means of funding new or expanded facilities needed to meet the City's level of service standards. The plan should help City decision-makers equitably allocate growth costs between existing and new residents and businesses and should consider all financing alternatives.

Planning for growth in a fluid legislative environment. Each legislative session poses new challenges and opportunities to the City's growth management program. The City must stay abreast of changing legislation and adjust its policies to respond appropriately.

Maintaining a diverse, vibrant economy. Ocean Springs has maintained a quality of life other communities envy, and is making

great strides to expand its economic base to insulate the City's economy from shifts in any single employment sector. While continuing to grow and expand its economic base, the City has increased its focus on improving the quality of employment opportunities and providing the necessary resources to attract higher end jobs. Local efforts will need to continue to focus on the development of a high quality labor and enhancement of local quality of life factors (e.g., school quality, neighborhood attractiveness, commercial opportunities and cultural offerings).

5.2   Existing Land Use

Existing land uses are shown on **Map 3**. The Map illustrates generalized land uses; the associated data should be used to monitor the consistency of future growth and development in the Planning Area with the goals, policies and recommendations of this Plan. The existing land use in the City of Ocean Springs (within existing corporate limits) is shown in **Table 11**.

Table 11: Existing Land Use (2008)

Existing Land Use	City of Ocean Springs (acres)
Conservation	540.08
Parks, Recreation and Open Space	71.84
Single Family Residential	2679.84
Multi-Family Residential	125.41
Commercial	299.93
Office	103.08
Industrial	110.84
Public	572.7
Vacant	1915.24
Total	**6418.96**

Map 3 - Existing Land Use
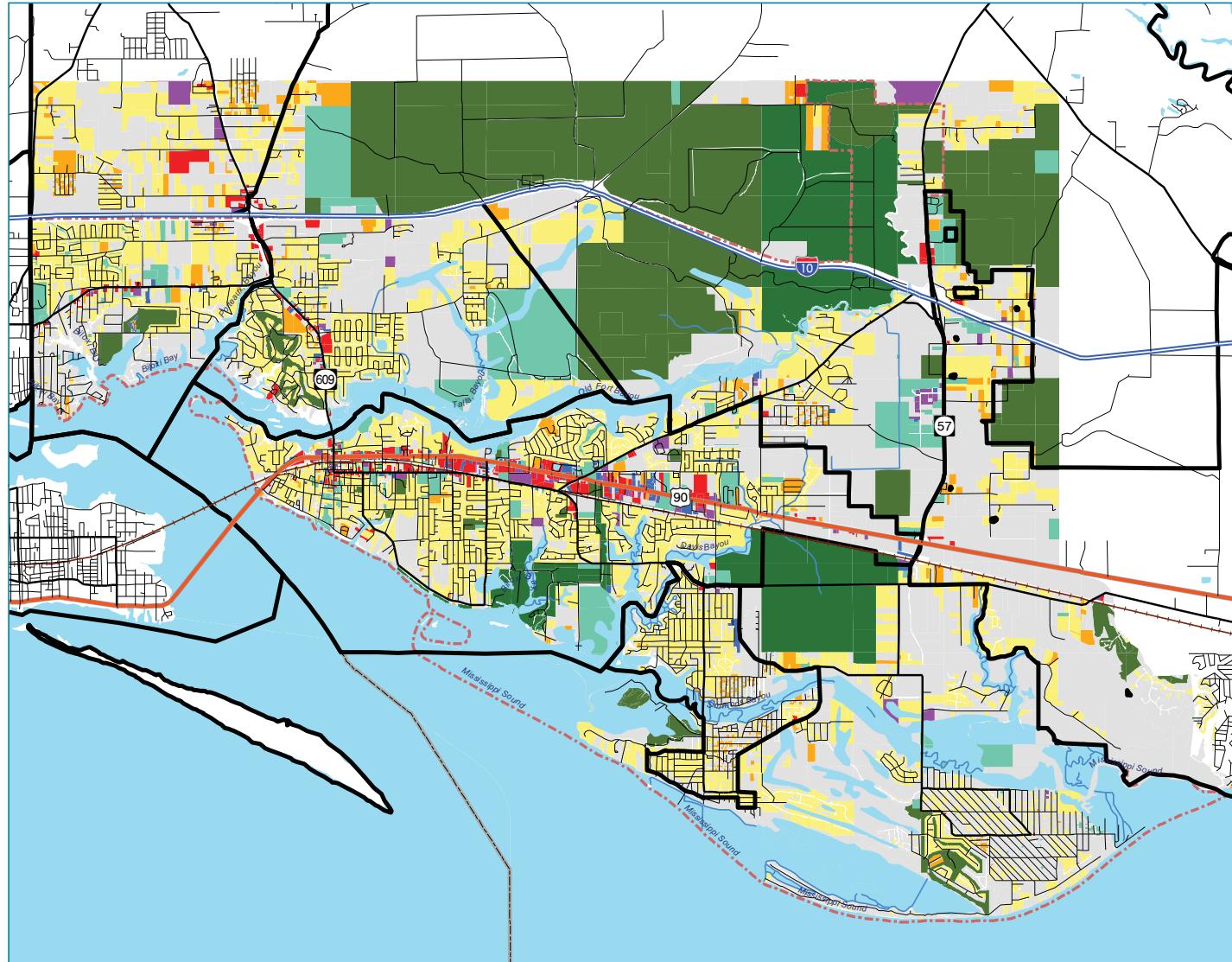
Legend

Interstate Highway

Highway

Major Road

Local Road

Minor Road

Railroads (Local)

Census Places

Existing Land Use

Vacant

Conservation

Parks, Recreation and Open Space

Commercial

Single Family Residential

Multi-Family Residential

Office

Institutional / Public

Industrial

Unincorporated County

PLANNING WORKS

5.3 Future Land Use

Historically, the City has segregated uses from one another; however, an alternate option for future development is to assess how different land uses can be spatially assimilated and integrated based on compatibility, rather than segregated, to create a more functional and livable environment.

5.3.1 Development Tiers Map

While the 2001 Plan supported the benefits of mixed use development, the Future Land Use Map still divided the City into primarily single-use districts. The 2009 Plan Update takes the integration of uses a step further in order to achieve more benefits from a mixed-use development pattern that combines compatible uses and emphasizes appropriate development based on form and intensity rather than use. The Development Tiers Map, shown as **Map 4,** uses Tiers, based on the Transect, to define appropriate future land use types.

The Transect is a planning system that organizes the elements of the built environment according to the density and intensity of land use. The Transect has six zones, moving from rural to urban in intensity. The most intense uses form the urban core, and concentric rings of development of lessening intensity radiate outward, moving on a scale from urban to suburban to rural intensity. From the outer edge inward, the Transect defines the following general zones:

> Natural (T-1 Zone)
>
> Rural (T-2 Zone)
>
> Suburban (T-3 Zone)
>
> General Urban (T-4 Zone)
>
> Urban Center (T-5 Zone)
>
> Urban Core (T-6 Zone)

The Transect achieves land use compatibility by designating zones for general categories of urban and rural uses, and further defining ranges for residential densities and commercial floor area ratios for individual developments within each zone. Each Transect zone also defines permitted lot types, building forms and lot lay-out, uses, street types, streetscape standards and other standards, such as application of design standards or open space preservation requirements. The Transect describes the character of neighborhoods and locations for potential land uses. It ensures consistent development patterns and defines locations for a variety of desirable land uses, from intense urban development to protected rural areas.

While the Development Tiers Map is not a Transect Map, the Tiers are based on the principles of the Transect and provide for future application of a Transect Map for areas that are regulated under the Smart Code. The general character and primary use of land in the tiers is described below, although all of the appropriate or permitted uses are not described. The Tiers include:

- The **Conservation Tier** includes public or private lands which are not suitable for urban development or use due to their location and environmental characteristics, such as wildlife habitat or agricultural use. Land in the Conservation Tier may include designated wetlands, floodways, or floodplains, or may contain soils which will not support urban development. Development is limited to temporary improvements, or buildings or structures that support passive recreation, conservation or agricultural uses.

- The **Residential Low Intensity Tier** generally includes low density suburban residential development, including single family detached residences on acreage sites or platted lots. Typically, the Tier is fully subdivided, fully improved with urban infrastructure and has frontage on a public road. However, some land in this classification may not be served by the full range of municipal or certified utilities such as water, sanitary sewers, natural gas or stormwater drainage infrastructure. There is a limited opportunity for some small scale mixed-use development typically serving the neighborhood scale.

- The **Residential High Intensity Tier** includes moderate and higher density suburban residential uses, such as higher density single family detached residential subdivision development, medium density developments accommodating two to four unit structures, medium density town home complexes, and multi-family residential complexes. Typically, the residential land use classification is fully subdivided, fully improved with urban infrastructure and has frontage on a public road. Included in the area are compatible and complementary mixed uses that are intended to provide services to the neighborhood.

- The **Commercial Center Low Intensity Tier** is intended to accommodate smaller mixed use activity centers that are generally connected and integrated into the surrounding neighborhoods. These centers have a community or

neighborhood emphasis, and include a range of retail and service uses.

- The **Commercial Center High Intensity Tier** includes the City's largest mixed use activity centers that have a community-wide or regional emphasis land use classification was designated to and include the full range of office, retail and service establishments. This Tier applies at all major intersections along Bienville Boulevard (Hwy 90).

- The **Civic Space** land use classification, though not a Tier, includes governmental and other institutional facilities including all existing Federal, State, and local government buildings and facilities; all schools and other educational and related facilities; research centers and laboratories; religious institutions and related facilities; libraries, museums, and exhibit spaces for visual arts; community centers, public assembly buildings and facilities for the performing arts; sports arenas, coliseums and stadiums, cemeteries and mausoleums and publicly accessible historic sites.

5.3.2 Application of the Development Tiers Map

The Development Tiers Map for Ocean Springs is not the zoning map for the City. The Development Tiers Map is conceptual and functions as a guide on which future land use decisions can be made. Future land uses are based on the goals and objectives set forth as short term and long term planning strategies in the Comprehensive Plan. Tools such as growth management programs, land use ordinances, transportation plans, and capital improvement plans all are used to implement the Comprehensive Plan. Consideration should be given to the following:

- **The Development Tiers are not zoning designations** -- they are intended to guide local decisions on zoning, subdivision and other land use matters.

- **Development Tiers reflect a future condition** -- uses designated on the map may be appropriate in 10 to 20 years, but currently may not be appropriate due to reasons of compatibility, availability of adequate public facilities, or proximity to services.

- **The Development Tiers Map is dynamic** -- as justified by changing conditions in the community, the Development Tiers should change. While map amendments should not

be made frequently, periodic adjustments to better achieve community goals will help the community achieve its planning goals.

- **The map and text of the Land Use Element are to be used together** -- the text and maps in this element guide interpretation of the Development Tiers Map.

5.4   Land Suitability Analysis

The Land Suitability Analysis (LSA) is a Geographic Information Systems (GIS-based) land use model. The LSA model was created to provide a consistent, technically defensible system for the evaluation of land development proposals in the City. The model measures a wide variety of factors, including environmental and community factors. Data was obtained from various local, State, Federal and private entities. These factors are weighted in importance based on the relevance of the factor to the City's goals, objectives and policies.   The model is intended to aid decision-making by assessing the impact of development on the City's natural, cultural, economic, infrastructure and other community resources.

Table 12 identifies the land characteristic factors that are included in the model to aid in the development review process.

The underlying data of the model is raster, or a continuous grid of cells, all the same size, all lining up exactly on top of each other. Each raster layer represents a continuous area, such as in or out of a floodplain, and has over 21 million cells, each representing 32 square feet on the ground. Using raster math, each layer is summed to make the final raster layer, giving you a final score for the development suitability.

This suitability analysis is used to determine the appropriateness of proposed development for its geographic location. Land development suitability is shown for each independent factor included in **Table 12** in **Maps 5-16**. **Map 17** is the composite map that combines the results of each factor to show the overall development suitability. Land development suitability is defined in the following manner:

- *Low Suitability* – There is a presumption that land is not suitable for development. This does not preclude development but requires a showing by the property owner that sufficient conditions exist that should permit development to occur and that on- and off-

site concerns attributable to the proposed development are addressed.

- *Moderate Suitability* – There is no presumption the site is either not suitable or suitable for development.

- *High Suitability* – There is a presumption that land is suitable for development, but does not guarantee that a proposed development is appropriate for the location.

5.4.1   Model Maintenance & Updating

As expanded and improved datasets become available through enhanced public information, the development review process and other venues, the model should be updated to provide the fullest and most accurate information available. Through accurate and relevant data availability the City can make informed land use decisions.

Table 12: Land Suitability Analysis Factors

Factor	Description	Presumption of Development Suitability			Prioritized Weight
		Low Suitability	Moderate Suitability	High Suitability	
		(high constraint)	(moderate constraint)	(low constraint)	
1	**Identify lands suitable for protecting surface and groundwater quality**				
1.1	Identify lands proximal to permanent water bodies	Within 100 feet	Within 500 Feet	Outside 500 Feet	4
1.2	Identify lands proximal to drainage buffers	Within 100 feet	Within 500 Feet	Outside 500 Feet	4
2	**Identify lands with important physical characteristics**				
2.1	Identify lands within Hydric Soils	Within Hydric Soils		Outside Hydric Soils	3
2.2	Proximity to Important Coastal Wetlands	Inside Wetlands	Within 500 Foot Buffer	Outside Buffer	1
2.3	Identify lands within Total Coastal Risk	No Risk	Moderate Risk	High Risk	5
2.4	Soil Drainage Classification	Poor Value	Moderate Value	High Value	3
2.5	Proximity to lands suitable for dwellings without basements (Soil Suitability for Dwelling Units)	Poorly Drained, Very Poorly Drained	Moderately Well Drained, Somewhat Poorly Drained	Well Drained, Somewhat Excessively Drained, Excessively Drained	2
3	**Identify land use compatibility and development potential**				
3.1	Proximity to primary road	Outside 1 Mile	Between .5 and 1 Mile	Within .5 Mile	3
3.2	Proximity to developed land	Outside 1 Mile	Between .5 and 1 Mile	Within .5 Mile	1
3.3	Proximity to water lines / service area	Outside .5 Mile	Between .5 and .25 Mile	Within .25 Mile	3
3.4	Proximity to sewer lines / service area	Outside .5 Mile	Between .5 and .25 Mile	Within .25 Mile	3
3.5	Proximity to municipal boundary	Outside 1 Mile	Between .5 and 1 Mile	Within .5 Mile	1

Map 4 - Development Tiers

OCEAN SPRINGS
BLUEPRINT
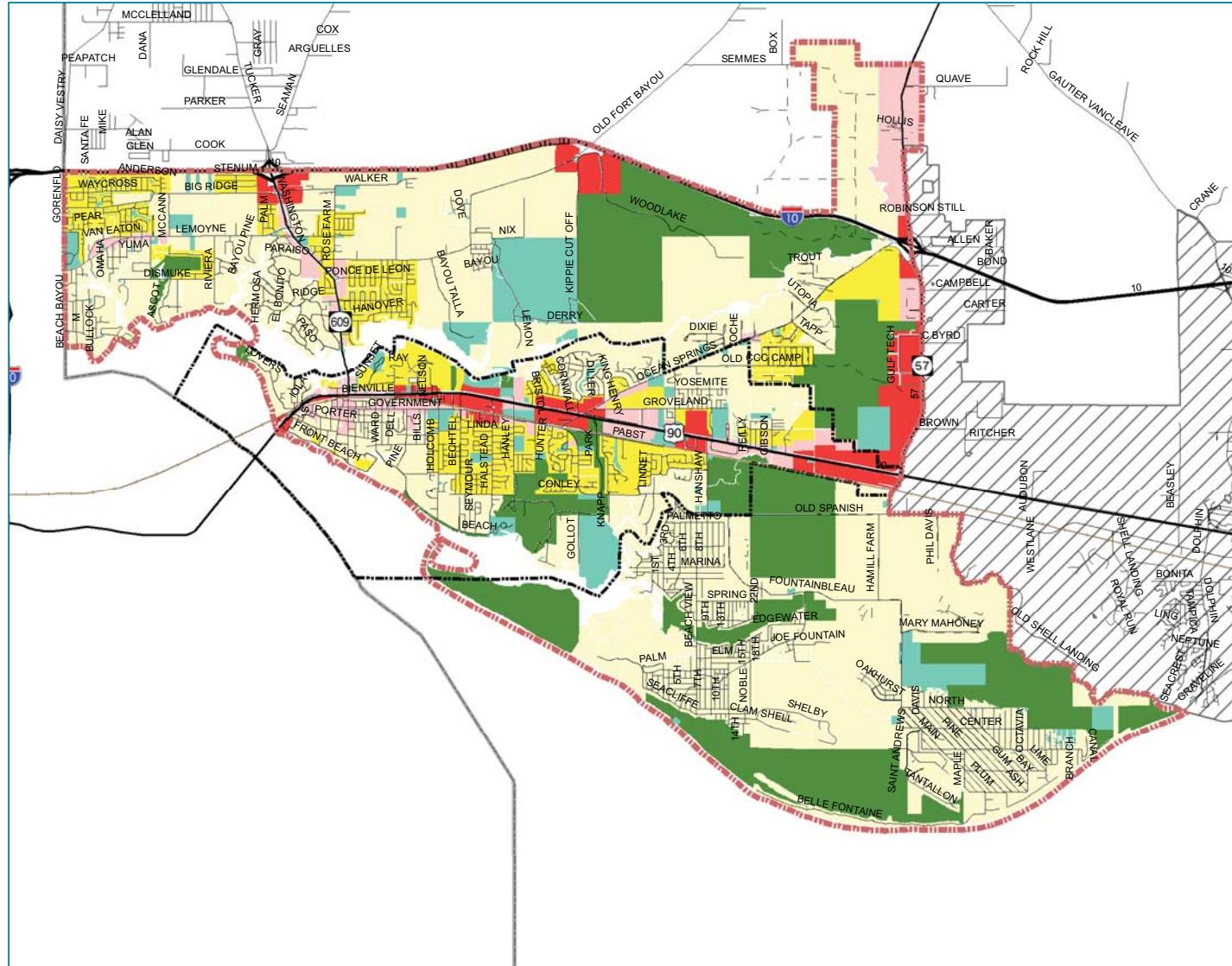
Legend

- —— Interstate
- —— US Highway
- —— State Highway
- —— SecondaryRoads
- +—+ Railroads
- --- Fringe Area Roads
- —— Centerlines
- Ocean Springs
- Gautier
- Civic Space
- Natural Tier
- Residential Tier, Low
- Residential Tier, High
- Commercial Center, Low
- Commercial Center, High
- County Boundary
- Planning Area

PLANNING WORKS

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0   0.5   1   2
Miles

N W E S

Data Sources: City of Ocean Springs, MARIS, U.S. Census, NOAA

Legend

- Interstate Highway
- Highway
- Major Road
- Local Road
- Minor Road
- Railroads (Local)
- Planning Area
- County Boundary
- Water
- Ocean Springs
- Most Suitable
- Moderate Suitability
- Least Suitable

Back Bay of Biloxi

Dear Island

Gulf of Mexico

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0   0.5   1   2   Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 6 - Drainage Buffer Proximity

Legend

- Interstate Highway
- Highway
- Major Road
- Local Road
- Minor Road
- Railroads (Local)
- Planning Area
- County Boundary
- Water
- Ocean Springs
- Most Suitable
- Moderate Suitability
- Least Suitable

Back Bay of Biloxi

Dear Island

Gulf of Mexico

PLANNING WORKS

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Map 7 - Presence of Hyrdic Soils

Legend

——	Interstate Highway
——	Highway
——	Major Road
——	Local Road
——	Minor Road
+++	Railroads (Local)
▢	Planning Area
▢	County Boundary
▢	Water
▢	Ocean Springs
▢	Most Suitable
▢	Least Suitable

Back Bay of Biloxi

Dear Island

Gulf of Mexico

PLANNING WORKS

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0   0.5   1   2
Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 8 - Wetlands Proximity

OCEAN SPRINGS
BLUEPRINT

Legend

Interstate Highway
Highway
Major Road
Local Road
Minor Road
Railroads (Local)
Planning Area
County Boundary
Water
Ocean Springs
Most Suitable
Moderate Suitability
Least Suitable

Back Bay of Biloxi

Dear Island

Gulf of Mexico

PLANNING WORKS

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0   0.5   1   2
                              Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS,
MARIS, U.S. Census, ESRI, Horizon Systems, USDA

OCEAN SPRINGS BLUEPRINT

Map 9 - Natural Hazards Risk
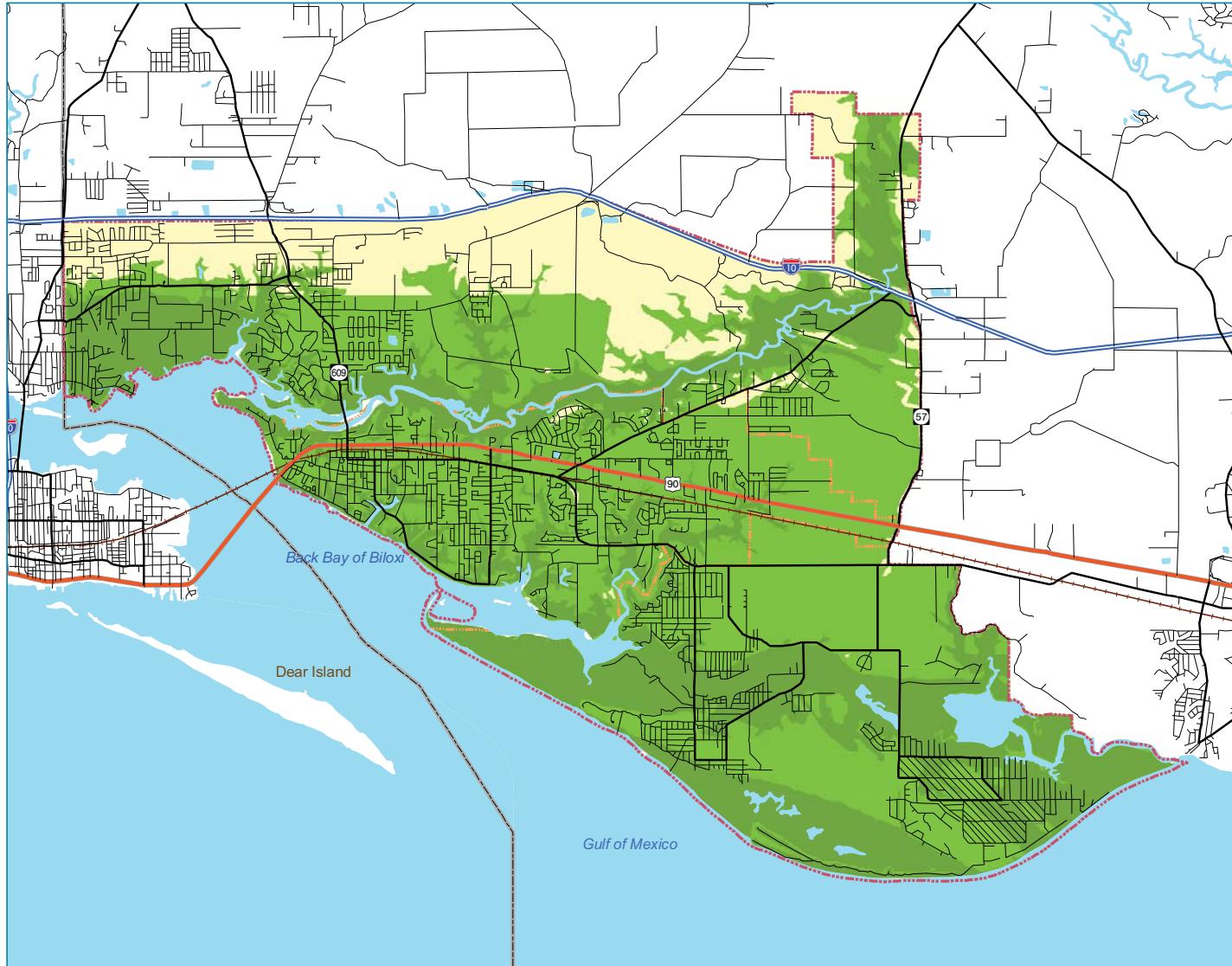
Legend

— Interstate Highway
— Highway
— Major Road
— Local Road
— Minor Road
+—+ Railroads (Local)
▢ Planning Area
▢ County Boundary
▢ Water
▢ Ocean Springs
▢ Most Suitable
▢ Moderate Suitability
▢ Least Suitable

PLANNING WORKS

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Back Bay of Biloxi

Dear Island

Gulf of Mexico

Map Document: (Q:\Clients\Ocean Springs, MS\Maps\lsa factors2.mxd)
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0 0.5 1   2
Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS,
MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 10 - Soil Drainage Class

Legend

— Interstate Highway
— Highway
— Major Road
— Local Road
— Minor Road
—+—+— Railroads (Local)
Planning Area
County Boundary
Water
Ocean Springs
Most Suitable
Moderate Suitability
Least Suitable

Back Bay of Biloxi

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609

57

10

90

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Miles

N
W   E
S

Data Sources: City of Ocean Springs, Jackson Co. GIS,
MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 11 - Soils Suitable for Dwelling Units

Legend

——	Interstate Highway
——	Highway
——	Major Road
——	Local Road
——	Minor Road
+++	Railroads (Local)
▢	Planning Area
▢	County Boundary
▢	Water
▢	Ocean Springs
▢	Most Suitable
▢	Moderate Suitability
▢	Least Suitable

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0   0.5   1   2
Miles

N
W   E
S

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 12 - Primary Road Proximity

OCEAN SPRINGS
BLUEPRINT

Legend

— Interstate Highway
— Highway
— Major Road
— Local Road
— Minor Road
—+—+— Railroads (Local)
☐ Planning Area
☐ County Boundary
☐ Water
☐ Ocean Springs
☐ Most Suitable
☐ Moderate Suitability
☐ Least Suitable

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Planning Works

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0   0.5   1   2
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W E
S

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 13 - Developed Land Proximity

OCEAN SPRINGS
BLUEPRINT

Legend

- Interstate Highway
- Highway
- Major Road
- Local Road
- Minor Road
- Railroads (Local)
- Planning Area
- County Boundary
- Water
- Ocean Springs
- Most Suitable
- Moderate Suitability
- Least Suitable

Back Bay of Biloxi

Dear Island

Gulf of Mexico

PLANNING WORKS

0   0.5   1   2   Miles

Map 14 - Water Line Proximity

Legend

— Interstate Highway

— Highway

— Major Road

— Local Road

— Minor Road

—+— Railroads (Local)

▢ Planning Area

▢ County Boundary

▢ Water

▢ Ocean Springs

▢ Most Suitable

▢ Moderate Suitability

▢ Least Suitable

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0   0.5   1   2
Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS,
MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Map 15 - Sewer Line Proximity

OCEAN SPRINGS
BLUEPRINT

Legend

Interstate Highway
Highway
Major Road
Local Road
Minor Road
Railroads (Local)
Planning Area
County Boundary
Water
Ocean Springs

SewerLines
Existing Lines
Proposed Lines
Most Suitable
Moderate Suitability
Least Suitable

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0   0.5   1   2
Miles

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, ESRI, Horizon Systems, USDA

Legend

- Interstate Highway
- Highway
- Major Road
- Local Road
- Minor Road
- Railroads (Local)
- Planning Area
- County Boundary
- Water
- Ocean Springs
- Most Suitable
- Moderate Suitability
- Least Suitable

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Legend

- Interstate Highway
- Highway
- Major Road
- Local Road
- Minor Road
- Railroads (Local)
- Planning Area
- County Boundary
- Water
- Ocean Springs
- Most Suitability for Development
- Moderate Suitability for Development
- Least Suitability for Development

Back Bay of Biloxi

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PLANNING WORKS

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Data Sources: City of Ocean Springs, Jackson Co. GIS,
MARIS, U.S. Census, ESRI, Horizon Systems, USDA

6   COMMUNITY DESIGN

When most people think of Ocean Springs, they think of Downtown Ocean Springs. Development on Bienville Boulevard (Hwy 90) embodies almost none of those qualities as evidenced by the lack of accommodations for pedestrian traffic; the lack of green spaces and abundance of impervious surfaces; the lack of architectural cohesiveness; inappropriate signage; and, the·scale of the buildings relative to their setback condition. In personal interviews and other solicitations of public comment, residents and business owners recognized the physical differences between the gateway planning area and the downtown area, but were not always able to express what characteristics set apart the two or to propose solutions "to fix Highway 90." Many expressed the ideal to have "Highway 90 more like downtown," but also expounded a belief that "it is too late to save it."

Building types in old Ocean Springs provide good examples of what would be helpful in defining qualities contributing to the character of the town. During the summer of 1998, several local businessmen and property owners in the downtown area requested design assistance from the Small Town Center at the School of Architecture at Mississippi State University to redevelop the downtown area of Ocean Springs. The *Strategies for Redevelopment: Master Planning and Guidelines for the Redevelopment of Ocean Springs* (1999) identified building, landscaping and parking characteristics for the downtown area, which are included in the implementation strategies of this Plan.

Besides building and site architectural features, Bienville Boulevard corridor does not embody the landscape of the downtown development area.The landscaping in front of AT&T's call center and CVS are exceptions to this general character. The most notable feature on which residents and visitors comment is the live oak tree lined streets in the downtown development area. The live oaks are extremely relevant to Ocean Springs not only for their historic value, but also for the character they give the City; they provide shade from the sometimes brutal sun and act as landmarks within the community. In addition, the trees lend continuity to the fabric of the community. For example, sidewalks move around them creating spaces for benches and flowerbeds. Planting and green spaces can be used to break the monotonous repetition of building facades or be used to bring some cohesiveness to the district. Furthermore, they can be used as places of public gathering other than a parking lot. The trees and other aforementioned characteristics provide a framework for identifying what is the City of Ocean Springs.

6.1   Development Patterns

6.1.1   Form-Based Code & Design Guidelines

Community design was one of the key issues addressed in the Ocean Springs Renewal Forum Plan, in the subsequent area plans for Downtown and Front Beach and the 2009 Plan Update. Policies and strategies for extending the development patterns and characteristics of downtown Ocean Springs and other historic neighborhoods through infill, redevelopment and greenfield development opportunities were discussed at each of the Public Design Forums. In particular, form-based codes and the Mississippi Smart Code were discussed as potential implementation tools to achieve desired development patterns and design elements. Form-based codes are ordinances geared toward regulating the design of a structure rather than the use of that structure, which is what traditional zoning ordinances are meant to accomplish. The use of a structure still plays a role in a form-based code, but its role is subservient to that of development character and intensity. It is often noted in thriving urban areas (whether they be walkable small towns or larger cities) that many buildings change their use repeatedly over time, or contain a variety of uses, but they still fit within the larger context of the area because of their design characteristics. This is the key premise of form-based codes. The Smart Code is a particular form-based code. Much like architectural

design standards, form-based or Smart Codes can be applied to a community as a whole, or to a specific area, such as a business district or historic neighborhood.

Since the 2001 Plan, the City has adopted design guidelines for commercial and multi-family development, which have been applied to increase the quality and appearance of new development. However, the underlying problems with the City's development regulations that had been identified as part of the 2001 Plan had not been addressed in the interim. To implement the Downtown & Front Beach Plans and the Comprehensive Plan Update, the City plans to adopt Smart Code Ordinances for specific areas, including Downtown and Front Beach, and integrated provisions of traditional zoning and a form-based code for the remainder of the City, contained in the format of a Unified Development Code, which combines subdivision, zoning, sign, tree, landscape and design regulations all in one cohesive document. The Smart Code and Unified Development Code are tools to help the City achieve many of the Comprehensive Plan's Goals.

6.1.2   Traditional Neighborhood Development (TND) & New Urbanism

Traditional Neighborhood Development (TND) is one of several development concepts that have been embraced over the past 15 years as an alternative to the conventional development patterns that defined growth in the U.S. starting in the late 1940s. Conventional subdivision design is characterized by auto-dependent design and segregated land uses, resulting in suburban sprawl. Conventional "sprawl" development consists of five main components, including: 1) housing subdivisions; 2) shopping centers, composed of single-use retail buildings, usually a single-story with exclusive parking areas; 3) office/business parks, also single-use and served by exclusive parking areas; 4) civic institutions, such as churches, schools and libraries, generally large and separated from other uses and served by exclusive parking areas; and 5) roadways, connecting these separated land uses and designed exclusively for the use of automobiles[ii].

