DECEMBER 2013

Plan for Opportunity

Regional Sustainability Plan for the Mississippi Gulf Coast

Table of Contents

Plan for Opportunity **1**

Introduction **2**

How the *Plan for Opportunity* was Developed **5**

Public Engagement **15**

Relationship to Other Plans **21**

Challenges and Opportunities **23**

Livability Principles **34**

Provide More Transportation Options **40**

Promote Equitable, Affordable Housing **59**

Enhance Economic Competitiveness **76**

Support Existing Communities **95**

Coordinate Policies and Leverage Investment **114**

Value Communities and Neighborhoods **137**

Implementation Strategy **158**

Appendices

Subcommittee Strategies **168**

Sustainability in Action **189**

Definitions **195**

Acronyms and Abbreviations **204**

Committee Membership **209**

Relationship to Other Plans **217**

Maps **220**

Works Cited **233**

Photographs Cited **243**

Chapter 1

Plan for Opportunity

Section 1

Introduction

Plan for Opportunity is the title of this comprehensive plan document. To *Plan for Opportunity* describes the process that brought together over one hundred organizations, agencies, groups and thousands of individuals to answer the question: what do you want the Mississippi Gulf Coast to look like in twenty years? It has taken three years to bring this work to a conclusion, and it is the sincere hope of the participants in this process that the reader will take time to learn about the Mississippi Gulf Coast and the potential for its people and places to continue to grow stronger, more prosperous and more resilient. Through this process, we have learned that there are many efforts underway. In some cases, this plan will strengthen and embolden what is already working. In other cases, it will create new initiatives to fill gaps and complete connections.

This plan is a compilation of many individual, inter-related elements that is intended to guide the economic growth and development of the Mississippi Gulf Coast and to improve housing, employment and transportation opportunities throughout the region. Never before have these issues been studied for their interactions and performance across the entire three county region.

This plan provides information on the current conditions, issues and challenges facing the people and places within Hancock, Harrison and Jackson Counties in 2013. The report summarizes the factual details that have informed the recommendations; the full-length reports, data and tools are available to the reader in several formats. Following discussion of the current issues and challenges, the plan continues with proposed strategies and actions to address these barriers to the future prosperity of the region.

The diversity of the people and cultures across the Mississippi Gulf Coast kept the work grounded in the values that make the coast unique. The *Plan for Opportunity*'s partners and governance made an early commitment to the direct involvement of individuals and organizations that represent traditional and non-traditional populations. The public engagement plan details these efforts.

Implementation is always the final component of a viable plan and the final chapter outlines the strategies and lists the potential partners that can support the implementation of the plan. The degree to which this plan is successful will depend on a sensible and practical path forward. There is no doubt the success of the plan will take considerable, ongoing collaboration and willingness to continue the dialogue at a regional level. The participants in the plan see evidence that the Mississippi Gulf Coast is at a pivotal moment: collaboration to achieve shared goals has gained

Video 1 Introduction to *Plan for Opportunity*

Source: John Thompson, Eyeon Digital

understanding and acceptance. It is possible to achieve more working together than working as individuals.

Acknowledgements

The consortium partners would like to acknowledge the incredible number of individuals that invested their time and effort by attending meetings, reviewing materials, participating in workshops and providing contacts and introductions to expand the partnership to many others. Their insights enriched the process and we can never adequately thank everyone. It is our

hope that our partners reading this report will see their contributions within the pages and will be satisfied that we succeeded in our goal to develop a *Plan for Opportunity*.

We would like to recognize the Partnership for Sustainable Communities for undertaking this initiative, creating a planning paradigm that promotes multijurisdictional collaboration and interagency cooperation. Housing and Urban Development (HUD) Secretary Shaun Donovan and Shelley Poticah, Former Director, HUD Office of Sustainable Housing and Communities, galvanized the partnership at the federal level and Dwayne Marsh, Senior Advisor, HUD OSHC, our Government Technical Representative, was our source of wisdom and understanding, patiently providing the proper perspective so needed throughout the arduous task of completing this project. We thank you.

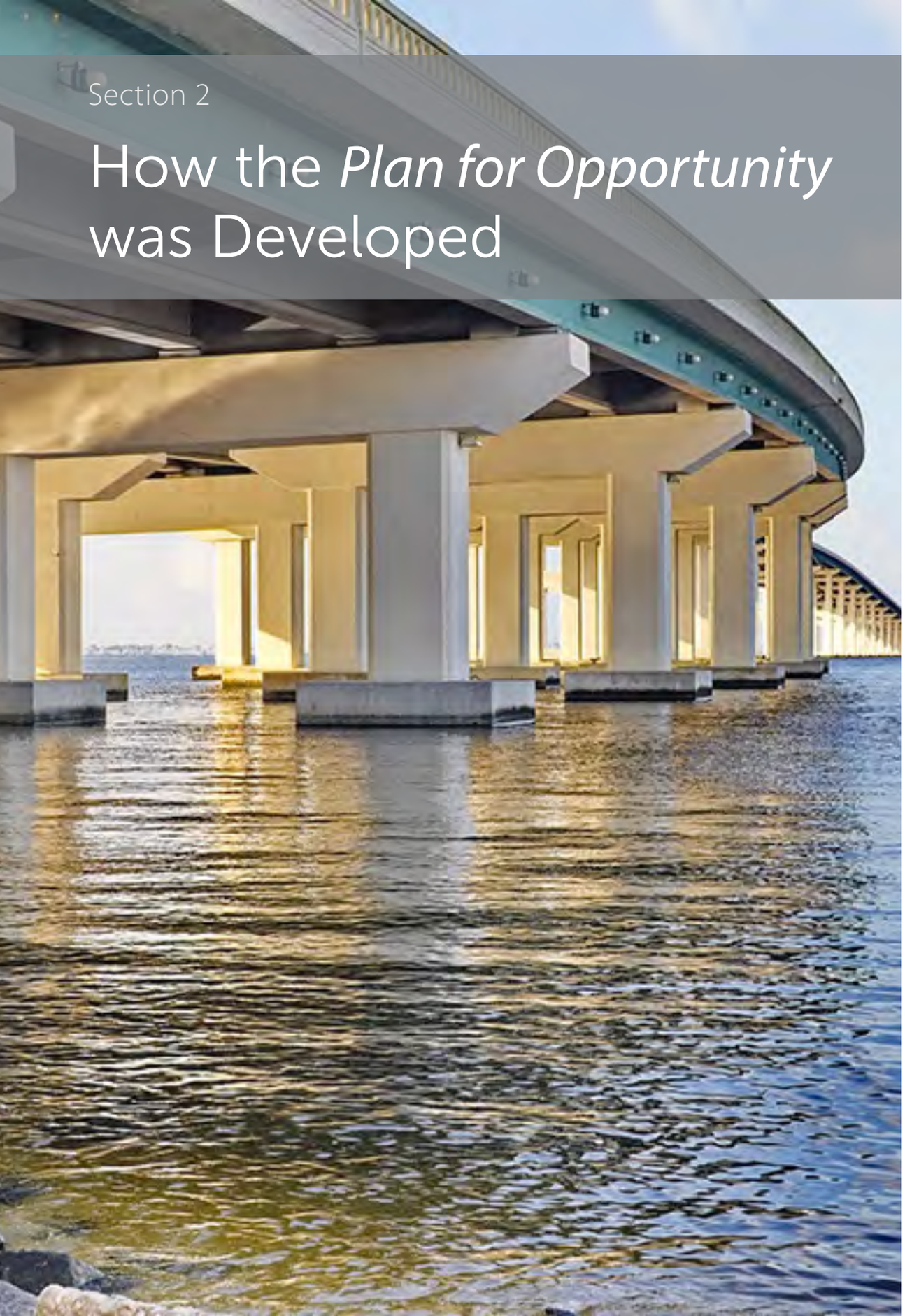
We would also like to acknowledge the contractual support that provided technical expertise on key aspects of this project. Meghan Gough with Virginia Commonwealth University assisted with the evaluation of plans in the region. Whit Blanton and his team at Renaissance Planning provided assistance with public engagement and the implementation strategy. Ed Elam, with Burk-Kleinpeter Inc., was instrumental in development of the transportation/transit component of the Plan, provided assistance with transportation planning and George Carbo with CDM/Smith, participated in the final phase of the community outreach and engagement strategies. Preston Sullivan with the National Center for Appropriate Technology provided assistance in the development of food systems strategies. The resilience workshops were facilitated by the generous time and expertise of Dr. Tracie Sempier, Mississippi-Alabama Sea Grant Consortium and Marian Hanisko and Ann Weaver, NOAA Coastal Services. Eliot Allen, Criterion Planners, provided the much-needed guidance on the role of scenario modeling to support the plan development.

This plan was supported by countless volunteer hours. Law students from universities across the country, including the Charlotte School of Law, the University of California at Davis, the University of the District of Columbia, came to the Mississippi Gulf Coast to work with the Mississippi Center for Justice conducting research and field work supporting this plan. Students from the Ohio State University, studying many varied disciplines such as food science, city and regional planning, and agricultural economics, played a critical role in this plan. For example, Emily Nosse-Leirer created the maps and Joshua Bates created the figures included in this plan.

Special thanks to Brittany Kubinski who was responsible for the layout of this plan.

Section 2

How the *Plan for Opportunity* was Developed



The *Plan for Opportunity* was a three year undertaking beginning in 2011 that brought together over one hundred organizations and agencies and thousands of individuals in a planning process that has been best described as 'collaborative.' This work was funded by a Sustainable Communities Regional Planning Grant awarded by the U.S. Department of Housing and Urban Development (HUD). GRPC, as the grant recipient, was the administrative project manager. Plan development was the responsibility of GRPC and the project partners:

- Criterion Planners
- Gulf Coast Community Design Studio
- Gulf Coast Renaissance Corporation
- Gulf Regional Planning Commission
- Mississippi Center for Justice
- Southern Mississippi Planning and Development District
- Steps Coalition
- The Kirwan Institute for the Study of Race and Ethnicity
- The Ohio State University

Collectively the partners co-signed a Consortium Agreement in 2011 to undertake the work of the grant to deliver the *Plan for Opportunity*. The consortium became the Project Management Committee.

The Project Management Committee (PMC) for *Plan for Opportunity* served as staff - the supervising workforce of the planning process. Their responsibility was to devise and follow a planning process that was inclusive and collaborative. As such, representation came from many diverse groups and individuals from the Mississippi Gulf Coast providing ideas throughout the planning process. Social equity was a cornerstone of the planning structure, and the Public Engagement Plan defined specific strategies to reach marginalized populations for involvement in the planning process.

The *Plan for Opportunity* has seven topical areas that have been integrated into the final plan. The seven topical areas are:

- Air Quality
- Economic Development and Workforce
- Food Systems
- Housing
- Resilience
- Transportation and Land Use
- Water

Each topical area was produced by members of the PMC and guided by topical subcommittees. The final reports for each topical area are included in the *Plan for Opportunity*.

The PMC established a governance structure to formalize the planning and plan approval process. The governance was comprised of an executive level committee with the final decision-making authority and a managing-level working group that provided on-going guidance, quality control and approval of all planning products before they were submitted to the Executive Committee. The intensive work done on the six topical areas was guided by subcommittees, comprised of technical and non-technical members from agencies and organizations with direct involvement or tangential interest in the topic.

The PMC has been the custodian of the planning process, establishing and guiding the structured process that required each topical area to undergo 1) an assessment, 2) a stakeholder analysis and 3) strategic planning for development of recommendations.

In support of the subcommittees work there were planning tools and technical support that contributed to the understanding of

issues, the forecast of future conditions and justification for recommendations. These supporting resources are available on the plan website, including:

- GIS Parcel-based inventory and INDEX, scenario modeling tool for transportation planning
- Downtown Business Inventory
- Opportunity Mapping Report
- Resilience Report
- Fair Housing and Equity Analysis

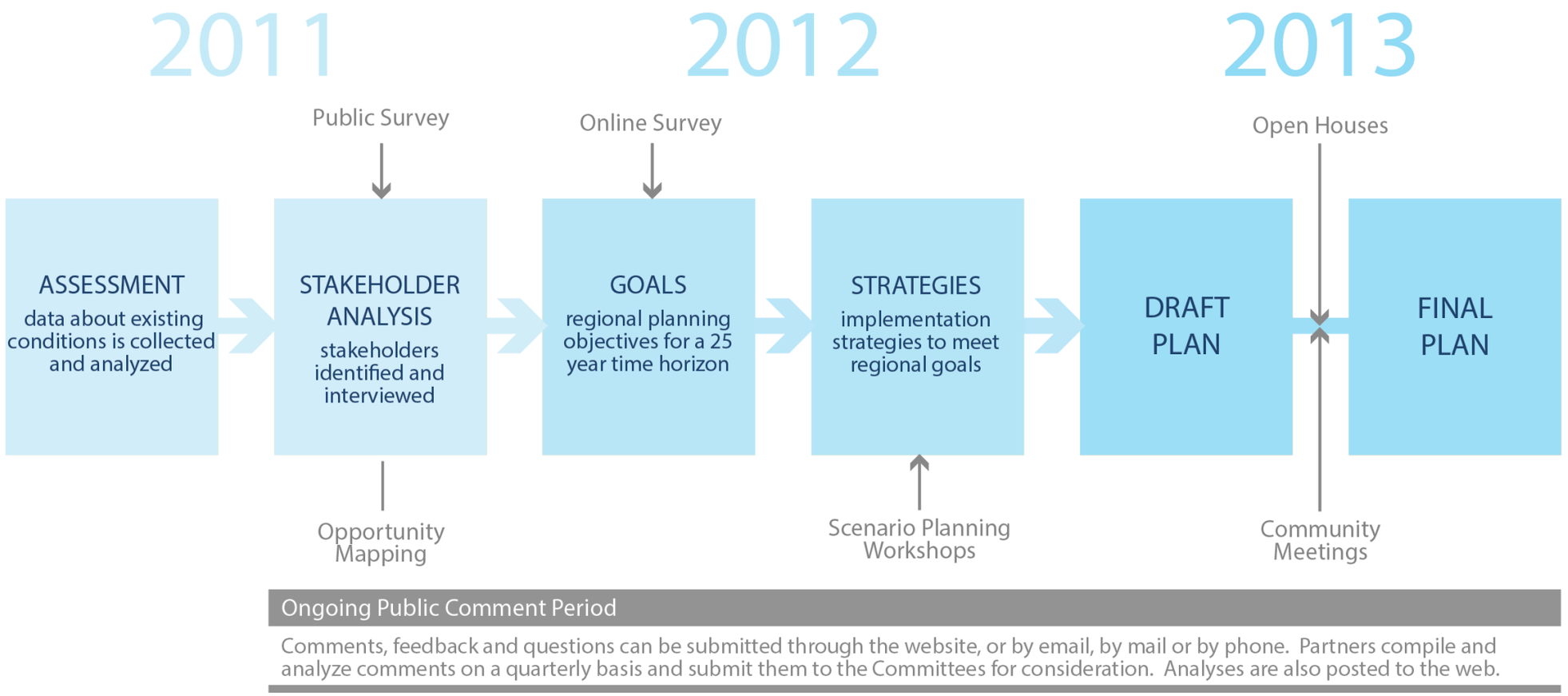
As a supporting resource, opportunity mapping began in 2011 involving many residents and community leaders from across the region. Gaining consensus around the opportunity indicators and maps has been a challenge, due to the complex geography of the region. There are large areas that are completely unpopulated such as the Stennis buffer zone, the DeSoto National Forest and areas around the Pascagoula River. While the best available data was used to describe opportunity in the region, limitations in the data and in the ability of Census block groups to accurately describe the region made understanding the maps challenging for many people. The results of the opportunity mapping exercise were used in a number of forms including in analyzing housing, food, and water where the tool was used in a specific context and to a specific end, serving as an effective tool.