Conventional subdivision design is based on a hierarchical street pattern that channels local traffic onto collector roads in order to reach almost all destination points, increasing congestion and impeding non-auto access to typical daily destinations. In conventional suburban development, while typical daily destinations are oftentimes adjacent to one another, the design and layout of buildings and connections makes these destinations

difficult to access directly, and makes walking an inefficient form of transportation.

TND responds to this inefficient and costly separation of uses and auto-dependency as a development alternative that promotes "mixed-use, pedestrian-friendly communities of varied population, either standing free as villages or grouped into towns and cities[iii]."

There are a number of alternative development forms similar to TND that have become prominent in recent years, including Neo-Traditional Development, New Urbanism, and pedestrian- and transit-oriented development. Many of these development forms share certain characteristics, although there are differences among them. Brief summaries of Traditional Neighborhood Development and New Urbanism follow.

6.1.2.1 *Traditional Neighborhood Development*

Traditional Neighborhood Development (TND) is based on historical development patterns that defined development in the United States through World War II. The traditional neighborhood development pattern is based on each neighborhood containing a clear center for commerce, culture and civic activity; compact development within a 5-minute walk of the center; a street network based on small, connected blocks, generally in a grid layout; narrow, versatile streets; mixed-uses; and special sites for civic structures and buildings. Historically, places for living, working, and shopping were designed and built in close proximity simply because this was the most economic and convenient way to build. In times when transportation options were expensive, dangerous, dirty, and sometimes unavailable, supplying daily needs within a walking distance made sense to developers and consumers.

TND employs physical design concepts to achieve social objectives. These physical concepts include:

- A neighborhood area that is limited in size, with clear edges and a focused center
- Shops, workplaces, schools and residences for all income groups located in close proximity
- Streets that are sized and detailed to serve the needs of both automobiles and the pedestrians
- Buildings that are sized and designed to spatially define streets and squares
- Squares and parks that are distributed and designed as specialized places for social activity and recreation.

- Well-placed civic buildings that act as symbols of the community identity and provide places for purposeful assembly.

The social objectives promoted through these concepts include:

- Reducing the requirements for infrastructure, automobile use, and pollution, and facilitates public transit.
- Integrating all age groups and economic classes through a full range of housing types and workplaces
- Allowing residents to come to know each other and share collective security through the provision of comfortable public places
- Providing for the elderly and the young to gain independence of movement by encouraging pedestrian-friendly routes and destinations
- Encouraging democratic initiatives and the balanced evolution of society through suitable civic buildings

6.1.2.2 *New Urbanism*

Like TND, proponents of New Urbanism consider the major alternative to urban sprawl to be a return to mixed-use villages and centers that promote pedestrian and transit travel. This "new urbanism" challenges cities and developers to employ new concepts for transportation corridors and centers. These new planning concepts champion:

- Increased density along transit corridors,
- Locating residences, jobs, and retail destinations close to public transit facilities,
- Providing mixed use development within walking distance of residential areas,
- Development of a multi-modal, interconnected transportation network, and
- Development of urban design guidelines that encourage a more pedestrian and walkable community.

By establishing transportation corridors and concentrated urban centers, new urbanism accomplishes several public objectives:

- Encouraging residents and workers to walk, ride bicycles or utilize public transit rather than the automobile as a means of transportation;

- Reducing congestion on surrounding roadways and reduces the related detrimental effects on air quality; and
- Balancing the distribution of land uses to concentrate development around transportation nodes within developed areas, thus preserving rural, open space, agricultural and environmental lands.

New urbanism promotes design principles as one means for addressing growth management issues, including balancing jobs and housing, efficiently locating and using civic buildings such as schools, and the equitable distribution of public resources.

6.2   Public Realm: Design & Walkability

The design of public and private places, including street, sidewalks, buildings and open spaces influences how we interact with our environment. Whether we walk or drive, linger or hurry, feel safe or look over our shoulder, is directly influence by the quality and design of our surroundings. A public space can invite you to sit and relax, or can make you feel open and exposed. The following sections describes various techniques and programs that can be implemented in Ocean Springs to maintain and enhance the high quality public realm and private development.

6.2.1   Walkability

The physical condition of streets, sidewalks, utilities, public spaces and other infrastructure often provides visitors with their first impression of a place and sets the tone for the level of maintenance of private property. High quality streetscapes enhance the community identity and encourage pedestrian activity, adding vitality to commercial and residential areas. Pedestrian amenities make walking and biking attractive for recreation and travel. Such amenities include:

- Sidewalks and bike lanes;
- Street furniture: benches, trash receptacles, bicycle racks, etc.;
- Street trees and street lights;
- Other public spaces, such as greens and squares;
- Dedicated public access easements; and
- Public art.

This Plan includes policies and strategies for improving the aesthetic quality of Ocean Spring's gateways, corridors and other

public spaces to reflect the high quality of life and pride of community.

Obesity and related health problems, such as diabetes and heart disease, are a widespread public health issue that dominate media and public health campaigns across the nation. While the Center for Disease Control reported that 10-14% of Mississippi residents were considered obese in 1990, that number more than doubled to 32% in 2007. Obesity-related health problems result in increased health care costs and reduced productivity, as well as a possible decline in quality of life. Walking has been touted as one of the easiest, most affordable and accessible strategies for improving public health, and is supported by the State of Mississippi through the "Let's Go Walkin'" program. Let's Go Walkin' encourages people of all ages to experience the benefits of moderate exercise through walking. The program promotes the many benefits of walking and information about places to walk in Mississippi. The program is extending to provide all elementary and middle schools across the state with a free Let's Go Walkin' program for the 2008-2009 school year.

One of the key components in encouraging people to walk is having a nice area to walk in and places that they can walk to. The City can promote walkability and the associated public health benefits through provision of sidewalks and the pedestrian amenities discussed above, as well as the provision of destination points within walking distance of residential areas, such as public parks or

neighborhood-scale commercial uses.

6.2.2   Complete Streets

Complete Streets, context sensitive design and green streets are similar concepts that promote a more comprehensive approach to the design and function of roadways. The key premise is that roadways should be designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and bus riders of all ages and abilities. Streets should be engineered to meet the demands placed on the roadway, but should be done so in a way that minimizes negative impacts and recognizes the character and function of the surrounding area. For instance, even though a downtown street may be heavily travelled, it should not be designed to function like a high speed arterial.

As the City of Ocean Springs considers street improvements, the following recommendations should be considered:

- Consider the needs of all users, including pedestrians, bicyclists, transit vehicles and users, and motorists, of all ages and abilities;
- Create a comprehensive, integrated, connected network;
- Recognize the need for flexibility in design dependent upon the context of the roadway and the character and design of surrounding development;
- Consider exceptions to established standards to enhance safety, promote traffic calming and walkability or achieve other objectives;
- Seek opportunities to involve the community in the design of roadways;
- Direct the use of the latest and best design standards; and
- Ensure that streets fit in with context of the community.

6.2.3   Safe Routes to School

According to the Federal Highway Administration, the number of school children that walk or ride a bike to school has dropped from 50% in 1969 to less than 15% today. This is particularly alarming in consideration of the rising rates of childhood obesity and the associated chronic health disorders, including Type II diabetes and asthma. Aside from the public health concerns of a less physically active school-age population, the number of children who cannot walk to school due to safety concerns is problematic in terms of the increasing costs of fuel for cars and busses. An additional concern is that as more children are driven to school, the increased traffic and air pollution around schools makes it more challenging for the remaining walkers and bike riders to travel safely.

Parents repeatedly identify safety as the number one reason their children ride in vehicles. Safe Routes to School (SRTC) is a national program that addresses the issues that prevent students and parents from utilizing transportation alternatives. The first Safe Routes to School (SRTC) program in America began in New York City in 1997, and in 2005, Congress dedicated $612 million dollars towards the SRTC Program. Schools provide a unique opportunity to educate students as well as provide school-based walking programs where students can walk safely in supervised groups. The SRTC Program is having success in communities around the nation and is expected to continue to grow.

As part of the Public Design Forum process, provision of sidewalks and trails was a key concern. The City has made recent investments in sidewalk provision and improvements in developed parts of the City and receives continual requests for additional improvements. Revisions to the subdivision regulations now require sidewalks to be installed in all new developments in order to prevent such future inadequacies. To promote safe routes to school and the quality of the overall pedestrian environment, the City is including specific design components for new and existing City facilities, parks, schools and other community gathering places, such as pedestrian crosswalks, sidewalks and bike trails, signage, schools near to neighborhoods, traffic calming measures, pedestrian refuges and other techniques, including community education.

6.2.4   Crime Prevention Through Environmental Design

Proper design of the physical environment can be used to reduce opportunities for criminal activity to occur and improve public perceptions of safety and well-being. When residents feel safe in their community, they experience a higher quality of life and the community becomes more attractive for investment of all types. Crime Prevention Through Environmental Design (CPTED) uses four physical design strategies, as described below, to create safer neighborhoods, shopping, recreation and business areas, as well as public spaces. Encouraging these principles through the City's development review process may contribute to great comfort and perceptions of safety in Ocean Springs.

6.2.5 Handicap Accessibility

As of 2006, approximately 15.1% of Americans had a disability status,[iv] yet the majority of American homes and communities are neither welcoming nor safe for physically handicapped people to visit. Communities and homes that are inaccessible to so many create social barriers, increase the number of institutionalized individuals, and increase the chance of injury for handicapped individuals[v]. As the baby boomers reach retirement age, the need for accessible housing increases.

The City of Ocean Springs faces additional challenges in terms of accessibility due to elevation requirements in some areas. While meant to prevent flood hazards, the secondary effects of elevation requirements can make streets less interesting to pedestrians and homes less accessible to the handicapped. Additionally, drainage along many City streets is provided by open ditches, which make provision of wide sidewalks difficult and limits crossing points. Design solutions are required to mitigate these unintended consequences and overcome environmental challenges.

Currently there are limited federal mandates that affect the way a new home is constructed in regard to handicap accessibility, but these do not apply to single-family housing. Title II of the Americans with Disabilities Act (ADA), as well as many state laws require homes built with public funding to be accessible[vi].

However, more and more states are mandating or adopting incentives for homes built accessible for a growing number of disabled Americans.

Universal design, accessible design and "visitability" are related concepts that address the design of homes to accommodate individuals with all levels of abilities, as well as the ability of physically handicapped individuals to visit a home or community without needing assistance. Since the cost of converting a built home to accessible standards is much greater than that of building accessible homes initially, the following minimum requirements for new homes are recommended:

- 32 inch wide passage doors and hallways;
- At least a half bath room on the main floor large enough to accommodate a wheel chair; and
- At least one zero-step entrance approached by an accessible route where feasible due to flood zone requirements.

The City of Ocean Springs is home to persons with various special needs, including an aging baby boomer population that will require accessible housing. By considering these needs in the planning and development review process, the City can set itself apart as a place with a high quality of life for all its citizens and a progressive view of inclusiveness.

6.2.6   Sustainable Landscaping

Sustainable landscaping is a landscaping approach that seeks to minimize inflow to and outflows from a landscape. Design is an intensive part of the process and must be tailored to suit each geographic location. Care is taken in choosing vegetation types and an overall design that best reflect the natural conditions of the area. The environmental and economical benefits of sustainable landscaping are numerous. Sustainable landscapes can save in reduced labor, water, and fertilizer costs. These benefits are accrued by using native vegetation suited to the local environment that required less intensive maintenance and irrigation.

Methods associated with sustainable landscaping include grasscycling, composting, and mulching, which return valuable organic material to the soil, in turn increasing the water-holding capacity of soil, reducing erosion and conserving water. Proper watering, fertilizing, and pruning along with Integrated Pest Management can encourage healthier, disease-resistant plants and can reduce the amount of pesticides, fertilizers, and other toxic runoff entering storm drains and polluting creeks, lakes, and rivers.

There are many forms and types of sustainable landscaping. Xeriscaping is landscaping that does not require supplemental irrigation. In the Southwest U.S. and places where water is scarcer, xeriscaping has become popular. Rain gardens, which absorb rainwater runoff from impervious surfaces, are being used in urban and suburban areas across the country to reduce hazard from flooding and reduce irrigation needs.

Landscape irrigation consumes more water in urban areas than any other use (one third of all water consumed is typically for landscape irrigation), local governments can play a major role in pushing their community toward more sustainable practices. Examples of sustainable landscaping regulations that have already been implemented by local governments around the U.S. are shown in **Table 13.**

Table 13: Sustainable Landscaping Regulations

Type of Ordinance	Purpose
Water-Efficient Landscaping Regulations	To require landscaping practices that conserve water resources.
Vegetation Standard	To increase retention of native plants in all developments and prevent use of invasive exotics.
Landscaping and Irrigation	To reduce water consumption by providing minimum standards for the development, installation, maintenance, and preservation of water-efficient landscaping and irrigation system in residential lots.
Water Conservation	To reduce water consumption in residential and nonresidential developments.
Integrated Pest Management Program	To eliminate or reduce pesticide applications on City property.

6.2.7   Signage

Signs are an integral part of the built environment, attached to almost every non-residential structure and most surfaces throughout communities. The manner in which a community regulates signs impacts the character and quality of development, ultimately influencing economic development opportunities and quality of life. Commercial signs, political signs, traffic and public safety signs, temporary signs and wayfinding signs are but some of the types of signage that one encounters on a major City corridor. While the negative visual impacts of uncontrolled signage are obvious to any visitor driving into a new place, signs are a very necessary tool for businesses and visitors. An ongoing concern in Ocean Springs is the design and character of the major gateways and corridors that lead into the City. Revising the sign standards to limit the size and number of signs on a given property, and to regulate the materials, lighting, colors, orientation, height and other design considerations will enhance the visual appeal and first impressions of the community.

6.3   Historic Preservation

Not only is the community's history an important part of its character, but the historic resources in and around Ocean Springs draw visitors to the area, making historic preservation an element of the City's economy. Historic preservation aims to identify, preserve, and protect sites, buildings, and structures that have significant cultural, social, economic, political, archaeological, or architectural history. The social and cultural benefits to historic preservation are numerous; it can revitalize neighborhoods and instill pride in the community. Preservation is also associated with sustainability, as it encourages the use of existing buildings and sites as well as their infrastructure, rather than building new structures in greenfields. By taking advantage of existing infrastructure through adaptive reuse (using historic buildings for new purposes), preservation reduces the environmental toll of growth.

Historic preservation also increases and encourages heritage tourism. The National Park Service identifies heritage tourism as "traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present." From an economic perspective, a study by the Travel Industry Association of America found that people who engage in historic and cultural activities do more, spend more, and stay longer than other types of U.S. travelers[vii]. While on vacation, visiting historic and cultural sites ranks second only to shopping, which underscores the economic importance of preservation.

Ocean Springs remains passionate about historic preservation and protecting its historic resources. Some of the City's historic assets were damaged significantly during Hurricane Katrina, particularly the Sullivan-Charnley Historic District, which was all but destroyed in the storm. Preservation efforts are underway to salvage the shells of those buildings and preserve the character of the structures. On-going conversations throughout the Public Design Forum underscore the importance of preservation. Residents are particularly concerned about incompatible uses threatening existing neighborhoods, including historic and cultural areas. "Infill development" and "density" were two of the greatest fears in terms of land use incompatibility. At the same time, extending the best patterns and characteristics of historic development throughout areas of new development in the City has been an underlying planning theme since the 2001 Plan and has been emphasized in the post-Katrina Renewal Forum and in the Downtown and Front Beach Area Plans. Using a form-based code to promote land use compatibility, particularly in historic areas has been a widely-debated strategy. Preserving character and protecting historic assets while encouraging compatible development will be a key challenge of the update to the City's development regulations.

Historic districts are shown in **Map 18** and are described as follows:

- The **Old Ocean Springs Historic District** became a National Register District in 1987 and a local district in 1990. The district is comprised of several residential blocks situated to the south and west of the central business district. The district is unique, because of its history of mixed use (residential, commercial, professional,

etc.) particularly along Jackson and Washington Avenues. The area reveals an abundance of high style architecture both well suited and adapted to the Gulf Coast climate and indicative of the continuous development of Ocean Springs as a resort community.

The Old Ocean Springs District is significant for its diversity of architectural styles, local stylistic adaptations, and variety of building forms. Greek Revival, Queen Anne, and Craftsman stylistic interpretations preponderate upon Creole cottages, Planter's cottages, shotgun houses, and bungalow forms. Climactic influences are reflected by both the scarcity of chimneys and the plethora of porches. The area also encompasses churches and community buildings, as well as numerous residences rehabilitated for modern non-residential uses.

▪ The **Bowen Avenue Historic District** encompasses a linear area of three blocks of Bowen Avenue, which runs east-west between Ward and Washington Avenues. The district is comprised of the frontage properties along Bowen Avenue between General Pershing and Bellande Avenues and one additional property west of Bellande Avenue. Initially developed from 1890 to 1930, the neighborhood grew slightly northeast of the Old Ocean Springs area. Citizens of more moderate means built the area as evidenced by the uniformity and modesty of both scale and detailing. As a middle-class development, these dwellings reveal the diversity of influences within a prestigious resort community, yet maintain a cohesive collection of residential architecture. The dwellings are either vernacular or have few stylistic details, with high style architecture being the exception rather than the rule. Even so, the

district displays examples of Victorian Italianate, Creole Cottages, Bungalows, Victorian Shotguns, and Queen Anne Cottages. The residences on Bowen Avenue, which remains narrow and tree-shaded, are isolated from through traffic and newer areas of development.

▪ The **Railroad Historic District** is located along the railroad corridor which runs on an east-west path through Ocean Springs' historic areas. Illustrative of transportation and industrial influences, the buildings in the district reflect uses related to the railroad and the surrounding African-American community. These turn-of-the-century resources reveal the great influence of the railroad upon Ocean Springs's development. As a common business practice of the late nineteenth century, the L & N Railroad Company contributed to the neighborhood growth though the construction of worker housing. A prominent structure, the L & N RR Depot, soon adjoined the railroad as the company and the community prospered. Commercial enterprise opened in proximity to the railroad as well. The district is significant for its railroad related architecture, including residential, transportation, and commercial resources. Four dwellings built circa 1890 by C. W. Madison for railroad worker rental housing are similar to most of the residential housing. Stylistic details are present on a few of these vernacular frame dwellings. The district is highlighted by a few highly styled buildings, the Louisville & Nashville Railroad Depot, the classically influenced Old Farmers and Merchant State Bank, and the Carter-Callaway and Cochran-Cassonova residences.

▪ The **Lover's Lane Historic District** occupies the western shore of a small peninsula which separates the Back Bay of Biloxi from the mouth of the Old Fort Bayou, the stream that curves along the northern limits of the historic development of Ocean Springs. The development and popularity of Ocean Springs as a historic resort community is reflected in the turn-of-the-century majestic summer estates. The peninsula was the site of Fort Maurepas, the original French settlement in the colony of Louisiana Pierre Le Moyne d'Iberville founded on April 8, 1699. Lover's Lane is a narrow roadway edged with thick foliage and bisects the eastern boundary of the district. Private ownership has prevented extensive archaeological excavation of the seventeenth century European settlement and a silt-entombed ship from the same era, which is designated a National Register site. The district is significant for its eclectic high-style residential architecture, including examples of Greek Revival, Queen Anne, and the Spanish Colonial Revival styles. Dwellings within the Lover's Lane Historic District, dating from the 1870s through the 1920s, also display local adaptations of architectural styles designed to accommodate the climatic

challenges of the Mississippi Gulf Coast. The orientation of the properties toward the bay, the generous scale of landscape design, and the survival of oyster shell paths contribute to the visual character of the area.

▪ The **Shearwater Historic District** consists of a series of bluffs overlooking the Mississippi Sound. The area includes a variety of water-oriented residential architecture secluded by long drives and intense vegetation. More recent construction respects the integrity of the dynamic waterfront sites. The Shearwater Historic District has been occupied continuously since the early 1800s. One is Kendall property that was developed circa 1850 on which an ice house and two grave sites are extant. The second is the Tiffen Place which encompasses a circa 1840 Greek Revival residence and its accessory buildings. Mrs. Annette McConnell Anderson purchased property in 1918 as an artists' colony and for its picturesqueness in natural simplicity. Her three children included Peter, Walter, and Mac. Named Shearwater Pottery, the compound served as the family home and became the site of multiple pottery buildings, which have remained in continuous use. Residential construction in proximity to the estates developed primarily between 1937 and 1978. Shearwater Pottery has given the historic district significance through the nationally recognized works of Walter Inglis Anderson- muralist, potter, and artist- and the pottery of his brother Peter. The site and setting, more so than the architecture, define the visual character of the pottery complex.

Walter Anderson's cottage and the pottery workshop were restored after Hurricane Katrina. All but a few homes in the Shearwater district were destroyed.

▪ The **Sullivan-Charnley Historic District** is comprised of three contiguous waterfront estates located between the Weeks, Halstead, and Davis Bayous on the northeast corner of the intersection of East Beach Drive and Holcomb Boulevard. Constructed at the end of the nineteenth century, the structures and their dependencies represent the only buildings in Mississippi attributed by substantial evidence to Louis Sullivan (1856-1924) of the renowned architectural firm of Adler and Sullivan. The firm of Adler and Sullivan designed at least four of the buildings- shingle clad structures of great simplicity and profound horizontality that are markedly similar to the ground-hugging, broad-eaved and hip-roofed designs of Frank Lloyd Wright. The structures top the crest of a low bluff and command an extensive view of the water over an open sweep of front lawn; the rear grounds are thickly planted.

- The **Marble Springs Historic District** is irregularly shaped and located in proximity to Old Fort Bayou. Nineteenth and turn-of-the-century residential architecture lines Iberville Drive, a street shaded by live oaks, between north Washington and Sunset Avenues. The varied scale of the dwellings and lots reflects the rise and decline of one of Ocean Springs' most important attractions-Marble Springs. Exploited for its mineral waters since the 1850s, Marble Springs was touted for its curative powers and offered the only spa bathing facility in town. As a community social center overlooking the picturesque Old Fort Bayou, Marble Springs became a desirable home site for numerous influential citizens. The mineral springs ceased to flow when the ground water level lowered as a result of excessive well drilling and the social exclusivity of the area later declined. The district, a cluster of street-oriented homes, is significant for its contrast of building scale and style. Houses on the north side of the street are more elaborate in terms of architectural style and larger in mass, setback, and lot size. In contrast, the south side dwellings are smaller, more vernacular and denser. The district also encompasses a replica of the historic spring house.

- The **Indian Springs Historic District** is an irregularly shaped area located in proximity to Old Fort Bayou. Having a greater sense of informality than that of the other historic districts in the City, the Indian Springs Historic District embodies a variety of residential architecture from the 1850s to the 1930s. The rehabilitation of many residences within this area for professional use reflects the modern movement to appreciate and reuse historic buildings within the community.

  The mineral springs attracted visitors over several centuries, beginning with the native Americans of the Marksville Period approximately fifteen centuries ago and continuing through the development of Ocean Springs as a resort community beginning in the 1850s. The district also includes the southern landing site of a Fort Bayou ferry, operated by a Portugese immigrant named Franco from around 1860-1890. Use of the landing ceased with the construction of a bridge in 1901. The popularity of the mineral springs fostered the later enlargement of the Franco home for a convalescents' home/motel/restaurant complex; however, the spring ceased to flow freely due to a decline in the water table. The district is significant for its highly diverse concentration of architectural forms and styles, including somewhat free and individual interpretations and blends of Greek Revival, Queen Anne, Colonial Revival, and Craftsman styles. The structures generally are one- and two-story frame construction and oriented to the street. Characteristic of residential areas, tree-shaded lawns

and designed planting beds define the landscape with the exception of the increased density of trees and undergrowth close to the bayou.

In addition, the planning area encompasses three National Register sites. The Back Bay of Biloxi Shipwreck Site was noted. The other two are the O'Keefe-Clark Boarding House at 2122 Government Street, placed on the register in April 1987, and the Old Ocean Springs High School discussed in more detail below in the "Public facilities and Infrastructure" section.

The City has adopted design guidelines for residential housing units in its eight historic districts. The Ocean Springs Historic Districts Design Guidelines provide a narrative of the significance of each of the districts in addition to architectural standards that should be applied to new construction, alterations, and additions. The purpose of the guidelines is to assure that new housing units are designed to be compatible with the historic architectural styles found in the districts and to protect the historic integrity of the neighborhoods.

OCEAN SPRINGS
BLUEPRINT
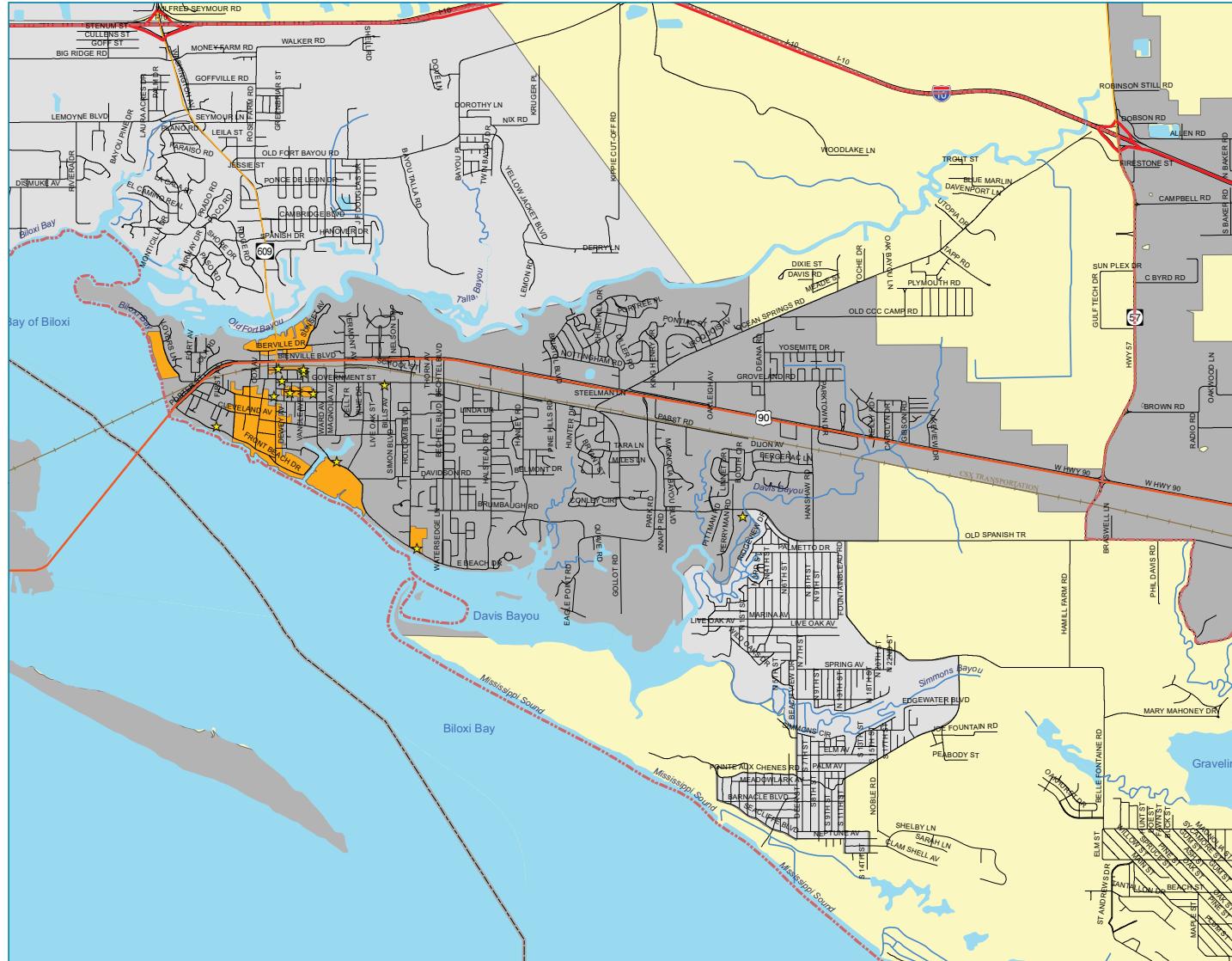
Map 18 - Historical Districts

Legend

- ArtificialPath
- StreamRiver
- ★ Historical Sites

Highways

- Interstate
- US Highway
- State Highway
- SecondaryRoads
- Local Roads
- Railroads
- Historical Districts
- County Boundary

Census Places

- Incorporated Place
- Unincorporated Place
- Updated Planning Area
- Unincorporated County

PLANNING WORKS

Please use this map as a guide and not as definitive information. The areas depicted by this map are approximate and are provided for illustrative purposes only. While every effort has been made to ensure the accuracy, completeness, correctness, and timeliness of information presented within this map, the burden for determining appropriateness for use rests solely with the user. This map is provided "as is" with no warranties, express or implied.

0   0.5   1   2 Miles

7   NATURAL RESOURCES

7.1   Environmental Conditions

7.1.1   Topography

Ocean Springs is located on a peninsula in southwest Jackson County, Mississippi. Jackson County is part of the East Gulf Coastal Plain region, which lies to the east of the Mississippi Delta. The area is mostly low hills, covered with pine forests. Topographic relief in the planning area is moderate, with gentle slopes (less than 5 percent) covering almost all of the planning area. Only some localized areas have moderate slopes (from 5 to 12 percent).

7.1.2   Geology

The planning area is characterized by sandy and loamy soils. There are three major geologic formations in the area.   The *Biloxi Formation* is a transgressive unit deposited in marine and brackish water both near shore and offshore. It consists of clay, fine sand, and sandy clay with abundant fossils and ranges in thickness from 15 to 45 feet in Harrison County to as much as 120 feet thick in Jackson County. The second is the *Prairie Formation*, composed primarily of sands and muddy sands with fossil tree trunks, leaves, and occasionally pine cones. The Prairie Formation ranges from 15 to 40 feet thick. It forms the wide, generally flat coastal plain immediately north of the coastal marshes and beaches on the Mississippi coast. The City of Ocean Springs is dominantly formed by the Prairie Formation.   The third formation—the *Gulfport Formation* is the most prominent and probably the most exploited geologic formation along the coast. All of the sand on the mainland beaches of Mississippi comes indirectly from the Gulfport Formation. Gradual warming and rising sea level also eroded and leveled the post-glacial landscape as the river valleys were filled and became swamps and marshes. This sub-surface evidence can be seen along the coast of the City of Ocean Springs.

7.1.3   Hydrology

The Mississippi Sound is the eventual recipient of the effluent via stream, rivers, bayous, discharges and runoff from more than 38,000 square miles of land of diversified usage. The Sound and adjacent bays serve as mixing basins for marine and fresh or brackish waters. The City of Ocean Springs is bordered by Fort Bayou, one of the large basins that drain into the Sound.

There are a variety of wetlands in the planning area. Examples of coastal wetlands are seagrass beds, mud flats, sandy beaches, slat marshes, freshwater marshes, wet savannahs, bogs, and others. About one-third of the state's 120 ecological communities are found in the Coastal Zone. Coastal wetlands and associated habitats, ranging from seagrass meadows and oyster reefs to salt marshes and coastal pine savannahs, form a belt comprising about 800 square miles, which includes areas within the planning area.

These coastal wetlands are part of what has been termed the "Fertile Crescent" because of its high biological productivity. Seafood harvests from the U.S. Gulf Coast represent 40 percent of the nation's totals and form the basis of a multimillion dollar industry in Mississippi. Most commercially important Gulf seafood species, including shrimp, oysters, blue crabs, flounders, redfish, just to name a few, spend some or all of their life in the rich waters in and adjacent to coastal wetlands. Shallow coastal waters along the gulf coast also serve as crucial nursery areas for many commercially important fish and shellfish species. It is in the food-rich waters adjacent to the marshes where shrimp larvae and young fish feed and grow before moving offshore.

7.1.4   Climate

The Mississippi Gulf Coast has a subtropical, maritime climate. There are eight distinct climatic patterns that have been identified that affect the area.   The subtropical, anticyclonic (clockwise circulation) Bermuda High has the greatest influence on the climate of the Mississippi Gulf Coast. Both Bermuda High and Continental Pressure Systems greatly influence wind patterns: a substantial portion of the winter winds (December-February) come from between north and northeast; the predominant winds of spring (March-May) come from between south-southwest and south-southeast; the onset of summer (June-August) has a pattern similar to that of spring; Fall is always announced by an onset of a sharp and fairly consistent strong northeasterly winds.