The assessments and stakeholder analyses framed the core issues and problems that would be addressed by the plan. Once the problem statements were finalized, the subcommittees defined potential strategies and how they could be implemented. These strategies were discussed, reviewed and vetted before being submitted to the working and executive committees for approval. The priority actions were those strategies that were most relevant,, had the highest levels of public support, had potential for implementation and could be successfully measured through indicators.

Meetings with potential partners who could support or implement priority actions were instrumental in helping refine and shape the final language for the plan. These meetings necessarily assessed level of interest in advancing the priority actions into the implementation phase and guided a manageable work plan for the region. The work plan was finalized in early fall 2013.

In the fall of 2013, seven public meetings, in an open house format, were held in the three counties to engage Mississippi Gulf Coast residents and to determine whether the priorities of the subcommittees aligned with their priorities. Open houses

FIGURE 1 Process for the *Plan for Opportunity*



Source: Gulf Coast Community Design Studio

provided documents translated in Spanish and Vietnamese, as well as on-site translators to minimize participation barriers. Open houses conducted over this period allowed community members to comment on the plan they helped form, providing an opportunity to voice concerns about the plan that may have previously gone unheard. The public voted on the priority actions and their reaction was crucial in refining the final plan.

Throughout the fall of 2013, the *Plan for Opportunity* was drafted and presented to the working and executive committees and the Federal partners on the grant. In December 2013, the final *Plan for Opportunity* was adopted by the Executive Committee. The final *Plan for Opportunity* was then released to the public in a paper version, a Kindle version, an interactive Apple version and an online children's version available at www.gulfcoastplan.org. This broad use of technology and media is intended to engage Mississippi Gulf Coast residents and others in the plan in various ways.

Plan implementation is an ongoing process. Sustainability can already be seen in action with examples across the coast, as seen in Appendix B. While some actions can be taken quickly, others will take years to advance. With the cooperation of partners across the coast, many of the recommendations will become integrated into local, regional and state plans; other recommendations may become part of the mission of a non-governmental organization. The success of the plan will be measured by the continued growth and prosperity of the people and places along the Mississippi Gulf Coast.

Planning for Equity on the Gulf Coast

Building toward a sustainable Gulf Coast increases opportunities for all people and requires the implementation of strategies aimed at removing barriers to participation in the planning activities. Putting the Plan into action creates conditions for a stronger Gulf Coast and a pathway to upward mobility. Planning for better opportunities in underserved communities has been a targeted effort through the development of the Gulf Coast *Plan for Opportunity*.

To ensure that needs and desired outcomes for all communities were captured in the Gulf Coast Plan, residents and community leaders served as primary resources for determining conditions in local communities. These voices helped shape the plan to meet the unique needs of the region. The Plan's community voices continued to provide critical feedback as working drafts were completed, ensuring that a transition of ownership of the Plan back to the community would reflect the needs and concerns of the Gulf Coast's most vulnerable populations.

Social Equity In Membership

At the onset of the planning process, recruiting leaders of community organizations representing underserved communities was the primary means to ensure social equity in the membership of the Plan's core group, including the Working Group, the Executive Committee, and the Project Management Committee. Both the Steps Coalition and the Mississippi Center for Justice joined the effort as members of the Project Management Committee and the Working Group. These organizations focus on racial and economic justice, in addition to a broad set of public interest issues, and represent historically underserved communities along the Mississippi Gulf Coast.

The topical subcommittees also recruited representatives from community organizations, particularly those with specific expertise in areas where social inequities are known to occur. For example, organizations such as Habitat for Humanity, University of Southern Mississippi's Institute for Disability Studies, Back Bay Mission, Mercy Housing & Human Development, Hancock Resource Center and the Mississippi Center for Justice served on the Housing Subcommittee, giving a wide range of experience and expertise with fair and affordable housing issues, both at the local and state level. Including such organizations as core members or on topical subcommittees ensured that interests of underserved communities would be addressed and incorporated in the overall Plan.

In addition to regional partners, the Plan brought in the expertise of the Kirwan Institute for the Study of Race and Ethnicity at the Ohio State University. The Kirwan Institute is nationally renowned for providing research designed for practical application in solving society's problems. Through an extensive network of partners, including researchers, social justice advocates, policymakers and community leaders, the Kirwan Institute implements an interdisciplinary approach to understand causes of racial and economic disparities, as well as pathways to solutions.

Over the past decade, the Kirwan Institute has developed Opportunity Mapping for use in building capacity for decision-making and community engagement in more than two dozen states across the country. The geographic footprint of opportunity in the Mississippi Gulf Coast points to an important lesson about the region: the importance of, and linkages between, opportunity and place. Using the Kirwan Institute's Opportunity Maps, each of the Plan's topical subcommittees was able to identify disparities within the region and to develop strategies unique to the Gulf Coast.

Often forgotten, social equity can be represented by one's access to opportunity defined as a "situation or condition that places individuals in a position to be more likely to succeed or excel." Social, cultural, and physical characteristics of the environment profoundly influence a person's access to opportunity. Opportunity has a geographic footprint in the Mississippi Gulf Coast, which highlights the inequities that exist among systems and structures across the region. Opportunity maps incorporate data across spheres such as access to healthcare, quality education, housing, and employment, among others, building toward a holistic approach to community development which makes opportunity mapping both a unique and essential element that informed each component of the Gulf Coast *Plan for Opportunity*.

Social Equity In Community Input And Participation

Social equity in community input was achieved through broadening community participation during the planning process. In September 2011, a public engagement plan was developed, highlighting equity in public involvement as a top priority. To achieve this objective, the Plan's core member organizations formed an Outreach Subcommittee to plan for and monitor equitable public engagement throughout the process. Members of the Outreach Subcommittee developed strategies to connect with underserved communities and utilized their community base to encourage input and participation in the Plan. Overall, the Plan engaged more than 2,800 individuals to help identify issues, inform strategies and prioritize goals.

To achieve community input, a series of surveys were deployed, each with a different focus and target demographic. For example, a Public Values Survey resulted in more than 800 responses from a broad spectrum of the region, all of which helped identify community problems and needs, and informed strategies and priorities outlined in the Plan.

Once topical subcommittees completed initial assessments, a series of Topical Stakeholder Analyses sought to further explore key issues identified in the assessments. Targeted efforts to get feedback from stakeholder groups on key issues were carried out, with a special emphasis on those issues impacting vulnerable populations including senior citizens, communities of color and children. Through these efforts, more than 1,200 individuals were engaged and their feedback directly informed topical assessments and priority issue areas. For example, the Plan's topical subcommittees engaged more than 300 individuals for the housing analysis and over 600 for the food systems

analysis.

Targeted efforts to engage the Gulf Coast's most vulnerable communities were also made during the planning process. For example, a survey targeted specifically at residents in Racially Concentrated Areas of Poverty (RCAPS) in Pascagoula helped identify barriers to employment that are specific to the community. This allowed the Plan to develop strategies that have potential to redress factors specific to individuals in the area struggling to find employment. Given the area's diversity, achieving the widest access was an extremely important consideration throughout the community engagement process. To meet this goal, the Plan made Spanish and Vietnamese translators available on-site, in addition to providing translated written material.

Other focused efforts included organizing focus groups to enhance the findings of the Plan's Fair Housing Equity Assessment (FHEA). Through this effort, focus groups in Pascagoula brought together residents and community leaders to discuss housing issues specific to RCAPs. Additionally, the Plan's FHEA identified Moss Point as having high levels of residential segregation. To ground these findings, the Plan organized a focus group in Moss Point to gauge the community's perspective and to enhance the context and interpretation of the identified issues.

The Plan also made special efforts to better reach populations that are reliant on public services, but whose voices are prone to being unaccounted for in planning efforts. For example, the Gulf Regional Planning Commission (GRPC) conducts regular surveys of bus riders. For the Plan, GRPC's bus rider survey was enhanced and used specifically to inform the Transportation Stakeholder Analysis, helping to shape strategies that respond directly to issues brought forward by talking to individuals using the Gulf Coast's public transit systems.

The Plan's national partners focusing on social equity also engaged members of the Working Group, the Executive Committee and the Project Management Committee. For two years, the Kirwan Institute worked with local groups to develop an index by which the geography of opportunity in the Mississippi Gulf Coast region can be more thoroughly understood. The Project Management Committee, the Executive Committee and the Working Group participated in workshops that ensured community input would be reflected in final versions of Gulf Coast Opportunity Maps. This work highlights several key findings illustrating the importance of opportunity and place in the region. For example, the Kirwan Institute's research shows that areas of high opportunity are proportionately more concentrated in the region's urbanized areas, while African Americans in the region are more likely to live in areas of low opportunity. These factors are particularly important considering another key finding that shows increasing racial diversification along the Gulf Coast. From 2000 to 2010, the highest population growth along the Gulf Coast occurred in communities of color. To address growing problems these populations face, topical subcommittees used Opportunity Maps to

inform the Plan's assessments. For instance, using findings from Kirwan's research, the Housing Subcommittee was able to develop strategies designed to address imbalances in affordable housing, given the finding that a majority of the region's most affordable housing stock is more likely to be located in areas of low opportunity. With the ability to target specific problems on the Gulf Coast, the Plan was better equipped to develop strategies that would diminish barriers for populations trying to work their way out of poverty.

Social Equity In Transition Back To Community

Accomplishing social equity through the process of putting the *Plan for Opportunity* back in the hands of communities was a central priority. In the fall of 2013, the Plan organized seven community open houses along the Gulf Coast. The open houses were staffed by representatives of the Plan's core member organizations and were located in communities including those traditionally underserved along the Gulf Coast. Through this process, the Plan was carried back to the communities that helped to shape it. To reduce difficulty in engaging with the Plan, open houses occurred at varied times, days of the week and locations to ensure that attending the workshop did not get in the way of individuals' work or family schedules. Additionally, open houses provided documents translated in Spanish and Vietnamese, as well as on-site translators to remove any avoidable barriers to access. Open houses conducted over this period allowed crucial community voices to comment on work they helped to form, providing an opportunity to voice concerns about the Plan that may have previously gone unheard.

Community open houses also gave individuals the opportunity to rank identified strategies and recommendations. The Plan's Project Management Committee tallied community rankings of Plan recommendations through numerous open houses and used these rankings to directly inform priority recommendations.

Through ensuring social equity in membership, in community input and participation, and in transitioning the Plan back to the community, the Gulf Coast *Plan for Opportunity* has placed equity on the Gulf Coast at the forefront of this comprehensive planning effort.

Fair Housing and Equity Assessment

The Fair Housing and Equity Assessment (FHEA) was undertaken in conjunction with the development of the *Plan for Opportunity*. On February 23, 2012, HUD Secretary Shaun Donovan said:

> *Sustainability also means creating "geographies of opportunity," places that effectively connect people to jobs, quality public schools, and other amenities. Today, too many HUD-assisted families are stuck in neighborhoods of concentrated poverty and segregation, where one's zip code predicts poor education, employment, and even health outcomes. These neighborhoods are not sustainable in their present state.*

The purpose of the FHEA is to identify and address these inequalities

in opportunity. The FHEA focuses on the following five indicators identified and defined by HUD in order to gain a full picture of regional equity and access to opportunity:

1. Segregation and Integration;
2. Racially Concentrated Areas of Poverty;
3. Access to Existing Areas of High Opportunities;
4. Fair Housing Issues, Services, and Activities; and
5. Major Public Investments.

Community input has been gathered throughout the process and incorporated into the FHEA. The end result of this regional scale analysis is a better understanding of the historical, current, and future context for equity and opportunity in the region.

Work on the FHEA began in April 2012 following HUD's webinar series on the FHEA/RAI component of the grant. The FHEA follows much of the format required by HUD's Fair Housing Planning Guide for a jurisdictional Analysis of Impediments. The initial analysis was completed and approved for public review by the governing committees of the *Plan for Opportunity* in April 2013. The Housing Subcommittee and other topical subcommittees immediately began using the findings of the FHEA to guide and even redirect their work where appropriate. The Economic Development and Workforce Subcommittee and the Transportation Subcommittee, for example, both surveyed Racially Concentrated Areas of Poverty identified as having low socioeconomic and mobility opportunity to better understand barriers to employment and access to transportation in those particularly vulnerable areas. As such, the findings of the FHEA were substantially integrated into the *Plan for Opportunity* and had a major influence on the recommendations coming out of the *Plan for Opportunity*. The key recommendations that are tied directly to the findings of the FHEA are included in Section 8 of the FHEA. Many other recommendations in the *Plan for Opportunity*, however, will serve to advance the FHEAs goals of improving fair housing and access to opportunity in the region.

The Mississippi Gulf Coast Fair Housing and Equity Assessment will continue to be an important resource as the *Plan for Opportunity* is implemented and will be a central part of future engagement with jurisdictions, organizations and community groups in the region. It is the hope of the partners of the *Plan for Opportunity* that the FHEA will set a precedent for a more regional approach to future evaluations of fair housing compliance and opportunity planning for the Mississippi Gulf Coast Region.

Section 3

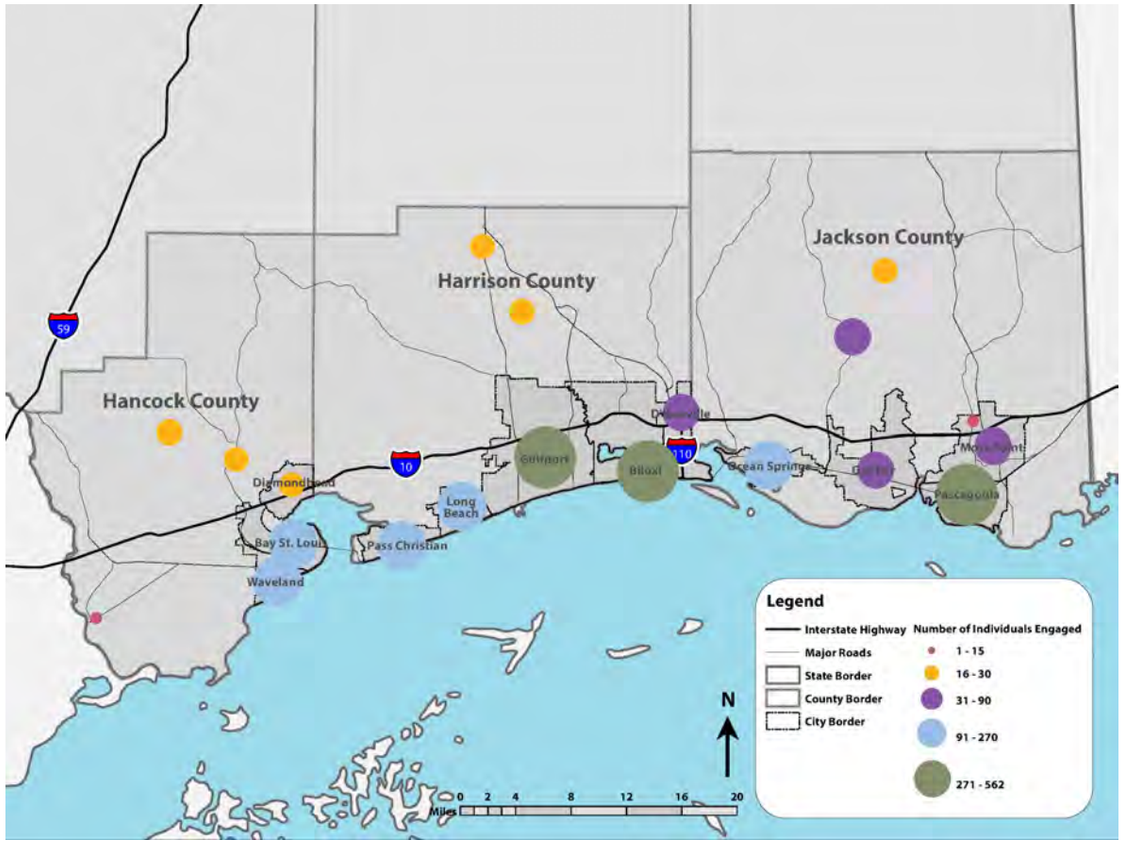
Public Engagement

The plan actively embraces local perspectives, using these needs as the basis for action. The public engagement process was designed to provide a voice to those with the greatest needs. Communities often obscured in the planning process come to the forefront of the *Plan for Opportunity*. This ground up approach bestows ownership of the plan upon the organizations and coalitions that are best able to implement the necessary actions.

The *Plan for Opportunity* utilized multiple methods to cultivate opportunities for and encourage public participation, resulting in a plan that represents the diverse needs of the Mississippi Gulf Coast as articulated by stakeholders.

The *Plan for Opportunity* is the result of thousands of people on the Mississippi Gulf Coast sharing their challenges, opportunities and ideas for the future, as seen in **Map 1**. People participated in many different ways, bringing real voices to the planning process. These voices represent the diversity of the Mississippi Gulf Coast and helped shape the plan to meet the unique needs of the region. In just the regional housing stakeholder analysis, over 300 people were engaged through personal interviews, focus groups and surveys. The community

Map 1 The *Plan for Opportunity* engaged with more than 2,800 people on the Mississippi Gulf Coast. This map illustrates the communities where participants reside, or where the engagement took place.



Source: The Ohio State University

voices continued to provide critical feedback as working drafts were completed, ensuring that a transition of ownership of the plan back to the community would reflect the needs and concerns of the Gulf Coast's most vulnerable populations. This multifaceted approach is indicative of the *Plan for Opportunity*'s commitment to public engagement.

The Plan for Opportunity hosted a series of open houses to discuss the draft plan.

Conversations with stakeholders were ongoing throughout the planning process. Every effort was made to gain authentic, representative participation, especially from traditionally underserved populations. Special emphasis was placed on getting feedback on those issues impacting vulnerable populations including senior citizens, communities of color and children. Members of the public were alerted to engagement opportunities through the *Plan for Opportunity* website, press releases, Facebook, email notifications, legal notices in newspapers and phone calls. Multiple methods were used to engage with the public:

Residents of the region voted on strategies that they believed would make the region more livable.

Community Meetings: Partners met with a wide variety of community groups to talk and learn about key issues and concerns.

Focus Groups: Focus groups were held to get in-depth information from stakeholders who had extensive experience about specific topics. For example, a focus group was held with people who are homeless to discuss the challenges associated with access to food.

Interviews: People from diverse backgrounds were interviewed. Tourists, business owners, public officials, recreational enjoyers and industry workers were all asked for their thoughts on issues in the region. For example, insurance agents were interviewed to determine key opportunities for reducing the cost of insurance.

One-on-One Meetings: Key stakeholders were engaged one-on-one in order to identify crucial issues, to gauge levels of success and to encourage participation.

Open Houses: The open houses held in the fall of 2013 in seven communities on the coast engaged community members to talk about the draft plan and prioritize the actions the region should proceed with implementation.

Surveys: Surveys were distributed in a number of varied and innovative ways. These include the following:

1. Face to face surveys at public events and in various neighborhoods throughout the region were conducted to ask people about barriers to employment, public transit, and bicycling. Surveys were conducted in English, Spanish and Vietnamese.

2. Targeted mailings to specific groups of people, including waterfront property owners, Habitat for Humanity homeowners and vacant landowners, reported on specific typical issues for use by the committees.

3. Online surveys to capture residents' feedback on the topics of Values and Air Quality. The online survey was promoted

through the *Plan for Opportunity*'s website, through partners' websites and through flyers distributed at community events.

Respondents to the surveys came from a wide breadth of socio-economic groups, ethnic backgrounds and age groups. More than 1,000 people participated in the survey efforts of the *Plan for Opportunity*.

Website: www.gulfcoastplan.org, the *Plan for Opportunity* website, offers the public the opportunity to provide their input through blog comments and online polls.

Workshops: A series of workshops engaged groups in discussion around the future of the region. Workshops included two **scenario planning** sessions that brought together land use officials in the region to talk about how changes in land use patterns could result in fewer miles driven per household each day. Another workshop focused on **opportunity mapping**, providing alternative ways to understand the opportunities present in the region.

Successful implementation of the *Plan for Opportunity* will rely on investment of time, effort and resources by community stakeholders. Community stakeholders are already taking actions to advance this plan and much more effort will be needed over the next twenty years to see this plan fully implemented.

The people of the Mississippi Gulf Coast shared what they see as essential for the region to prosper and thrive.

Values Survey

The Mississippi Gulf Coast Public Values Survey, designed by the Public Outreach Committee, was part of the initial outreach effort to identify core values that should be reflected in the *Plan for Opportunity*. Additionally, the survey provided planning efforts with a deeper understanding of residents' knowledge of sustainability related topics. We soon realized that many of our residents are very familiar with sustainability-related concepts and how they directly impact their household well-being and security. Sustainability, as defined by our respondents, focused on self-sufficiency: having what is necessary to prosper and thrive.

There is a strong attachment to the Coast as the place where people grew up and have family and friends. The responses collected suggest that people may want to live close to family and friends, but employment opportunities in those areas determine whether it is plausible.

In assessing how well the Coast provides for the economic stability needed for people to be self-sufficient, responses to several questions show that the public has concerns about their financial future. Responses indicate that job opportunities are poor and the cost of insurance is exceedingly high along the Coast. When job or career advancement is difficult and the cost of living is increasing, the future seems uncertain. This undermines the sense of being self-sufficient and consequently living on the coast may not feel very sustainable. While the automobile still remains the primary method of transportation in the region, another indicator of economic stress is drawn from the many responses that people would use transit if it were available, convenient and comfortable.

We also realized through this survey that local residents want to be involved in the decision-making process. Residents believe that they can make a difference in their community with their participation in the planning process. Influencing the decision-making process is critical as residents of the coast have been engaged in one of the most planned regions in the country in the wake of Hurricane Katrina.

The Public Values Survey was a useful way of introducing the *Plan for Opportunity* to the region's residents. We met over eight hundred helpful people through this survey process who were eager to learn more about our endeavors, and many also wanted to stay informed as our work continues. Their input served as a foundation for each topical subcommittee to move forward. We want to thank all those residents who participated in our survey and the individuals, businesses and organizations that assisted with the implementation of the survey.

Volunteers Drive Engagement

Engaging with more than 2,800 people on the Mississippi Gulf Coast was only possible through the efforts of many volunteers to bring community members together to talk about the issues facing the region. Bishop Anthony Thompson of the Coalition of African American Churches (COAAC) and Kingdom ICDC is just one of the many volunteers involved throughout the planning process. Thompson is from the historic community of red ball in Northwest Gulfport, a predominantly African-American community.

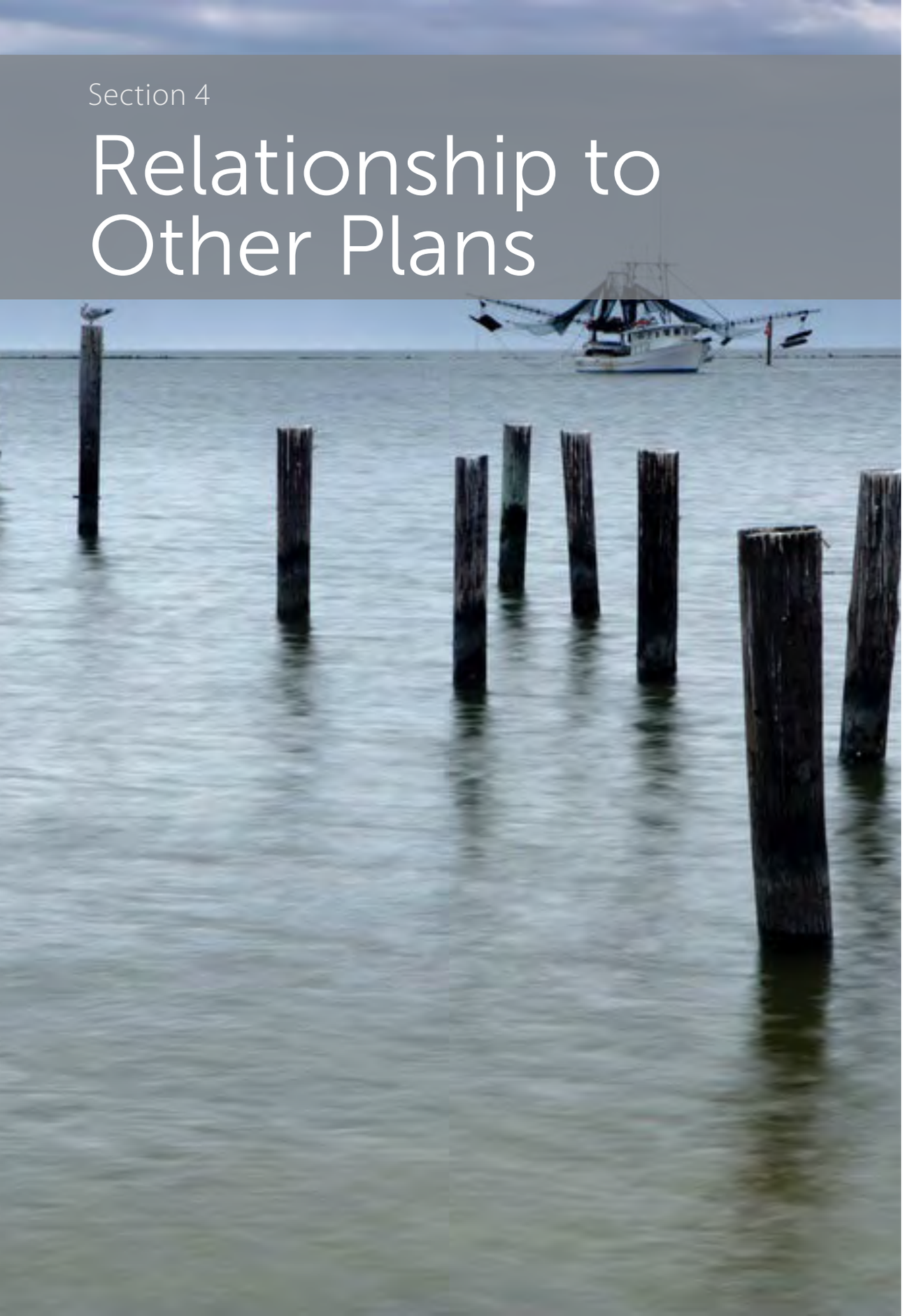
Bishop Thompson invited the planning team to come into his community to understand the key issues it is facing. The planning team alongside Pastor Thompson interviewed residents door-to-door and at community meetings about the key economic issues facing their community. More than fifty percent of the respondents that were employed earn less than $20,000 in annual income and 36% percent of those unemployed had childcare issues that presented a barrier to employment. Residents emphasized the need for technical training programs and bringing higher wage jobs to the region.

Bishop Thompson reports that "I learned a lot from the information … about how our community fits into the region and it made me think about things that I would like to bring into our community to make it better." For example, he has been working with students to encourage entrepreneurship and other opportunities to advance their future.

As *Plan for Opportunity* moves into implementation, Bishop Thompson encourages the inclusion of communities, remembering to come back to where the input came from to have partners in implementation.

Section 4

Relationship to Other Plans



Understanding the unique vision in each community provides a starting point for what we have in common as a region. It may be one *Plan for Opportunity*, but it represents what many different communities, organizations and agencies envision for the future of the Mississippi Gulf Coast. The *Plan for Opportunity* is a guiding document that is consistent with other plans and policies wherever possible. The PMC was conscious of the need to respect the work of other plans and policies that preceded the *Plan for Opportunity*. In its relationship to these plans and policies, it was decided early on the *Plan for Opportunity* would:

- Capture the information and visions of existing plans
- Would reinforce and expand upon existing plans
- Avoid conflict with previously adopted plans and policies
- Build upon previous work by going into greater depth in key topical areas
- Allow communities across the region to use this plan to strengthen their own plans

As a starting point, each of the comprehensive plans for the cities and counties on the Mississippi Gulf Coast were analyzed to determine how they align with the livability principles. This helped to identify the topics and issues that could benefit by more detailed study and positioned the plan to reinforce the excellent efforts already happening across the region.