The combination of high humidity and high temperature is characteristic of summer.   Winters are generally mild with an average of only 11 days per year when temperatures drop below 32˚F. There are no records of sub-zero temperatures ever having occurred. From November through March, dense sea fog which forms offshore over the relatively cold water surface is carried across the coast by onshore winds. Tropical storms and hurricanes are typical of the Mississippi Gulf Coast area. The principal season for hurricanes is from June through November; however, most

hurricanes occur during August and September, which can cause substantial damage within the planning area.

7.1.5   Habitat

Habitat for flora and fauna is found throughout the Ocean Springs Planning Area. The Sandhill Crane Refuge is one of the Area's key assets for protected habitat. Established on November 25, 1975, the Mississippi Sandhill Crane National Wildlife Refuge (NWR) was the first National Wildlife Refuge established under the Endangered Species Act. The Refuge was created for the protection of the endangered Mississippi sandhill cranes and their wet pine savanna habitat. The Mississippi Sandhill Crane NWR consists of more than 19,000 acres in four units and is part of the Gulf Coast Refuge Complex which includes Grand Bay NWR (Mississippi and Alabama) and Bon Secour NWR (Alabama). The U.S. Fish and Wildlife Service describes the habitat of the Refuge as follows[viii]:

> The refuge's vegetation communities are a mosaic of pine savannas and pinelands interspersed with wooden swamps and drainages, along with a small tract of estuarine marsh. The area is characterized by high rainfall, flat topography and poorly drained, acidic, nutrient-poor soils with a perched water table due to a subsurface clay hard pan. All those features make it a wonderland of species diversity.

Located in Mississippi and Florida, a portion of the Gulf Islands National Seashore is located in the Ocean Springs Planning Area. The Seashore is rich in natural resources, and while it is open to the public and managed as an active recreation area, it also protects land and marine habitat along the Gulf Coast. According to the National Park Service, "more than 80 percent of the park is submerged lands teeming with marine life. Marshes collect fresh rainwater and support diverse communities of plants and animals. Live oak forests are home to resident and migrating bird populations."[ix]

The following habitat types are found within the Refuge as well as in other portions of the Ocean Springs Planning Area:

- **Pine Savanna**
Pine savannas are open, nearly treeless, fire-dependent plant communities dominated by well-developed ground cover and some low-growing shrubs with only scattered trees. Over time, fire suppression allowed pines and shrubs to invade and out-compete the native savanna plants. In the 1960s and 1970s, much of the remaining open savanna was converted to pine plantation by planting and ditching, which disrupted the natural water regime. Less than 5% of the original acreage of this habitat remains in the Atlantic/Gulf Coastal Plain, making it one of the most endangered ecosystems in the country.
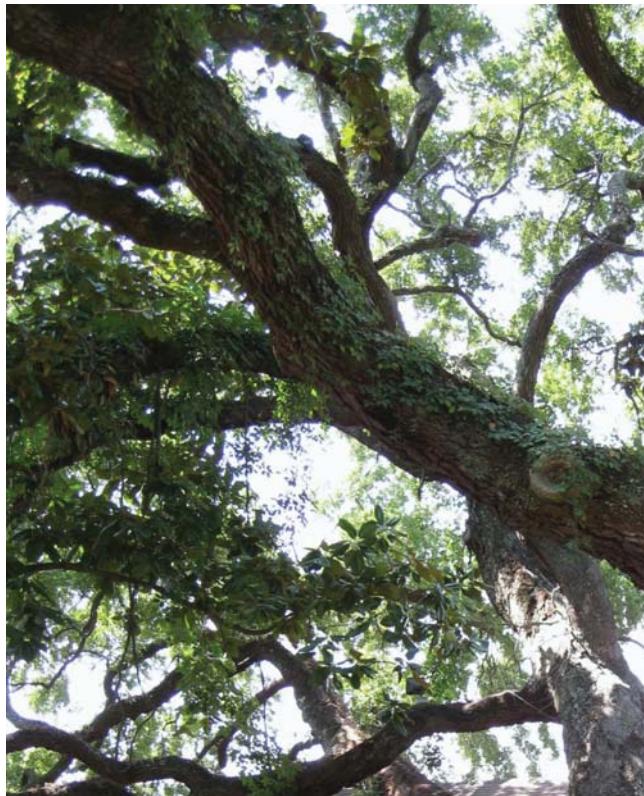
- **Wet Pine Savanna**
Found on hydric soils, poorly drained with long periods (days or weeks) of soil saturation. The soil is generally wet at the surface. They contain widely-spaced pond cypress and sometimes swamp tupelo, slash pine and other hydric trees. Carnivorous plants can be found in this area where the ground is saturated, but not flooded.

- **Pine Flatwoods**
Pine flatwoods are open, park-like pine woodlands dominated by a low species ground cover. Scattered longleaf pine and clumps of saw palmetto are considered conspicuous, but not abundant. Bluejack oak, shrubs and woody vines are also present in the dryer areas.

- **Pine Scrub**
These areas are overgrown with woody vegetation due to silviculture and/or fire suppression. Brush is dominant.

- **Swamps**
These are forested wetlands that occupy low-gradient drains through the savannas. Soils are full of organic matter and stream flow is diffuse. Vegetation is dominated by mid and over story trees, with a shrub layer and sparce herbaceous groundcover dominated by sedges and even peat moss mats and ferns. Pond cypress, swamp tupelo, red maple and sweet bay are common trees in the overstory. Bottomland oaks and sweetgum may also be found.

- **Estuarine or Tidal Marsh**
Tidal marsh areas are intertidal zones where the water is fresh or slightly brackish.

7.1.6 Tree Preservation

The importance of the tree canopy in Ocean Springs is lauded throughout this Plan and was validated during the Public Design Forum process. Trees serve a valuable function for shade, stormwater management, water and air quality, character and aesthetic value, wildlife habitat and numerous other benefits. Trees are a key component of the City's green infrastructure. While the City has taken important steps to protect the tree canopy since Hurricane Katrina, such as hiring a City Arborist and adopting a Tree Preservation Ordinance, there are steps that can be taken to ensure the continued enhancement of the canopy. The Tree Preservation Ordinance can be strengthened to include protection of a greater variety of species and to require greater protection of

trees during construction activity. There is currently no provision to require replacement of lost trees on private property, and a comprehensive tree planting and replacement program is needed to provide trees in public areas, including along streets, in parks and in school yards.

7.2   Water Quality & Conservation

Essential to any sustained economic development on the Mississippi coast is an abundant and economical source of fresh water for industrial and consumer use. The coastal area is fortunate to have such an abundant supply derived from sources in the subsurface Miocene and Pliocene formations. Total fresh ground water withdrawals in 1990 amounted to 30,930,000 gallons for Jackson County. Of the two formations, the Pliocene aquifers tend to have a higher percentage of dissolved solids with the highest concentrations in Jackson County (1,000 mg/liter). Surface water use is concentrated in Jackson County, where industrial and commercial firms use almost 58 million gallons of surface water daily (Johnson, 1994).

Water is one of the Earth's precious natural resources. Between 2005-2009, the MS Department of Health awarded the City's drinking water a perfect rating. The City is one of only a few in the state to receive this designation. While water quality and supply are not a pressing concern in Ocean Springs at the present time, as population and development continue to grow, additional water will be needed. Aquifer depletion and increased water supply contamination are both potential negative consequences of growth and development. Competition for clean water supply and increased infrastructure to pump and treat water are future costs that may result from overuse of the local water supply. Increased public awareness and support for sustainability nationally and locally indicate that there is an opportunity to support a water conservation program in Ocean Springs.

Water conservation includes the care, protection and wise use of water. By conserving water, communities can invest their resources into other needs rather than competing for more water sources or treating lower quality water in order to meet demand. The first step toward conservation is to remove potential disincentives. For example, the City currently allows two taps, one for normal household water use and one for irrigation. The irrigation tap does not include the sewerage fee, effectively lowering the cost of water used for irrigation because it doesn't have to be treated through the sanitary sewer system. However, irrigation of lawns and landscaping is generally considered to be a low priority use of potable water. There are several other features the City could include in a water conservation program, such as:

The Municipal Water System
- Promote a metering system that includes regular meter readings, and provide detailed water usage data back to the customer. In part, this is being accomplished by a new electronic metering system installed in 2009.
- Explore a utility rate structure that encourages water efficiency, such as time-of-day, tiered or block rate pricing.
- Re-use treated water for landscape irrigation, agricultural irrigation, fire protection, or other industrial uses.

Water Use in Buildings & the Community
- Offer incentive programs to homeowners and businesses that conserve water.
- Encourage water-efficient appliances and systems in public and private buildings and homes.
- Encourage native plants and low water landscaping (xeriscape) in public and private landscaping.
- Reduce the amount of water needed for irrigation by watering municipal parks and gardens at night and using timer controlled sprinkler systems to minimize evaporation.

7.2.1   Stormwater Management

Stormwater management practices are based on two complementary goals: preventing the liabilities of flooding and building on the amenities of greenways and other features that assist in managing stormwater. With urban growth and the transformation of open spaces into impervious surfaces, conventional methods of land development and stormwater management can lead to increased volumes and rates of stormwater runoff and reduced water quality. The increased runoff may result in substantial erosion, stream deterioration and flooding, and contribute to degrading otherwise valuable areas. Ultimately, the goal of managing stormwater is to achieve No Adverse Impact (NAI), a concept of preventing stormwater runoff from one site from negatively impacting another site.

Ocean Springs has a stormwater management program that addresses water quality and flood control issues related to stormwater runoff, working to implement the best management practices, regulate the program, and improve the program whenever possible. Currently, all existing development is adequately served but there are several drainage maintenance deficiencies within the City. Though there may be some ponding, water drains rapidly to the creeks and bayous after rains, unless there is a heavy downpour (2" to 3" of rainfall within a 2 to 3 hour period) or unusual flood event such as in March 2009.

Because the area has little topographical relief, development assumptions are necessary to direct flow in an orderly manner. The City has made significant strides to ensure that development regulations protect residents and property – the stormwater ordinance requires that there be no drainage impact onto existing development by new development and that new development remedy drainage on-site; the subdivision regulations require drainage for a 25-year storm event (the County only requires plans for a 10-year storm event).

Neel-Schaffer, Inc. completed a Drainage Study for the City of Ocean Springs in Summer 2008. The City has identified several repetitive loss properties within the City of Ocean Springs and is pursuing grant funding to address these properties. The Drainage Study documents "problem areas," which are generally maintenance or nuisance problems. The list of projects detailed in the report stem from complaints received by the Public Works Department or Aldermen. The problems include standing water, high water during rain events, "slow" drainage during rain events, back up of water onto private properties, aging systems, maintenance and erosion control. Included in the report is a list of goals and tasks that are integrated into the policy framework and implementation work program of the Comprehensive Plan Update.

7.2.2   Low Impact Development

Open spaces and vegetated areas can naturally improve environmental quality by managing storm water, reducing flood risk and improving water and air quality. Greenways, wetlands, parks, forest preserves, and native plant vegetation sites generally cost less to develop and maintain in comparison to traditional forms of infrastructure and can provide much greater economic and environmental benefit. Planning policies and developmental mechanisms that value, protect and enhance green infrastructure components provide a solid framework for a region's future and encourage a healthier ecosystem.

Open space and conserved lands not only provide an increased quality of life for residents, but also provide economic support and vitality. Conserved environments and natural spaces increase property value for neighborhoods and reduce the need for expensive built infrastructure management systems. A conserved site provides water filtration, runoff management, and reduces pollution naturally, without the need for expensive facilities or built systems. Open spaces and conserved lands are generally inexpensive to develop and maintain, while increasing local

property values, and offering residents a better quality of life in a natural setting.

Low Impact Development (LID) is a stormwater management approach based on the integration of complementary land planning and engineering design tools. The approach concentrates on managing rainfall at the source by using decentralized, small scale controls.

According to the EPA Office of Water "LID's goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Techniques are based on the premise that stormwater management should not be seen as stormwater disposal. Instead of conveying and managing / treating stormwater in large, costly end-of-pipe facilities located at the bottom of drainage areas, LID addresses stormwater through small, cost-effective landscape features located at the lot level. These landscape features, known as Integrated Management Practices (IMPs), are the building blocks of LID[x]."

Low Impact Development techniques include bioretention, green roofs, permeable pavers, rain barrels and cisterns, soil amendments and tree box filters. Many of these techniques are not only cost-effective and environmentally sound, but can also have secondary aesthetic benefits to a community. While an open, un-landscaped retention pond can be an unattractive nuisance, a stormwater park centered around a landscaped pond with a walking trail becomes a public gathering place. Using public-private partnerships and the development review process to encourage the creation of multi-purpose stormwater infrastructure and public amenities is an opportunity for the City to maximize the benefits of necessary improvements.

Plans for the new Public Safety Center on Bienville Boulevard integrate many of these principles.

7.3   Blueways & Greenways

Trails are an important community asset, providing both recreational and transportation opportunities for a variety of users, raising the quality of life and providing an important public health amenity. Provision of trails, sidewalks and bike routes was a key interest of participants in the Plan Update process, with the public lauding the inclusion of a pedestrian path on the recently opened U.S. 90 Biloxi Bay Bridge. In fact, "walking the bridge" has become a common pastime in Ocean Springs, spurring interest in additional walkway improvements throughout the City. A new Front

Beach walkway connecting the bridge to the harbor will begin construction in 2009.

Understanding the types of trail users and their needs and preferences is key to designing a system that is well-used for both practical and recreational purposes. The sidewalks, walking trails, bike lanes and informal pathways that make up a trail system connect residents to the places they go, such as work, school or a neighborhood business, as well as to their neighbors, as one resident meeting another on a community trail is more likely to spark a personal connection than passing each other on a congested freeway. In Ocean Springs, connection of the vast environmental resources, including the Gulf Coast beachfront, bayous and natural conservation areas creates an opportunity to expand the use and appreciation of those resources. The social, environmental and public health benefits of a well-designed trail system contribute to a high quality of life and associated economic benefits for the community.

As with other community design considerations, signage and design features on the trails should be consistent throughout the City for the sake of visual continuity and community image. Public education and outreach regarding trail etiquette and safety should also be incorporated into the design of trailheads and other high-use areas. The trail system provides an opportunity to focus on the ecology of the region and incorporate design elements and educational components that reference the natural and cultural setting of Ocean Springs. Three basic considerations to understand when discussing a trail system include:

> **Trail Users.** Children and adults, residents and visitors, commuters and recreational users, people with disabilities and active adults (55+) who might be walking, jogging, biking or rollerblading all have different route and design needs of a trail system.
> **Trail Routes.** Trails connect homes, parks, shopping areas, businesses, schools and public lands and other transportation modes. Direct routes are preferable to reach practical destinations, such as schools or shopping, while scenic routes are preferable for recreational users.
> **Design.** Surface materials, width, grades, signage and lighting are some of the design issues to consider when thinking about the trail users and their needs.

As part of the Public Design Forum process, a map of proposed greenways, land-based trails, and blueways, water-based paddling routes, in the Planning Area was prepared with the help of a local landscape architect and input from citizens, elected and appointed decision-makers, staff and members of the Blueways-Greenways committee. The proposed routes are shown in **Map 19.** The map was created as part of the planning process in coordination with the efforts of *Ocean Springs Outdoors.* Additionally, the

Gulf Regional Planning Council helped prepare a bicycle suitability map of the City's streets. This information is shown on **Map 20.**

Ocean Springs Outdoors, a Blueway-Greenway plan in development for the City of Ocean Springs, is a collaborative project convened by the Ocean Springs Chamber of Commerce, Visitors Center and Main Street and the City of Ocean Springs Community Development and Planning Department. According to the project:

> "Nature tourism creates important outdoor recreation opportunities for both visitors and residents. It serves as a catalyst for economic growth and is a powerful incentive to conserve and protect natural ecosystems, biodiversity and scenic views. Furthermore, healthy communities with access to unique, natural areas and outdoor recreational opportunities are well-positioned to compete internationally for job creation that depends on well-educated, adventurous, creative and mobile young adults (Ref: Competing in the Age of Talent: Environment, Amenities and the New Economy. R. Florida 2000). Well-planned and managed nature tourism businesses can be an important component of regional tourism development, sustainable growth planning for cities and counties and conservation strategies to protect natural resources for future generations."

Ocean Springs Outdoors is designed to educate the public about ecosystems and natural heritage, provide safe access to public places and develop amenities that invite people into the great outdoors. Connecting visitors and residents to natural areas and associated businesses is one of the key goals of the project. The vision of the project, adapted from the Jackson County Heritage Trails' project states: "Ocean Springs has a network of connected, safe trails, accessible to many user-groups. Our trails are visible, advertised, adopted and developed to enhance tourism and quality of life."

The plan is a "work in progress," with the initial effort in Summer 2008 focused on compiling and sharing information about existing trails, destination points and amenities; and future updates to include new improvements. The project is part of the larger regional trail systems that includes Heritage Trails of Jackson County and Heritage Trails of Coastal Mississippi, which are both under development.

The City constructed a bike trail to connect Brumbaugh Road to the Gulf Islands National Seashore. Also, new trails and a park are components of the Bay Village development on Bienville Boulevard.

Ocean Springs Outdoors includes the following trail types and destination points:

BLUEWAYS are paddling trails. They are mapped and interpreted for general public use and are focused on public access points and unique points of interest.
- Old Fort Bayou Blueway
- Deer Island Blueway
- Davis Bayou Blueway

GREENWAYS are walkable nature and birding trails. They are mapped and interpreted for general public use and are focused on public access points and unique points of interest.
- Davis Bayou Trail & William M. Colmer Visitor Center Trails (GINS Fontainebleau Nature Trail and Mississippi Sandhill Crane NWR)
- Twelve Oaks Conservation Park
- Hellmer's Lane Sanctuary

BICYCLE & PEDESTRIAN ROUTES provide suggested walking and biking routes. The City is currently working to create safe walking and biking routes to school; updating the Live Oak Bicycle Route and developing new walking/biking routes to connect city centers to the east of downtown.
- Live Oak Bicycle Route
- New Bicycle Route(s) in development by City
- Shearwater Walking Tour – Art, Birds and Small-town Streetscapes
- Front Beach walkway
- Porter Avenue sidewalks connecting downtown to the Biloxi Bay bridge
- East Beach walkway
- Halstead Road sidewalks

OTHER AMENITIES AND AREAS OF INTEREST
- **Museums:**
  Walter Anderson Museum of Art
  Mary C. O'Keefe Cultural Arts Center
- **Nature Centers:**
  Gulf Islands National Seashore Visitors Center
  Mississippi Sandhill Crane NWR Visitors Center
  Pascagoula River Audubon Nature Center
- **Annual Festivals:**
  Peter Anderson Festival (first weekend in November)
  Herb and Garden Festival (variable weekend in March)
  Pascagoula River Nature Festival (week including Earth Day)
  St. John's Renaissance Festival (first weekend in May)

Celebrate Ocean Springs: 1699 festival (variable end of April, first of May)
Red, White and Blueberry Festival (June)
Earth Day at GINS (last weekend in April)
Art Walk (Labor Day weekend)
Feast of Flavors (September)
Crusin' the Coast (October)
Front Beach Fireworks (July 4)
Christmas Celebration (December)
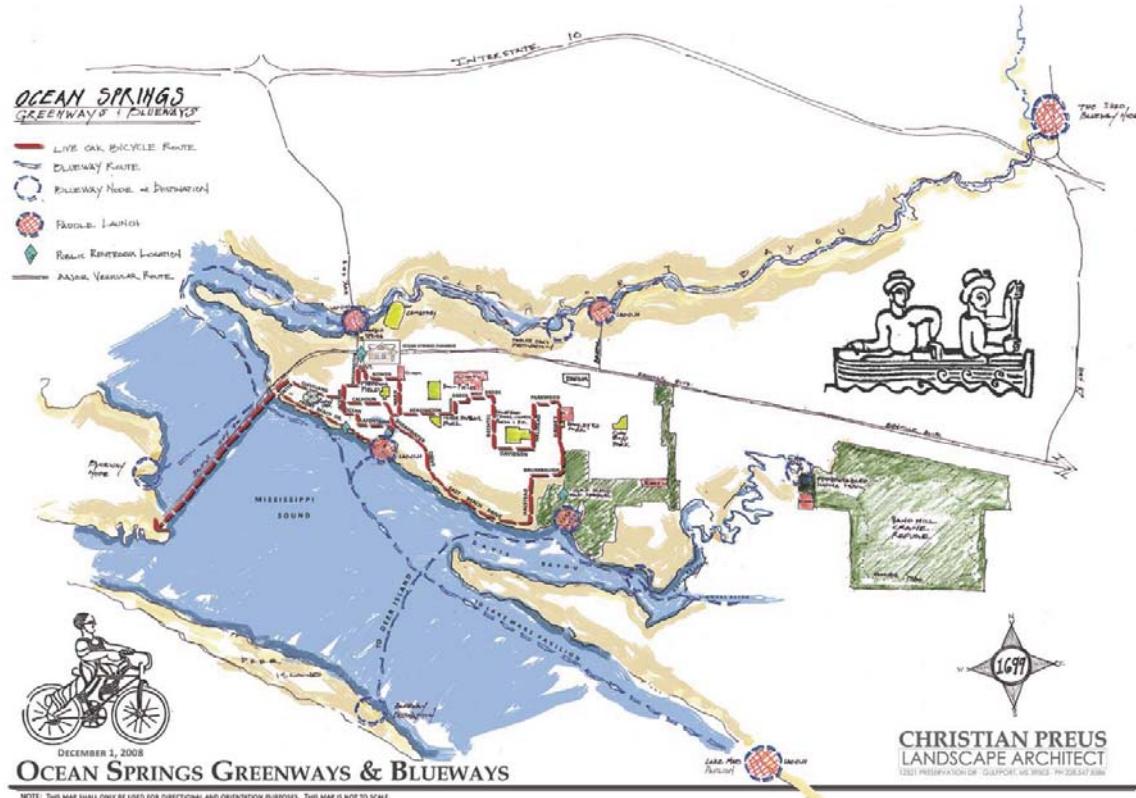
OCEAN SPRINGS GREENWAYS & BLUEWAYS

NOTE: THIS MAP SHALL ONLY BE USED FOR DIRECTIONAL AND ORIENTATION PURPOSES. THIS MAP IS NOT TO SCALE.
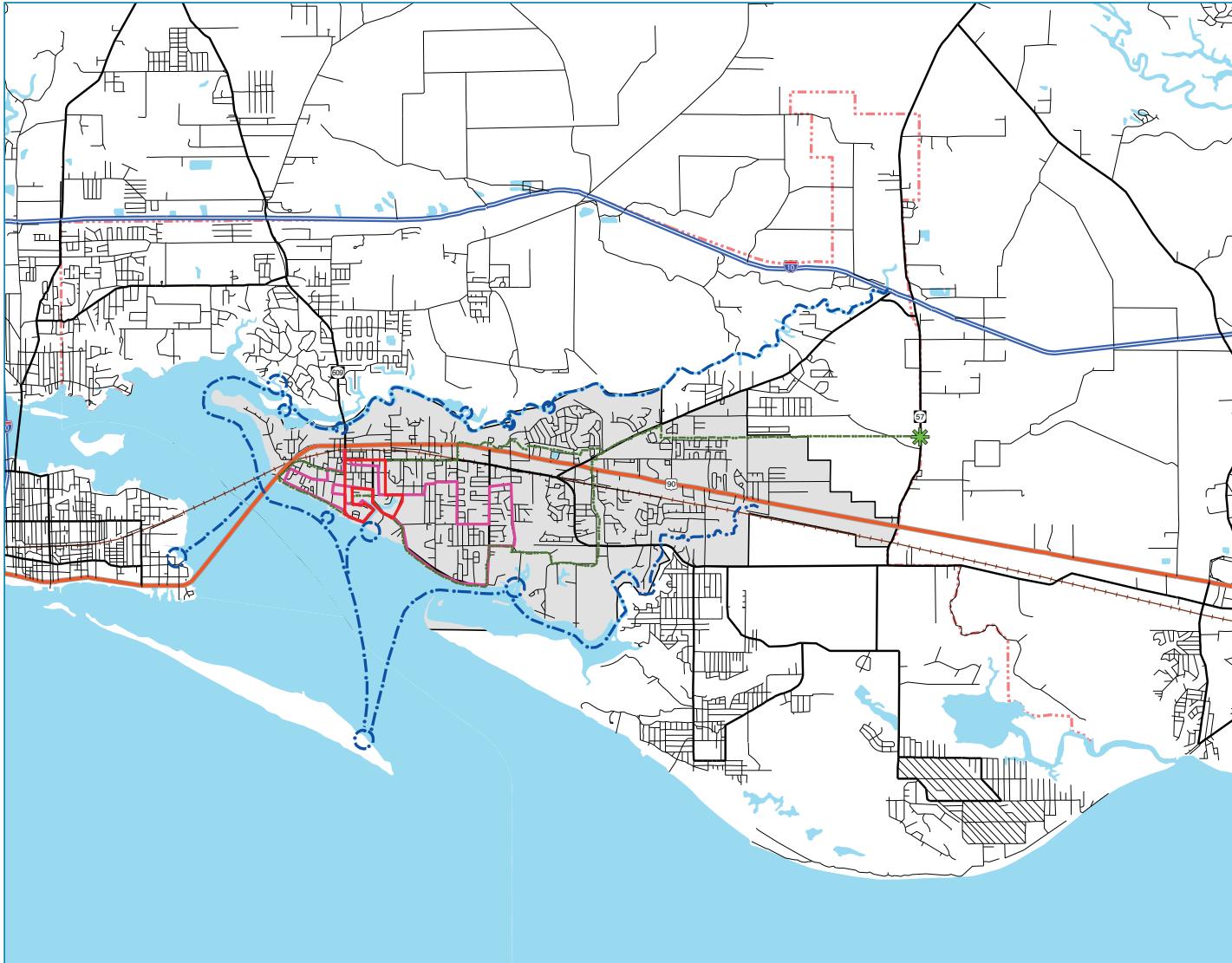
Map 19 - Blueways and Greenways

Legend

✳	Trail Head
—	Shearwater Birding Loop
-·-·-	Bike / Pedestrian Paths
—	Live Oaks Bike Route
-·-·-	Blue Ways
—	Interstate Highway
—	Highway
—	Major Road
—	Local Road
—	Minor Road
++++	Railroads (Local)

NAME

▨	Ocean Springs
⬚	Planning Area

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Map 20 - Bike Suitability
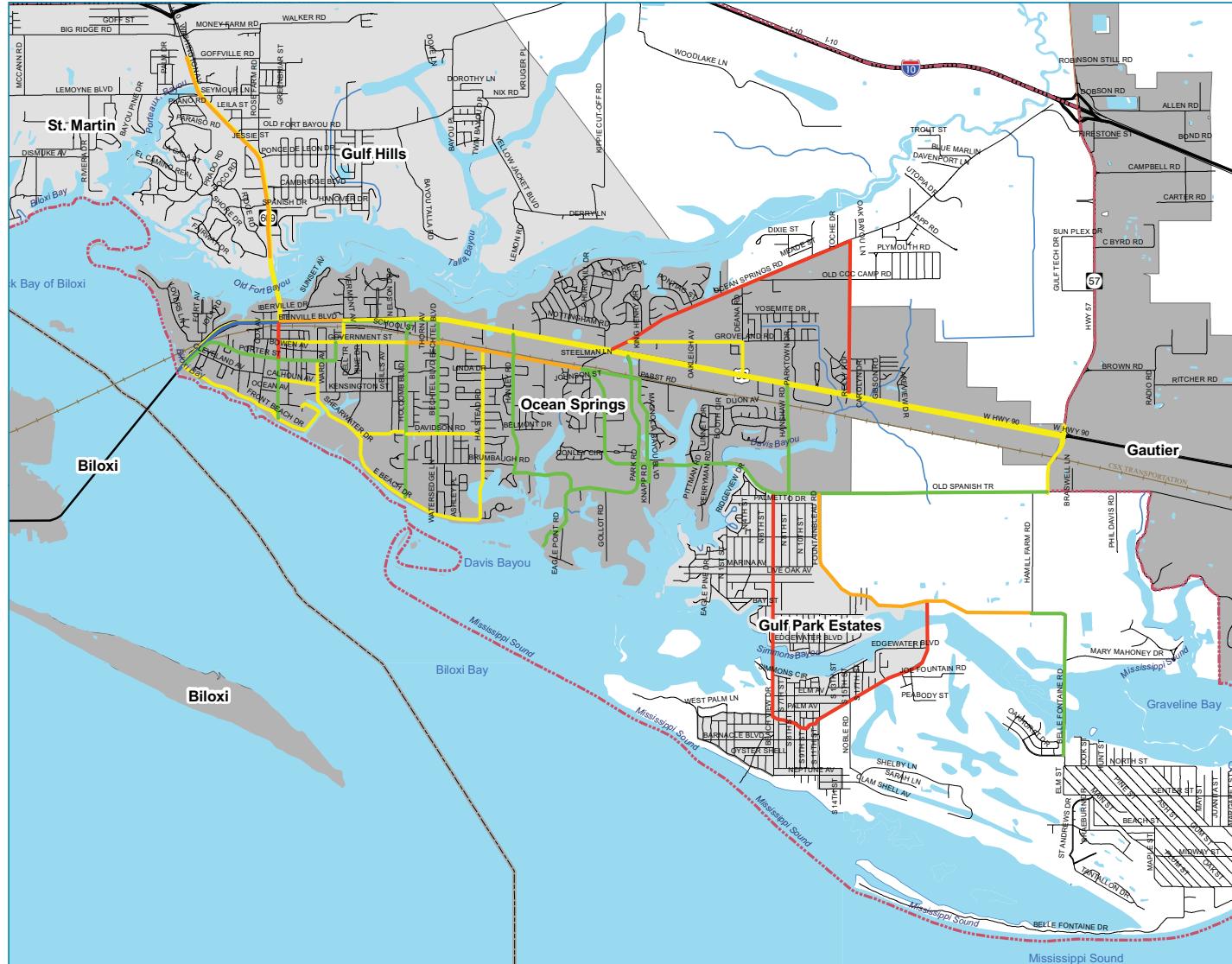
Legend

Bike Suitability

— Excellent
— Good
— Average
— Fair
— Poor
— Interstate
— US Highway
— State Highway
— Local Roads
—+— Railroads
- - - Planning Area
☐ County Boundary

St. Martin
Gulf Hills
Ocean Springs
Biloxi
Biloxi
Gulf Park Estates
Gautier

Old Fort Bayou
Davis Bayou
Biloxi Bay
Mississippi Sound
Biloxi Bay
Graveline Bay
Back Bay of Biloxi

Mississippi Sound

PlanningWorks

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0   0.35   0.7   1.4 Miles

N W E S

Data Sources: City of Ocean Springs, Jackson Co. GIS, MARIS, U.S. Census, ESRI

8   COMMUNITY FACILITIES

In order to maintain a high quality of life for residents, the City needs to assure that public facilities and infrastructure are available to serve them in a convenient and functional manner.   Facilities include schools, recreation areas, and cultural centers. Infrastructure includes adequate means for access and mobility, water and sewer service, and stormwater systems.

Financing the public facilities and infrastructure improvements can take several forms. The most common means for municipalities to finance improvements are requirements for the dedication of land by the property owner or developer, the construction or installation of improvements by the property owner or developer, or the payment of fees to finance the improvements, such as fees in lieu of dedication or impact fees. The most popular methods used nationally place the full initial financial burden on the developer; however, other methods also are used. Many smaller jurisdictions construct or pay for the construction of new facilities themselves or subsidize developers who provide them.

In some cases, local governments provide labor or materials and in other cases they partially reimburse the developer for his or her costs. The creation of a special improvement district is another considerable means of financing improvements. The property owner(s) or developer applies to the local government for a special assessment, the local government accepts or rejects the application, and, if accepted, the local government uses the proceeds of special assessment bonds or other debt instruments to finance the improvements, and imposes liens on the lots that benefit from the improvements. Assessments may be collected within a year after the assessment roll is approved or they may be spread over a period of time as long as ten years. In certain instances, the local government may subsidize the project by assessing less than the full cost of the project against lot owners.

Currently, the City of Ocean Springs does require developers to provide certain on-site public improvements at their own expense in the form of the construction and installation of infrastructure improvements. While the City used to require the dedication of land for parks or payment of fees in lieu, this requirement was terminated when the City attempted to enact impact fees. When the authority to enact such fees was struck down by the Mississippi Supreme Court due to lack of state enabling legislation, the parks dedication requirement was not reinstated. The parks dedication requirement will be re-instated as part of the development regulations update.