Supporting the *Plan for Opportunity* are:

- the assessments, stakeholder analyses and the recommendations from each of the subcommittees: Air Quality, Economic Development, Food, Housing, **Resilience**, Transportation and Land Use and Water;
- 14 county and municipal comprehensive planning documents;
- specialized plans and policies addressing single subjects throughout the area;
- local zoning ordinances, strategies and reports that address those issues unique to a specific geographic or topical area

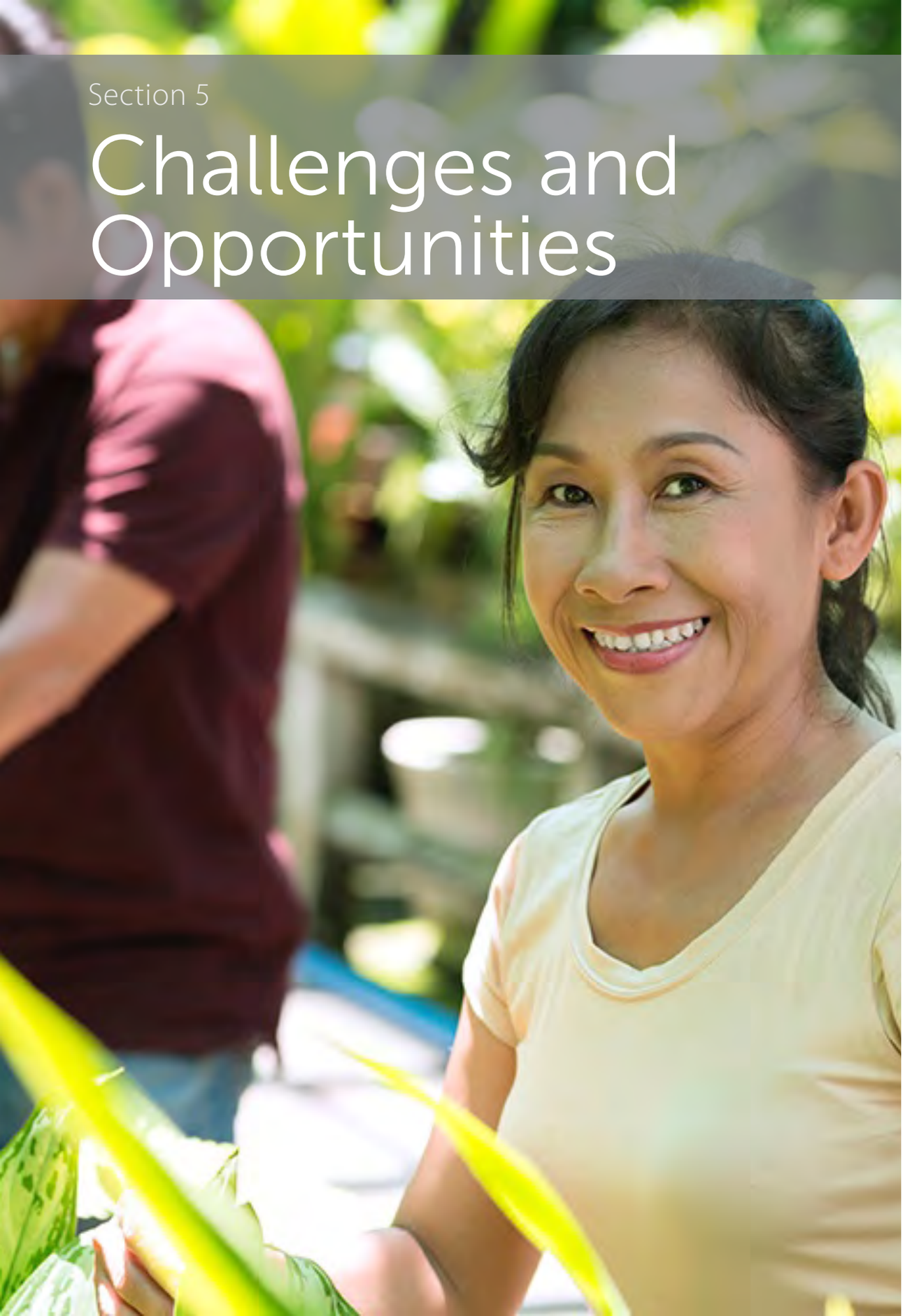
Each of the subcommittees assessed data from federal, state and local agencies. By examining all of these plans, policies, reports and data, this plan is able to acknowledge and integrate the excellent efforts underway to create a more livable region. A

Turning trees that died in Hurricane Katrina into art embody the resilient spirit of the Mississippi Gulf Coast.

partial list of the plans examined as part of the *Plan for Opportunity* are included in the appendix.

Section 5

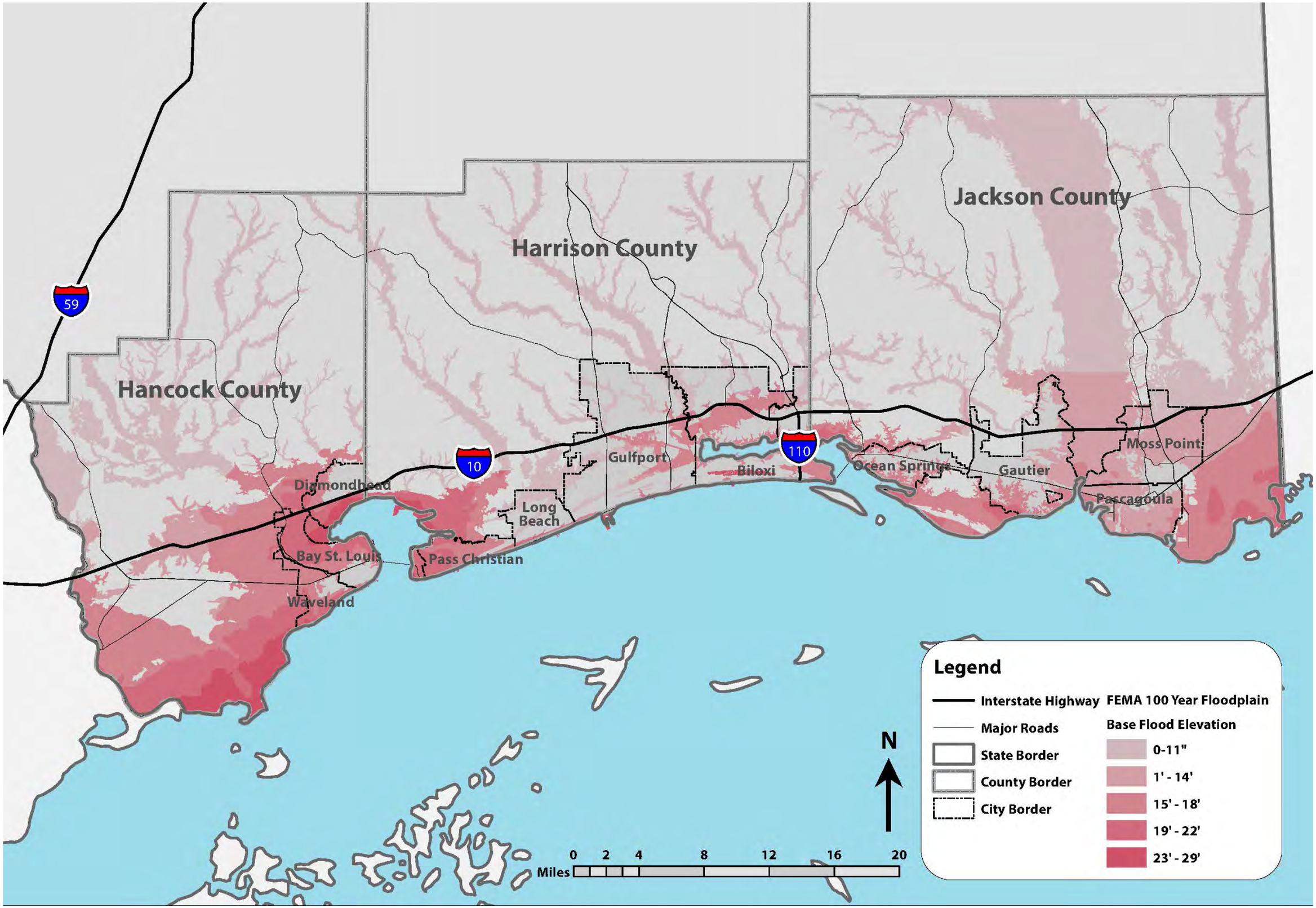
Challenges and Opportunities



The Mississippi Gulf Coast is a vibrant region that has the potential to become highly livable and sustainable by tackling grand challenges and taking advantage of strategic opportunities over the next twenty years. The geography of the coast is characterized by the vulnerability of the region to flooding and wind damage from storms. Because of increased risk, insurance costs are high, resulting in housing being unaffordable for many working families. This housing unaffordability is compounded by the low wages offered by many employers in the region for seasonal and/or limited skilled work. There is also a workforce readiness challenge in the disconnect between the level of workforce preparedness and the skills needed for high paying jobs.[1]

However, the region is poised to deal with these challenges effectively and quickly, because of the tremendous opportunities that exist within it. The region has highly committed people who are positioned to tackle the grand challenges and bring new opportunities. There is a significant demographic change in the region, which has the potential to transform business and industry. There are opportunities to revitalize Mississippi's coastal communities by strengthening downtowns and adding new homes and businesses in targeted infill areas. The Coast has a bright future as a highly livable region.

Map 2 FEMA 100-Year Floodplain[2 3]



Source: Gulf Regional Planning Commission and Federal Emergency Management Agency

Geography

The Mississippi Gulf Coast is a region with unique geography. The region benefits from fresh seafood, tourism and the beauty of the sand and water. However, there are also challenges to being a coastal region. The low elevation of the land means that much of the region lies within the **100-year floodplain** and regular storms bringing high winds and flooding put many properties at risk of damage (see **Map 2**).[4] When flooding occurs, there is associated property damage and in the worst cases, loss of life. For example, Hancock County predicts that if a Category 5 hurricane made landfall in Hancock County or Coastal Louisiana during high tide, 92 percent of the homes in the county could be impacted.[5] Damage to bridges, the sand beach, the seawall, trees, utility providers and coastal structures is also likely.[6]

Because of the risk of flooding and wind damage, the insurance rates have risen rapidly on the Mississippi Gulf Coast, increasing 33 percent on homeowners' insurance policies.[7] The rapid rise in insurance rates has made it difficult for families to afford the cost of housing.

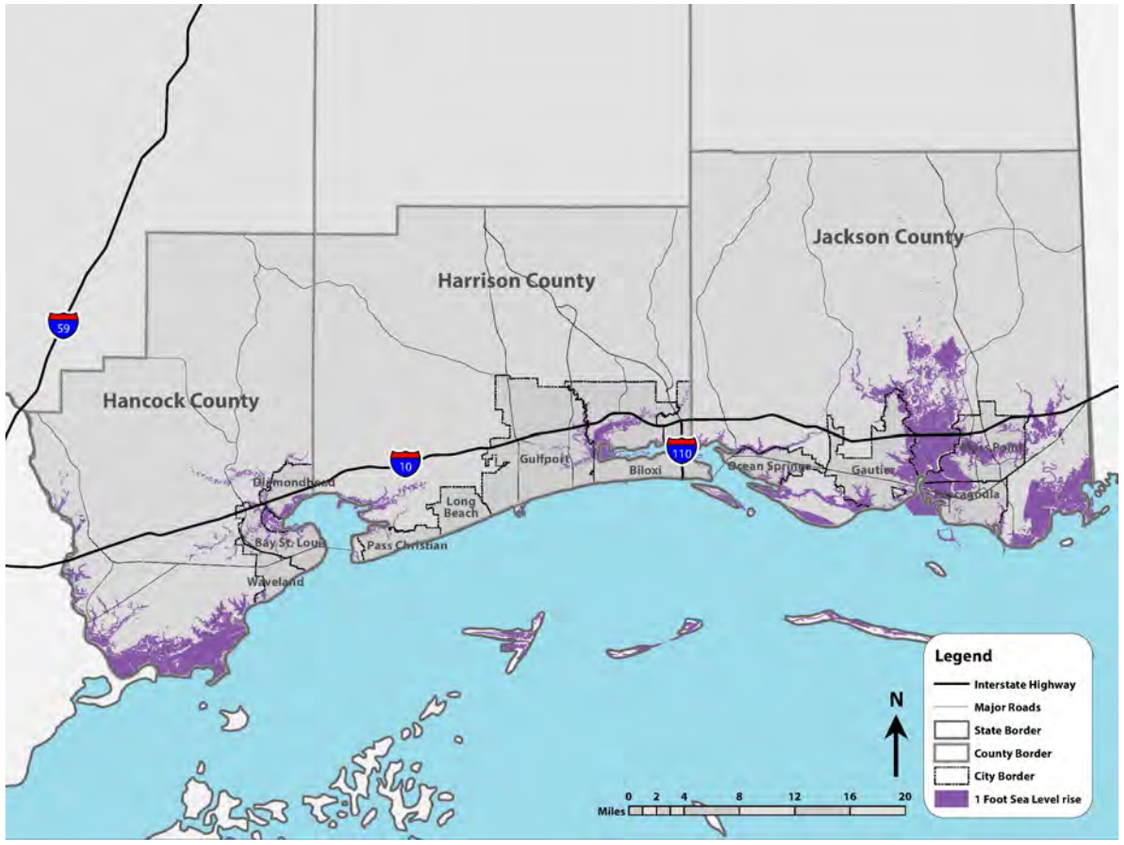
In some areas of the region, the number of repetitive flood loss properties poses a serious challenge. **Repetitive loss properties** are those that have had multiple insurance claims for natural disaster damage.[8] These properties are in locations that are at risk of being damaged or destroyed in future storm events.[9]

- Hancock County has 17 repetitive loss areas and 305 repetitive loss properties[10]
  - 104 structures on these properties were completely destroyed in Hurricane Katrina[11]
- Harrison County has 164 repetitive loss properties[12]
  - Repetitive loss properties have accounted for 453 past losses in the county due to flooding and $24 million in claims payments under the National Flood Insurance Program (NFIP)[13]
- Jackson County has 101 repetitive loss properties[14]

Repetitive loss constitutes a considerable and costly challenge to the Mississippi Gulf Coast region. All three counties have developed hazard mitigation plans to reduce repetitive loss in the future.[15]

Future flood risk could increase as a result of projected sea level rise. The National Oceanic and Atmospheric Administration (NOAA) predicts that the Mississippi Gulf Coast could see the sea rise by one foot this century (see **Map 3**).[16] Sea level rise will cause higher storm surges and thus a greater risk of flooding.[17] Climate

Map 3 Projected Sea Level Rise by 2050



Source: National Oceanic and Atmospheric Administration

change presents a serious challenge to the region because warming ocean temperatures are predicted to cause stronger hurricanes, which will further increase the risk of serious flooding.[18]

The Mississippi Gulf Coast is actively planning to mitigate risk of flooding, with each county having prepared a hazard mitigation plan. Actions to safeguard development and minimize risk will be necessary to ensure a safer, more resilient region.

Elevating housing is one way residents are reducing the risk of flood damage.

Investment in infrastructure, such as stormwater systems and elevated roadways, will be necessary to ensure the security of the region.

Patterns of Growth and Development

Since Hurricane Katrina, there have been significant challenges to rebuilding. Some have chosen to rebuild their homes in their existing neighborhoods, working to make their homes more resilient to future storms. Others have chosen to build north of

Interstate Highway 10 in areas with lower wind insurance rates and lower risk of flooding.[19] This has created contrasting development patterns, with significant reinvestment in the urban core, and new development that is distant from regional employment centers. The Mississippi Gulf Coast faces the challenge of redistributing land use in ways that minimize risk and focus development in areas that are best suited to support growth.

For example, households living north of Interstate Highway 10 face the challenges of significant distances to employment centers, a lack of public transportation, and limited availability of commercial businesses. The result is that people drive more miles per day. More driving results in more emissions from vehicles, which impacts the air quality of the region and makes the region less livable. For households choosing to live south of Interstate Highway 10, they have the challenge of higher insurance costs.

As the region continues to develop, it has an opportunity to build in a way that both address risk and offers greater opportunities to improve livability for all residents. One example of an area that could see increased **infill development** is along Pass Road:[20]

- It has space for new construction
- It is located in an existing community
- It is not in the hundred year flood plain

Moving forward, jurisdictions may be able to identify areas that fit these criteria and then incentivize development. This will allow for urban development that offers greater opportunities for residents and businesses.

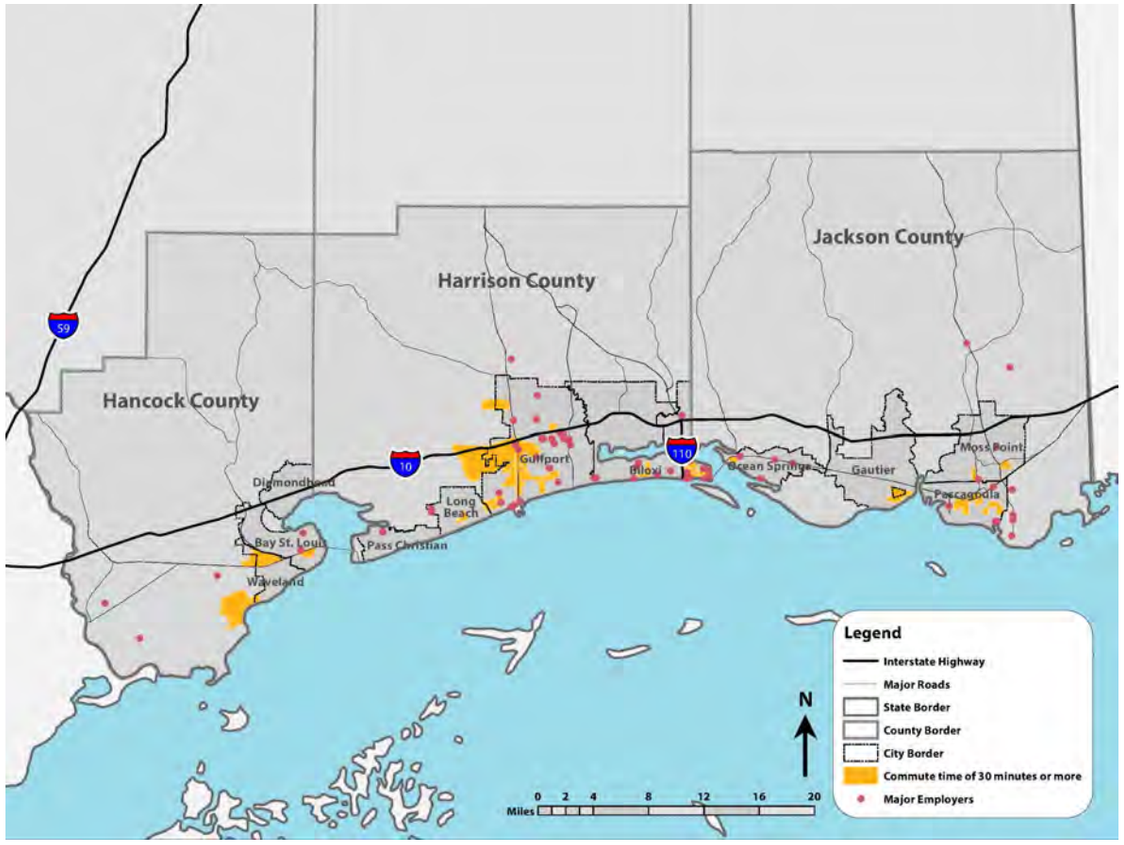
Economy

Financial Security

A secure income level provides enough money for residents to meet all of their basic financial needs without being burdened by them.[21] Many workers in the Mississippi Gulf Coast region do not earn wages that are high enough to support their basic needs. According to a survey conducted by the *Plan for Opportunity* team, more than three-quarters of employed residents said that their wages were not high enough for them to live comfortably.[22]

One of the reasons earning a **living wage** can be a challenge is the prevalence of seasonal employment in the area. The tourism industry, including casinos, is a seasonal industry with a high season that runs from spring to autumn.[23] The number of jobs available varies depending on the season, resulting in employees experiencing reduced hours or being laid off during the off season. For example, Mississippi museums increase their workforce by 62-69 percent during the high season.[24] This leads to

Map 4 Low Income Areas with More Than a 30 Minute Commute



Source: Gulf Regional Planning Commission

increasing employment uncertainty and financial insecurity for many residents. More than one in five people on the Mississippi Gulf Coast work in service sector jobs.[25] These jobs pay far less than other jobs on the coast, averaging $9.83 per hour.[26]

The lack of adequate wages for workers makes it difficult to afford basic needs, such as housing. Although there are many housing units that are deemed affordable, these are still out of reach for many families. In the region, almost 30 percent of homeowners and close to 50 percent of renters are **housing cost burdened**, where the household is paying more than 30 percent of their household income on housing.[27] The expense of transportation is another challenge. Because household income is limited, many families struggle with reliable transportation, making it difficult to get to and from work, see **Map 4** for areas with high commute times.

Household costs can be decreased with energy efficient housing, lower insurance cost and reduced transportation cost by careful transportation and land-use planning. However, addressing the financial challenges of many working families requires higher wage jobs. The Mississippi Gulf Coast is actively working to grow the economy and bring higher wage jobs. While higher wage jobs will alleviate some of the household burden, there is also the opportunity to invest in housing and transportation infrastructure to ensure that people have convenient, affordable access to jobs.[28]

Workforce Readiness

Governor Bryant has emphasized the importance of growing Mississippi's economy, focusing on incentives for growing jobs in the health care and energy sectors.[29] Skilled jobs such as production or extraction of energy pay on average $13.36 per hour.[30] The challenge for the region is to ensure that residents are qualified for positions in growing high wage industries.

The Mississippi Gulf Coast economy faces the challenge of a **labor mismatch**, where the skills of the workforce do not fully match the jobs that are available.[31] As a result of this mismatch, employers are recruiting their workforce from beyond the coastal counties. For example, Chevron reports that they regularly have to bring in skilled labor from the Houston area to work in Pascagoula because of a lack of skilled workers qualified to work at the refinery.

A labor mismatch is defined as the difference between the jobs a worker is qualified for and the jobs that are available to a worker in a certain region. In this case, engineering jobs are available, but many workers do not have the needed training.

Ingalls Shipyard reports that there are not enough trained welders and engineers to work in the ship building industry. These workers are needed to design ships and their components and to work through the construction process.[32] The region's colleges and universities do not offer a four-year engineering degree, making it difficult for residents to obtain the necessary education for available jobs. Additionally, many people lack the necessary math skills to be able to work in technical fields, such as shipbuilding.[33] Human resource directors at Ingalls Shipyard report that currently the only options are to offer scholarships for local residents to travel to school to study engineering with the hope that they will return to work in the shipyard, or to recruit workers from outside the region.[34]

VIDEO 2 Challenges and Opportunities

Source: The Ohio State University

Some employers are developing training programs to enable people in the region to learn the skills needed to do specific jobs. Ingalls Shipyard in Pascagoula is working to address the labor mismatch by establishing educational programs with the Mississippi Gulf Coast Community College and Bishop State University in Mobile, Alabama.[35] These programs train workers in needed skills that allow them to become apprentices, with a job waiting for them at Ingalls when they complete their education. This allows people in the region to enter into higher wage jobs.[36] For example, Ingalls offers skilled workers starting salaries of

$14.40 per hour; those with welding skills earn a starting salary of $18.50 per hour. With raises, many workers will earn close to $22 to $23 per hour.[37]

Another challenge is to find people who are willing to work in the ship building industry. Ingalls Shipyard actively recruits at military bases and trains veterans with leadership experience. Seven percent of Ingalls' new hires are veterans.[38]

Even with its training programs, there are not enough people to meet this company's needs. Ingalls recruits skilled workers from a number of other universities, such as Florida Institute of Technology, Utica College, Bishop State Community College, Southern College and Tuskegee University. Ingalls also has a training partnership with the American Hispanic College in Puerto Rico, which brings a significant number of Puerto Ricans to the region.[39]

The Mississippi Gulf Coast has a number of workforce training programs in place, but more will be needed to reduce the labor force mismatch and to ensure the region has a competitive workforce. The conditions present an opportunity for the coast community to work with its existing high wage employers. With more focus on workforce development, more of the region's workforce can be placed in growing industries.

TABLE 1 Poverty Rates by Race/Ethnicity

Race/Ethnicity	Percent in Poverty
White	23%
African American	28%
Asian	32%
Hispanic	22%
Household Income in the Past 12 Months (in 2011 Inflation-Adjusted Dollars)	

Source: 2009-2011 American Community Survey 3-Year Estimates

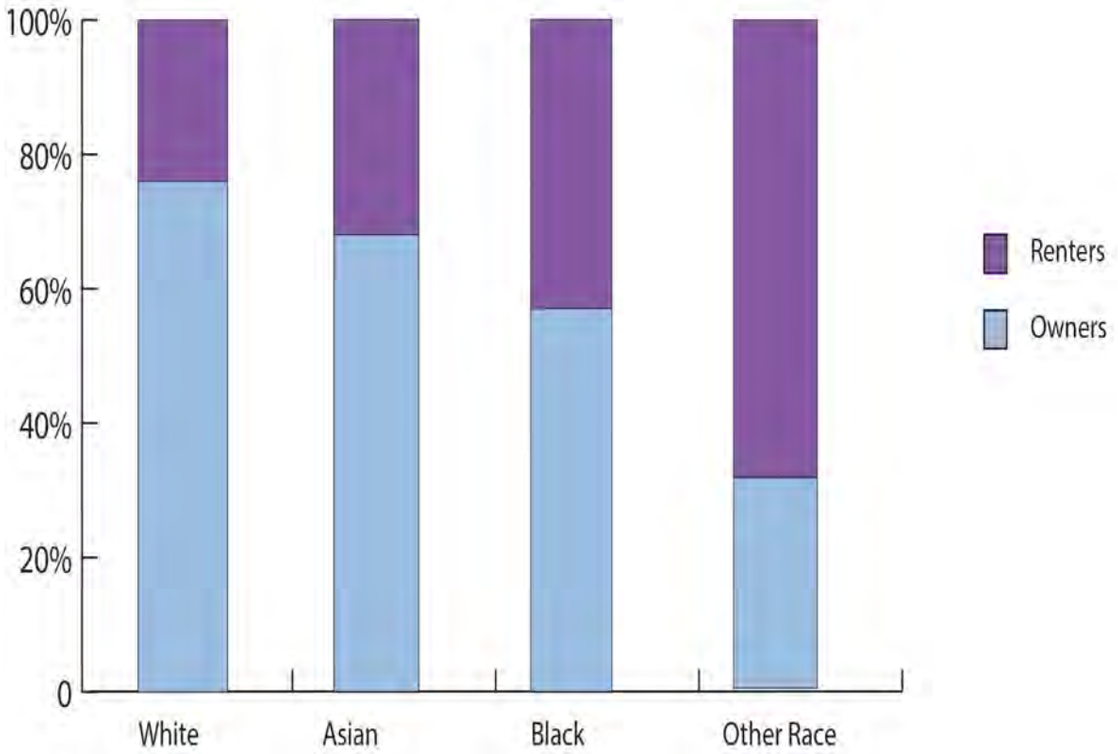
Demography

Shifting Diversity

There are challenges around equality within a diversifying region. Hispanics and people of color are more likely to be renters than homeowners. Seventy-five percent of white residents of the coastal counties own their homes. Asian residents own homes at a rate of 70 percent, Black residents at 50 percent and other races at 30 percent. Renters are almost twice as likely to face housing cost burdens when compared to homeowners.[40] Residents of color are burdened by higher transportation and housing costs than other groups because they are more likely to have household incomes below the poverty line, as seen in **Table 1**, **Figure 2** and **Figure 3**.[41]

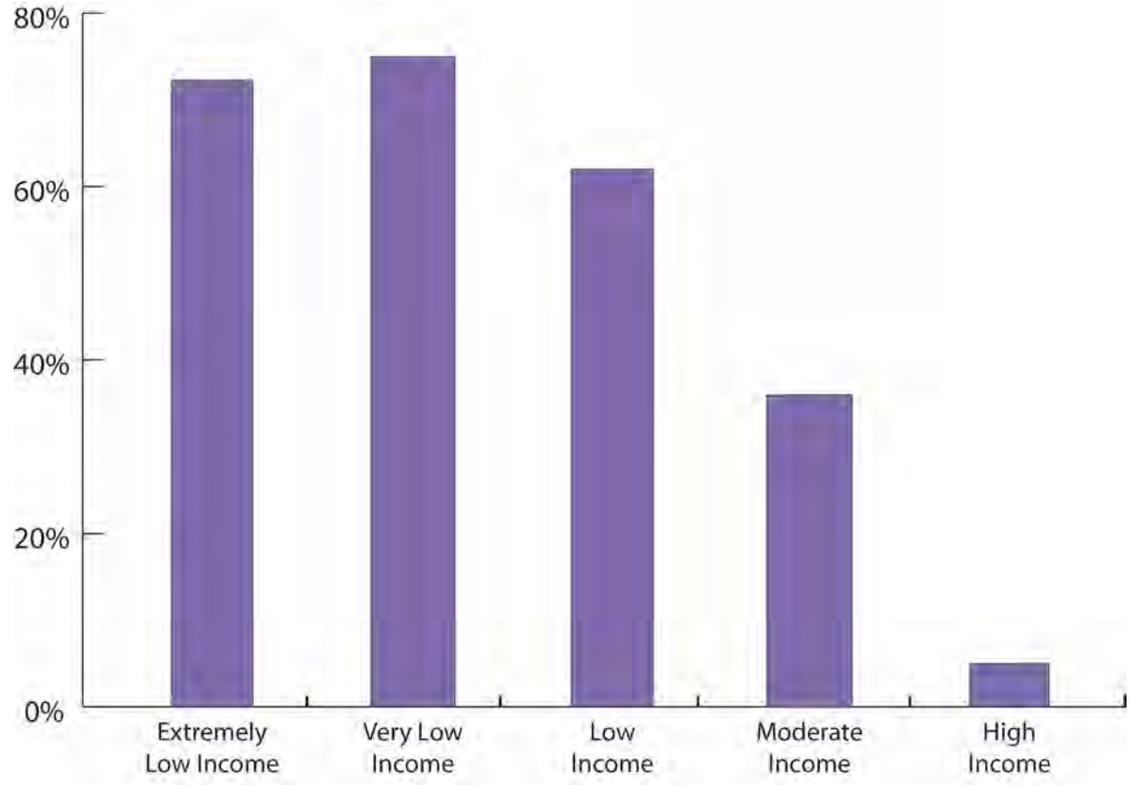
However, there are also opportunities presented by the region's increasing diversity. On the Mississippi Gulf Coast, the proportion

FIGURE 2 Tenure by Household Race



Source: U.S. Census Bureau 2010 American Community Survey 1-Year Estimates

FIGURE 3 Percent of Cost Burdened Households by Tenure



Source: U.S. Census Bureau 2010 American Community Survey 1-Year Estimates

of the Hispanic population has increased.[42] The Hispanic community, especially around Pascagoula, is a tremendous economic resource for industries such as refining and shipbuilding. Many Hispanics and other diverse groups are actively recruited by industries in the region to fill skilled labor jobs. Ingalls Shipyard, for instance, recruits skilled workers from Puerto Rico, while Chevron recruits from Texas.[43]

Studies show that more socially inclusive and equitable regions have the best performing economies. A recent Federal Reserve study of 120 metropolitan regions suggests social equity is one of the most important factors in sustaining growth in a regional economy.[44] The Mississippi Gulf Coast has already benefited greatly from their diverse population. Asian Americans make up more than half of the employees of seafood production industries in the region and hold 62 percent of the licenses for large fishing boats in Mississippi.[45] The Mississippi Gulf Coast has a significant opportunity to benefit as its diversity increases.

The Mississippi Gulf Coast has experienced demographic changes in recent decades and it can expect to see more in the future, especially as the population ages and the region becomes more

racially and ethnically diverse. These trends follow projected changes in the United States as a whole. By 2050, it is predicted that the number of people over age 65 will rise by almost eight percentage points, from 12.4 to 20.2 percent of the U.S. population.[46] Hispanic residents will more than double, rising from 12.6 percent of the U.S. population to 30.2 percent.[47] These trends are expected on the Mississippi Gulf Coast as well.