The Community Facilities Element identifies key infrastructure issues facing the community and establishes goals, policies and recommendations to address those issues. As Ocean Springs seeks to meet the utility needs of future residents, employees and visitors/tourists, it should strive to provide utility services in a reliable and affordable manner. Basic infrastructure issues include:

▪   As growth continues, within and adjacent to Ocean Springs, the City will need to ensure that an adequate transportation system is available for residents and visitors, to ensure the efficient flow of traffic through the City. Traffic calming design options also may be considered to improve community image, lessen congestion and increase pedestrian-oriented opportunities.

▪   The City needs to expand its water system soon, but the best choice depends on the area and population that the system ultimately will serve. This element outlines the City's options for addressing future water and wastewater system needs throughout the planning area.

▪   The wastewater treatment system is adequate to meet anticipated needs in the City's service area. However, growth to the northeast or southeast, which does not have sufficient capacity to meet anticipated demands, will require additional infrastructure

investment. In 2008, the City signed an agreement to purchase water from Jackson County Utility Authority's new well and tower near I-10 and Highway 57.

▪   As Ocean Springs grows, increased development within new and existing drainage basins will create additional stormwater management needs. The existing stormwater management plan highlights the need to address potential impacts of increased runoff from anticipated development in the northeast.

▪   The City's basic infrastructure policies should require that transportation, water, wastewater and drainage system improvements be constructed concurrent with new development and are adequate to meet demands from existing and new users. While the City does not currently provide utilities for the entire service area, it requires that adequate utilities be provided for all new development. If facilities are not available, then a developer may: 1) wait until facility improvements are installed through the Capital Improvements Program; 2) seek participation from the City, other service providers or other property owners to finance the improvements; or 3) install the facilities.

8.1   Administration

The City of Ocean Springs is led by an elected Board of Aldermen, six of whom represent the City's individual wards and one at-large member that represents the interests of the City as a whole. The Mayor is also elected by the citizens of Ocean Springs, and together the Aldermen and Mayor manage nine City departments, as shown in the organizational chart in **Figure 3**.

The City charter embraces a "weak Mayor, strong Board" form of government, whereby the Board of Aldermen sets policy, hires and fires, and adopts the budget. The Mayor is a full-time administrator and implements Board policy by directing department heads.

Figure 3: City of Ocean Springs Organizational Chart

Board of Aldermen

Mayor

- Director of Community Development and Planning
  - Building Department
- Human Resources / Risk Managment
- City Clerk
  - Deputy City Clerk
    - Accounting / Purchasing / Fixed Assets
    - Utility Billing
    - Payroll
    - Tax Department
    - Information Technology
- Director of Parks & Leisure
- Director of Public Works
  - Street Department
  - Sewer Department
  - Water Department
  - Maintenance Department
  - Drainage Department
- Grants Administrator
- City Court (City Judge & Prosecuting Attorney)
- Chief of Police
- Fire Chief

8.2   Transportation

The transportation network within Ocean Springs impacts the exiting land uses and development trends within the City and will impact how the City will grow in the future. The Comprehensive Plan evaluates the existing transportation network to determine what type of improvements are needed to encourage the type of future land use recommended in the Plan.

Transportation system components exert substantial and lasting influence and impacts on the configuration and characteristics of land use and development within the area they serve. They can support economic development and enhance circulation system level of service while at the same time diminishing pedestrian safety, adjacent land values, a community or neighborhood character and quality of life. The impact of transportation system elements on adjacent land use and development should in each instance be identified, accommodated and mitigated as appropriate, consistent with local transportation goals and objectives and other acceptable local values. A network of roads consists of hierarchy of the following inter-related roadway types, and is shown on the **Map 21.**

- **Interstate Highways,** such as I-10, provide for rapid and efficient movement of large volumes of through traffic between areas and across the urban area. They are controlled access, multi-lane, divided highways devoted to high-speed, long distance traffic movement with little or no access to adjacent land.

- **Arterials,** such as Government Street and Hwy 90 (Bienville Boulevard), provide for through traffic movement between areas and across the city with direct access to abutting property. They are multi-lane roadways to move relatively high volumes of traffic between principal traffic generators at moderate speeds. Residential access is discouraged; commercial access is limited. Arterials may be classified as major or minor.

- **Collectors,** such as Porter Street or Ocean Springs Road, provide for traffic movement between major arterial and local streets. Two to four-lane roadways carry traffic within the urban area and connect it with the arterial system.   They are designed to accomplish both movement and access functions. Collectors may be classified as major or minor.

- **Local Streets,** such as Cleveland Avenue and Nottingham Road, provide for direct access to abutting land and for local traffic movement. These two-lane roads' primary function is to provide access to adjacent land.

To evaluate how the existing roadway network is functioning in Ocean Springs, level of service information about the arterial roads and collector roads was gathered. Level of service is defined as the operational environment within a traffic stream perceived by users of the traffic facility. The concept of level of service was established as a qualitative measure of operational conditions, intended to cover factors such as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. Traffic service levels range from "A" (the least congested, with the average driver having to wait no longer than five seconds) to "F" (the most congested, where each vehicle waits at least one minute on average), and are described in **Table 14.** At the public hearings, stakeholders commented that there are serious concerns with traffic congestion in the gateway planning area, indicating that the levels of service may be unacceptable.

Table 14: Descriptions of Roadway Service Levels

Level of Service	Traffic Flow	Affect on System Users	Delays at Intersections
A	Free.	Individual users are virtually unaffected by the presence of others in the traffic stream.	0 - 5 seconds/vehicle
B	Stable.	Presence of other users in the traffic stream begins to be noticeable to other users.	5 - 15 seconds/vehicle
C	In the range of stable.	Operation of individual users becomes significantly affected by interaction with others in the traffic stream.	5 -25 seconds/vehicle
D	High density, but stable level of traffic flow.	Speed and freedom to maneuver are severely restricted, and the user experiences a poor level of comfort and service.	25 - 40 seconds/vehicle
E	Operation at capacity level.	All speeds are reduced to a low, but relatively uniform value; comfort and convenience levels are extremely poor and driver frustration is generally high.	40 - 60 seconds/vehicle
F	Represents forced or breakdown of traffic flow; this condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse that point.	Operations within the queues are characterized by stop and go waves, which are extremely unstable.	> 60 seconds/vehicle

Capacity is an essential characteristic of the roadway system which presently serves and will in the future serve Ocean Springs and its adjacent Planning Area as the roads become more fully developed. According to the ITE Highway Capacity Manual, "capacity" is defined as the maximum number of vehicles that can be expected to travel over a given section of roadway or a specific lane during a given time period under prevailing roadway and traffic conditions. Traffic capacity indices illustrate the maximum capacity of thoroughfares with typical dimensional characteristics. Two important variables are mentioned in the "capacity" definition: prevailing roadway conditions and prevailing traffic conditions. Prevailing roadway conditions include the numerous factors that contribute to the physical characteristics of roads themselves. Prevailing traffic conditions include such factors as the volume of traffic, the percentage of total traffic that large vehicles (trucks) constitute, the nature of conflicting vehicular turning movements, and the nature of conflicting vehicular and pedestrian/bicyclist movements.

It should be recognized that there is an inherent problem with the using the level of service as one of many quality of life determinants. The level of service indicator only addresses the use of a road for automobiles and not other modes of transportation of which Ocean Springs residents have expressed fondness (e.g., walking, biking, etc.). Furthermore, the assumption that levels of service must be increased in order to enhance the quality of life compounds the myth that the present standards are ideal and that current behaviors are worth continuing into the future.

While some of the traffic can be attributed to people traveling through Ocean Springs to industries in Pascagoula and to the casinos and resort areas in Harrison County, development patterns along U. S. Highway 90 and State Highway 609 have contributed to inconvenient and inefficient circulation. Almost all developed land along U. S. Highway 90 is in commercial use; it is a very stereotypical suburban style "strip" found in numerous other cities throughout the United States. The types of commercial uses on Highway 90 generate substantial vehicular trips. The types of uses coupled with curb cuts every thirty (30) feet in some areas lead to more automobiles on the road, points of traffic congestion, and automobile accidents. The same situation is true of State Highway 609, especially north of the Fort Bayou Bridge.

One of the primary means of assuring stability in a residential area is by creating an environment, in which people feel safe to live, travel and interact. In general, Ocean Springs has been very successful in creating such an environment in the residential, stable planning area, which has been a factor in attracting new residents and keeping existing residents. While isolated incidents of vandalism and theft have occurred as they do in

almost any locality in the United States, the primary grievance voiced by citizens is vehicular traffic speeding through the residential areas.

The City has responded to the problem of speeding by strategically placing stop signs when warranted and assigning police officers to study problematic areas for alternative solutions. In newer residential developments, the issue of speeding may be directly correlated to roadway design. Roads often are extremely wide (28 feet) with too great of a minimum centerline curve radii. The rationale for wider residential access streets is based on the notion that such streets should provide for a continuous line of parked vehicles, leaving sufficient room for ordinary traffic and emergency vehicles to navigate around them. The rationale is not unreasonable for higher density residential developments where there may be insufficient room on a lot to construct two-car garages and driveways and when the residents and visitors of residents use the streets for parking. In Ocean Springs' residential areas, most property owners use driveways or garages for parking convenience and safety and their visitors typically follow suit.

The subdivision street design standards that are currently used were created to accommodate large traffic volumes in huge-tract housing developments that are more typical of metropolitan and associated suburbanizing areas. The result has been the construction of local access streets that can be up to fifty percent (50%) wider than the collector roads that serve them. The street design standards have created other problems for both residents and developers, including inflexible and inappropriate standards for curve designs and gradients that have failed to discourage traffic from exceeding the traffic speed, improper stormwater management from substantially more impervious surface, unsafe pedestrian circulation, and needless expensive construction and maintenance costs.

In order to link the residential areas to schools, recreation areas, and cultural centers, adequate means for access and mobility throughout the residential, stable planning area and connectivity to other planning areas is required. Previous planning efforts have focused strictly on increasing mobility via the automobile. Strategies have included "upgrading" streets such as Kensington Avenue, Holcomb Boulevard, Halstead Road, and Beach Drive to collector standards and "raising" streets such as Hudson Drive, Bechtel Boulevard, Davidson Street, and Ocean Springs-Vancleave Road to major thoroughfare standards. To date, while improvements have been made to the preceding roads, they have not been "improved" to the standards proposed in the 1971 Comprehensive Plan. The City has installed and improved some sidewalks in the planning area, but often they have been constructed without any buffer between pedestrian and vehicular traffic and without a high degree of connectivity. One constraint

has been adequate right-of-way. Almost no investment has been made in bicycle lanes.

The emphasis on accommodating the automobile has lead to a barrier effect to pedestrians and bicyclists. The width of the road and the amount and speed of the traffic have an effect on how much of a barrier impact a pedestrian or bicyclist sense. Roads with a higher level of vehicular traffic generally do not make impassable impediments, but they may give rise to waiting times, detours, and precariousness. In certain cases, the barrier impact of roads may reduce usage of public facilities and amenities and restrict the freedom of movement of groups such as children, the elderly, and those with walking difficulties. Quantifying the need to cross a road is difficult, because observations of crossing pedestrians and bicyclists would not necessarily indicate how many times a road would have been crossed if the traffic had been less alarming.

Intergovernmental Coordination and Cooperation. The Mississippi Gulf Coast transportation planning process is administered by the Gulf Regional Planning Commission which functions as the Metropolitan Planning Organization for the coastal Mississippi counties. This organization maintains and periodically updates an area wide transportation plan with participation of the affected local governments. The City of Ocean Springs is a participant in this process. The Mayor serves on the Policy Committee and the City Planner and City Engineer have in the past served on the Technical Advisory Committee of this important area wide transportation planning process.

The *Mississippi Gulf Coast Transportation Plan* is important to its participants because it provides a link to Mississippi's Statewide Transportation Plan, which is the key to receiving participation in federal and state funding and implementing: road building; street lighting; intersection controls; railroad safety; bridge replacement and repair; traffic safety; bikeways; public transportation services and other important programs designed to help facilitate movement of people to, from, through and within the City.

The strategy recommended for the City of Ocean Springs is to remain actively involved in the Metropolitan Transportation Planning Process, to aggressively pursue inclusion of its projects on the Mississippi Gulf Coast Transportation Plan, and to do everything possible to advance the priority of City projects included therein. When City projects come to the stage of possible implementation, the City needs to be ready to act regarding its participation in the implementation, including use of its political capital, regulatory powers, power of condemnation, if necessary, and allocation of sufficient funds to get the job done.

The 2008 Plan Update centers not on the ability of the transportation network to move cars more quickly, but on ways to achieve greater connectivity and provide more opportunities for multi-modal travel, including transit use and making roadways more accommodating for cyclists and pedestrians. The major transportation improvement currently underway is the realignment of Ocean Springs Boulevard at Hwy 90. When the initial plan for the realignment did not include provision of sidewalks or crosswalks, the City supported a re-design effort in order to accommodate pedestrians. In this way the City is supporting a future transportation system that is more flexible and reduces reliance on cars. As the City and Mississippi Department of Transportation consider transportation improvements in the future, it is increasingly important that they plan not just to maximize traffic speed and volume, but rather to maximize the safety and flexibility of the roadway network for all user types. To facilitate the development of appropriate roadway types, it is also important that the City require dedication of adequate easements in order to provide properly designed drainageways, sidewalks and bike lanes.

8.2.1 Transit

The Gulf Coast Transit Development Plan was created in April of 2007 by the Gulf Coast Regional Planning Commission. The plan is designed to lay out a plan of action for recovery, rebuilding and renewal of the Coast Transit Authority after the damages of Hurricane Katrina. Beyond rebuilding the previously existing transit system, the plan also looked toward enhancing the extent and efficiency of the public transportation system in order to compete with other communities and destinations throughout the United States. The improvement strategies in the plan provide greater regional mobility, promote economic development, and improve access to the Air Force Base, casino hotels and other attractions in the area. This is done by increasing the number of routes and the frequency of circulation throughout the coastal region. The plan also looks toward the future and the possibilities of implementing an intercity high-speed rail passenger service that would accommodate the expected growth and reduce congestion on the highways and major arterial roadways. The renewal of the damaged system, and the enhancements made in public transit in the Transit Development Plan provides a strategy that responds to the transit and mobility needs for Ocean Springs, as well as surrounding cities along the coast.

Map 21 - Street Classification

OCEAN SPRINGS
BLUEPRINT
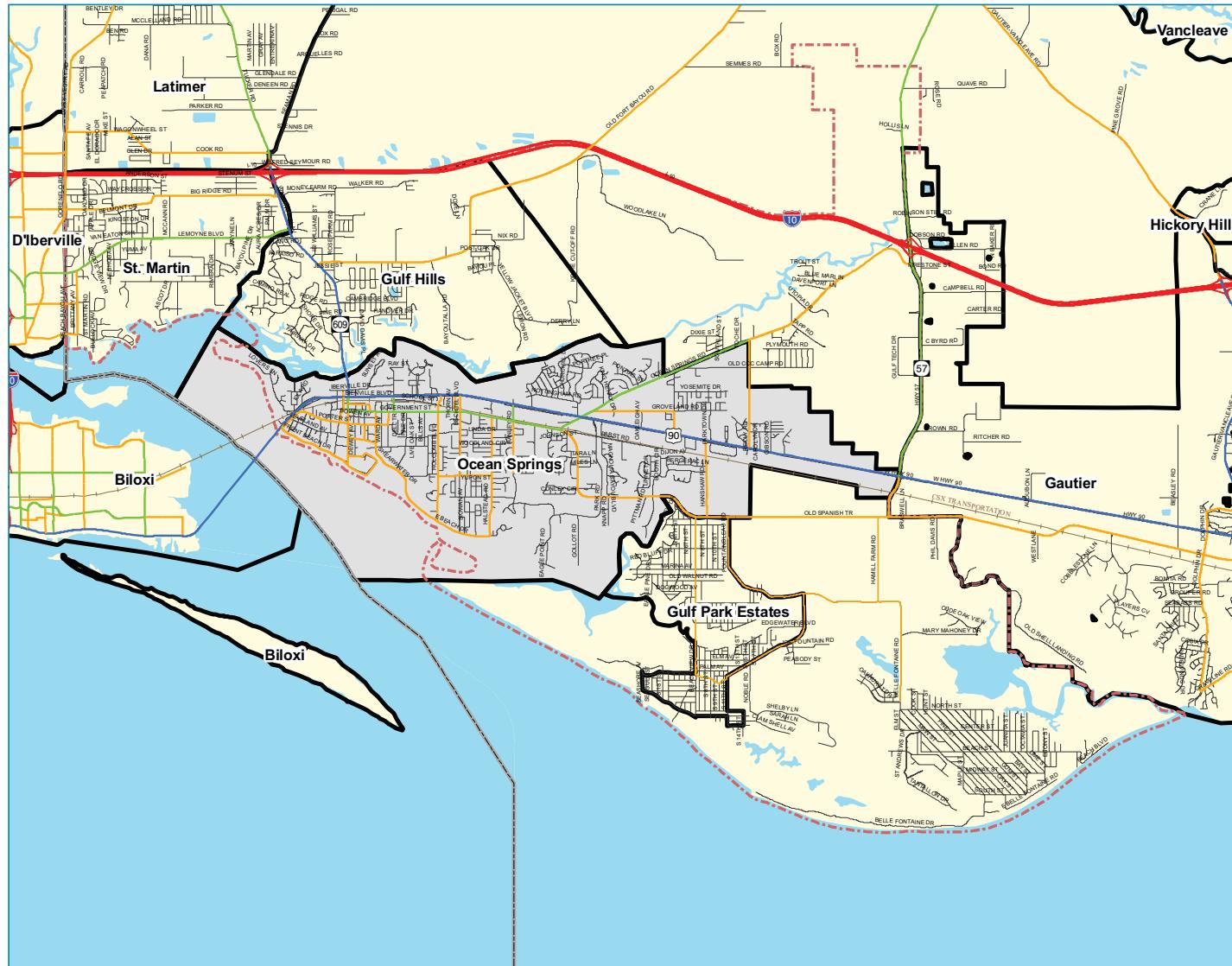
Legend

Functional Street Classification

— INTERSTATE HIGHWAY
— INTERSTATE HIGHWAY ON/OFF RAMP
— PRINCIPAL ARTERIAL
— MINOR ARTERIAL
— COLLECTOR/RURAL MAJOR COLLECTOR
— RURAL MINOR COLLECTOR
— Local Road
—|— Railroads
— Planning Area
— Census Places
Planning Area
OceanSprings
County Boundary

PLANNING WORKS

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Vancleave

Latimer

D'Iberville

St. Martin

Gulf Hills

Biloxi

Ocean Springs

Biloxi

Gulf Park Estates

Hickory Hills

Gautier

8.3   Water System

Water consumption is an important element in determining the adequacy of a water system[xi]. The critical demand elements in a water system include average day demand, max-day demand, max-day demand plus fire flow, peak-hour demand and the maximum storage-replenishment rate. Existing deficiencies primarily are related to low water pressure; however the City is maintaining a vigorous schedule to improve flow deficiencies. About 95% of the City is served by municipal water. A description of water systems capabilities includes:

- Average day demand is the total amount of water pumped on average every day. This includes both water sold and unaccounted for water.
- Max-day demand is the historical maximum amount of water pumped during a 24 hour period.
- Peak-hour demand is the maximum pumpage required to meet consumer demands during the hour when there is the greatest usage on the system.
- Fire flows represent the amount of water the system should deliver to a hydrant at a residual pressure of 20 psi, as recommended by the Mississippi State Rating Bureau. Typically these flows create the highest demand on the system for a 2-4 hour period. The capacity of a system to meet these flows is one of the limiting factors in a City's classification for insurance purposes.
- Max-day demand plus fire flow is the recommended design standard which the water system should be capable of meeting and maintaining for the duration of a fire.
- Storage-replenishment rate indicates the capability of a water system to provide the necessary quantity of water during max-day conditions and still have the storage tanks full at the end of a 24 hour period.

It is generally accepted practice that the source of supply (wells, pumps, etc.) should be capable of meeting max-day demand without use of system storage. Peak-hour demand and fire flow are met with system storage.

Historic Demands. Pumping records for the six (6) wells were provided by Ocean Springs. The information indicated total monthly pumpage from March 1998 through August 1998. Based on this data the average day flow for this period was 2.9 million gallons (MG). Based on 7,230 total water meters, per customer usage was approximately 399 gallons per day (GPD) or 155 gallons per capita per day (GPCD).

Projected Demands. Information was not available to determine the maximum daily flow. This condition typically occurs during the summer when residential customers are utilizing potable water for lawn irrigation and other high use activities. Historically max-day flows range from 1.5 to 2.5 times the average daily flows. Based on the population of Ocean Springs, and nomographs developed by AWWA and WPCF, the current max-day flow rate is estimated as 8.48 MGD, or approximately 3,890 GPM. The peak hour demand in the system is estimated to be approximately 1.5 times the max-day demand, or 5,835 GPM.

Existing System. The Ocean Springs water system is comprised of wells, elevated storage and a distribution system consisting of 2" through 12" water mains. Water lines, as of 2008, are shown on **Map 22.**

- **Supply.** Water supply is provided by five (5) deep wells. Four wells are in the Graham Ferry Formation at a depth of approximately 500 to 561 feet. The remaining well is located in the Pascagoula Formation at a depth of approximately 960 feet. Both of these aquifers are very prolific water bearing strata. The water supplied by these wells is of adequate quality to meet the State Department of Health Standards for potable water. Disinfection is provided with gaseous chlorine. Total output is approximately 5,600 GPM.   Based on recent pumping tests, capacities are as follows:

City Hall Well	(960')	1,475 GPM @ 45 psi
Handy Road Well	(503')	850 GPM @ 43 psi
Halstead Road Well	(561')	1,150 GPM @ 45 psi
Sunplex	(780')	1000 GPM @ 45psi
Deena Road	(600')	500 GPM @45 psi
Pabst Road Well	(531')	950 GPM @ 45 psi

- **Storage.** Ocean Springs has four (4) elevated tanks as follows:

	Size (Gal)	Overflow Elevation	Total or Deck Height
Halstead Road Tank	500,000	124.5	137.5±
Civic Center Tank	500,000	124.0	142.0±
Sunplex	400,000	128.5	152±
Public Works	500,000	124.0	136.5±

Total available storage is approximately 1.9 million gallons. The most significant feature of these tanks is their height (97.5 feet - 104.5 feet) which limits system pressure to a maximum of 45 psi static. Therefore the system operates within a 25 psi range (20 psi is recommended minimum allowable residual pressure permitted by Mississippi Department of Health Standards). The American Water Works Association (AWWA) recommends municipal systems operate at pressures of 60-70 psi. This operating range is advisable to minimize low pressures within the system and is critical to achieve adequate flow for fire protection.

In 2008, the City agreed to purchase water from Jackson County Utility Authority to serve the eastern portion of the City's needs.

- **Distribution System.** The distribution network consists of various types of water pipe ranging in diameter from 2" through 12". There are some areas within the City where small diameter (less than 6") lines serve both residential and commercial areas. These lines are inadequate in size to handle growth or current fire flows. Asbestos cement (AC) lines, if any, as well as galvanized pipes, no longer meet Mississippi State Board of Health or AWWA standards for use in water distribution systems. All small diameter, AC and galvanized pipes should be replaced in lieu of repairing as funds become available.

- **Fire Flow.** Fire flow demands are based on population, type of area being protected (residential, commercial, industrial) and the type of industry or business located thereon. Residential fire flows are typically 1,000-1,500 GPM for two (2) hours and commercial/industrial fire flows can exceed 10,000 GPM for ten hour durations. The Mississippi State Rating Bureau recommends flows of 3000 GPM in commercial areas and 1000 GPM in residential areas at a residual pressure of 20 psi, for Ocean Springs.

OCEAN SPRINGS BLUEPRINT

Map 22 - Water Lines
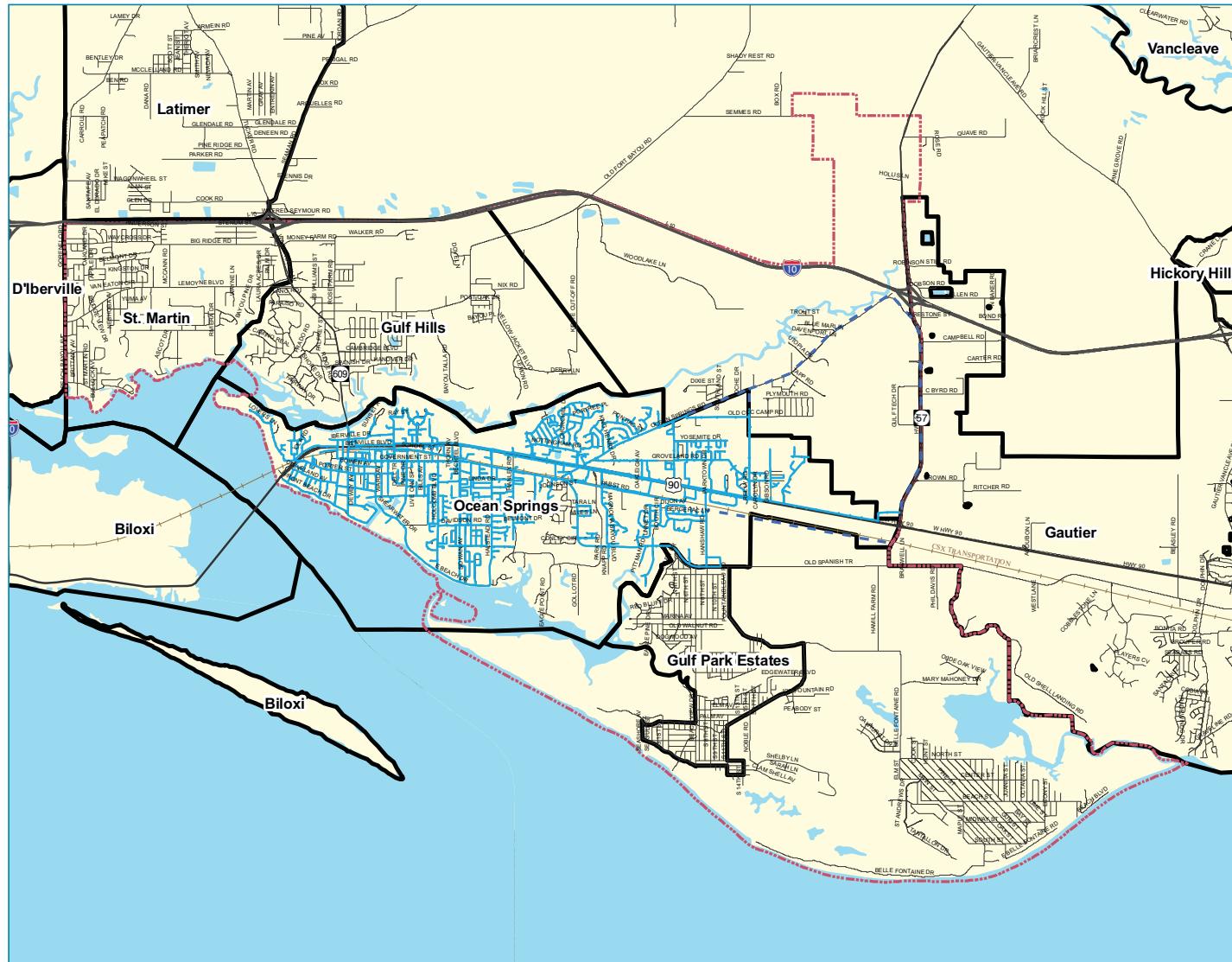
Legend

Existing Water Lines

Planned Water Lines

Highways

Interstate

US Highway

State Highway

SecondaryRoads

Local Road

Railroads

Planning Area

County Boundary

Census Places

County

Planning Works

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0   0.5   1   2 Miles

Data Sources: City of Ocean Springs, MARIS

Vancleave

Latimer

D'Iberville

St. Martin

Gulf Hills

Hickory Hills

Ocean Springs

Biloxi

Biloxi

Gulf Park Estates

Gautier

Limited fire protection is available in those areas served by 6" or smaller water mains. Mississippi State Rating Bureau fire flow requirements for Ocean Springs are:

o Commercial Area (CBD and along U.S. Highway 90): 3,000 GPM for 4 hours
o Residential Areas: 1,000 GPM for 2 hours
o Residential pressure at hydrant - 20 psi

The system cannot maintain recommended minimum requirements for fire flows established by the National Board of Fire Underwriters and the Mississippi State Rating Bureau. The reason is a combination of small size pipe and an operating range of only 25 psi which severely limits flow at the fire hydrant.

The State Rating Bureau surveyed Ocean Springs in February 1997. The water system was found to be efficient for the current fire insurance classification of Class 6. A Class 6 falls between 2501-3000 deficiency points. Ocean Springs had 2900 deficiency points, just within the Class 6 category. In contrast Biloxi is Class 5 (2001-2500) and Gulfport is Class 4 (1501-2000). In order to move up to Class 5 or 4 would require sufficient improvements to reduce deficiency points by 400, or 900 respectively.

Analysis. A computer analysis of the existing system was performed to determine the adequacy of the existing system.

- **Average Day:** Average day demand is 1,945 GPM. The analysis indicates that under average day conditions the system is adequate. Operating pressures of 38-44 psi are prevalent throughout the City.

- **Max-Day:** Max-day demand is 3,890 GPM. The wells have an output of 4,425 GPM which is more than sufficient to meet max-day requirements.

- **Peak-Hour:** Peak-hour demand is estimated to be 5,835 GPM for the Ocean Springs water system. Peak hour flows occur on a daily basis, usually in the early morning hours or early evening depending on the community. During peak-hour, pressure drops of more than 30 psi are experienced in several parts of the City. Residents probably notice this low flow from faucets, shower heads and toilet flushing. Pressures during peak-hour vary from less than 10 psi in some areas to 46 psi in the vicinity of the wells and tanks. These low pressure conditions are the result of

maximum normal operating pressures of 45 psi and pipes of less than 6 inches in diameter throughout many areas of the City.

- **Fire Flow:** Ideally fire flows are measured during max-day conditions. However, since a major fire happening during max-day demand is rare, a more realistic approach is to evaluate flows during average day demand. Fire flow simulations were run during max-day and average day conditions. The simulation terminated the run during max-day demand with fire flow since it became obvious that sufficient flows at a 20 psi residual could not be attained. Average day conditions were somewhat improved. The only areas that developed flows in excess of 1,000 GPM were near the tanks and wells and on the 10-12 inch mains. This was verified recently in the field when the Wal-Mart fire flow tests were run. The system could only provide about 1,200 GPM to the site at 20 psi.

Mississippi State Rating Bureau (MSB) recommends hydrant flows of 3,000 GPM in the commercial areas and 1,000 GPM in the residential areas in order to achieve a Class 6 rating. Deficiencies are noted for the distribution system, storage hydrants and pumpage when these conditions cannot be met. The major reason for this is due to the restriction imposed to system operating pressures by the height of the tanks. Also, additional transmission mains connecting the wells and tanks would permit more flow with less head loss throughout the system.

- **Extended Period Simulation.** The 24-hour max-day extended period simulation (EPS) also revealed several deficiencies in the system. The most severe problem was associated with the City Hall Well and the Handy Road Well. These wells pump approximately 2,300 GPM, or one-half of the total system output. The EPS analysis indicated that the City Hall and Handy Road wells cycled on/off eight (8) or more times during the 24-hour simulation. During a max-day event the wells should run continuously for most of the day. The cycling is due to their close proximity to the City Hall Tank and the lack of major feeder lines to the east. The result is that the Halstead Well and the Pabst Road Well try to meet max-day demands for a large part of the system. A consequence of this is that after the max-day simulation is complete the Halstead Road Tank, Civic Center Tank and Hospital Tank have not been replenished and an additional 4 to 5 hours of continued pumping is required to fill these tanks. If the system experiences back-to-back max-day demand conditions the system will be seriously depleted and low pressure (less than 20 psi) will be typical.

Improvements. Deficiencies noted in the existing system should be corrected. More than 350 residential customers were planned in 1993 for a proposed annexation area in the northeast. Subsequent analysis will include the proposed additional customers and the projected max-day demand for several time intervals. The City Engineer currently is reviewing and updating water system growth projections.

Various computer modeling scenarios were performed to determine the improvements that should be made to the existing system to ensure that adequate water is delivered at desirable pressures to all areas of the City. In addition these improvements will enhance the system's capacity to meet fire flow standards. These improvements are outlined as follows:

- **Storage:** A new water tank is being constructed and two existing storage tanks are being updated to achieve an average operating system pressure of 62 psi.

- **Distribution System:** The following improvements to the distribution system are recommended to provide the additional feeder mains between the tanks and wells and to facilitate flow throughout the City:
  o New 8" line on U.S. 90 between Ames Avenue and Vermont Avenue;
  o New 12" line on Pabst Road between Pabst Road Well and Old Highway 90; and
  o Areas served by 4" and smaller lines should be upgraded to a minimum 6" pipe. This should be accomplished over a five to ten year period as growth and economics dictate.

- **Fire Flow:** Other minor improvements are recommended to increase fire flows throughout the City.

2009 Improvements. Ocean Springs won a $4.3 million Department of Environmental Quality grant which will be administered through the Community Development Block Grant (CDBG) program to extend water and sewer services.

8.4   Wastewater System

Ocean Springs does not provide wastewater treatment service, but contracts with the Jackson County Utility Authority ("Authority") for that service, which is the regional sanitary sewer service provider in the planning area. The City's wastewater collection system is comprised of a network of lateral, collector and trunk lines and pumping stations sending effluent to a treatment plant operated by the Authority. Sewers are

generally shallow and above the groundwater table. Constraints within the existing wastewater system are due to system design (*e.g.*, invert elevation, line slope and capacity of the existing trunk system), bayous, creeks and floodplains. Sewer lines are shown on **Map 23.**

A sewer extension and lift station along Pabst Road will accommodate a new "green" neighborhood, Heron Park, and will tie into existing residences along Zettle Road.

The system currently has available capacity, with the Authority planning to install system improvements to increase treatment capacity. New growth should ensure that the capacity and timing of proposed wastewater system improvements is consistent with planned growth. The wastewater system capital improvements plan should be updated upon completion of the Comprehensive Plan, and regularly updated thereafter to reflect actual growth.

At least once a year, heavy rainfalls overload the City's and surrounding areas wastewater collection system, requiring that water from the sanitary sewer system be pumped to the stormwater system. This is a result of significant inflow and infiltration (I&I) from Gulf Park Estates, outside City limits. This will be corrected by the Jackson County Utility Authority by 2010. The diversion of water is expensive and may have potentially harmful effects on the environment. Because wastewater treatment plants cannot be expanded in small, inexpensive increments, it is important to anticipate expansion needs well in advance. Potential development must ensure that the capacity and timing of proposed wastewater system improvements is consistent with planned growth. The wastewater system improvement capital improvements plan should be updated upon completion of the Comprehensive Plan, and regularly updated thereafter to reflect actual growth trends. One of the most significant planning concerns the City is likely to encounter is constructing and maintaining adequate lift/pump stations at key locations throughout the City and ensuring that adequate sewers and trunk lines are available.

8.5   Solid Waste

Currently the City contracts solid waste pick-up and curb-side recycling with a private contractor. The County provides curbside recycling. While adequate, there are many other improvements the City may pursue to reduce the environmental impacts of solid waste creation and management. One possible change to the current solid waste collection service is to institute a maximum number of bags of trash per residence to be picked up at a base rate, with additional bags picked-up for an additional fee. This type of system is implemented through the purchase of "trash tags" available for a small fee that residents affix to trash bags in excess of the maximum. For instance, residents could put out two bags on

a weekly basis, and affix a trash tag to any extra bags. This system encourages residents to recycle waste as part of the curbside recycling program in order to reduce trash output, and extends the life of the landfill.

Another major improvement may be to institute a separate pick-up for yard waste. If yard waste is composted or mulched at a separate facility, it extends the life of the landfill, encourages residents to keep their yards tidy and free of brush, and creates a product (mulch) that can be made available to the public for landscaping or used at public parks and to mulch City trees.

8.6   Law Enforcement

The perception or reality of a lack of safety in a community or neighborhood can deter private community investment. Safety can include personal security as well as the structural and fire-rated safety of buildings. The Ocean Springs Police Department ("OSPD") provides service within the City 24 hours per day and beyond municipal boundaries pursuant to mutual aid agreements with the County and surrounding cities. On average, the OSPD responds to one to two extra-territorial calls per month. The OSPD also participates in inter-jurisdictional law enforcement programs, including a narcotics task force, the FBI "Safe Streets" task force and the "Blue Lightning" program with U.S. Customs.

The Police Department provides emergency communications, administrative functions (information management), public services (crime prevention, volunteers), support services (special programs, training), victim services, property & evidence, investigations, patrol functions and a special response team.

In 2009, the Police Department is staffed by approximately 45 commissioned police officers, 10 non-commissioned officers and seven administrative and other personnel, all of whom are full-time employees. The OSPD has 47 regular patrol vehicles, seven administrative and seven investigative vehicles, five motorcycles, three trucks and a command post bus. The Department also has a 19-foot Boston Whaler Boat, a 4x4 ATV club car and two 4x4 ATVs. The communications system includes 65 mobile radio units and 75 walkie talkie units.

The OSPD has a central facility adjacent to City Hall and a substation on Deana Road used primarily as an unmanned facility for the convenience of the traffic and patrol divisions. The central facility houses police functions (administration, investigation, training, etc), the Municipal Court, an emergency operations center (*e.g.*, for weather or rail accidents), an emergency management center (*e.g.*, for police or national guard) and as a temporary detention holding facility (with a capacity of twelve prisoners,

for sentences ranging from three to nine months). Polices facilities are shown on **Map 24.**

The OSPD level of service is based on an achieved response time of three to five minutes, depending upon the type of emergency, time of day and number of other calls for service at the time. The OSPD handles dispatch service in house.

Calls for service ("CFS") were generally consistent in the years leading up to the 2001 Comprehensive Plan, and remain in the same ranges in 2008. In 2000 the OSPD responded to 40,533 calls for service, and between June 3, 2007 and June 3, 2008 the OSPD responded to 34,555 calls for service.

The 2001 Plan described various deficiencies in terms of facility space for the OSPD, however these deficiencies will be rectified through the construction of the new public safety center under construction next to the Ocean Springs Civic Center on Bienville Boulevard. The public safety center will include space for the Police Department, Fire Department, Emergency Operations Center, City Court and Jail. Community Development Block Grant (CDBG) funds ($3.8m) and a 2% tax on restaurant sales authorized in 2008 are funding construction of the $10 million facility.

Map 23 - Sewer Lines

Legend

Sewer Lines

Existing Sewer Lines

Proposed Sewer Lines

Highways

Interstate

US Highway

State Highway

SecondaryRoads

Local Road

Railroads

Planning Area

County Boundary

Census Places

County

PLANNING WORKS

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of information presented within this map, the burden for determining
appropriateness for use rests solely with the user. This map is
provided "as is" with no warranties, express or implied.

Vancleave

Latimer

D'Iberville

St. Martin

Gulf Hills

Hickory Hills

Ocean Springs

Biloxi

Gautier

Biloxi

Gulf Park Estates

0   0.5   1   2
                        Miles

Data Sources: City of Ocean Springs, MARIS

The growth-related needs of the OSPD hinge mostly on the potential annexation plans of the City. Depending on the extent of the potential annexation area, the OSPD may add at least one patrol zone (the OSPD currently has three patrol zones). If that occurs, the OSPD expects to need one additional officer per shift to address the public safety needs of the annexation area. The primary needs of the OSPD to serve additional growth are proportionate personnel and equipment. As the level of service of the County Sherriff is not at the same level as the more urban response levels of the OSPD, education and outreach to residents of newly annexed areas would also be included in the OSPD's plans to serve.

8.7   Fire Protection/EMS

The Ocean Springs Fire Department ("OSFD") provides service to the City and operates primarily within municipal boundaries, but sometimes provides extra-territorial service in unincorporated Jackson County if requested and pursuant to a mutual aid agreement. On average, about four to five calls per year are beyond their jurisdiction. The resources expended for these mutual aid calls are the responsibility of the OSFD. As the rural areas adjacent to the City limits increase in population, the OSFD's responsibilities to its neighboring departments and citizens increases. Emergency medical services are provided by Acadian Ambulance, a private company contracted by Jackson County. The OSFD provides administration, record-keeping and training services; fire suppression services; fire prevention; hazardous materials identification and emergency response; emergency medical first response; emergency management coordination; fire/arson investigation; inspection and enforcement of fire safety codes (International Fire Code 2006); and public education. The OSFD is funded through residential tax base, which makes up 100% of their budget.

The OSFD employs approximately 33 full-time firefighters, a Fire Chief and Assistant Fire Chief, a Training Officer, an Inspections Officer, a Public Education Officer, an Investigator, an Administrative Assistant, an Emergency Management Director and an Emergency Management Coordinator, though maintaining adequate staffing is becoming more challenging. The firefighters rotate three 24-hour shifts, with one Battalion Chief, two Lieutenants and eight firefighters per shift. Administrative personnel work 40-hour weeks. Fire stations are shown on **Map 24.**

- ▪ *The James A. Murray Station* (also referred to as the Central Station) is located on the western end of town, at 1226 Bienville Boulevard (Highway 90) and houses:
  - o Administrative/Emergency Management Staff
  - o EMS Coordinator
  - o Three firefighters

  - o One E-One 75' Quint-style ladder truck
  - o One 1990 Pierce fire truck
  - o One F-150 initial response vehicle
  - o Two F-250 initial response vehicles
  - o Hazardous materials response trailer (2005 Wells Cargo Road Force 7'x14')
  - o 14' aluminum skiff

- ▪ *The Beaugez Station*, located in the south-central part of town, south of the railroad tracks at 2850 Government Street, houses:
  - o One Lieutenant
  - o Three firefighters
  - o One 2001 E-One fire truck

- ▪ *The Champ Gay Station*, located on the eastern side of town, north of Hwy 90 at 1491 Deana Road, houses:
  - o Training/Public Education Officer
  - o Fire Inspector/Investigator
  - o One Lieutenant
  - o Two firefighters
  - o One 1995 Ferrara fire truck
  - o One 1987 Pierce reserve fire truck
  - o One F-150 initial response vehicle
  - o Three support vehicles – one Ford Freestar van and two Ford Ranger Pick-ups
  - o One fire prevention trailer

Fire departments undergo periodic reviews by the Insurance Services Office ("ISO") to determine the adequacy of the community's fire protection services and to establish the local insurance risk factor. During the course of the Department's last review, the City received a rating of "6". This is an exemplary rating with the next scheduled inspection in 2008. This rating is based on a combination of water flow, water pressure, an adequate number of available and trained firefighters and an adequate amount of equipment, based on national standards for similarly sized communities. Typically improving a community's rating to "5" would yield a 5% [real property] insurance premium savings; an increase to "4" would yield an 11% savings.

While the City has adequate minimum water supply levels, large portions of the City are too distant from a fire station and have limited water system access. Existing facility service areas are roughly an 8-mile by 4-mile area, elongated due to the lateral development pattern of the City. Desired level of service is a 4-mile service area. Based on facility location, service areas and response time, there are no existing significant deficiencies within the City. Population increases due to tourism require increased summer and special event staffing needs. The existing water

system provides approximately 932 gallons per minute ("gpm"), with 40 pounds per square inch ("psi") static water pressure, which is well within acceptable limits.

The OSFD level of service is based on an achieved response time of less than five minutes. The medical emergency response program appears adequate at this time, but most likely could use some improvement for expected future demands in the form of apparatus, medical equipments and ALS (advanced life support) training.

The distribution of calls for service ("CFS") have been a consistent level over the course of the past few years, though the number of calls has increased dramatically since Hurricane Katrina and the implementation of the Emergency Medical Responder program in 2006. In 2005 there were 537 CFS and in 2006 there were 543 CFS, with one civilian fire death. In 2007 there were 628 CFS, of which 22 were residential, 11 were commercial / business and 211 were medical responses. The remainder was woods/grass fires, vehicle fires, false alarms and other miscellaneous calls. There were two civilian fire deaths in 2007. There have been no major fires or explosions in recent history inside the OSFD jurisdiction or neighboring areas.

The OSFD provides adequate protection for the developed parts of the community, subject to the following growth-related issues:

- ▪ Additional training is needed for firefighters to respond to issues facing a growing urbanizing community, such as hazardous material response, further paramedic training and keeping up with advancing technology.

- ▪ Based on historical usage patterns, and assuming no significant increase in development or expansion of municipal boundaries, a replacement pumper will be necessary within three years.

- ▪ If development patterns continue to expand to the east, southeast and northeast, an additional facility will be needed, as would additional fire-fighting vehicles and equipment to staff the facility. A likely location for a new station facility would be on Hwy 57, to increase response time to Sunplex and the new City ballfields.

As identified, the OSFD has inadequate office and station space at their current facilities. As described in the Law Enforcement section, there is currently a plan to develop a new public safety center next to the Ocean Springs Civic Center on Bienville Boulevard, which would include space for an OSFD office and station. Once construction is complete, the Champ Gay Station will be closed.

Map 24 - Fire and Police Facilities
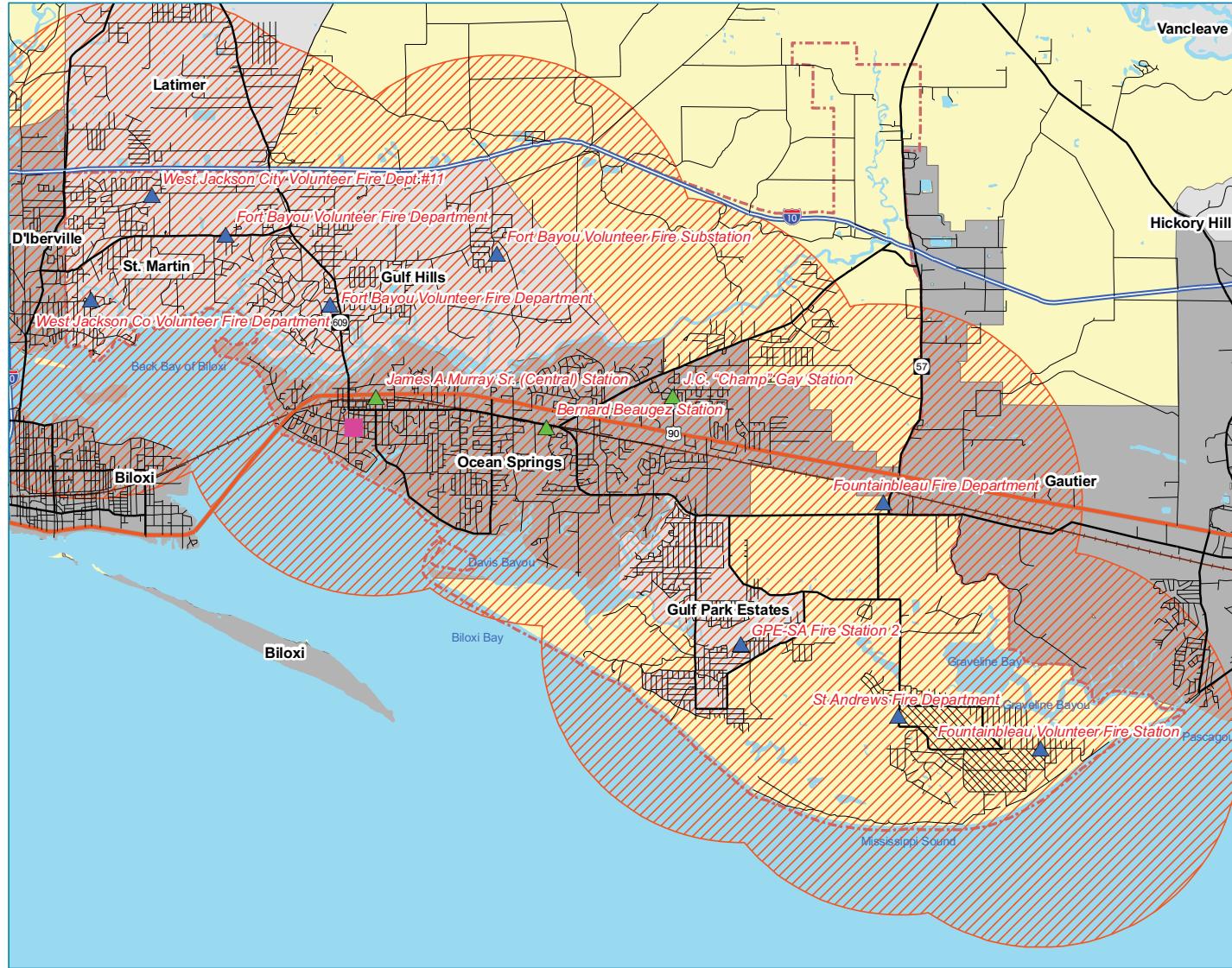
Legend

Police Stations

Fire Stations

Staff

▲ Career Staffed

▲ Volunteer

━━━ Interstate Highway

━━━ Highway

━━━ Major Road

━━━ Local Road

━━━ Minor Road

┝┿┿┥ Railroads (Local)

▨ Updated Planning Area

▨ Urban Fire Response

Census Places

Incorporated Place

Unincorporated Place

Unincorporated County

PLANNING WORKS

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Map labels

Vancleave

Latimer

West Jackson City Volunteer Fire Dept. #11

Fort Bayou Volunteer Fire Department

Fort Bayou Volunteer Fire Substation

Hickory Hills

D'Iberville

St. Martin

Gulf Hills

Fort Bayou Volunteer Fire Department

West Jackson Co Volunteer Fire Department

Beck Bay of Biloxi

James A Murray Sr. (Central) Station

J.C. "Champ" Gay Station

Bernard Beaugez Station

Ocean Springs

Biloxi

Gautier

Fountainbleau Fire Department

Davis Bayou

Biloxi Bay

Gulf Park Estates

GPE-SA Fire Station 2

Graveline Bay

Graveline Bayou

St Andrews Fire Department

Fountainbleau Volunteer Fire Station

Pascagoula

Mississippi Sound

0 0.5 1 2 Miles

Data Source: City of Ocean Springs, Jackson County GIS

The Ocean Springs Fire Department is committed to serving areas within the existing City boundaries and any areas annexed by the City. As additional development occurs and growth in outlying areas continues, OSFD must traverse lengthy congested sections of the City to reach developing locations, some of which may be in unincorporated areas. A unified plan for facility expansion and areas of coverage needs to be developed in the near future.

8.8 Emergency Management & Hazard Mitigation

To appropriately plan for and respond to emergencies and disasters the City relies upon the Ocean Springs Emergency Management Department. The Department works with the public, city officials and city departments, aiding in preparation for emergencies ranging from hazardous incidents and chemical spills to hurricanes and major storm events.

The mission of the Department is "to protect lives and property through preparedness and mitigation activities, effective response to emergencies and disasters associated with natural, environmental and human-caused hazards, and coordination and participation in the recovery effort as a result of such events." To aid in this effort, the Department has prepared a Comprehensive Emergency Management Plan. This plan provides guidance for the coordination of operations during emergencies and disasters and the proper utilization of available resources. This guidance occurs for each of the phases of emergency management, including:

- Mitigation activities such as hazard and risk analysis;
- Preparedness activities such as training of first responders;
- Response activities such as providing warnings and emergency public information; and
- Recovery activities such as debris and waste removal.

Although disaster response handled by the Ocean Springs Emergency Management Program is typically confined to the City's corporate limits, the Program may act beyond these boundaries when intergovernmental cooperation is necessary.

There are a number of emergency shelters in Jackson County, including a Special Needs Shelter, as shown in **Table 15.** Special needs patients are oxygen dependant or have other medical needs that do not require hospitalization. Special needs patients must pre-register by calling the Red Cross at 762-2455. People who are elderly only will need to shelter in the elderly section of the non-special needs shelters, as shown in **Tables 16** and **17.**

Table 15: Jackson County Special Needs Shelter

Shelter Name	Address	City	Capacity
East Central Community Center	4300 Hwy 614	Hurley	150

Table 16: Tropical Storm, Hurricane Category 1 and 2 Shelters

Shelter Name	Address	City	Capacity
East Central HS	21700 Slider Rd	Moss Point	834
East Central Lower Elementary School	21700 Slider Rd	Moss Point	560
Latimer Community Center	10908 Daisy Vestry Rd	Ocean Springs	165
Moss Point High School	4913 Weems St	Moss Point	700
St Martin East Elementary	7508 Rose Farm Rd	Ocean Springs	400
St Martin High - blue	10800 Yellow Jacket Rd	Ocean Springs	660
St Martin High - gold	10800 Yellow Jacket Rd	Ocean Springs	620
Vancleave High School	12412 Hwy 57	Vancleave	600

Table 17: Hurricane Category 3+ Shelters

Shelter Name	Address	City	Capacity
East Central HS	21700 Slider Rd	Moss Point	834
East Central Lower Elementary School	21700 Slider Rd	Moss Point	560
Latimer Community Center	10908 Daisy Vestry Rd	Ocean Springs	165
St Martin East Elementary	7508 Rose Farm Rd	Ocean Springs	400
Vancleave High School	12412 Hwy 57	Vancleave	600
Vancleave Lower Elementary	13901 Hwy 57	Vancleave	480

8.8.1 Hazard Mitigation

Hazard mitigation is planning for future natural and man-made disasters in order to reduce harm to people and property. Hazard mitigation steps include identifying and assessing hazards facing a community in an attempt to find ways to avoid or minimize their impacts. FEMA has ranked Mississippi as the sixth most vulnerable State in the Nation due to risks from hurricanes, tornadoes, and other hazards such as nuclear power plants.

FEMA requires that every state have a Hazard Mitigation Plan. The Mississippi Emergency Management Agency (MEMA) is responsible for keeping up to date the State of Mississippi's Hazard Mitigation Plan. While planning at the State level is wise, local communities have a better grasp of problems that directly affect their communities. MEMA has set a goal to have an approved mitigation plan in every community in the state.

Jackson County has a Mitigation Plan that covers unincorporated Jackson County as well as the Cities of Gautier and Moss Point. It addresses the four hazards considered to have the greatest impact on Jackson County, as shown in **Table 18.**

Table 18: Hazards for Unincorporated Jackson County

Hazard	Severity /Area	Probability	Impact	Vulnerability	Risk
Hurricanes	Extensive	Medium	Extensive	High	High
Tornado	Moderate	High	Moderate	Medium	Medium
Flood	Limited	Medium	Moderate	High	Medium
Wildfire	Limited	Medium	Limited	Low	Low

After identifying and assessing the risks of each hazard, a community may create an action plan to mitigate these hazards. In the case of Jackson County, a twenty-five step action plan was created to minimize impacts of the above four hazards. Often action plans will include policies, community awareness programs and enforcement of current policies.

Hazard mitigation should be incorporated in the planning and development process in Ocean Springs as a critical component of decision making. Steps toward integrating hazard mitigation in the planning and development process include:

- Focus infrastructure investment and development in lower-risk areas;
- Implement coastal zoning codes;
- Enforce mitigation requirements and building codes on development in flood zones;
- Implement building protection techniques;
- Purchase high-risk and environmentally sensitive land;
- Support rigorous review of development and other projects in coastal areas;
- Develop a local coastal protection elements plan and coordinate with County and regional hazard mitigation plans;
- Develop secondary defenses against flooding, such as embarkments, floodwalls or other structural/design techniques; and
- Implement a plan for stormwater drainage and watershed management.

8.8.2   HAZUS Model

The City of Ocean Springs and Planning Area are located within the southern part of the Gulf Coastal Plain. Ocean Spring's unique geography makes it prone to several types of natural disasters. Coastal storms and flooding are two of the most prevalent disasters to occur in Ocean Springs. While communities cannot predict when natural disasters will occur, they can plan for them and reduce the results of their impacts. This is the concept behind hazard mitigation planning. While this section is not meant

to be construed as a hazard mitigation plan, the following attempts to summarize the effects of a major flood and / or coastal storm (hurricane) within the planning area.

FEMA has developed the HAZUS Multi-hazard Loss Estimation Methodology software to quantify the potential effects of floods, hurricane winds and earthquakes. HAZUS-MH is constantly updated with information which is coupled with GIS technology to produce estimates of hazard-related damage before, or after a disaster occurs. Potential loss estimates analyzed in HAZUS-MH include:

- Physical damage-to residential and commercial buildings, schools, critical facilities, and infrastructure
- Economic loss- including lost jobs, business interruptions, repair and reconstruction costs
- Social impacts- estimates of shelter requirements, displaced households, population exposed to floods, earthquakes, and hurricanes.

Estimating losses is essential to decision-making at all levels of government, providing a basis for developing mitigation plans and policies, emergency preparedness, and response and recovery planning. HAZUS includes many nationally assembled datasets including:

- 2000 census block demographics
- 2006 Dunn and Bradstreet Commercial valuation estimates
- Building occupancy classifications and valuations
- Runs inside commercial ArcGIS software

8.8.2.1   Floods

Floods are "a great flowing or overflowing of water, esp. over land not usually submerged." Floods are among the most common natural disasters in the United States. On average 140 people are killed from flooding and $6 billion dollars worth of property is damaged every year within the Unites States (FEMA). Flooding in Ocean Springs most commonly results from either riverine flooding from nearby bayous or coastal flooding due to tropical storm and hurricane produced storm surge. Nearly flat land also contributes to flooding as surface drainage in some locations is very poor with significant water pooling after storm events.

8.8.2.2   National Flood Insurance Program

Floods are the only natural disaster with a mandatory insurance program. FEMA defines a 100 year flood as "a flood that has a 1% chance of being equaled or exceeded in any given year" (FEMA Flood). The 100-year flood, which is the standard used by most Federal and

State agencies, is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance. A structure located within a special flood hazard area shown on a NFIP map has a 26% chance of suffering flood damage during the term of a 30 year mortgage. Mortgaged properties within areas designated in the 100 year floodplain are required to carry flood insurance. Flood Insurance Rate Maps in the Ocean Springs area were last updated August 18th 1992.

- The 100 year flood refers to a flood level with a one percent or greater chance of being equaled or exceeded in any given year.
- A 500 year floodplain refers to areas that have a 0.2% chance that a flood will be equaled or exceeded in a given year. This area is also called "moderate flood hazard areas".
- Flood Insurance Rate Maps (FIRMs) are used by lenders and insurance agents to determine risk and premiums for structures located within the 100 year floodplain as well as the 500 year floodplain.
- Historically, nearly 1/3 of claims made by the National Flood Insurance Program (NFIP) are within areas of "moderate" or "minimal" risk.
- Topography (slopes) and ground cover (impervious surfaces) contribute to flooding and velocity.

Flood Recurrence Intervals	Chance of Occurrence in Any Given Year
10 Year	10%
50 Year	2%
100 Year	1%
500 Year	0.20%

Source: FEMA 386-2, Understanding Your Risks

FEMA has further established flood zones according to varying levels of flood risk. The City adopted these new flood zones in January 2009. These zones are summarized in **Table 19**.

Table 19: FEMA's FDIC Flood Zones

Moderate to Low Risk Areas
In Communities that participate in the NFIP, flood insurance is available to all property owners, but not required.

ZONE	DESCRIPTION
B, C, and X	Areas outside the 1-percent annual chance floodplain, No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

High Risk Areas
In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
A	Areas within a 100-Year flood. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE, A1-A30	Areas within a 100-Year flood. In most instances, base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year with an average depth ranging from 1 to 3 feet. Average flood depths derived from detailed analyses are shown within these zones.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
A99	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

High Risk - Coastal Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
V	Coastal areas with 100-Year Flood and an additional hazard associated with storm waves. No base flood elevations are shown within these zones.
VE, V1 - 30	Coastal areas within a 100-Year flood and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.

Undetermined Risk Areas

ZONE	DESCRIPTION
D	Areas with possible but undetermined flood hazards.

Map 25 shows the areas that lie within FEMA's 100 year floodplain or a flood with a 1% chance of occurrence in 100 years. This map also delineates areas within a floodway. Floodways are lands adjacent to waterways which should be reserved for discharge. Areas delineated in the velocity zone on the Flood zone map are those located in zones V, VE, and V1-V30. These areas are not only located within the 100-Year flood, but they have the additional hazard of storm waves. **Table 20** summarizes the percent of land within both the Planning Area and Ocean springs where the 100 Year Flood, Velocity, and Floodways make up.

Table 20: Percent of Land in Floodway, Velocity Area, and 100-Year Floodplain

	Floodway	Velocity	100-Year Floodplain	Total Acres
City of Ocean Springs	1.17%	25.04%	14.63%	9,748.22
Planning Area	2.92%	14.09%	27.27%	33,571.75

Seawalls are walls constructed as a coastal defense to reduce the effects of strong storm surges. Two sections of seawall exist within Ocean Springs: the first section extends from Weeks Bayou to Halstead Road along Shearwater Drive; the second section extends from U.S. 90 bridge to Inner Harbour. Manmade beach was installed as well to lessen the impact of storm caused erosions and must be replenished after major storm events.

8.8.2.3 River Floods

River flooding occurs in waterways such as streams, rivers, and ditches. When a waterway becomes full to capacity, excess water flows into the waterway's floodplain. The Old Fort Bayou, Mississippi Sound, Biloxi Bay, Back Biloxi Bay and Davis Bayou are all waterways in the Ocean Springs where riverine flooding can easily occur. Excessive rain, flash flooding, or urban drainage are some of the sources of river flooding. **Table 21** summarizes Ocean Springs' historical floods.

Table 21: Previous Flood Occurrence

Location or County	Date	Type	Property Damage
Countywide	May 9, 1995	Flash Flood	0
Southern portion of County	July 8, 1996	Urban / Small Stream Flood	100,000
Countywide	January 7, 1998	Flash Flood	50,000
Countywide	March 7, 1998	Flash Flood	0
Countywide	March 8, 1998	Flood	0
Countywide	June 11, 2001	Flash Flood	150,000
Countywide	July 1, 2003	Flood	1,000,000
Countywide	April 1, 2005	Flash Flood	200,000
Countywide	April 1, 2005	Flood	325,000
Ocean Springs	April 6, 2005	Flash Flood	0
TOTAL:			1,825,000

Property damage is estimated and includes extent of flooding beyond Jackson County
No deaths or injuries were reported for above floods
Source: National Climatic Data center

8.8.2.4 Hurricanes: Winds, Coastal Floods, and Storm Surge

Development in coastal areas experience coastal storms and coastal erosion, which aren't factors in river flooding. Hurricanes and severe storms cause most coastal flooding.

Storm surge is usually an effect of a coastal storm. Storm surge is defined as the abnormal rise in water bodies caused by wind, forcing water to flood coastal regions. One way to measure storm surge is by the Saffir-Simpson Scale for Wind Speeds. The highest risk score is assigned to areas potentially inundated by a Category 1 storm while areas only potentially inundated by a Category 5 storm are assigned a score of 1. Areas outside the inundation zone receive a score of 0.

Table 22: Saffir-Simpson Scale for Wind Speeds

Category	Wind Speed in mph	Expected Damage
1	74-95	**Minimal:** Damage is done primarily to shrubbery and trees, unanchored mobile homes are damaged, some signs are damaged, no real damage is done to structures.
2	96-110	**Moderate:** Some trees are toppled, some roof coverings are damaged, and major damage is done to mobile homes.
3	111-130	**Extensive:** Large trees are toppled; some structural damage is done to small homes and utility buildings.
4	131-155	**Extreme:** Extensive damage is done to roofs, windows, and doors; roof systems on small buildings completely fail; some curtain walls fail.
5	>155	**Catastrophic:** Roof damage is considerable and widespread, window and door damage is severe, there are extensive glass failures, and entire buildings could fail.

Map 27 depicts the potential surge inundation for each of the five Saffir-Simpson hurricane intensities. The map was produced from the results of multiple simulations by the National Hurricane Center using Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model. The model simulations included category 1 through category 5 intensities, from nine directions, and at speeds of 5, 10, and 15 mph.

Each advancing storm category includes the previous categories inundation areas as well as the new area. For instance, a Category 2 storm surge, would engulf those areas in Category 1 as well as the Category 2 areas. Below is

a summary of land area in Ocean Springs and the surrounding Planning area.

Table 23 summarizes the percentage of Ocean Springs and the larger planning area which fall into these five storm Categories.   **Table 24** catalogues previous storms to hit Jackson County.