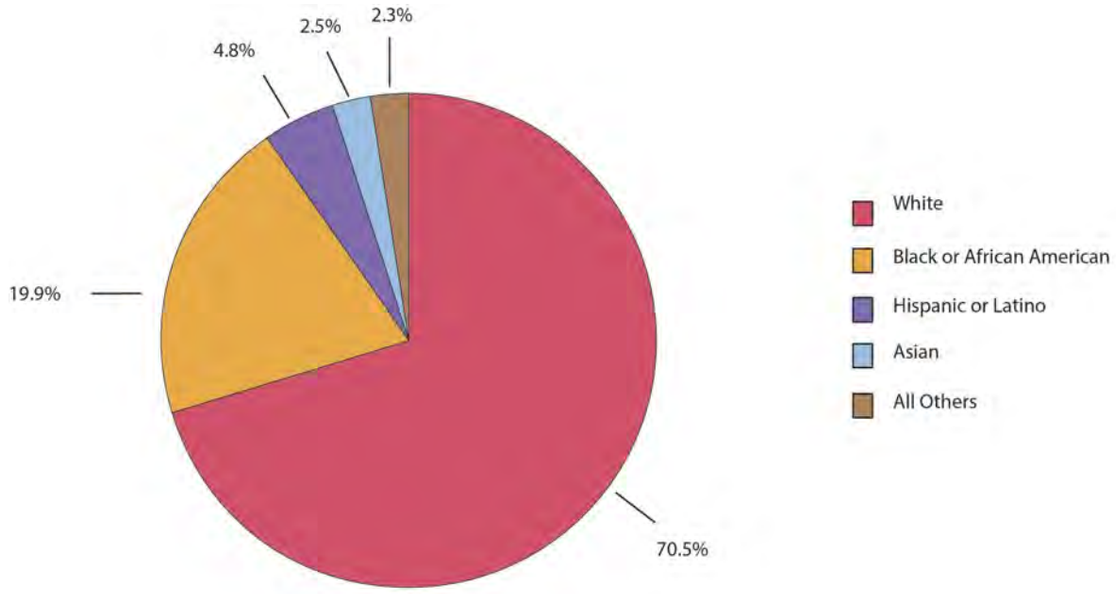
Aging Population

The population of the Mississippi Gulf Coast has become progressively older in the past decade, now at 12.4 percent of the region's population.[48] This is similar to the national trend with13.3 percent of the national population over the age of 65.[49]

The Mississippi Gulf Coast region has a clear opportunity to market itself as a destination for retirees. With its sunshine, beaches and leisure activities, the region has an opportunity to be a place where seniors come to live, especially during the winter months. In order to capitalize on this opportunity however, the region needs to address some challenges faced by the elderly population.

Many seniors live on a limited income. The same challenges with housing and insurance affordability that impact the region's existing residents will also impact future residents. In the Mississippi Gulf Coast, close to half of seniors earn less than 80

FIGURE 4 Race and Ethnicity in the Region's Population



Source: Kirwan Institute for the Study of Race and Ethnicity

percent of the region's median income. Half of that group is disabled and with limited mobility.[50] A growing senior population will require more planning for evacuation in flood events, especially for the 44 percent of seniors who live inside the Federal Emergency Management Agency (FEMA) 100-year floodplain.[51]

Low-income seniors face additional problems such as food insecurity and a lack of adequate health care. As seniors age, particularly as they become over 80, there are increasing mobility limitations leading to the need for greater medical care and sufficient paratransit options to help get people to the places they need to go.[52]

The Mississippi Gulf Coast is a popular destination for retirees who enjoy the region's leisure activities.

Land Use

Across the region, **Vehicle Miles Traveled (VMT)** has increased over the last decade and now averages 2.3 trips by car per day per person.[53] Increasing VMT also results in higher transportation costs for families.[54] Many residents spend more than 45 percent of their income on housing and transportation costs combined.[55]

Households that have lived south of Interstate Highway 10 for years have higher housing expenses because of increased insurance cost. In some cases, the insurance cost is not only a budget challenge, but will affect their ability to sell their house in the future. The high insurance cost combines with other factors in regards to developing vacant land. Hurricane Katrina occurred during a period of profitable residential development activity, especially with vacation investment property. Therefore, investors purchased much of the vacant land expecting values to continually increase, with no way to anticipate the economic recession a few years later that would hurt the real estate market. Thus, another challenge to developing in the existing cities is an out-of-balance real estate market with an enormous surplus of lots for sale at prices set high because of the amount paid for the property after Katrina at a time when the market for vacation condominiums is stagnant.[56]

The Mississippi Gulf Coast offer locations that can be identified as opportunity areas for infill development. Infill development involves new construction on vacant land that is already part of an existing neighborhood and has potential for new development.

Section 6

Livability Principles

The Partnership for Sustainable Communities Livability Principles

1. *Provide more transportation choices.*
2. *Promote equitable, affordable housing.*
3. *Enhance economic competitiveness.*
4. *Support existing communities.*
5. *Coordinate policies and leverage investment.*
6. *Value communities and neighborhoods.*

The framework used to combine and integrate the topical areas of the *Plan for Opportunity* is the six Livability Principles. These principles have been adopted at the federal level, by HUD, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Transportation (DOT), and are considered to be the overarching goals for this regional grant program. Regions that develop in a manner consistent with these livability principles thrive economically, provide a high quality of life and are more sustainable. The Mississippi Gulf Coast strives to achieve each of these livability principles, as defined by the Office of Sustainable Communities, HUD:

Provide more transportation choices.

Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce **greenhouse gas emissions** and promote public health.

Promote equitable, affordable housing.

Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Enhance economic competitiveness.

Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers as well as expanded business access to markets.

Support existing communities.

Target federal funding toward existing communities—through such strategies as transit-oriented, mixed-use development and land recycling—to increase community revitalization, improve the efficiency of public works investments, and safeguard rural landscapes.

Coordinate policies and leverage investment.

Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated **renewable energy**.

Value communities and neighborhoods.

Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

The consortium used the livability principles as a guidepost in evaluating the outcomes of proposed strategies. These livability principles are applied to our region, recognizing our unique challenges and opportunities. For example, when the Mississippi Gulf Coast "Supports Existing Communities" that means that investment is targeted in the existing communities across the region recognizing the uniqueness of the coastal geography. The Mississippi Gulf Coast "Values Communities and Neighborhoods" - treasuring the unique diversity and culture of this coastal region.

Each of the subcommittees gave significant consideration to these livability principles in determining their recommended strategies. The more than 200 recommended strategies were reviewed and discussed at length with potential partners who could support or implement strategies; all the recommendations have been adopted as part of the *Plan for Opportunity*. For the purposes of this document, it was necessary to prioritize the 200 strategies, to identify those strategies or actions that the partners indicated were the most feasible and ready for implementation, and to note where success could be measured. The potential partners were instrumental in helping refine and shape the 63 final, prioritized list of strategies, referred to as priority actions, emphasized in the following chapters.

The following chapters highlight these priorities. The priority actions are grouped by topic into priority action areas, as noted by this symbol ✓ . The priority actions are in an unranked order, with each action having the same priority. Each priority action area is set in context, explaining the existing conditions in the region and why stakeholders believe action is needed.

By implementing the priority actions, the region is expected to achieve a significant number of outcomes. The outcomes generated by HUD and the *Plan for Opportunity* include:

- Increased range of transportation options
- Decreased number of miles traveled per day by residents
- Increased proportion of affordable housing units located close to employment, schools, shops and parks
- Reduced social and economic disparities for the low-income and communities of color within the target region
- Decreased households' combined housing and transportation costs
- Increased proportion of affordable housing units located close to employment, schools, shops and parks
- Reduced number of homes that are vulnerable to flooding from hurricanes accounting for potential sea level rise
- Increased number of people employed in growing and regionally valued industries
- Increased number of small businesses and start-up companies due to the provision of technical assistance, mentorship and access to financial resources
- Increased proportion of low-and very-low income households within 30-minute transit commute of major employment centers

- Decreased conversion of undeveloped land for new development across the region
- Increased share of residential and commercial construction on underutilized infill development sites to encourage revitalization without displacing disadvantaged populations
- Improved capability of public and private buildings to withstand the forces of weather events
- Reduced number of buildings that are vulnerable to flooding caused by sea level rise
- Coordinated infrastructure plans to improve public health and the quality of natural water systems
- Increased proportion of homes and rental units affordable to a full range of household incomes in urban areas or within town centers in sub-urban areas that are close to transportation alternatives such as transit, walking, bicycle and ride-share
- Increased proportion of affordable housing units that have access to quality fresh food and to locally produced food

By achieving these outcomes the region will be stronger, healthier, more resilient and more livable. To measure progress towards achieving these outcomes, there are a series of indicators in each livability chapter that should make positive progress with the implementation of the priority actions.

Aligning development plans to these livability principles can improve the quality of life for residents of the Mississippi Gulf Coast.

Resilience On The Mississippi Gulf Coast

One of the key areas in the *Plan for Opportunity* is resilience. Simply stated, a resilient system has the ability to recover from expected or unexpected circumstances that threaten to destroy that system; this can be applied to each of the sustainability topical areas from housing to the economy. Each livability principle chapter in the *Plan for Opportunity* contains aspects of creating more resiliency along the Mississippi Gulf Coast. Different actions have been taken throughout the planning process to discuss resiliency and what resilient strategies are needed on the coast. For instance, the Mississippi/Alabama Sea Grant program held a series of workshops with each subcommittee to determine what strategies needed to be taken and added to the Plan. The following are the resiliency actions determined to be important for each livability principle.

Livability Principle 1: Provide more transportation choices

Resiliency links civic responsibility to the promotion and use of alternative transportation options besides the personal vehicle. The Mississippi Gulf Coast workforce can become an advocate for change by influencing the public's perception of public transportation. A resilient transportation system is one in which many modes are available and accessible. This in turn will support a strong regional economy and a high quality of life as all coastal residents will have access to multiple forms of transportation.

Livability Principle 2: Promote equitable, affordable housing

The entire Gulf Coast populace can be connected to equitable, affordable housing through different resiliency strategies. A resilient housing system is one that allows for greater housing types and ownership within existing neighborhoods, while ensuring more fortification and storm resistance for those homes.

Livability Principle 3: Enhance economic competitiveness

Education and economic competitiveness can be linked through a variety of educational opportunities and experiences. Overall, this will create more job opportunities for Gulf Coast residents. A resilient economy is one that includes early childhood education and a diversification of educational opportunities, including vo-tech and certification programs.

Livability Principle 4: Support existing communities

In this livability principle, resiliency links education and stewardship to the preservation of water quality and quantity. Resilient communities are knowledgeable about best management practices for maintaining clean and plentiful water resources. However this principle also deals with creating resilient communities through having more fortified and storm resistant

buildings for businesses, organizations, and services.

Livability Principle 5: Coordinate policies and leverage investments

This livability principle also discusses education and stewardship for the region. In this case though, resiliency links education and stewardship to support policies and investments that promote sustainable systems. A resilient region is one that recognizes its vulnerabilities, while planning and preparing for threats to the systems that support daily coastal life.

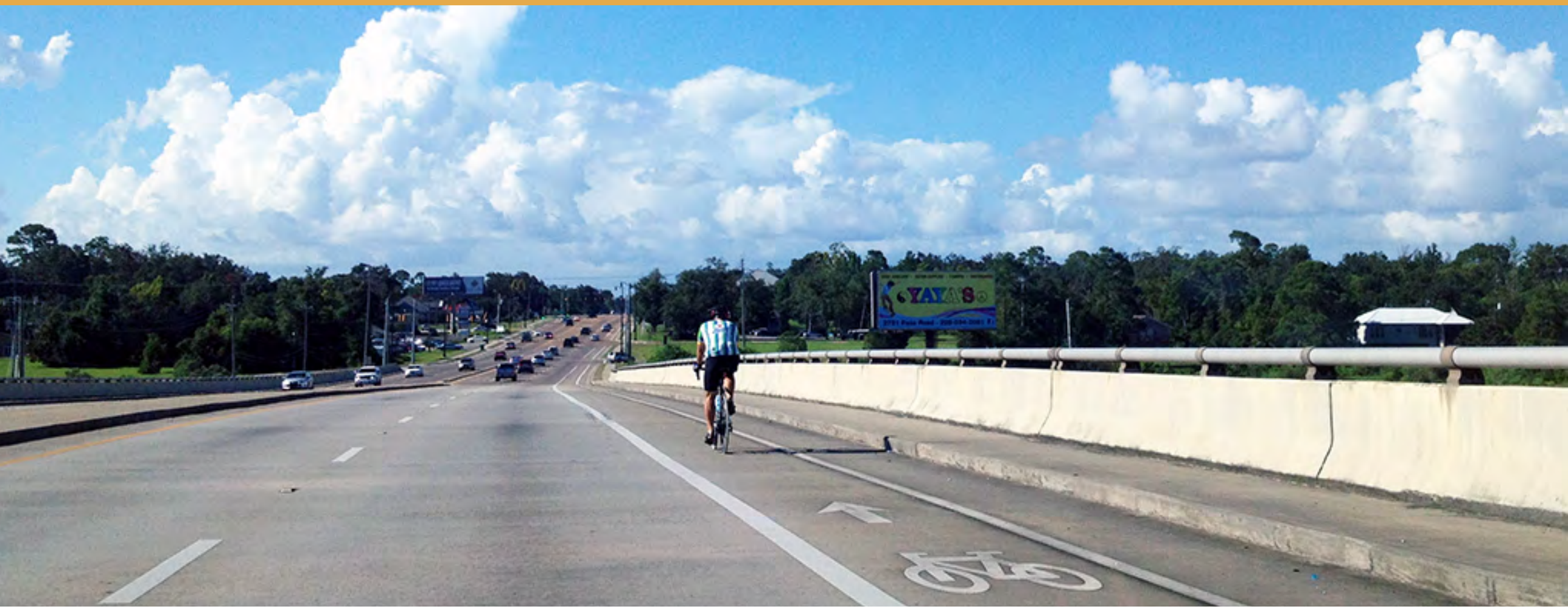
Livability Principle 6: Value communities and neighborhoods

The last livability principle, Value Neighborhoods, focuses on resilient actions related to the food system. A resilient neighborhood is one that has healthy food options for everyone. One way to achieve this is by linking resiliency to education for increased public awareness of nutrition and health. However it is also essential for all neighborhoods and residents to have easy access to healthy food.

Families across the Mississippi Gulf Coast will benefit from a more resilient community.

Chapter 2

Provide More Transportation Options



Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.

Section 1

Introduction

The *Plan for Opportunity* has three Priority Action Areas for improving transportation choice:

1. *Invest in Bicycle and Pedestrian Networks*
2. *Strengthen the Transit System*
3. *Increase Access and Mobility*

Priority Action Area: Invest in Bicycle and Pedestrian Networks

Current Conditions

The Mississippi Gulf Coast has been an auto-oriented region, but increasingly people are looking for other ways to get from place to place.