Table 23: Land in Storm Surge Areas

	Category					
	1	**2**	**3**	**4**	**5**	**Total Acres**
City of Ocean Springs	16.20%	22.82%	52.46%	75.19%	75.82%	9,748.22
Planning Area	27.87%	39.39%	61.69%	83.51%	87.31%	33,571.75

Table 24: Previous Occurrences of Coastal Storms

Name	Date	Type
Opal	10/4/1995	Hurricane
Danny	7/17/1997	Hurricane
Earl	9/2/1998	Tropical Storm
Hermine	9/19/1998	Tropical Storm
Georges	9/27/1998	Hurricane
Bertha	8/4/2002	Tropical Storm
Hanna	9/14/2002	Tropical Storm
Isidore	9/25/2002	Tropical Storm
Lili	10/2/2002	Tropical Storm
Bill	6/30/2003	Tropical Storm
Ivan	9/15/2004	Hurricane/typhoon
Arlene	6/10/2005	Tropical Storm
Cindy	7/5/2005	Tropical Storm
Dennis	7/10/2005	Tropical Storm
Katrina	8/28/2005	Hurricane/typhoon
Ike	9/11/2008	Tropical Storm

Source: National Climatic Data center

8.9   Social & Medical Services

The City does not currently provide any social services. However, despite the relatively high income of Ocean Spring's residents, social services are still a necessary public service. There are several community service organizations, churches, charities and other providers that fulfill valuable roles in Ocean Springs, including the Jackson County Civic Action Coalition, the United Way, the Lord is My Help food bank, Christus Victor Lutheran Church and many others. The City relies on these organizations, however funding and coordination among the organizations and the City can be improved to ensure reliable, available and high quality service provision to the users of social service programming.

The City does not provide medical service, however, medical services have been a growth industry in the City and there are a number of medical services available, including the Ocean Springs Hospital. Founded in 1968, the Ocean Springs Hospital provides comprehensive medical care. In addition to 24-hour emergency services, the Ocean Springs Hospital provides comprehensive heart services, women's and children's services, inpatient and outpatient rehabilitation services, a comprehensive neurosciences program, daybreak behavioral health, hospice of light and a woundcare and hyperbaric medicine center. These services are provided by a medical staff of approximately 600 employees, of which approximately 120 are physicians. The hospital is designated as a Level III Trauma Center, covers every major medical specialty and is licensed for 124 beds.

The Ocean Springs Hospital commits to:
- Provide a comprehensive trauma care for patients and their families through a collaborative, multi-disciplinary trauma management approach;
- Support state of the art trauma care with a dynamic and progressive focus on trauma care services; and
- Incorporate actual community trauma experience in the development of preventative and educational programs for community residents and health care professionals

Map 25 - 100 Year Flood Zones
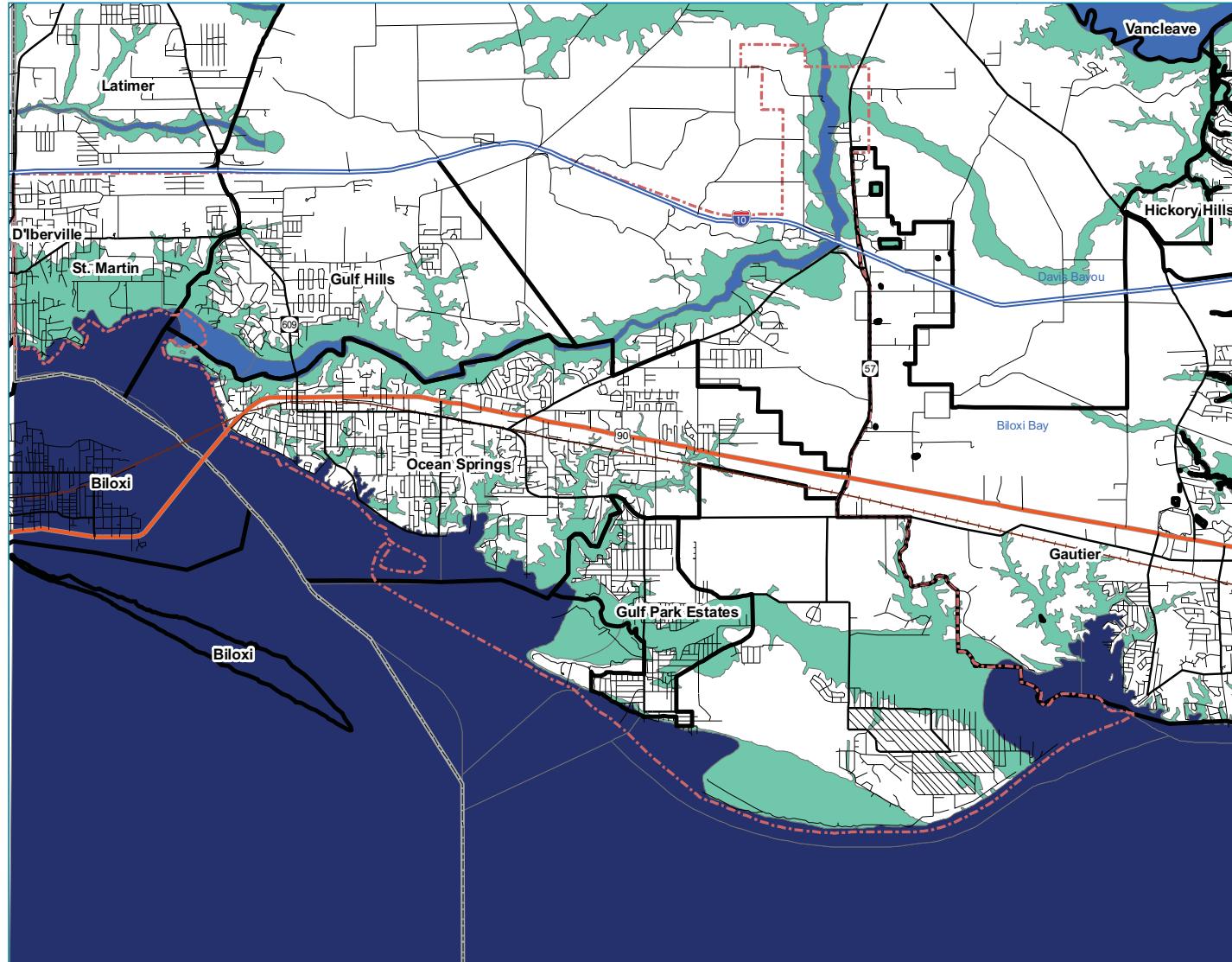
OCEAN SPRINGS
BLUEPRINT

Legend

Vancleave

Latimer

D'Iberville

St. Martin

Gulf Hills

Hickory Hills

Davis Bayou

Biloxi Bay

Ocean Springs

Gulf Park Estates

Gautier

Biloxi

Biloxi

Symbol	Label
——	Interstate Highway
——	Highway
——	Major Road
——	Local Road
——	Minor Road
—+—+—	Railroads (Local)
▢	Planning Area
▢	County Boundary
▢	Census Places

Flood Zone

- 100 Year Floodplain
- Velocity Zone
- Floodway

Planning Works

0   0.5   1   2
Miles

N
W   E
S

Map 26 - Evacuation Zones and Routes

Vancleave

Latimer

D'Iberville

St. Martin

Gulf Hills

Hickory Hills

Biloxi

Ocean Springs

Gautier

Biloxi

Gulf Park Estates
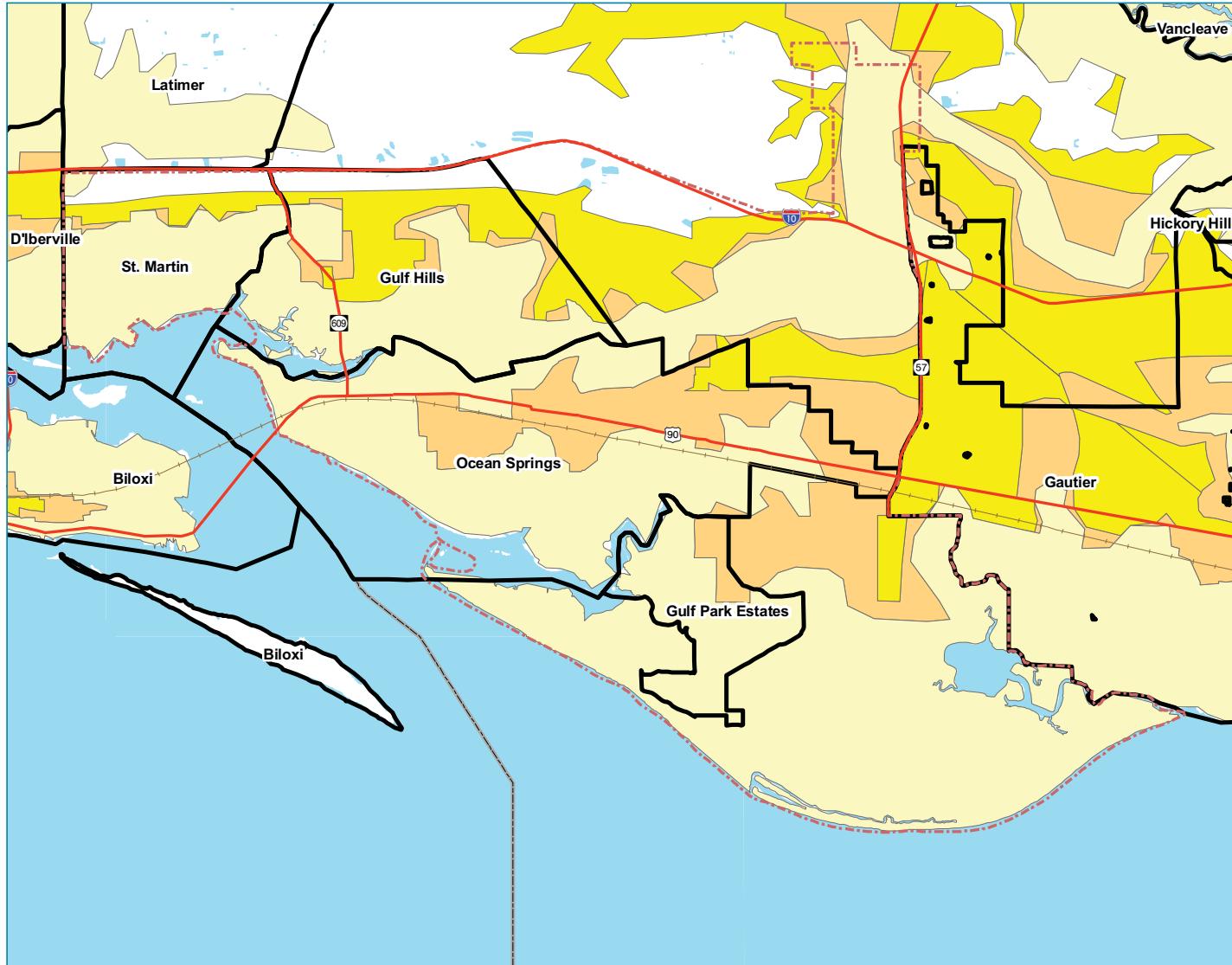
Legend

— Evacuation Routes

—⊥— Railroads

▭ Planning Area

▭ Census Places

Evacuation Zones

▭ Evacuation Zone A

▭ Evacuation Zone B

▭ Evacuation Zone C

▭ County Boundary

▭ Water

PLANNING WORKS

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0   0.5   1   2   Miles

N
W   E
S

Data Sources: City of Ocean Springs, MARIS, U.S. Census, NOAA

Map 27 - Sea, Lake, and Overland Surges from Hurricanes (SLOSH)
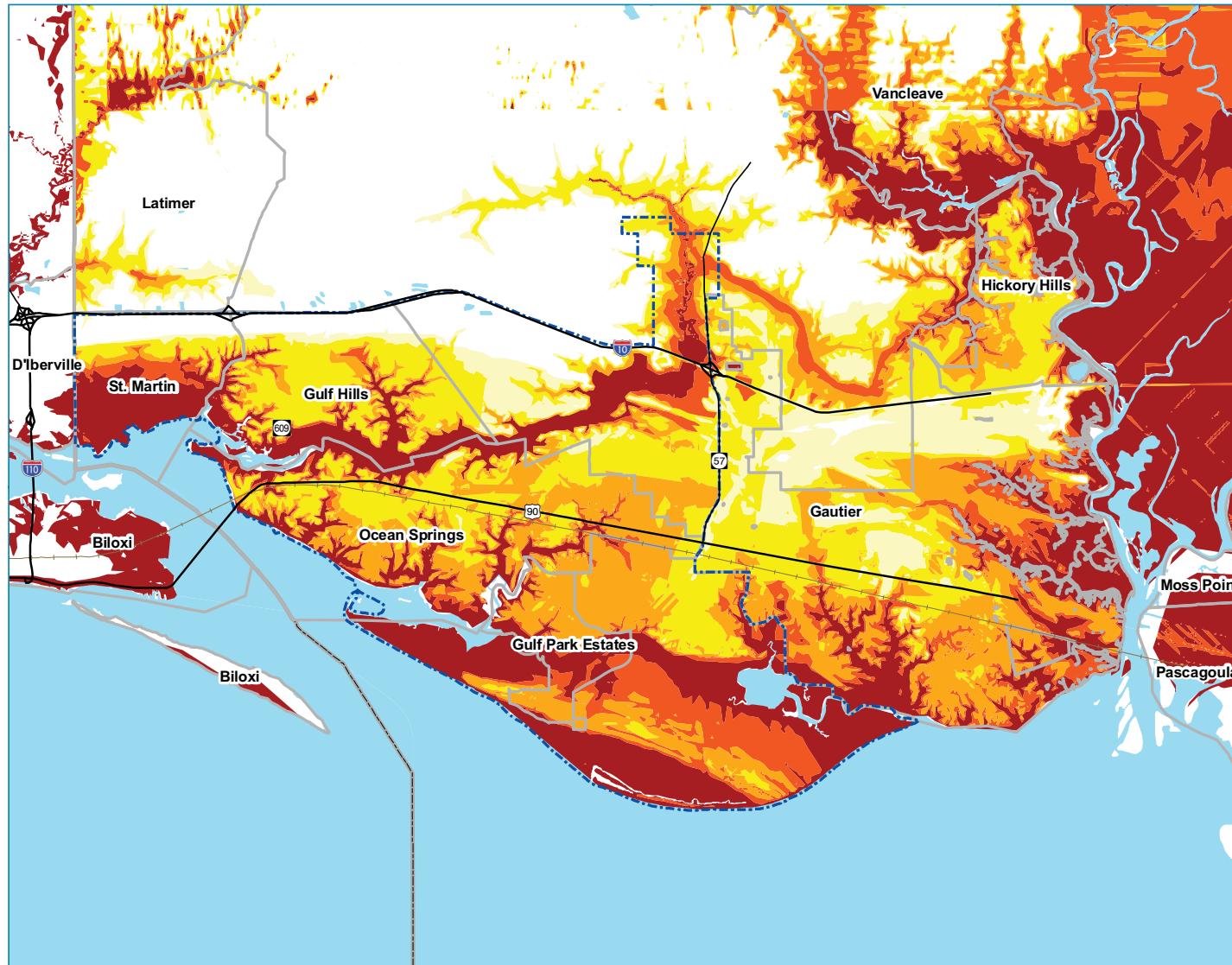
Legend

Highways

— Interstate

— US Highway

— State Highway

—+— Railroads

Planning Area

Census Places

SLOSH Model

Hurricane Category

Category 1

Category 2

Category 3

Category 4

Category 5

County Boundary

Water

Vancleave

Latimer

Hickory Hills

D'Iberville

St. Martin

Gulf Hills

Gautier

Biloxi

Ocean Springs

Moss Point

Biloxi

Gulf Park Estates

Pascagoula

PLANNING WORKS

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8.10 Parks and Leisure Services

Parks, recreation and open space are an important part of the quality of life element for any community and an important aspect of a Comprehensive Plan. To understand whether a community has adequate parks, recreation and open space it is necessary to conduct an inventory of the existing facilities.

Parks Classification System. As a first step in inventory process each existing facility is evaluated based on the park classification system. This system includes models for six park types: Mini Park, Neighborhood Park, Recreation/Sports Complex, Community Park, Regional Park and Special Purpose Park. The park models listed in the following exhibit describes the park types, their recommended size, the population they serve, the service area covered, potential locations and typical facilities most commonly found within them. The recommended guidelines are derived from the National Recreation and Park Association's *Recreation Park and Open Space Standards and Guidelines.*

An updated inventory of public recreational facilities identifies the acreage and distribution of each existing park in Ocean Springs. As shown in **Table 25** and on **Map 28**, the City and school districts provide over 176 acres of park land on 18 different sites.

While **Table 25** shows the existing parks, the Parks and Leisure Department is currently expanding and realigning the parks facilities to greatly improve the level of service. The new sports complex, to be located off of Hwy 57 is planned to improve the level of service for ballfields to meet existing demand plus projected demand for the next 15 years. The project began construction in 2009 and will be competed in 2010. The current ballfields site, located off of Deana Road, is planned to be used as a multi-purpose center, which will include two basketball courts. FEMA funds are secured to harden the structure for use as a storm shelter.

Improvements are also underway for the development of Ft. Maurpas Park on Front Beach Drive. The park is designed as a 'signature' park for the City, and will include an open air pavilion, a playground, a splash park and public restrooms. It will highlight the City's heritage by featuring information on explorer Pierre LeMoyne D'Iberville, who founded the area in 1699. The final major improvement for the parks and recreation system includes improvements to the Halstead Road Tennis Complex, which will include eight new tennis courts. Other improvements to the design of existing public parks include on-going efforts to provide sign uniformity, shade structures and other minor improvements.

Table 25: Ocean Springs Existing Park Facilities by Type

Park Type	Name	Acreage	Facilities
Mini-Park	Marshall Park	.5	9
	Martin Luther King	1.5	
	Halstead Tennis Courts	2	
	Lemoyne Park	1	
	Savannah	2	
	Trentwood Park	1	
	Little Children's Park	1.84	
	Pecan Toddler's park	.25	
	Fort Bayou Park	1	
Neighborhood Park	Gay Lemon	10	8
	City Park	12	
	Freedom Field	3.5	
	Clay Boyd Park	5.5	
	Steve Parker Park	3	
	Inner Harbor Park	4	
	Marble Springs Park	4	
	Fort Maurepas Park	3	
Regional Park	Sports Complex	40	1
Total		**96.09**	**18**

There is strong demand for additional boat ramps in the City. Currently, there is a boat ramp facility at the Harbor that is owned by the County, but maintained by the City. There are also public boat ramps at the Fort Bayou subdivision, on Fort Bayou off by the Hwy 609 bridge and at the Gulf Islands National Seashore. Several possibilities have been discussed in order to provide more boat access to the water, including a partnership with the Gulf Coast Research Lab to provide public access to the facility's boat ramp on the weekends, or to build a public boat ramp on the property at the base of the Hwy 90 Biloxi Bay Bridge.

Table 26 shows the number of each type of park needed to serve existing City residents according the NRPA standards. These numbers do not reflect demands from residents living outside the City, nor do they address the distribution of the parks. Because there are no standards for the number or acreage of Special Purpose Facilities, this exhibit excludes park and recreation facilities located at school sites.

Table 26: NRPA Parks Recommendations

Park Types	Park Standard (parks/ population)	Park Standard (acres per 1,000 residents)
Mini Park	1/4,000	0.25
Neighborhood	1/2,000	2
Recreation Complex	1/10,000	3.5
Community Park	1/40,000	0.5
Regional Park	1/30,000	10
Total		16.25

It is important to re-iterate that there is a great deal of demand for the parks and recreation facilities in Ocean Springs from residents living outside of the City limits. Residents of neighboring communities and the County regularly use City facilities. There is currently no two-tiered rate structure or any similar strategy to capture user fees from non-City residents. The Parks and Leisure Department has an on-going relationship and inter-local agreement with the Ocean Springs School District to share facilities and waive applicable fees. For instance, the District uses City tennis and baseball fields and the Parks and Leisure Department uses District basketball courts.

As the Planning Area develops, it is important to ensure that parks are included in the design of new neighborhoods and that land set aside for parks is of a size and location to be reasonably used as a quality park facility. It is important to ensure that developers don't simply donate odd tracts of land that are un-useable as developable parcels and become maintenance problems for the Parks & Recreation Department. As part of the City's past attempt to institute impact fees, the parkland dedication requirement for new development was removed. This requirement should be re-instituted moving forward.

Map 28 - Parks and Recreation Facilities
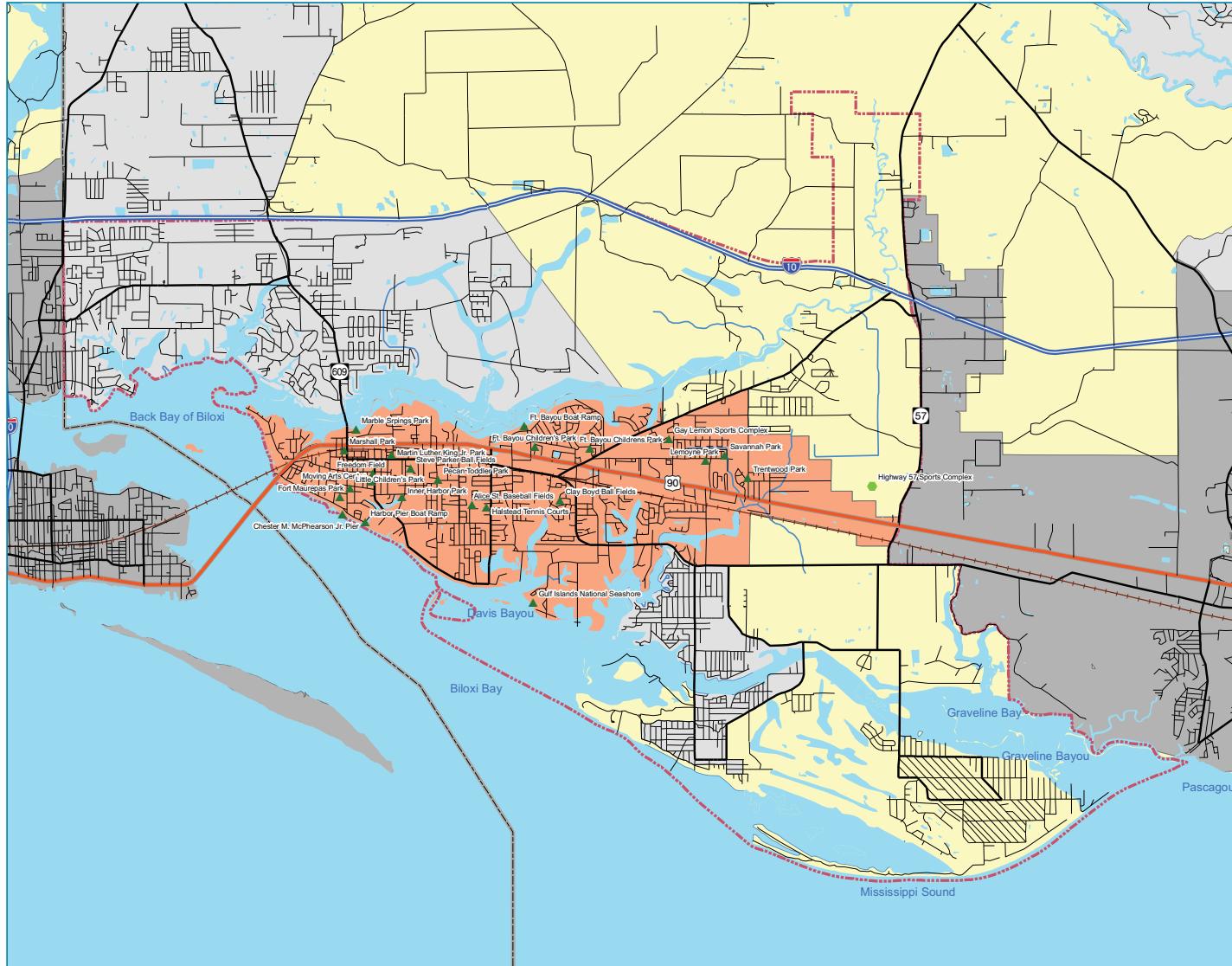
Legend

Facilities

▲ Existing

● Proposed

■ Under Construction

━━ Interstate Highway

━━ Highway

━━ Major Road

━━ Local Road

━━ Minor Road

┼┼┼ Railroads (Local)

▨ Planning Area

▢ County Boundary

▢ Water

Hydrology

–·– ArtificialPath

━━ StreamRiver

▨ Ocean Springs

Census Places

▨ Incorporated Place

▨ Unincorporated Place

▨ Unincorporated County

Map labels:

Back Bay of Biloxi

Marble Springs Park
Ft. Bayou Boat Ramp
Marshall Park
Ft. Bayou Children's Park
Ft. Bayou Childrens Park
Gay Lemon Sports Complex
Savannah Park
Martin Luther King Jr. Park
Steve Parker Ball Fields
Lemoyne Park
Freedom Field
Trentwood Park
Moving Arts Cen
Little Children's Park
Pecan Toddler Park
Highway 57 Sports Complex
Fort Maurepas Park
Inner Harbor Park
Alice St Baseball Fields
Clay Boyd Ball Fields
Harbor Pier Boat Ramp
Halstead Tennis Courts
Chester M. McPhearson Jr. Pier
Gulf Islands National Seashore
Davis Bayou
Biloxi Bay
Graveline Bay
Graveline Bayou
Pascagoula
Mississippi Sound

PLANNING WORKS

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0   1   2   4 Miles

Gulf Islands National Seashore. Regional park and recreation facilities have broad service areas that frequently encompass numerous jurisdictions. The City is fortunate to have a valuable national park resource located within its boundaries. The Gulf Islands National Seashore is a chain of park and open space lands that stretch across 150 miles of coastline, from Florida through Mississippi. The Davis Bayou Area, a component of this regional park facility, is located in Ocean Springs and consists of a self-guiding nature trail, a visitor information and education center, picnic shelters, a boat launch and a 51-site campground.

8.11 Arts & Culture

Related to recreational needs are the cultural needs of residents who seek arts amenities as a form of entertainment, recreation, and relaxation. The Mary C. O'Keefe Cultural Center[xii] is the keystone of the public arts community in Ocean Springs. Located in the historic Ocean Springs Public School Building on Government Street, the Center provides a diverse set of programs and facilities for the arts. Working with the City of Ocean Springs, the Friends of the Mary C. O'Keefe Cultural Center for Arts and Education are dedicated to restoring the 1927 Ocean Springs School building and to providing an environment for artistic activities including music, visual and performing arts and education. The building is listed on the National Register of Historic Places and is designated as a Mississippi Landmark. The Friends of the Mary C. are responsible for the administration and operation of the Center. Ocean Springs is also home to

the Walter Anderson Museum of Art and Shearwater Pottery, still owned and operated by the Anderson family.

8.12 Education

8.12.1 Public Schools

Schools are a vital community component. Though their primary purpose is one of educating students and preparing them for later challenges, communities also are defined by the quality of the school system. Cities with a successful school district, as measured by student performance, teacher proficiency, successful programs and available capacity add immeasurable value to community image and property values. Schools also help define neighborhoods and underscore the linkage between education and the arts.

There are three school districts within the Ocean Springs Planning Area, as shown in **Map 29**:
- The Ocean Springs School District;
- The Jackson County School District; and
- The Pascagoula School District.

The school district with the greatest impact on development patterns in the planning area is the Ocean Springs School District – the vast majority of the planning area is within the boundaries of the school district. However, if the City grows to the north (north of Fort Bayou) or northeast, development would be within the Jackson County District. Growth to the extreme southeast of the planning area would be within the Pascagoula District.

The public school system in Ocean Springs consistently has been ranked as one of the best in the State of Mississippi. The Ocean Springs School District has a long range plan that addresses leadership and planning, curriculum and instruction, climate, staff development, communications and community relations, support, test data, and end-of-year student data. The District's superior rating frequently is cited as a primary influencing factor for residents and businesses when considering relocation to the City.

The Ocean Springs School District has an enrollment of approximately 5,200 students, not including pre-K enrollment of approximately 300 students. Growth within the Ocean Springs District has occurred at a steady rate since the 1990s. A slight drop in enrollment occurred in the year following Hurricane Katrina, but enrollment has now recovered to pre-Katrina levels.

The Ocean Springs District has three elementary schools for kindergarten through 4th grade and one elementary school for 5th grade; one middle school for grades 6 through 8; one high school for grades 9 through 12, a Vocational Center for high school students only, and an Alternative Education Center. The District's facilities are all near, at or over capacity. The following is a brief assessment of schools located within the Ocean Springs School District:
- *Ocean Springs High School.* 2008 enrollment is 1,741 students. There is a lack of space for classrooms, with five instructors presently without classrooms. Portable classrooms will be added prior to the 2008-09 school year.
- *Keys Technology.* The facility is currently at capacity and should not be separated from the main high school campus.
- *Alternative Education Center.* The facility is currently at capacity and the addition of new programs will require additional classroom space.
- *Ocean Springs Middle School.* This school is at capacity. Though relatively new, the school was designed for 1,250 students. 2008 enrollment is 1,275. Some programs have expanded into the cafeteria and hallways and there is no room for expansion of programs or growth. Portable classrooms will be added prior to the 2008-09 school year. The School District is reviewing the separation of 6th grade from 7th-8th grade.
- *Magnolia Park Elementary School.* The school is currently at capacity and portable classrooms are required to serve further growth.
- *Oak Park Elementary School.* This school is at or near capacity and is undergoing renovation and expansion.
- *Pecan Park Elementary School.* The school is currently at capacity and portable classrooms are required to serve further growth.
- *Taconi Elementary School.* This school is at capacity and portable classrooms are in use.
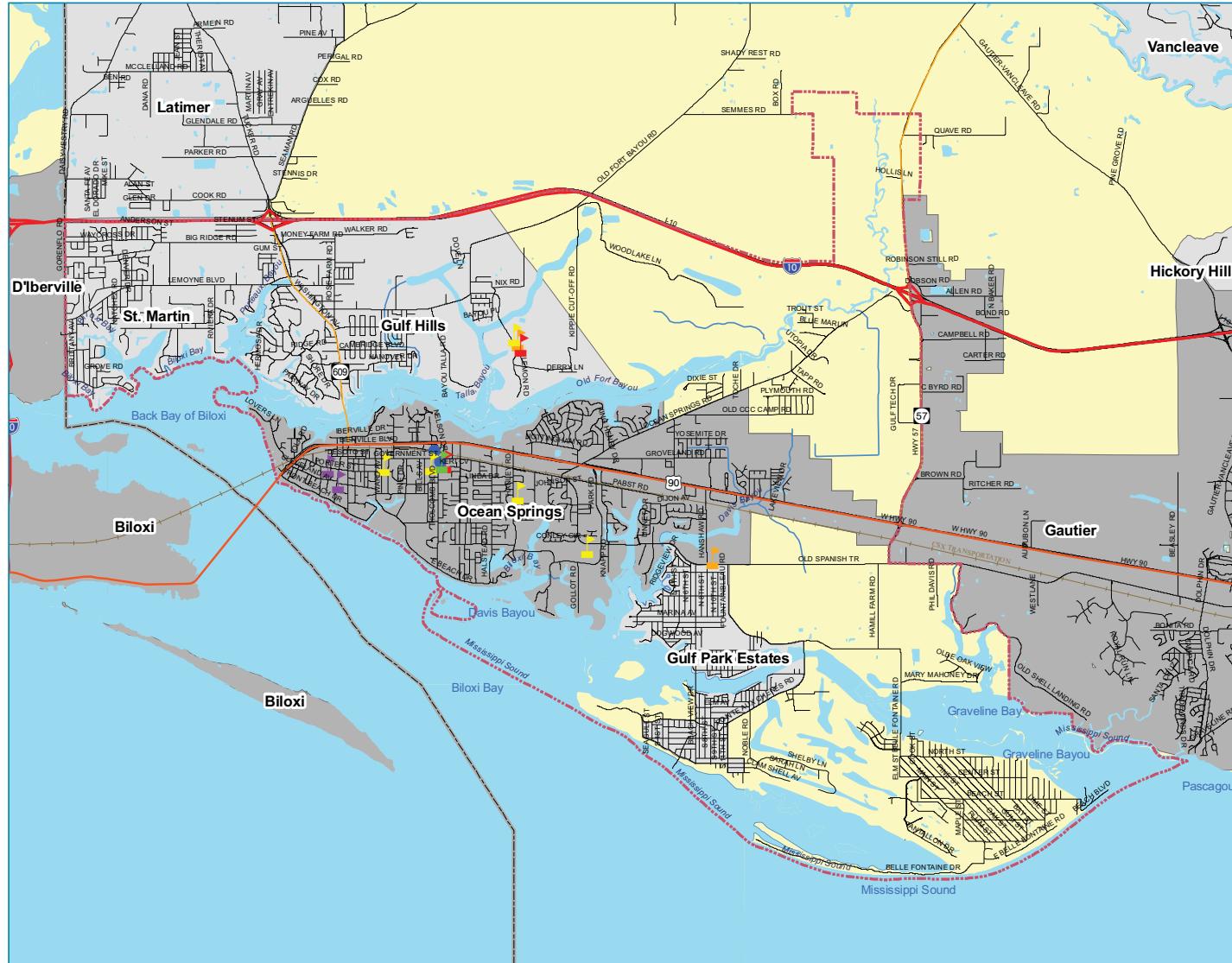
Map 29 - Schools

Legend

- District Office and Technology Center
- Private
- Elementary
- Middle School
- High School
- Alternative Education

Highways

- Interstate
- US Highway
- State Highway
- SecondaryRoads
- Local Roads
- Railroads
- Planning Area
- County Boundary
- Water

Hydrology

- ArtificialPath
- StreamRiver
- Ocean Springs

Census Places

- Incorporated Place
- Unincorporated Place
- WaterBodiesH
- Unincorporated County

Planning Works

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Vancleave

Latimer

D'Iberville

St. Martin

Gulf Hills

Hickory Hills

Ocean Springs

Biloxi

Gautier

Biloxi

Gulf Park Estates

Back Bay of Biloxi

Davis Bayou

Mississippi Sound

Biloxi Bay

Graveline Bay

Graveline Bayou

Pascagoula

Mississippi Sound

0   0.5   1   2   Miles

N
W   E
S

A $35 million school bond issue passed in the summer of 2008 to meet current and future facilities demand needs of the Ocean Springs School District. The OSSD owns two 40-acre plots of land on the southeast side of the Planning Area that it intends to use for a new high school, located near Hwy 57 and Old Spanish Trail. The existing facility would be reconfigured to use a facility for other grade levels. The reconfiguration would allow improvements and greater capacity at existing schools. Potential plans and configurations are still being considered. One possible challenge is that both of the two potential sites for a new high school are constrained by the presence of wetlands. It is important to note that the location of the high school in the southeast portion of the growth area indicates the potential for greater growth in that general area as proximity to a high school is considered an inducement to development.

The District is fully accredited by the Southern Association of Colleges and Schools, and received a "Level 5" rating by the Mississippi Department of Education, which, as the highest rating available, means the District has satisfied 100% of Level 5 (with 5.0 performance indice) performance standards. Of the 147 school districts in the State, only 16 (11%) received a Level 5 rating. The Jackson County District also received a Level 5 rating (with a 5.0 performance indice); the Pascagoula District received a Level 3 (90% to 100% of Level 3 performance standards met; with a 3.3 performance indice). The trend for the past five years indicates that Ocean Springs has maintained its 5.0 performance rating, Jackson County has increased its performance from 4.9 to 5.0, but Pascagoula performance has decreased from its highest recent rating of 3.9 rating in 1996[xiii]. In-state testing indicates that all three school districts consistently score above State averages in most subjects, and also have higher average ACT scores (of 23.2, 21.5 and 21.0, respectively) than the State average (19.8)[xiv].

The community faces a number of issues balancing student needs, facility capacity and revenue availability. The Ocean Springs District qualifies for little federal funding because it has relatively few students living below income guidelines – the District has less than 25% of its student population eligible for the free/reduced cost lunch program. The District budget is further hampered by the lack of commercial and industrial development within the City (which produce higher comparative property tax revenues than residential uses).

Schools not only serve their intended essential educational functions but also help neighborhoods and communities. Schools are an essential part of the City's quality of life. As the Comprehensive Plan is implemented with specific school facility proposals, it is recommended that coordination between at least three sets of planning interests must taken place: school planning, city planning, and facility development planning. Supplementary input to the collaborative planning process from other municipal agencies such as public works, parks and recreation, and public safety is also required.

Assessment of the need for school sites should be a continuous process updated in response to land use changes, population growth and change, school enrollments, new subdivision activity, subdivision regulations and zoning changes. School planners should also be consulted to assess the possible impact on school facilities and enrollments associated with zoning changes, proposed residential developments and new subdivisions. These impacts need to be known by the City and considered in making decisions regarding the regulatory process and infrastructure provision for changes and additions to residential developments within the City.

Conventional wisdom and generally accepted practice dictates that school facilities be located so as to most conveniently serve the areas from which its students are drawn. The issue of centrality of school location within the eventual geographic neighborhood or serve area of the school sometimes generates conflicts between the interests of municipal planning, school planning and development planners and design professionals charged with design and implementation of facility development on specific sites.

The socially desirable characteristics of geographic centrality and convenient walking and driving distances should be weighed with other factors influencing physical design and development of neighborhoods, including housing types and densities, established settlement patterns, land ownership patterns, and place names. While all of these factors historically have influenced residents' perception of "community," they may not be coterminous with a school service area.

Use of shared school sites, contiguous to public parks, conservation areas, or community open spaces is advocated in the Comprehensive Plan. Properly developed multi-use sites of this kind can accommodate a comprehensive range of outdoor community recreation programs, including playgrounds and play fields, to serve a wide range of resident and school age groups. Shared school sites can also be related to environmental education and with the potential for establishing outdoor learning centers.

While school sites should be located in a position central to the student population served, they should also be located with an eye to possible future redistricting. In the long term development of the City, what is needed is a network of schools neither too near each other nor too far apart. "Too near" and "too far" are determined by a mix of fixed and variable factors including: locally acceptable distance standards, logical transportation requirements and routes, State imposed standards, educational guidelines for walking distances by student age, residential densities and subsequent student yields, the availability of sidewalks or walk systems in urban density neighborhoods, and safety considerations.

School districts have a variety of means at their disposal for responding to increases or decreases in school service area populations: permanent or temporary school closings, the development of alternative programs which may attract students from outside declining service areas, changes in school structure such as the range of grade levels served, adult or special education programs like visual and performing arts or gifted programs, use of double sessions or year-round school programs or adaptive reuse for other purposes. All of the above can be employed to avoid over building or underuse of specific schools resulting from urban growth or change.

8.12.2 Gulf Coast Research Laboratory

The University of Southern Mississippi Gulf Coast Research Laboratory (GCRL), a unit of the School of Ocean and Earth Sciences within the College of Science and Technology, is a marine research and education enterprise sited in Ocean Springs with a workforce of 200 faculty, researchers, graduate students and support staff[xv]. Research at GCRL focuses on sustainable coastal and marine resources, development of new marine technologies, and the education of future scientists and citizens. Research is multidisciplinary and applications-oriented. Education opportunities span graduate degree programs in coastal sciences, undergraduate field courses in marine biology and hands-on discovery programs for pre-college students and teachers.
Research and education activities are conducted through one academic department and four centers at the GCRL:
- Department of Coastal Sciences,
- Center for Fisheries Research and Development,
- Gulf Coast Geospatial Center,

- J.L. Scott Marine Education Center, and

- Thad Cochran Marine Aquaculture Center.

The GCRL derives less than 25% of its budget from a state line-item appropriation and the remainder from grants, contracts and self-generated funds with a more than $17 million direct contribution to the region annually.

The Mississippi Academy of Sciences launched the Gulf Coast Research Laboratory with the opening of its first summer field program Aug. 29, 1947, at what is now Gulf Islands National Seashore in Ocean Springs. The GCRL Summer Field Program has operated continuously since 1947. The GCRL has been part of The University of Southern Mississippi since 1988.

The GCRL is an incredible asset to the City of Ocean Springs, yet the amount of interaction between the City and the Lab has been minimal in the past. There is an excellent opportunity to increase communication and the possibility of joint use facilities and events between the City and the Lab. The Lab is currently located at the Halstead Campus, on approximately 50 acres, and is in the process of expanding to become more of an outreach facility at the GCRL's 224-acre Cedar Point Campus.

A master plan for the Cedar Point Campus was completed in 2004 and includes major facilities for marine aquaculture. The Campus currently includes five buildings dedicated to marine aquaculture. Approximately $20 million is dedicated to construction of facilities on the campus. Potential funding available through the Department of Marine Resources and additional funding requests to the United States Congress more than double that figure. The Marine Aquaculture Visitor's Pavilion is currently under construction. The 11,000 sq. ft. facility will house the spotted sea trout aquaculture and stock enhancement program and will provide a platform for demonstrating the principles and potential benefits of marine aquaculture to the public. An additional six buildings are funded and in various stages of development, including five buildings for the culture of marine organisms and a 27,000 sq. ft. office and laboratory building that will support marine aquaculture and fisheries research.

8.13 Library

Libraries are another integral community service that enhances quality of life. Libraries are more than repositories of books, tapes and videos. Modern libraries have outreach programs that perform valuable community services educating, informing and entertaining all segments of the population.

The Ocean Springs library is a branch of the Jackson-George Regional Library System serving two Gulf Coast counties. The main library is located in Pascagoula; the system has branches in the cities and communities of East Central, Gautier, Lucedale, Moss Point, Ocean Springs, St. Martin and Vancleave. Eighty-one employees keep these eight branches open to the public for a total of 427 hours each week, Monday through Saturday. Though the City does not operate its own library, the City has effectively participated with the Regional System, as evidenced by the library facility adjacent to City Hall. The Ocean Springs branch is the most heavily utilized branch in the system.

The library system also maintains a collection of more than 230,000 items that consists of adult fiction, non-fiction, large print books, music and books on CD, and movies on DVD. The library system's genealogy and local history collections, located in the Ocean Springs, Pascagoula and Lucedale libraries, attract thousands of amateur and scholarly researchers from throughout the nation annually. Along with an extensive collection, public meeting rooms are available free of charge at all branches. Reservations are required. All libraries have an On-Line Public Access Catalog — a computerized listing, updated daily, of the collection. Up-to-date information about the library's collection and activities is available by visiting the website at www.jgrls.org.

All eight of the libraries offer free public computers with free Internet access and are directly linked with the extensive state-funded MAGNOLIA family of databases. All public computers have Microsoft Office featuring; Word, Excel, and PowerPoint software. Wi-Fi Internet access is provided in all libraries at no charge as well. Free computer training is also available each month at all branches.

The library system provides special programs for all ages throughout the year. Children's features include puppet shows and weekly story-time for preschoolers, and summer reading programs for children of all ages including high school students.

The branch library located in downtown Ocean Springs is a 16,150 square foot facility, housing a wealth of information. Additional materials are accessible via inter-library loans within the Regional System. The Ocean Springs library has Internet access for public use, as well as free meeting rooms.

Based on generally-accepted national library standards, for a community the size of Ocean Springs, the following levels of service, for a service area population of 10,000 to 35,000 persons, are appropriate and appear to be adequate, based on the guidelines in **Table 27.**

Table 27: Library Level of Service Guidelines

Book Stock (volumes per capita)	Seats (per 1,000 pop.)	Circulation (volumes per capita)	Building Size (square feet per capita)
2.25 - 3	5	9.5	0.6 - 0.65

Source: Joseph L Wheeler and Herbert Goldhor, _Practical Administration of Libraries_.

However, if the library service area extends significantly beyond existing municipal boundaries, the City should consider working with the Regional System to ensure that adequate materials and facilities are available and accessible for all residents. Any additional library facilities should be easily accessible, preferably located on a main thoroughfare, and in a mixed-use activity center or in an existing neighborhood center. Ease of parking is advantageous, but is not so important as to justify an otherwise undesirable location. Any additional facilities should be part of an overall plan to accommodate a minimum of twenty (20) years expansion of service and community growth. Participants at the Public Design Forum indicated the desire to maintain the downtown library location as an integral part of the downtown neighborhoods, even if additional branch locations are also opened.

9   GOALS & POLICIES

Goals, policies and strategies describe how the City will meet the challenge of managing future growth and community development.

Goal: Description of a desired state of affairs for the community in the future. Goals are the broad, public purposes toward which policies and programs are directed. Goals are phrased to express the desired results of the Comprehensive Plan.

Policy: Statements of government intent against which individual actions and decisions are evaluated. Policies indicate the *direction* the City should take.

Strategy: Individual regulations and action which, taken together, will enable the City to achieve Goals and Policies. Strategies are the basis for implementation of the Plan by identifying and recommending specific courses of action. Strategies are included in the Implementation Chapter.

9.1   Land Use

Goal 1:   Maintain a sustainable and compatible mix of land uses in the City of Ocean Springs through effective, coordinated growth management.

Policy 1.1:   Provide for a diverse, yet complementary mix of residential and non-residential uses to meet the needs of the City's businesses and residences.

Policy 1.2:   Promote private investment in existing commercial and residential neighborhoods through a combination of public investment in infrastructure and active efforts to enforce City codes and eliminate non-conforming uses and site designs that erode property values.

Policy 1.3:   Encourage and support the gradual evolution of existing, auto-dominated strip commercial areas to compact, multi-modal oriented, mixed-use places with enhanced walking and cycling connections between destinations.

Policy 1.4:   Encourage the development of compatible mixed-use activity centers.

Policy 1.5:   Encourage compatible infill development that is designed and constructed to be consistent with the character of the existing neighborhood.

Policy 1.6:   Ensure that commercial and residential development is designed and constructed to be consistent with the unique character of Ocean Springs.

Policy 1.7:   Promote appropriate interconnectivity between adjacent land uses, including connections between non-residential development and adjacent neighborhoods. Lot patterns should be designed to provide safe and direct connections between residential and non-residential uses for pedestrians as well as automobiles.

Policy 1.8:   Engage community residents and property owners in the development and implementation of plans and development standards for residential, commercial and mixed-use neighborhoods throughout the City.

Policy 1.9:   Develop and implement a Unified Development Code that contains all the City's zoning, subdivision, design and sign regulations. The Unified Development Code should integrate traditional Euclidian zoning provisions, form-based code provisions and the calibrated Smart Code.

Policy 1.10:   Use the Development Tiers Map **(Map 5, Appendix A)** and the Development Tiers **(Exhibit 1)** to guide land use and development decisions.

Policy 1.11:   Support the use of annexation as a tool to manage growth in the Ocean Springs Planning Area, provide services efficiently, promote economic development, control the entryways into the City and encourage rational growth patterns.

Policy 1.12:   Establish and maintain an annexation program that is fiscally responsible, that serves the needs of Ocean Springs' existing and future residents, and that accomplishes the following:

1.   Ensure that facilities in annexation areas are designed to City standards or provisions have been made to fund upgrades to deficient facilities.

2.   Coordinate with residents, property owners and Jackson County to equitably fund improvements required to bring potential annexation areas into compliance with City standards. While the City generally will require residents and property owners of such areas to bear primary responsibility for required upgrade costs, increased City and/or County participation may be provided for annexations required to manage and serve planned growth more effectively.

3.   Prior to a major annexation, prepare an annexation study to evaluate the costs and benefits of the proposed annexation to the City and the property owners. The study should address land use, public improvements and other growth and development issues (direct and indirect).

4.   Use annexation and public improvement agreements to ensure that annexation areas comply with City plans and standards.

5.   Annex County islands upon resolution of public service and improvement issues, including emergency access, street design standards, street conditions, water system needs, wastewater system needs and drainage needs.

Policy 1.13:   When an annexation is requested for a portion of contiguous land holdings, establish an agreement phasing development and annexation of the remaining contiguous holdings. When annexation occurs for strategic reasons, a portion of certain properties may be annexed.

Policy 1.14:   Develop and maintain a coordinated intergovernmental planning and development review process to foster efficient City growth patterns.

Policy 1.15:   Ensure land use compatibility by undertaking a special review Developments of Community Impact, including large-scale developments, industrial uses, adult uses, resource extraction uses or other uses that may potentially have impacts beyond the proposed development site, extending to surrounding residential uses, City-wide or County-wide. Such a review should consider impacts to the economy, environment, character and adequacy of public facilities and services in the surrounding area.

9.2   Bienville Boulevard (Hwy 90)

Goal 2:   Enhance Bienville Boulevard (Hwy 90) corridor through Ocean Springs to support economic development, multi-modal transportation and high quality community character.

Policy 2.1:   Promote the transition of Bienville Boulevard from a highway thoroughfare to a multi-way boulevard, which features lanes for through traffic, one-way frontage roads for local traffic, pedestrian amenities, street trees and landscaping and buildings fronting the street with minimal setbacks.

Policy 2.2:   Promote development of regional general retail businesses along Bienville Boulevard.

Policy 2.3: Promote higher intensity, mixed-use development along the Bienville Boulevard corridor that is consistent with multi-modal and pedestrian-oriented design policies

Policy 2.4: Ensure that new development and redevelopment along the Bienville Boulevard corridor includes pedestrian oriented design features that provide linkages between residential and commercial uses.

Policy 2.5: Enhance the overall design and quality of development along Bienville Boulevard, including enhanced gateway signage and standards for building site design, materials, architectural design, signage, landscaping and street trees and other design considerations.

Policy 2.6: Prohibit the development of new billboard signs and encourage the removal of existing billboards.

9.3   Downtown/Central Business District

Goal 3: **Foster a vibrant mixed-use downtown that retains the historic character of existing commercial and residential neighborhoods, while providing increased opportunities for residents who wish to live within walking distance of neighborhood amenities and work places.**

Policy 3.1: Enhance Downtown and the Central Business District as a destination place for residents and visitors.

Policy 3.2: Promote the development of specialty retail, service and entertainment businesses in the Central Business District.

Policy 3.3: Support the development and implementation of SmartCode in the Downtown and Front Beach areas.

Policy 3.4: Ensure that development regulations for the CBD encourage provision of a balanced mix of land uses that are compatible with surrounding uses. The predominant scale and design character established by historical development patterns should be maintained.

Policy 3.5: Mixed use buildings in the CBD should primarily be occupied by retail uses on the ground-level and office or residential uses on upper levels.

Policy 3.6: Bed and breakfast lodging should be encouraged in close proximity to the CBD, near higher intensity land uses, and in large historic homes with easy access to restaurants and specialty retail businesses.

Policy 3.7: Limit drive-through facilities in the CBD and other pedestrian oriented development areas.

Policy 3.8: Establish a transition area around the Downtown area. A mix of uses will provide a buffer between the more intensive, business-oriented areas and the nearby lower-intensity residential areas. In the transitional area, the principal uses should include residential, bed and breakfast inns, low-intensity professional offices, neighborhood service business, child-care centers, and similar uses. A mix of single-family and moderate density multi-family (townhouse units, with a maximum of four units) should be permitted.

Policy 3.9: Make the Downtown more pedestrian friendly by expanding existing walkways and supporting the provision of pedestrian amenities, including green spaces, seating areas, plazas and public art. Local art should be the key part of the downtown walkways. Wherever feasible, locate parking in the interiors of the blocks and behind buildings with easy access to the walkway, existing streets, and buildings.

Policy 3.10: Ensure that the Downtown will be served by a multi-modal transportation system, including provisions for automobiles, regional transit, pedestrians and bicycles.

Policy 3.11: Increase development intensity and pedestrian accessibility by reducing reliance on open parking areas along streets. New and existing parking lots should be screened to reduce visibility from major streets and public spaces used by pedestrians and bicyclists. To the greatest extent practical, parking lots should be located behind buildings, in side yards, or in the interior blocks throughout the CBD.

Policy 3.12: Coordinate the development of structured parking to open more land for development Downtown. Parking structures should be designed to be compatible with adjacent buildings and should provide for ground floor retail space along collector and arterial streets. Parking structures with access to these streets should be designed to minimize interruptions in the pedestrian path. On secondary streets where the ground level of the parking structure will be occupied by cars, landscape and/or architectural screening of the lot should be provided.

Policy 3.13: Coordinate the provision of shared public parking areas and "pocket" parking lots to encourage Downtown redevelopment.

Policy 3.14: Ensure that public street designs foster the movement of pedestrians throughout the planning area and to efficiently use public services and facilities, such as City Hall, the Police Department, the Ocean Springs Library, and the Mary C. O'Keefe Cultural Center for Arts and Education.

Policy 3.15: Retain government offices and public services frequently visited by the public (e.g., libraries, tax offices, development services, meeting spaces, etc.) in the downtown area.

9.4   Neighborhoods & Housing

Goal 4: **To provide high quality residential neighborhoods with a variety of compatible housing types to serve the various needs of Ocean Springs residents.**

Policy 4.1: Provide greater flexibility in the types of units allowed within the City, including provisions for residences on the upper floors of non-residential structures and a variety of moderate density unit types, such as patio homes, town homes and zero lot line homes.

Policy 4.2: Ensure that all housing is of a sufficient quality and design to promote the long-term neighborhood stability.

Policy 4.3: Ensure that land uses abutting residential development are compatible with the scale, intensity and overall character of the neighborhood. Note: This policy is intended to facilitate a mix of residential unit types and better integration of residential and non-residential uses through the use of creative design, including the architecture, landscaping, building orientation, parking layouts, building scale and setbacks.

Policy 4.4: Encourage the redevelopment of existing buildings throughout the City and new infill development to provide for apartments, loft units, and uses of similar character on upper levels of buildings.

Policy 4.5: Plan and zone for medium density housing development near principal employment centers to allow for travel to work by all modes of transportation.

Policy 4.6: Integrate residential and non-residential uses in community activity centers. In lower intensity single-family residential areas, provide for compatible integration of neighborhood-scale retail and service uses.

Policy 4.7: Support the provision of affordable and workforce housing within the City.

Policy 4.8: Pursue public-private partnerships to develop affordable and workforce housing.

Policy 4.9: Encourage the provision of housing alternatives for seniors, including maintenance-provided homes.

Policy 4.10:   Maintain compatible transitions between different land use and housing types through effective land use and site design regulations. This policy is intended to allow for development of a compatible mix of unit types and neighborhood scale services.

Policy 4.11:   Protect stable single-family neighborhoods from the intrusion of incompatible residential and non-residential land uses. This policy is intended to protect neighborhoods from blighting influences; it is not intended to preclude development of different types of residences, neighborhood commercial centers or community services within neighborhoods if they can be designed and maintained in a manner that enhances neighborhood stability.

Policy 4.12:   Target unstable or declining neighborhoods for revitalization through partnerships between the City, housing and development agencies, and private property owners.

Policy 4.13:   Develop a rental licensing and inspections program to ensure the maintenance of the City's rental housing stock and protect adjacent neighborhoods and mixed use areas.

Policy 4.14:   Provide adequate codes enforcement to ensure high quality housing and building stock and protect existing neighborhoods and commercial areas from blighting influences.

9.5   Economic Development

Goal 5:   **Maintain and enhance a sustainable local economy that provides employment opportunities and supports a high quality of life.**

Policy 5.1:   Actively coordinate with and support private sector economic development efforts that are consistent with the City's adopted vision and goals.

Policy 5.2:   Pursue a higher ratio of employment to housing, seeking a greater proportion of professional services jobs.

Policy 5.3:   Support expansion of medical services in Ocean Springs, including Ocean Springs Hospital, to further establish the City's role as a medical services destination in the region.

Policy 5.4:   Encourage development of tourism and the hospitality industry.

Policy 5.5:   Encourage development and expansion of "home grown" businesses.

Policy 5.6:   Pursue economic development opportunities servicing the elderly and retirement population.

Policy 5.7:   Encourage "clean" industry, retail and professional offices development.

Policy 5.8:   Restrict commercial and industrial development that generates heavy truck traffic to highway interchanges.

Policy 5.9:   Support the use of economic development incentives to create public-private partnerships and provide public benefits and amenities.

Policy 5.10:   Support the Ocean Springs School District as a key asset in terms of economic development and business retention as well as maintaining property values.

Policy 5.11:   Maximize sales tax revenues as a major funding source for City services.

Policy 5.12:   Enhance the City's role as a retail, restaurant and entertainment center for the region.

Policy 5.13:   Provide quality municipal services as a primary contribution to the community's economic development effort.

Policy 5.14:   Pursue public private partnerships for economic development initiatives through investment in infrastructure and/or other development assistance.

Policy 5.15:   Support economic development incentives that result in measurable community benefits, such as wage and job production targets.

Policy 5.16:   Promote new recreational facilities as a venue for tournaments.

9.6   Community Design

Goal 6:   **To establish Ocean Springs as a community that showcases high quality design for the benefit of its residents, businesses and visitors.**

Policy 6.1:   Promote good site design and layout, architectural design and building materials through regulatory tools and incentives.

Policy 6.2:   Protect and enhance the tree canopy in developed and new areas of the City to expand the tree canopy to pre-Katrina levels. While live oaks are most frequently associated with the character of Ocean Springs, a mixture of native tree types should be planted to enhance species diversity and mitigate against potential loss. The use of native tree types should be maximized.

Policy 6.3:   Require the incorporation of street trees into the design of all new development. Where feasible, such as along service roads, trees should be arranged to establish a partial urban tree canopy cover.

Policy 6.4:   Require the preservation of existing trees to the maximum extent possible during all public and private development projects. On- or off-site mitigation of tree loss should be allowed.

Policy 6.5:   Ensure the provision of appropriate pedestrian amenities to promote walkability (e.g., sidewalks, street furniture, pedestrian-scale lighting and enhanced planting areas).

Policy 6.6:   Require redevelopment and new development to incorporate public spaces, such as plazas, pocket parks, courtyards and other similar gathering spaces.

Policy 6.7:   Promote active pedestrian-oriented commercial development through the use of maximum building setbacks, pedestrian amenities, façade openings along the street and pedestrian-friendly parking designs.

Policy 6.8:   Mitigate traffic noise and other noises that would negatively impact existing development. Through a combination of landscaping, structural controls, road maintenance, maintain outdoor noise levels at 60dBA or less in residential areas. Through building construction standards, maintain maximum indoor noise levels at 30 dBA or less.

Policy 6.9:   Promote high quality landscaping and encourage the use of environmentally sensitive landscaping techniques, such as rain gardens, xeriscaping and the use of native plants through regulatory tools and incentives.

Policy 6.10:   Enhance the design of the gateways and corridors leading into and through the City by establishing appropriate landscaping, setback and design standards. Ensure that open space areas and street frontages project attractive images of the development.

Policy 6.11:   Encourage developments that exceed landscape and open space requirements or otherwise demonstrate exceptional design.

Policy 6.12:   Ensure context-sensitive architectural design standards for large commercial buildings throughout the City and all development within the historic areas. The City should adopt measurable performance standards to promote better design and encourage creative site planning and architecture.

Policy 6.13:   Provide additional sidewalks and trails in development neighborhoods and require the development of such amenities in new neighborhoods and commercial areas.

Policy 6.14:   Promote high quality design of signage through regulatory tools and incentives.

Policy 6.15:   Promote the principles of Crime Prevention Through Urban Design, Safe Routes to School and Visitability to enhance Ocean Springs as a high quality environment to live in and visit.

Policy 6.16: Increase neighborhood stability through collaborative code enforcement, provision of public amenities (e.g., sidewalks, green-space, streetscaping), and effective compatibility[1] standards.

Policy 6.17: Maintain the safety and integrity of residences through effective enforcement of zoning, building and housing codes. Remove blighting influences within neighborhoods and enhance standards and enforcement for maintenance of vacant properties to prevent blight.

9.7 Historic Resources

Goal 7: **To preserve and enhance historic and cultural resources that reflect the heritage and character of Ocean Springs.**

Policy 7.1: Support the Ocean Springs Historic Preservation Commission's efforts to protect Historic Districts and historically significant structures and sites

Policy 7.2: Support and encourage investment for preservation, redevelopment and adaptive reuse of historically significant and architecturally important structures.

Policy 7.3: Ensure that new development within historic districts is compatible with existing historic development.

Policy 7.4: Encourage private investment in historic commercial and residential neighborhoods through an equitable combination of public and private investment in infrastructure.

Policy 7.5: Support the adaptive reuse of historic structures in the community through flexible use, building code and site development standards in historic districts.

Policy 7.6: Support heritage tourism promotion leveraging historic resources including Fort Maurepas, Marble Springs and other historic properties.

9.8 Natural Resources

Goal 8: **Protect and preserve natural resources including marshes and wetlands, habitat for flora and fauna, water and air quality.**

Policy 8.1: Limit development activities on environmentally sensitive lands. Depending upon the fragility of the resource, restrictions should limit or prohibit construction, grading, and even vegetative clearing. Constrained land should be subtracted from land acreage on which development density is calculated.

Policy 8.2: Designate, secure and maintain conservation areas for natural habitat.

Policy 8.3: Pursue proactive strategies to address wetlands protection and drainage issues, such as a master wetlands permitting process to provide predictability and flexibility to the development process while protecting environmentally sensitive lands and preserving local wetlands function.

Policy 8.4: Support the development of public amenities in the development of necessary infrastructure, such as stormwater parks and recreation areas.

Policy 8.5: Encourage the use of Low Impact Design techniques to manage stormwater.

Policy 8.6: Protect the viewsheds and environmental features that contribute to the visual beauty and natural aesthetic of Ocean Springs.

Policy 8.7: Promote water conservation in private and public development and buildings operation.

Policy 8.8: Promote the curbside recycling program and begin recycling in downtown and other public areas such as City parks.

Policy 8.9: Require mitigation of activities with the potential to decrease downstream water quality. The City should address impacts during and after the development process resulting from erosion, large parking lots and other point and non-point sources of water pollution.

Policy 8.10: Support reduction of solid waste that enters the landfill through various programs, such as a yard waste pick-up program or fee-based incentives to reduce solid waste creation.

Policy 8.11: Support development of the Ocean Springs Outdoors Blueways and Greenways Plan to afford greater public access to waterfronts and greenspaces.

9.9 Hazard Mitigation

Goal 9: **To protect life and property throughout Ocean Springs.**

Policy 9.1: Promote strategies to protect people and property from natural and environmental hazards.

Policy 9.2: Ensure that evacuation routes are adequately designed and maintained to provide for the safe and expeditious evacuation of the City during emergency conditions.

Policy 9.3: Ensure that development is constructed in accordance with the adopted Fire Code and Building Codes.

Policy 9.4: Prevent inappropriate development in the floodplain.

Policy 9.5: Ensure that development adheres to required base elevations as determined by FEMA.

Policy 9.6: Support the development of a City-wide hazard mitigation and response plan.

Policy 9.7: Encourage the underground placement of electric, telephone, and cable television lines by developers and service providers to improve the aesthetics, prevent disfigurement of trees and provide protection from high winds and other hazard mitigation.

Policy 9.8: Support the implementation of the Jackson County Hazard Mitigation Plan.

9.10 Facilities & Services

Goal 10: **To efficiently provide for and equitably fund high quality facilities and services to meet the needs of all businesses residents and visitors to Ocean Springs.**

Policy 10.1: Support regulatory requirements that are fair, predictable and protect the interest of public and private property owners and the community as a whole.

Policy 10.2: Establish intergovernmental agreements to manage development on the edges of the Ocean Springs Planning Area.

Policy 10.3: Plan for and equitably fund the efficient provision of public facilities and services.

Policy 10.4: Coordinate with the Ocean Springs School Board to implement the District's long range plan and assist with public improvements that will maintain the quality delivery of educational services. Encourage small, neighborhood-based schools that are integral parts of neighborhoods and the community as a whole.

Policy 10.5: Assure that the provision of municipal services is efficient and does not shift the costs of facilities to serve new residents and businesses to existing residents and businesses.

Policy 10.6: Coordinate with other service providers on the timing and location of installation or replacement of utilities.

Policy 10.7: Coordinate development decisions with the ability of the City and other service providers to adequately meet service demands concurrently with the creation of those demands.

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[1] Compatibility standards are intended to ensure that developments are designed to provide better transitions between land uses, without segregating residents from the services and amenities they regularly need.

Policy 10.8: In outlying areas that are not relatively contiguous with existing development, the City may defer approval of the development or agree to a phased development plan that is tied to provision and full funding of all public facilities. Relative contiguity, which should be defined in the City's development regulations, is not intended to preclude development of a parcel that does not directly abut existing development. The City recognizes that environmental conditions, property ownership patterns and other factors will create some situations where development is desirable, even though the property does not abut an existing development.

Policy 10.9: Ensure that adequate public facilities are available or funded prior to approval of new development. The implementation of this policy will be coordinated with the adoption of a Capital Improvements Program that addresses existing deficiencies and future capacity needs.

Policy 10.10: Enhance streetscaping in conjunction with programmed capital improvements to maintain or upgrade existing streets or sidewalks.

Policy 10.11: Maintain adequate police and fire protection response times for all development within the City.

Policy 10.12: New development shall fund its proportional share of costs for capital facilities for on- and off-site capital improvements required to serve new development. The City may fund a greater proportional share of improvements required for economic development, revitalization, affordable housing, system enhancements or other purposes benefiting the community at large.

Policy 10.13: Require facilities to be extended through new developments to provide for future growth. Facilities may be required to be over-sized to serve future development with provisions for reimbursement for facilities that benefit other properties. The City shall periodically review its standards for reimbursement when an applicant over-sizes facilities to serve future development to ensure that they are equitable.

Policy 10.14: Promote and support the provision of social services by local service providers, including not-for-profit groups, charities, churches and other providers.