- 80 percent of workers aged 16 and older rely on a car to get to and from work[57] -- the national average is 86 percent[58]
- 20 percent of the region's workers commute by riding the bus, biking or walking

Less driving, measured by the number of vehicle miles travelled (VMT), occurs when communities are compact and connected.[59] The more people walk, bike and use transit, the less VMT. Reduced driving can also help commuters save money and improve health. A commuter who rides his or her bike five miles to work instead of driving can:

- Save $7.79 each week, or $400 each year, on gas expenses[60]
- Burn an additional 2,000 calories each week[61]

Driving results in emissions of pollutants that are harmful to human health. The amount of emissions from vehicles is influenced by the number of trips made by passenger cars in everyday travel, the number of VMT by those cars, traveling speed and time spent idling. In order to reduce emissions from vehicles there is a need to increase the number of "choice" users of alternative transportation.

- People who choose to bike or walk to their destinations reduce carbon dioxide (CO2) emissions by 50 pounds each week[62]

The Mississippi Gulf Coast encourages walking, biking and bus ridership with:

- 247 square miles of **walkable areas**
- 194 miles of designated bike routes
- 92 miles of bus routes[63]

A walkable area is a neighborhood that's easy to get around in, with 125 or more intersections per square mile.

In many cases, these miles of walkable, bikable and busable areas are not connected. As a result, people cannot go from walking or biking to riding the bus in one trip.

There are some specific challenges for those who bike. In April 2013, GRPC surveyed bicyclists about their perspectives on safety and mobility of bike riding along the Mississippi Gulf Coast. The majority, 66 percent, prefer riding in a dedicated bike lane, but are confident enough to share roads with cars. The next largest group, 24 percent, preferred to ride only on dedicated paths, while 10 percent had no concerns with riding. Respondents favored creating or ensuring space for bicycles, such as bike lanes or separate bike paths. Bicyclists would like to see a number of improvements to make cycling safer and more convenient, as shown in **Table 2**.[64]

TABLE 2 2013 Bicyclists Survey: Improvements Needed to Make the Roadway Safer

Improvement	Percentage
Bike Lane	76%
Separated Path	44%
Share the Road Markings/Signs	34%
Small Shoulder	27%
Slower Traffic	18%

Source: Gulf Regional Planning Commission

Regional residents, transit operators and decision makers all have identified investment in existing infrastructure as a way to make roads safer and friendlier for pedestrians and bicyclists. Cyclists identified U.S. Highway 90 as particularly dangerous and as one of many roadways that could improve cyclist safety with:

- Clear crosswalks
- Sidewalks
- Dedicated bicycle lanes

Priority Actions

The *Plan for Opportunity* identifies four priority actions to improve bicycle and pedestrian infrastructure investment opportunities in the region. The priority actions will:

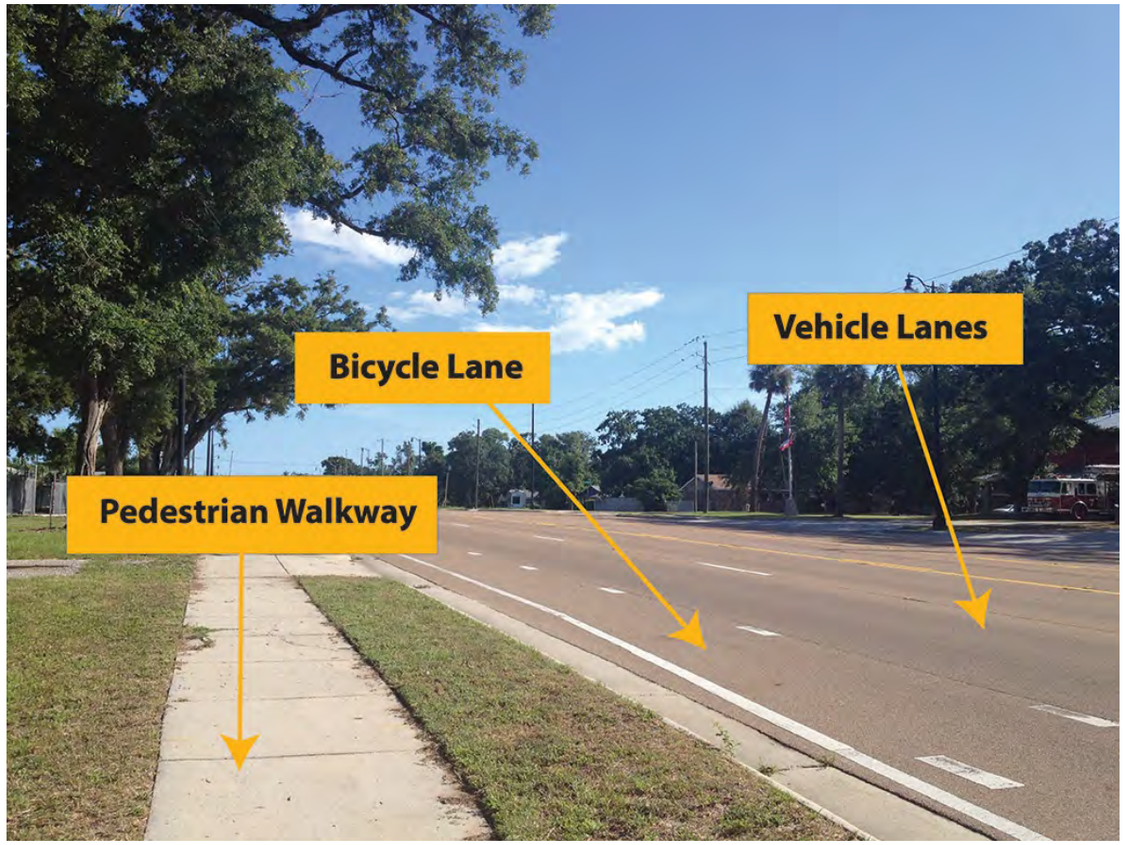
- Encourage more people to bike and walk
- Emphasize safety for all roadway users
- Demonstrate that transportation choice is valued in the community

Expand Bicycle And Pedestrian Networks

Mobility will be improved by increasing infrastructure and education for a variety of transportation choices. Improvement projects should provide more biking and walking paths, bike sharing locations and bike racks. Amenity improvements should be paired with information on safe cycling and proper use of bicycle helmets, lighting/reflectors and hand signals. Visible crosswalks with timed crossings and proper lighting will also create a safer network for people to walk and bike between activity centers.

Subcommittee: Air Quality, Transportation
Potential Partners: GRPC, MDOT, Cities, Counties

FIGURE 5 The Elements of a Complete Street



Source: The Ohio State University

Funding Sources: Surface Transportation Program funds, Transportation Alternatives Program funds, Congestion Mitigation and Air Quality funds

Design Roads To Include Walking & Bicycling

Existing criteria used to decide which transportation projects will be completed only considers car traffic on the roads. This means that people who walk or ride a bicycle are not always considered when roads are built. Communities of the Mississippi Gulf Coast

should adopt **Complete Streets** policies that ensure roadways are suitable for biking, walking and driving. **Figure 5** illustrates the elements of a complete street.

Subcommittee: Transportation
Potential Partners: GRPC, MDOT
Funding Sources: Potential partners' operating budgets

Require Amenities For Transit, Bicycles And Pedestrians

Amenities such as bus shelters, bike racks and sidewalks make all modes of transportation safer and more convenient for everyone. Local governments should incorporate pedestrian, bicycle and transit facilities into construction projects. Amenity projects can also be incorporated into capital improvement projects and comprehensive plans. Such policies ensure that the needs of pedestrians, cyclists and transit users are met.

Subcommittee: Housing, Transportation
Potential Partners: GRPC, Cities, Counties
Funding Sources: Potential partners' operating budgets

Improve Transportation Forecasts

The GRPC maintains and updates the regional Long Range Transportation Plan. The transportation model estimates the number of vehicles using roadways based on where a traveler starts from, where a traveler is going, how (by car, bus, bicycle, etc.) and by what route. Currently, the forecasting model does not include mode choice; it assumes all travelers prefer to use cars for all trips. The region can consider car alternatives in future transportation improvement plans with a forecasting model that includes additional modes of travel.

Forecasting will help allocate resources to reduce traffic congestion.

Subcommittee: Land Use
Potential Partners: GRPC
Funding Sources: Potential partners' operating budgets

Priority Action Area: Strengthen the Transit System

Current Conditions

Public transit is an important form of transportation for many coastal residents. Whether it is an occasional ride to a festival or a daily commute to work, the Coast Transit Authority (CTA) provides a range of bus services for the Mississippi Gulf Coast:

- Nine bus routes
- Commuter carpool and vanpool services
- Senior citizen demand-response transit
- Paratransit service for the disabled
- Five park-and-ride service locations
- Comfort stations along the Harrison County Sand Beach

Transit service is located close to activity centers along U.S. Highway 90 near the coastline. There is limited access to public transit for residents who commute from their homes north of Interstate Highway 10 or from Hancock and Jackson Counties.

In April 2013, GRPC conducted a survey of transportation needs finding:

- 40 percent of 120 Pascagoula residents surveyed do not own a car but rely on one to get around
- 15 percent of respondents walk, bike, or ride the bus in order to get to their destination
- Some residents note the great inconvenience of not having access to reliable transportation[65]

CTA's main priority is to focus on the commuter by improving service coverage and frequency along mobility corridors within the existing service area. In the past, CTA has worked to reduce the wait time between buses and introduce new service options, resulting in increased ridership.[66]

- CTA system-wide ridership for Fiscal Year 2013 totaled 1,145,614
- CTA fixed route ridership for Fiscal Year 2013 totaled 914,782

- CTA ridership has more than doubled in the last five years

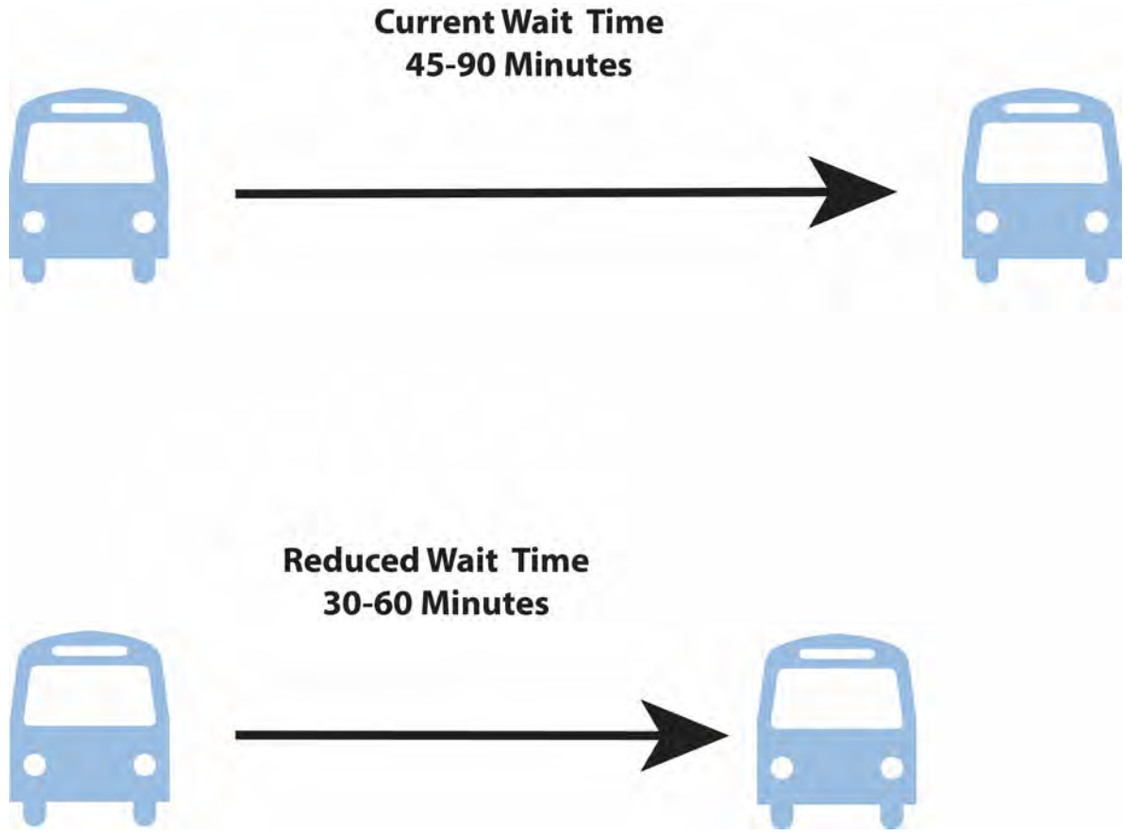
Residents feel that they would use the bus more if it were convenient and accessible. Current transit users would also like to see expanded evening and weekend hours on Biloxi and Gulfport Routes, which would require additional funding to support expanded service. The current funding levels prevent CTA from increasing hours. For residents in Pascagoula, they would like to see more public transit options.

Most of the people who use vanpool services are happy with the current pick-up locations but would like to see improvements to the pick-up lots, including increased lighting, marked spaces and paved parking lots. Eighty-five percent of those surveyed overwhelmingly agreed that transit improvements would provide better access to their work and school destinations.[67] Increased access to the CTA's range of services will be a necessary step toward improved transportation choice for all Mississippi Gulf Coast residents.

Priority Actions

The *Plan for Opportunity* identifies three priority actions to increase the efficiency and desirability of the transit system. The priority actions will:

FIGURE 6 Reduced Wait Time Between Buses



The wait time between buses is either 45 minutes or 90 minutes. This means if a person misses the bus they could wait up to 90 minutes before the next bus comes. The Plan for Opportunity proposes reducing wait times, known as headways, to 30 to 60 minutes.

Source: The Ohio State University

- Encourage more people to ride the bus and take advantage of vanpool services
- Make transit a more competitive option to driving
- Ensure safety and access for transit users

Reduce Wait Time For Buses

The current fixed route bus system operates on 45/90 minute **headways**, meaning that buses only come every 45 or 90 minutes. Instituting a 30/60 minute headway system will increase the number of buses running within a given period of time. Smaller headways reduce wait times and make the buses a more convenient option.