9.11 Parks & Leisure

Goal 11:   **To provide a parks and recreation system that meets the needs of all segments of the Ocean Springs community.**

Policy 11.1: Ensure that public recreation facilities and programs within Ocean Springs serve the needs of all residents. Public recreation facilities shall be accessible to all citizens.

Policy 11.2: Design open space to offer multi-use, environmentally friendly recreation activities.

Policy 11.3: Plan for multi-purpose use of facilities for recreational, cultural, educational and avocation programs.

Policy 11.4: Support the provision of additional public access to Ocean Springs' waterfront resources while protecting neighborhoods from incompatible development.

Policy 11.5: Support partnerships between the City, the Ocean Springs School District and other parks and recreation service providers.

Policy 11.6: Ensure that parks and recreation facilities and programs are equitably funded by all users of the system, including existing City and non-City residents as well as new development.

9.12 Arts & Culture

Goal 12:   **To maintain and enhance Ocean Springs as an "artistic" community, supporting and celebrating local arts and cultural events.**

Policy 12.1: Continue to support visual and performing arts and the display of public art. The primary focal point for incubating the arts should be the Walter Anderson Museum of Art and activities organized by the Ocean Springs Art Association.

Policy 12.2: Continue to support the various arts festivals to keep them in the downtown planning area as a means of promoting reinvestment in the CBD.

Policy 12.3: Maintain on-going public support for the Mary C. O'Keefe Cultural Center for Arts and Education.

Policy 12.4: Cooperate with the regional library system to provide convenient and accessible library services.

9.13 Transportation

Goal 13:   **To provide safe and convenient mobility and a variety of mode choices for all of Ocean Springs residents and visitors.**

Policy 13.1: Ensure that the City's street system is compatible with adjacent land uses, as well as the safe and convenient mobility for users of all transportation modes.

Policy 13.2: Participate in a coordinated, regional approach to transportation planning and seek adequate funding to support all transportation modes.

Policy 13.3: Coordinate with the Gulf Coast Transit Authority and local employers to develop and implement a citywide transportation demand management program, with particular emphasis on the Bienville Boulevard corridor.

Policy 13.4: Invest in the ongoing maintenance and refinement of the street system to adequately serve the needs of automobiles, transit riders, bicyclists and pedestrians.

Policy 13.5: Coordinate with the Mississippi Department of Transportation to incorporate safe and convenient pedestrian crosswalks across State and Federal Highways. Bike lanes should be incorporated along key bicycle routes.

Policy 13.6: Ensure that transportation system improvements along all local roads are designed to provide safe and adequate access and mobility for all modes of transportation. Sidewalks should be provided and maintained along all streets and bike lanes should be provided along key bicycle routes.

Policy 13.7: Land devoted to surface parking lots in existing, developed areas should be reduced to the extent practical through the construction of structured parking and the use of existing developed parking areas for in-fill development. Parking lots should be retrofitted to include profuse shade tree planting and walkways that directly connect origins and destinations.

Policy 13.8: To the maximum extent possible, on-site parking should be located to the side and the rear of the property.

Policy 13.9: Promote shared parking between adjacent properties and locate most parking to the rear and side yard areas. Parking standards should reduce required parking where a mix of uses would use the parking at different times of the day.

Policy 13.10: Provide adequate parking both within the Downtown area and along local streets. Allow for off-site and on-street parking.

Policy 13.11: Limit parking to one side of the street on local streets with less than 20 feet of pavement width.

Policy 13.12: Provide an interconnected roadway network that provides appropriate connections in and among neighborhoods and commercial areas.

Policy 13.13: To the greatest practical extent, secure rights-of-way required to serve planned development before development occurs.

Policy 13.14: Provide a mechanism to allow increased street design flexibility where an applicant can assure that design modifications enhance neighborhood character or protect environmental features without sacrificing street safety or the ability to provide public services.

Policy 13.15: Establish a continuous network of safe and convenient pedestrian ways, bicycle trails and bike lanes throughout the City.

Policy 13.16: Expand the trail system as an integrated part of the transportation system, connecting residential neighborhoods, commercial development, employment centers and public facilities.

Policy 13.17: To the extent feasible, separate bicycle and pedestrian traffic from automotive traffic. Where trails can safely be accommodated, use existing railroad rights-of-way, utility corridors and drainage ways.

Policy 13.18: Coordinate street improvements with pedestrian, bicycle and future transit improvements, as well as public utility projects, streetscape projects and other infrastructure improvements to maximize investment efficiency.

Policy 13.19: New development shall fund its proportional share of costs for transportation facilities for on- and off-site improvements required to serve new development.

Policy 13.20: Create and maintain a City transportation plan.

Policy 13.21: Budget for transportation investments, especially funds to match federal grants.

Exhibit 1: Development Tiers

Conservation Tier	Includes public or private lands which are not suitable for urban development and use due to their location and environmental characteristics, such as wildlife habitat or agricultural use. Land in the conservation land use classification may include designated wetlands, floodways, or floodplains, or may contain soils which will not support urban development. Development is limited to temporary improvements, or buildings or structures that support passive recreation, conservation or agricultural uses.
Residential Low Intensity Tier	Characterized by low density suburban residential development, including single family detached residences on acreage sites or platted lots. Typically, the residential land use classification is fully subdivided, fully improved with urban infrastructure and has frontage on a public road. However, some land in this classification may not be served by the full range of municipal or certified utilities such as water, sanitary sewers, natural gas or stormwater drainage infrastructure. There is a limited opportunity for some small scale mixed-use development typically serving the neighborhood scale.
Residential High Intensity Tier	Characterized by moderate and higher density suburban residential uses, such as higher density single family detached residential subdivision development, medium density developments accommodating two to four unit structures, medium density town home complexes, and multi-family residential complexes. Typically, the residential land use classification is fully subdivided, fully improved with urban infrastructure and has frontage on a public road. Included in the area are compatible and complementary mixed uses that are intended to provide services to the neighborhood.
Commercial Center Low Intensity Tier	Intended to accommodate smaller mixed use activity centers that are generally connected and integrated into the surrounding neighborhoods. These centers have a community or neighborhood emphasis, and include a range of retail and service uses.
Commercial Center High Intensity Tier	Includes the City's largest mixed use activity centers that have a community-wide or regional emphasis. This land use classification is designated to include the full range of office, retail and service establishments. This Tier applies at all major intersections along Bienville Boulevard (Hwy 90).
Civic Space	Includes governmental and other institutional facilities including all existing Federal, State, and local government buildings and facilities; all schools and other educational and related facilities; research centers and laboratories; religious institutions and related facilities; libraries, museums, and exhibit spaces for visual arts; community centers, public assembly buildings and facilities for the performing arts; sports arenas, coliseums and stadiums, cemeteries and mausoleums and publicly accessible historic sites.

10 IMPLEMENTATION

Ocean Springs's Comprehensive Plan is intended to be a dynamic document -- one that responds to changing needs and conditions. To assess the Plan's effectiveness in responding to changing conditions, the City will need to monitor actions affecting the Plan. The City will need to amend the Plan periodically. Decision-makers should consider each proposed amendment carefully to determine whether or not it is consistent with the Plan's goals and policies. The cumulative effect of small, incremental changes may result in a shift in overall policy direction. For this reason, Comprehensive Plan amendments must be evaluated in terms of their significance to overall City policy.

This chapter describes the processes to annually review, monitor and amend the Plan, Plan goals and policies, and the Development Tiers Map. The Map amendment process will be subject to adopted code provisions.

10.1 Annual Review and Monitoring

Department Directors complete an annual review of Comprehensive Plan related activities prior to the initiation of the budget process each year. The annual review is intended to:

- Measure the City's success in achieving plan goals through the recommended strategies;
- Propose strategies to be pursued under the coming year's budget;
- Identify unlisted strategies that will achieve Plan goals;
- Document growth trends and compare those trends to plan projections;
- List development actions which affect the Plan's provisions; and
- Explain difficulties in implementing the Plan.

This annual review should include statements identifying that respective departments' progress in achieving the goals of the Plan, the impact of the Plan on service provision, and proposed programs to help achieve the Plan's goals. The annual review should be used as a tool to help set budgetary priorities.

10.2 Land Use Amendments

The Development Tiers Map is intended to serve as a guide for public and private development and land use decisions. The City should adopt a formal amendment process in the development regulations. Land use amendments are anticipated as growth occurs and market conditions change. While land use amendments may occur more frequently than policy changes, they should not occur more than once per year. By limiting opportunities to amend the future land use plan, the City will reduce the potential for incremental land use changes to result in unintended policy shifts.

10.3 Policy Review and Amendment

To ensure that the Comprehensive Plan remains an effective guide for decision-makers, Ocean Springs should conduct periodic major evaluations of the plan policies and strategies. These evaluations should be conducted every four to six years, depending on the rate of change in the community, and should consider the following:

- Progress in implementing the Plan;
- Changes in community needs and other conditions that form the basis of the Plan;
- Fiscal conditions and the ability to finance public investments recommended by the Plan;
- Community support for the Plan's goals and policies; and
- Changes in county, state or federal laws that affect the City's tools for Plan implementation.

The major review process should encourage input from merchants, neighborhood groups, developers and other community interests through the creation of a Citizen Review Committee. Plan amendments that appear appropriate as a result of this review would be processed according to the adopted Plan amendment process.

10.4 Key Implementation Tools

The Plan implementation program identifies a number of tools available to the City that may be employed to bring the goals, policies and strategies of the Plan to fruition. These implementation tools are interrelated and work together providing continuity and breadth to the implementation program.

10.4.1 Unified Development Code

On a day-to-day basis, the development regulations (zoning and subdivision regulations) are the most important tools for Plan implementation. The Development Tiers Map and the growth-related goals are achieved through a myriad of incremental decisions about specific development projects. Because the Plan does not carry the force of law, the City must effectuate Plan policies through a variety of actions, including amendments to the City development regulations. Updates to these development regulations should be consistent with the Plan to ensure that incremental actions on development requests support the Plan's goals, policies and recommendations. One of the major outcomes of the 2008 Plan Update process is the development of a Unified Development Code, which revises and integrates the City's development codes to achieve the updated Plan goals and policies.

10.4.2 Capital Improvements Plan (CIP)

Short- and long-range CIPs are important planning tools to ensure that the City has planned the most cost effective facilities and to determine whether the City will have the capability to fund needed public facilities. The short-range CIP should identify and estimate costs of improvements needed to serve anticipated growth for the next 5 to 10 years; the long-range CIP should identify and estimate costs of improvements needed to serve anticipated growth for the next 10 to 20 years. This plan is not an engineering document, but should provide enough specificity to determine which costs are required to remedy existing deficiencies and which costs provide new capacity that will be demanded by new development. The short-range CIP should establish the basis for the City's development fees and be updated annually. The long-range CIP should be updated at least once every five years or when significant changes to the base systems modify the City's long-term capital investment strategies (*e.g.*, changes in service areas, significant changes in the Future Land Use Plan, changes in service demand or delivery patterns). The CIPs should list short-term projects needed to maintain existing levels of service, with each project being assigned a budget and a time frame for completion. The CIP also should delineate the proportion of project costs that is designed to provide new capacity and the proportion that is required to fund existing deficiencies. This delineation will enable the City to quantify the capital costs associated with new development and to monitor the expenditure of development fees.

10.4.3 Intergovernmental Agreements

Intergovernmental agreements (IGAs) are essentially treaties between two or more units of government for the mutual benefit of all parties. Within the context of this plan, an agreement between the City, County and other providers could address growth within urban service areas. Such an agreement could establish each party's rights, responsibilities and recourse within a cooperative growth management process designed to implement the Plan. Items typically addressed in local government IGAs include: development review authority, annexation processes, infrastructure projects, building and related codes, public safety mutual aid agreements and IGA administrative procedures.

10.4.4 Comprehensive Plan

Completion of the Comprehensive Plan is not the end of planning for the future. Other planning projects will build upon the

foundation of this plan, whether they are neighborhood plans that provide detailed examinations of needs and conditions or area plans developed in partnership with a developer. As the City continues to plan for the future, these planning efforts should be based on the vision and goals of the Comprehensive Plan and be consistent with the policies established by this document.

10.5 Implementation Work Program

Successful implementation of the Plan results from many individual actions by the City, other jurisdictions and service providers, and private decision-makers over the course of many years. The goals and policies describe what the community wants to become and how decision-makers should respond to varied circumstances. To accomplish the plan's goals and the Community Vision, the City will need to accomplish many tasks throughout the life of the plan. Key strategies will be used to accomplish the Plan's goals in the initial years of plan implementation. While most of the items on the list will be carried out by the City, some items may require coordination with neighboring cities, other service providers, or economic development entities.

The work program:
- Correlates implementation measures with specific Comprehensive Plan goals and policies;
- Sets a general time frame to carry out each strategy;
- Identifies action tools (*i.e.*, existing and proposed codes, ordinances, regulations, standards, requirements and policies) to implement action items; and
- Assigns responsibility for implementing the action items and lists other entities that should be involved in the process.

The work program is not intended to be an exhaustive list of all strategies that will implement the Plan. The City may pursue different strategies and adjust priorities, depending on changing opportunities and resources. The City should update this work program on an annual basis, adjusting the Short-Term Work Plan and tasks that are included in each year's budgeted work programs.

10.5.1 Short-Term Work Program

A Short Term Work Program should be developed and reviewed on an annual basis to identify the previous year's accomplishments and to modify the work program tasks establishing a reasonable timeline for key plan implementation tasks. A listing of short term projects and activities can provide the following information for elected and appointed decision-makers:

- **Project/Activity** - identifies the task as depicted in the Long Term Work Program and describes the project, action or document necessary to carry-out the strategy.

- **Timeline** - the project timeline based on the annual budget cycle.

- **Responsible Party** - the estimated budget cycle or cycles in which the task will be included within the Capital Improvements Program or special projects budget.

- **Cost Estimate** - the estimated costs of the project or activity. The costs estimates should be reviewed and revised on an annual basis.

- **Funding Source** - the local, state, federal or other funding source proposed to finance the project or activity. Funding sources may include, but are not limited to: bonds, general revenues, sales tax revenues, impact fees, tax credits, dedicated fees, grants and loans.

10.5.2 Strategies Matrix

The Strategies Matrix, which serves as the long-term work plan, is intended to be the most dynamic component of the Plan. Through annual updates, the City can ensure that the Plan continues to serve the community effectively.

The **Implementation Strategies Matrix,** shown as **Table 28**, schedules actions and recommends an initial work program, which should be updated annually to reflect community accomplishments, new approaches to community issues, changing conditions, shifting priorities and new demands. This list is not intended to be exhaustive or all inclusive -- the City, County and other public and private entities will take numerous actions throughout the life of this plan to achieve the community goals. This list is intended to identify the highest priority tasks to be pursued over the next several years. The table identifies the goals related to each task, the timeframe for task completion, and the entities responsible for carrying out the tasks. Tasks that are not funded in the recommended years should be evaluated for removal from the list or to be shifted back for later implementation. Programs that are completed should be removed from the list.

The list of implementation strategies provides the following information in each column:

- **Strategy Number** - the number of the implementation strategy to allow for future referencing of City activities.

- **Action** - description of the specific strategy being recommended to implement the Plan.

- **Priority/Schedule** - a ranking of importance based on its priority relative to other similarly-classed strategies. The ranking abbreviations are labeled in the following manner:

  1 = This is a critical task and should be undertaken as soon as possible. Necessary for immediate implementation of the Plan. To occur now.
  2 = This is a very important task with a sense of urgency. Necessary to implement the Plan. To occur within two to five years.
  3 = This is an important task but there is no immediate sense of urgency. This task will help implement the Plan. To occur within five to fifteen years.

- **Responsible Entity**- the person, department or agency that is primarily responsible for initiating, advocating and/or performing the strategy. Anticipating that some functions currently performed by City staff may be contracted to qualified consultants, references are made to function (*i.e.*, 'Planning' refers to tasks that are the responsibility of the City's planner or planning consultant). When multiple entities are identified, they are presented in order of responsibility for the task.

- **Tool** - the document or action necessary to carry-out the strategy.

- **Budgetary Impact** - indicates the relative fiscal impact of the specific strategy on the City's budget. The ranking abbreviations are labeled in the following manner:

  Low = Little or no fiscal impact on the City's budget.
  Mod = Moderate; some fiscal impact, but likely to be funded within one to two fiscal periods.
  High = May be significant fiscal impact, depending on the nature of the capital investment, but may provide opportunities for the use of alternative revenue sources.

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Table 28: Implementation Strategies Matrix

Strategy	Action Tool	Responsible Entity	Budgetary Impact	Capital Item
Priority One				
1.01 Review the City's existing development regulations to determine consistency with the Comprehensive Plan.	Unified Development Code	Planning, City Engineer, Public Works, City Attorney	Low	No
1.02 Adopt a Unified Development Code that integrates and revises the City's development regulations, including the subdivision, zoning, design and sign regulations. The Unified Development Code should include provisions in accordance with the recommendations in **Table 27.**	Unified Development Code	Planning, City Engineer, Public Works, City Attorney	Low	No
1.03 Adopt amendments to the Unified Development Code that define a special review process for developments of Community Impact[xvi] to prevent and mitigate negative externalities to the economy, environment, character and adequacy of public facilities and services in the surrounding area. Develop a location-based sensitivity analysis to identify areas that are appropriate for certain types of uses as well as areas that are not appropriate for such uses.	Unified Development Code	Planning, City Engineer, Public Works, City Attorney	Low	No
1.04 Adopt the SmartCode in accordance with the Downtown and Front Beach Area Plans.	Unified Development Code	Planning, City Engineer, Public Works, City Attorney	Low	No
1.05 Develop a long-term annexation program and criteria to evaluate annexations, including such factors as fiscal impact and impact on long-term growth potential.	Annexation Plan	Planning, City Engineer, Public Works, City Attorney	Low	No
1.06 Plan for, annex and zone an adequate inventory of serviced or readily serviceable land, including important growth areas and corridors, to provide for residential, public, commercial and economic development needs of City residents and businesses.	Annexation Plan, Capital Improvements Program (CIP)	Planning, City Engineer, Public Works, City Attorney	Mod	No
1.07 Maintain an on-going capital improvements plan and program to assure the provision of high quality services to property owners in the planning area.	Capital Improvements Program (CIP), Budget	Planning, City Engineer, Public Works, City Engineer, Parks & Recreation, City Attorney	Low	No
1.08 Maintain the City-wide Hazard Mitigation and Emergency Response plan that ensures emergency service and evacuation routes are adequate for projected demands and adequately marked and accessible to individuals with special needs during inclement weather. Ensure the Plan includes the full range of hazard mitigation techniques and involves all City departments.	Hazard Mitigation & Emergency Response Plan, Outreach, Transportation Plan	Planning, City Engineer, Public Works, Police, Fire & Emergency Management, MDOT	Mod	No
1.09 Maintain an updated Parks & Recreation Plan that includes: 1) Support the Ocean Springs Outdoors Blueway and Greenway program; 2) Complete planned recreational improvements for neighborhood parks and beach re-nourishment; 3) Coordinate with local arts groups to establish a public arts program that capitalizes on the regional arts community to bring arts to the streets of Ocean Springs; 4) Develop and maintain an interconnected pedestrian and bikeway system to link the area to schools, recreation areas, cultural centers, and other planning areas; 5) Prepare and implement a beach maintenance, control and recreation plan in cooperation with Jackson County; 6) Coordinate with the School District on the siting of new facilities and the joint use of school sites for parks and recreation purposes; and 7) Expand existing park and recreation facilities, as appropriate to improve neighborhood accessibility, with additional and/or improved playgrounds, ballfields, basketball courts and tennis courts. Complete Halstead Road tennis courts, Highway 57 Ballfields	Parks & Recreation Plan, Planning, Capital Improvements Program, School District, Jackson County, National Park Service	Parks & Leisure Services	Mod	Yes

Complex, and Gay Lemon Multipurpose Center (to also serve as post-storm shelter).

8) Complete Front Beach path project connecting Biloxi Bay Bridge to Small Craft Harbor.

9) Design, engineer and fund boat ramp and boat trailer parking at Plummer Point.

10) Design, engineer and fund Small Craft Harbor improvements including parking, road maintenance, lighting and bulkhead.

11) Establish a community garden with educational component in partnership with not-for-profit organization.

	Strategy	Action Tool	Responsible Entity	Budgetary Impact	Capital Item
1.10	Maintain an updated Historic Preservation Plan that includes 1) Preserve the Ishee-designed houses; 2) A program of placing recognition plaques on historic structures and signage to identify Historic Districts; 3) Maintain an updated inventory and survey of historic buildings; 4) Maintain a file for each historic district and individual site with a survey form and photographs of each building and structure in that district, as well as the ownership of each property; 5) Continue to maintain historic district designations and prepare National Register nominations for eligible properties and districts, including the Railroad Historic District and a Walter Anderson Thematic Listing; 6) Plan and implement an ongoing historic preservation education program for property owners, Historic Preservation Commission members and the general public; and 7) Use local government incentives to promote historic preservation. 9) Preserve the Charnley House as a public-private partnership. 10) Promote the City Museum at the Mary C. O'Keefe Cultural Arts Center. 11) Partner with Convention and Visitors Bureau to promote Ocean Springs as a heritage tourism destination.	Historic Preservation Plan	Planning, Chamber of Commerce	Mod	No
1.11	Maintain an updated Economic Development Plan that includes 1) Coordinate with the Chamber of Commerce and other groups to promote Ocean Springs as a retail, restaurant and entertainment center for the region; 2) Use economic development incentives to create public-private partnerships and provide public benefits and amenities, including job creation; 3) Develop a fiscal and public benefit analysis for use when incentives are considered to attract economic development; 4) Support development of a non-casino hotel to support economic development; 5) Assist the Chamber of Commerce in monitoring business needs and developing strategies to best meet those needs; 6) Coordinate with local business owners to develop a system of integrated traffic calming measures in the CBD; 7) Coordinate with the Jackson County Economic Development Foundation to expand tourism, medical services and professional office development in Ocean Springs; and 8) Use economic development incentives, including tax abatements, to promote economic development in the CBD.	Economic Development Plan	Planning, Chamber of Commerce	Mod	No
1.12	Create and maintain a Transportation Plan to help prioritize investments.	Transportation Plan	Planning, Public Works, City Engineer	Low	No
1.13	Continue the development and implementation of a downtown parking strategy that includes shared parking, provision of public parking lots, on-street parking, signage and mapping of available parking areas.	Capital Improvements Program	Planning, Public Works	Mod	Yes
1.14	Continue to develop and enhance the Geographic Information System (GIS) to more efficiently and accurately collect, analyze and	Budget	Planning	Low	No

Strategy	Action Tool	Responsible Entity	Budgetary Impact	Capital Item
disseminate information and data.				
1.15 Pursue a master wetlands permitting process in cooperation with the Army Corps of Engineers that streamlines permitting, protects connected wetlands and open spaces and provides efficient and equitably-funded community infrastructure.	Outreach, Master Plan	Planning, Public Works, City Engineer, City Attorney	High	Yes
1.16 Pursue partnerships to provide affordable workforce housing and neighborhood redevelopment.	Outreach, Budget	Planning	Mod	No
1.17 Establish intergovernmental agreements to manage development on the edges of the Ocean Springs Planning Area.	Outreach, Intergovernmental Agreement (IGA)	Planning, City Attorney	Low	No
1.18 Enhance streetscaping in conjunction with programmed capital improvements to maintain or upgrade existing streets or sidewalks.	Capital Improvements Program	Planning, Public Works, City Engineer	Mod	Yes
1.19 Target unstable or declining neighborhoods for revitalization through partnerships between the City, housing and development agencies, and private property owners.	Area Plans, Capital Improvements Program, Outreach	Planning, Codes, Public Works	Mod	No
1.20 Complete construction of the Public Safety and Emergency Operations Center.	Budget	Police, Fire & Emergency Management	High	Yes
1.21 Maintain customer service as a high priority and expand communication efforts to residents via print and online media.	Outreach	All Departments	High	No
1.22 Increase amount of City paving projects with County road and bridge funds	Budget, Capital Improvements Program	Public Works	Mod	No
1.23 Design, engineer and fund priority drainage projects from 2008 Drainage Master Plan	Capital Improvements Program, Budget	Public Works	Mod	Yes
1.24 Establish an on-going dialogue with City landlords in order to improve the quality, maintenance and image of rental housing as well as to respond to landlord concerns and support development of a rental housing license and inspections program.	UDC, Outreach	Planning, Codes, Public Works	Low	No
Priority Two				
2.01 Establish a codes compliance program that encourages and supports compliance with existing codes and uses codes enforcement as a tool.	Budget	Planning, Codes Enforcement, Public Works	Low	No
2.02 Coordinate with local business owners to develop a system of integrated traffic calming measures in the CBD.	Economic Development Plan, Transportation Plan, Outreach	Planning, City Engineer, Chamber of Commerce	Mod	No
2.03 Maintain a high level of customer service for residents and businesses in all City departments.	Outreach & Training	All Departments	Low	No
2.04 Improve the following intersections with Government Street: Ocean Springs Road, Martin Luther King Jr. Road, Hanley Road, Beachview, and Hanshaw.	Transportation Plan, Capital Improvements Program	Public Works	High	Yes
2.05 Enhance beautification and anti-litter program.	Budget	Planning, Public Works, Chamber of Commerce	Mod	Yes
2.06 Expand Evergreen Cemetery and investigate establishment of new City cemetery.	Budget		Low	Yes

	Strategy	Action Tool	Responsible Entity	Budgetary Impact	Capital Item
2.07	Establish program to replace broken concrete panels in subdivisions.	Capital Improvements Program, Capital Improvements Program, Budget	Public Works	Low	Yes
2.08	Coordinate with the Gulf Regional Transit Authority to assure passenger service within easy walking distance of the main commercial areas in the CBD.	Transportation Plan, Outreach	Planning	Low	No
Priority Three					
3.01	Improve Ocean Springs Road from U.S. Highway 90 to State Highway 57.	Capital Improvements Program	Planning, Public Works, City Engineer	Mod	Yes
3.02	Construct and improve Old CCC Camp road between Ocean Springs Road and State Highway 57.	Capital Improvements Program	Planning, Public Works, City Engineer	Mod	Yes
3.03	Promote the addition of a new wing for the Walter Anderson Museum of Art.	Outreach	Planning, Parks & Leisure Services, Museum	Mod	Yes
3.04	Construct Groveland Road between Deana Road and State Highway 57 assuming the drainage ditch can be crossed.	Capital Improvements Program	Planning, Public Works, City Engineer	Mod	Yes
3.05	Develop a sustainability program that includes "green" building design standards, energy conservation, water conservation and a yard waste recycling program with a yard waste pick-up and mulching service.	Sustainability Plan, Budget, Outreach	Planning, Public Works	Mod	No
3.07	Develop Area Plans for the "Places" identified in the Comprehensive Plan.	Area Plans, Budget	Planning	Mod	No
3.08	Educate and involve citizens in promoting environmental stewardship of natural resources.	Outreach	Planning	Low	No
3.09	Establish roadway lighting on Highway 90 from Reilly Road to Highway 57.	Capital Improvements Program	Planning, Public Works, City Engineer	Mod	No
3.10	Provide new recreational services such as skate park, natatorium, golf driving range and dog park	Capital Improvements Program	Parks & Leisure Services	Mod	Yes
3.11	Pursue partnerships with the institutions and organizations within the Ocean Springs planning area to coordinate plans and achieve mutual goals. Such organizations may include the Mississippi Sandhill Crane Refuge, the Gulf Islands National Seashore, the Gulf Research Lab and others.	Outreach	Planning	Low	No
3.12	Coordinate and pursue partnerships with social service providers.	Outreach	Planning, Polices	Low	No

Table 29: Unified Development Code Standards

1. Standards for a compatible mix of moderate-density dwelling types, including, but not limited to townhomes, patio homes, zero-lot line homes and other diverse housing types.

2. Standards for compatible infill and re-development in existing neighborhoods.

3. Standards and incentives for the development of senior housing.

4. Standards for interconnectivity within and among neighborhoods for cars and pedestrians.

5. Standards for design of public and private improvements in "gateway" areas and corridors.

6. Standards for provision of public amenities in the development of necessary infrastructure.

7. Standards for the development of pedestrian and bicycle paths and trails.

8. Standards for water and energy conservation in public and private development.

9. Standards for the preservation and re-use of historic districts and structures.

10. Standards for hazard mitigation, including structure design, elevation and location.

11. Standards for stormwater control and mitigation.

12. Standards for transit-supportive development to facilitate regional transit service.

13. Incentives to encourage investment and redevelopment in the CBD.

14. Standards for the process that clearly define the timeline for development review.

15. Standards for achievable densities that are easy to interpret.

16. Standards for land use compatibility, including buffering and setbacks.

17. Standards for density and dimension of structures.

18. Street standards to adequately provide for automobiles, utilities, bicyclists, pedestrians and landscaping.

19. Sign standards that adequately address sign size, type, design, materials, location, height and other aesthetic and safety considerations.

20. Standards to facilitate the provision of mixed-use development with commercial or office development on the ground floor and residential uses on the upper floors.

21. Performance standards for noise, odors, light, traffic and other considerations.

22. Standards for protection of environmental resources, including setbacks and buffering from significant environmental features, including waterways, habitat and vegetation.

23. Standards for the provision and protection of multiple tree species, on- and off-site mitigation of tree loss, protection during construction and other considerations.

24. Standards for design of residential and non-residential structures.

25. Standards for landscaping, including tree requirements and standards for the use of native plants, xeriscaping and other sustainable landscape design.

26. Standards for street design standards for arterial, collector and local streets to reduce the roadway width and base the standards on the hierarchical use of the road; and improve pedestrian circulation by providing a buffer between pedestrian and vehicular traffic and to link the residential areas to schools, recreational areas, and cultural centers.

27. Standards for property maintenance and code enforcement.

28. Standards for mixed use development.

29. Standards for outdoor storage and display.

30. Standards for shared parking.

31. Standards for alternative development patterns, including planned development, conservation subdivision and traditional neighborhood development.

32. Standards for the provision of adequate public facilities.

33. Standards for developers to provide facilities necessitated by their development.

34. Standards for over-sizing of utilities and infrastructure to efficiently provide for future growth.

35. Standards for the provision of adequate public park lands.

36. Standards for off-street parking and parking lot landscaping and design.

37. Standards for accessory dwelling units.

38. Standards for utility location and design.

39. Establish a rental housing licensing and inspections program.

40. Identification of and standards for conservation areas.

41. Standards for large gathering places, including churches, convention centers and arenas.

42. Standards for adult-oriented businesses and other potentially undesirable land uses.

[i] "The Economic Impact of Hurricane Katrina: Coastal Mississippi Two Years Later," The John C. Stennis Institute of Government, Mississippi State University, July 2007.

[ii] For an expanded discussion of conventional suburban development versus Traditional Neighborhood Development, see Duany, Andres, Elizabeth Plater-Zyberk and Jeff Speck, *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*, Union Square West, NY: North Point Press, 2000.

[iii] Duany, Andres, Elizabeth Plater-Zyberk and Jeff Speck, *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*, Union Square West, NY: North Point Press, 2000, p 4.

[iv] Source: U.S. Census

[v] Source: Research and Training on Disability in Rural Communities (RTC Rural); University of Montana

[vi] Source: Concrete Change Organization

[vii] Source: Cultural Resource Management, National Park Service, U.S. Department of the Interior

[viii] Source: U.S. Fish and Wildlife Service, Southeast Region, Mississippi Sandhill Crane National Wildlife Refuge website, on-line at http://www.fws.gov/mississippisandhillcrane/habitats.html.

[ix] National Park Service, U.S. Department of the Interior, Gulf Islands National Seashore website, on-line at http://www.nps.gov/guis/index.htm.

[x] Source: U.S. EPA Office of Water Low Impact Development website, on-line at http://www.lid-stormwater.net/index.html.

[xi] For a detailed analysis of Ocean Springs's water system capacities and alternatives, see the *Ocean Springs Water System Analysis* (1999).

[xii] Source: Mary C. O'Keefe Cultural Center of Arts and Education website, on-line at **http://www.themaryc.org/index.html**.

[xiii] *2001 Annual Report*, Mississippi Department of Education.

[xiv] *Mississippi Report Card, 2001*, Mississippi Department of Education.

[xv] http://www.usm.edu/gcrl/site_map/flash.php

[xvi] Projects that may have a substantial negative effect upon the health, safety, or welfare of citizens of a neighborhood or area, the City or region, due to the character, magnitude or location of the proposed project.