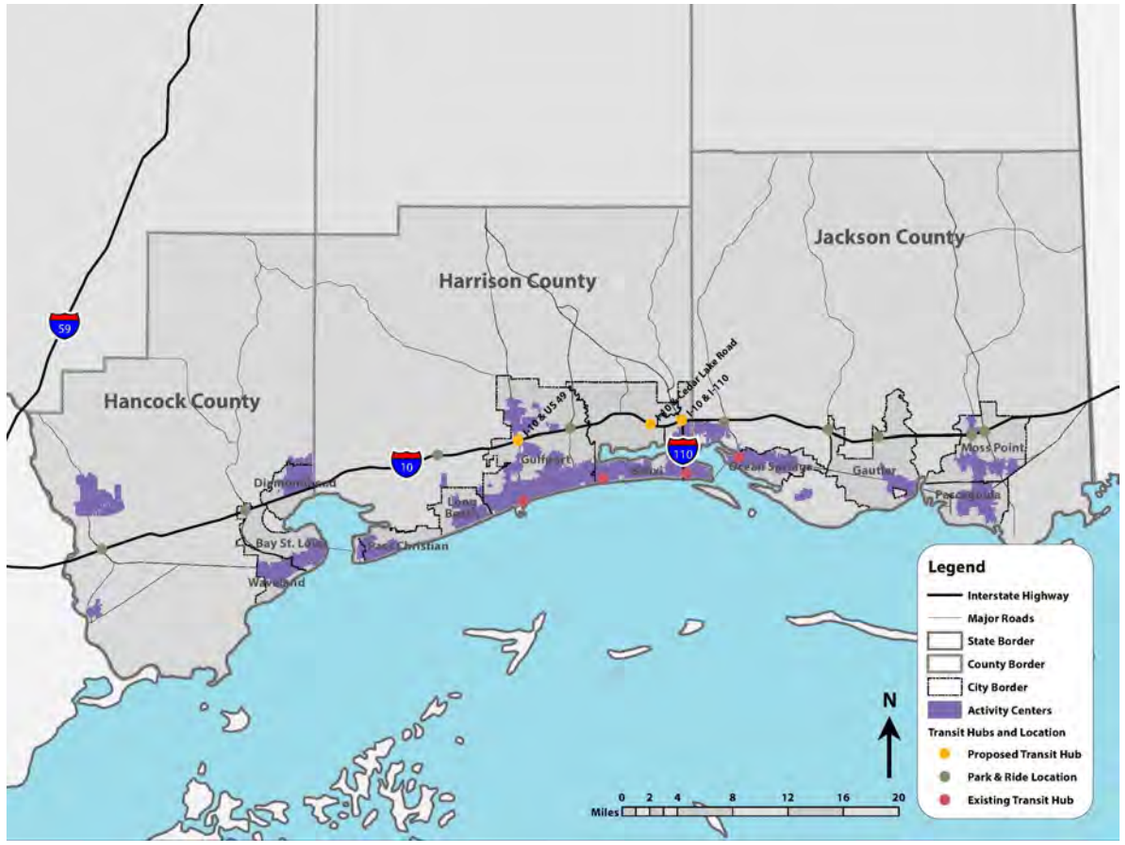
Subcommittee: Transportation
Potential Partners: GRPC, CTA
Funding Sources: Federal Transit Administration (FTA)

Run Express Buses On Busy Commuter Corridors

Express transit routes make fewer stops and reach popular destinations faster than traditional buses. Commuters prefer express routes because the overall commute time is lower. Express routes to serve commuters should be established on Interstate Highway 10 and U.S. Highway 90.

Subcommittee: Transportation
Potential Partners: GRPC, CTA
Funding Sources: FTA

Map 5 Existing and Potential Transit Hubs at Key North-South Intersections with Interstate Highway 10 and US Highway 90[68]



Source: Coast Transit Authority

Construct And Improve Transit Hubs And Bus Stops

Transit hubs provide access points to bus routes and/or vanpools. Transit hubs consist of signage, landscaping, covered waiting areas and parking lots where riders leave vehicles. Key locations for transit hubs include Interstate Highway 10 at U.S. Highway 49, Interstate Highway 110 and the Cedar Lake interchange,

A resilient transportation system is one in which many modes are available and accessible. This in turn will support a strong regional economy and a high quality of life as all coastal residents will have access to multiple forms of transportation.

see **Map 5**. The transit hub at Edgewater Mall could be improved to allow for better transfers between buses.

Subcommittee: Air Quality, Land Use, Transportation
Potential Partners: GRPC, CTA
Funding Sources: FTA

Implement Harrison County East-West Multi-Modal Corridor

Construction of a new arterial roadway spanning Harrison County in the vicinity of the CSX Transportation Corridor would serve to increase bus, bicycle and walking transit options for those in the southern portion of Harrison County as well as relieve traffic burden on US Highway 90. Additionally, this route could work to support planned transit hubs.

Subcommittee: Transportation
Potential Partners: GRPC, CTA, MDOT, FTA
Funding Sources: CTA and FTA

Priority Action Area: Increase Access and Mobility

Current Conditions

For some residents, accessing employment, health care, shopping and personal services is difficult. This is especially true for the elderly, the very young and those with physical or developmental disabilities. These residents, many of whom rely exclusively on public transportation, report feeling underrepresented in the existing transit network.[69]

Housing service providers note that buses only travel within a limited service area, which reduces the number of housing options for people with disabilities who need to live where there is transit service.

CTA has worked actively with the community through its Accessible Transportation Advisory Committee to develop services that meet the needs of the region. Americans with Disabilities Act (ADA) Paratransit service allows people to get a ride from their home to their needed destination if they are physically unable to get to a bus stop and live within the existing transit service area. **ADA Paratransit Plus** expands this service county-wide to any disabled person. Additionally, CTA provides a

Accessible transportation allows everyone to access the public transit system.

service for senior citizens in Hancock County. These needed services fill gaps in the existing fixed-route bus system. These are important links in the transit system.

- The **demand response service** offered to the elderly and disabled has a 20 minute window of time during which

residents can be picked up or dropped off, which often makes getting to work or appointments on time difficult.

Priority Actions

The *Plan for Opportunity* identifies a priority action to increase mobility options for seniors and residents with disabilities. The priority action will:

- Improve mobility for all residents in the region and increase their access to retail outlets, food, medical, personal, recreational and community services
- Improve the overall health and well-being of Mississippi Gulf Coast residents

Expand CTA's ADA Paratransit Plus Program To Include Commuters

An expanded ADA Paratransit Plus service will bridge locations outside the transit service area to destinations inside the fixed route service area. As a result, the ADA Paratransit Plus program will benefit from increased ridership and coastal commuters will benefit from an expanded service area. The CTA will reach a larger ridership base by coordinating its existing ADA Paratransit Plus routes to drop passengers off at CTA hubs and by expanding the program to provide transportation for work trips in areas of the region not served by fixed-route transit.

Residents at the Cadet Point Senior Village enjoy convenient access to public transit. Expanding the ADA Paratransit Plus service will connect people living outside the transit service area to more destinations.

Subcommittees: Economic Development, Housing, Land Use, Transportation
Potential Partners: County Boards of Supervisors, CTA
Funding Sources: FTA

Portrait

Like many working families across the country, one young Mississippi Gulf Coast family of three has felt the impacts of the national recession. On the Coast the effects of the national recession are compounded with the impacts still felt years after Hurricane Katrina. This family came back to the community they love, but the businesses they once shopped at haven't all returned. Like many coastal residents, this family relies on the bus to take them to businesses outside of their neighborhood. When we met this family they were tired and standing in the hot sun with six large bags filled with groceries. Their adorable daughter was quietly standing on the bench next to her mother.

This friendly family told us a story about the challenges of a simple grocery shopping trip. The young parents and their three-year-old daughter take the bus to the grocery store. Each week they go shopping for perishable foods at more expensive stores in their neighborhood. Once a month, the family goes to the Biloxi Wal-Mart for their major grocery shopping trip because of the lower prices. While the Coast Transit Authority provides reliable service, it takes three to four hours to complete their monthly major grocery shopping trip. Once they finish their shopping at Wal-Mart they cross the street to Winn-Dixie to buy their fresh food items.

Video 3 Transportation Choices on the Mississippi Gulf Coast

Source: The Ohio State University

Farmers Markets like this one in D'Iberville offer one pathway to increased community food access.

There are no sidewalks or crosswalks, so the family runs across the four-lane road to get to the Winn-Dixie. After buying their groceries, they have to wait in the hot sun because there is not a covered bus stop. Because of the large number of bags they carry, the family has been turned away by bus drivers and left to take a taxi and incur unexpected expenses in their monthly budget. The Coast Transit Authority acknowledges the problem of lack of shelters at Wal-Mart and Winn-Dixie and continues to seek permission from the property owners to put in shelters. Over the last few years Coast Transit Authority ridership has reached an all-time high and is continuing to grow. Grocery stores are the most popular destination for bus riders.

Section 6

Measuring Progress

This section describes the benefits and includes indicators that will gauge the region's progress toward achieving the benefits. Each indicator will have targets for measuring actual or quantifiable progress over the twenty year planning horizon.

The benefits of improving transportation choice include:

1. Promoting Equity
2. Enhancing Quality of Life
3. Preserving the Environment

Promoting Equity

Providing more transportation choices promotes social equity across the region by:

- Improving connections between home and work
- Increasing the income available to residents to save or spend on goods and services
- Increasing access to employment, healthcare and healthful food

The result is a region that is friendly to visitors and residents alike and that does not prioritize auto-oriented mobility or development over alternative modes.

TABLE 3 Commuting Mode Percentages for Mississippi Gulf Coast Counties

	2005-2007	2007-2011	2012
Drove Alone	82.6%	82.2%	80.0%
Carpooled	11.6%	11.8%	13.4%
Public transit	0.3%	0.3%	0.3%
Bicycle	0.2%	0.2%	0.3%
Walked	2.1%	2.0%	3.1%

Source: U.S. Census Bureau 2012 American Community Survey[70] 3-Year Estimates

The following indicator will measure the region's progress towards increasing access and promoting equity:

Commuting Mode Split

Improved transit, biking and pedestrian networks should encourage more Mississippi Gulf Coast residents to use transportation options other than driving alone. An increase in transportation options will save residents money, promoting equity throughout the region. The American Community Survey, (ACS) conducted through the U.S. Census Bureau, tracks the number of people who drive alone, carpool, use public transit, bike and walk to work. Higher rates of people using alternate modes indicate that residents have transportation options that increase their access to opportunity. **Table 3** shows commuting trends over the last eight years.

Target: By 2035, the Mississippi Gulf Coast will increase its commuting mode percentages:

- Public Transit From 0.3 percent to 1 percent
- Bicycle From 0.3 percent to 1 percent
- Carpool From 13.4 percent to 20 percent

Miles Of Bikeable Roads

Currently there are a little over 215 miles of the Mississippi Gulf Coast that are classified by AASHTO Standards as suitable for bicycles. Of these 215 miles, 124 miles are in Harrison County. Cycling is a healthy transit alternative to automotive transit, and many jurisdictions on the coast are implementing plans that try to provide for this form of transit. More miles of bikeable streets are expected to result from the implementation of these priority actions.

Target: By 2035, the Mississippi Gulf Coast will increase its number of bikeable miles by ensuring that at least 25 percent of new and rehabilitated road miles are bikeable.

TABLE 4 Miles of Infrastructure

	Harrison	Hancock	Jackson
Bikeable Miles	124.97	27.92	62.17

Source: Gulf Regional Planning Commission

Enhancing Quality of Life

Providing more transportation choices will increase the number of commuters who can choose to walk, bike or bus, thus enhancing the quality of life for residents of the region by:

- Reducing the number of cars on the road and mobile emissions resulting from vehicles
- Alleviating congestion and decreasing commute times
- Promoting healthy, active alternatives to driving
- Supporting access to and interaction with communities and neighborhoods

Decreasing commute times and the number of miles that residents drive each day promotes improved physical and mental health. Transportation choice can increase the amount of time that residents have to relax or do other things and can encourage informal exercise through walking or biking.

The following indicator will measure the region's progress towards achieving these benefits:

Coast Transit Authority (CTA) Ridership

The CTA is the primary public transportation authority for the region. Increased CTA ridership would indicate positive movement toward increasing transportation choices and enhancing quality of life for Mississippi Gulf Coast residents. CTA provides a quality service to customers that have limited mobility choices. People that do not have a car use transit every day to get to work, shop or go to the doctor. CTA's service is safe, reliable and fairly convenient. The focus of CTA going forward is to provide a service that is attractive to commuters. CTA will make route improvements, route adjustments, add amenities and build infrastructure to make the system more attractive to commuters that have a choice. In 2011, the CTA saw their aggregate ridership surpass one million and in 2012 a streamlining program increased ridership by 5 percent over the previous year. CTA's vision is to continue increasing ridership numbers by making transit an appealing mobility option for people that have a car. In order to accomplish this, CTA must make its bus system competitive with the personal vehicle.

Continued long-term growth in ridership numbers would indicate that more are using public transit. A more specific measure to determine if people are using transit for their work commute by

choice is a survey. CTA keeps track of who uses the bus system and for what purpose through weekly surveys. Through these surveys, CTA can monitor the percentage of people that are using the system for their commute to work and if they use the system out of necessity or choice.

Currently, on most of the routes in the system, 18 percent of the customers are using transit by choice for their work commute. As strategies from this plan are implemented and transit becomes more efficient, reliable and comfortable, this percentage will increase.

Target: By 2035, the Mississippi Gulf Coast will increase the percentage of people who choose to use transit from 18 percent to 50 percent.

Preserving the Environment

Providing alternative transportation choices will foster the continued resiliency of the Mississippi Gulf Coast's unique environment by:

- Lowering the amount of pollutants emitted into the air
- Lowering the number of daily VMT per capita
- Prioritizing higher-density population areas around existing travel corridors

These steps help to create an environment where new businesses can be established and existing businesses can experience growth. Together they create more opportunity for a broader segment of the population, all while decreasing the effects on air quality due to higher VMT. Improved air quality can also reduce respiratory issues and promote better public health.

Providing more transportation choice will help the region achieve the environmental outcome of:

- Decreased transportation-related emissions for the region

The following indicator will measure the region's progress towards achieving these benefits:

Vehicle Miles Traveled (VMT)

VMT measures the aggregate number of miles traveled by a vehicle. A drop in VMT can be taken as a positive indicator of higher alternative transportation use, lower transportation costs, lower vehicle emissions, better air quality and reduced vehicle congestion. VMT data are collected at the traffic analysis zone (TAZ) level by GRPC as the Metropolitan Planning Organization (MPO) for the Mississippi Gulf Coast. Current daily VMT per person in the region is 21.6 miles with an average of 2.3 daily trips per person. GRPC projects that VMT is expected to rise as people live farther from work and other daily needs. The long-term scope of

the recommendation seeks to reduce total aggregate and per capita VMT below current levels.

Target: By 2035, the Mississippi Gulf Coast will reduce VMT per person from 21.6 to 19.

Bicycling offers a health alternative to driving. Providing infrastructure such as bicycle lanes makes traveling by bicycle safer.

Chapter 3

Promote Equitable, Affordable Housing

Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Section 1

Introduction

The *Plan for Opportunity* has three Priority Action Areas for promoting equitable and affordable housing:

1. *Expand access to housing options*
2. *Advance housing resiliency*
3. *Build capacity to increase* ***fair housing***

Priority Action Area: Expand Access to Housing Options

Current Conditions

Sources of funding to help residents purchase or rent homes have decreased significantly since 2008. Since the housing crisis, obtaining a mortgage loan has become particularly difficult for low-income residents who may have low or no credit scores and may not have a bank account. Mississippi has the largest "unbanked" population in the nation.[71] The unbanked population is disproportionately young, non-white and low income.[72] These "unbanked" households more frequently resort to alternative financing services such as check-cashing stores and pawnshops.[73] Use of these alternative financing services is extremely costly and can trap users in a cycle of increasing debt. In addition, use of these services does not allow one to build credit.

- Over 50 percent of unbanked households, those without a bank account, have incomes below $30,000
- 33.6 percent of black households in Mississippi are unbanked[74]
- As of 2009, there were only 800-1350 banks in the three coastal counties[75]

Unbanked households typically feel that they do not have enough money to open an account.[76] Unbanked households are more likely to be denied a loan and may also lack the financial literacy needed to purchase a home.

The Gulf Coast Renaissance Corporation (GCRC), an affordable housing lender in the region, found that flexible financing options are needed, especially for low- and moderate-income families who cannot afford a mortgage payment. Some lenders have adopted strategies to support greater flexibility in lending:

- The Mississippi Gulf Coast Habitat for Humanity accepts 12-month payment histories on rent, utility bills, or car payments instead of using credit scores
- **Hope Enterprise Corporation** and the Gulf Coast Community Credit Union have no minimum credit score and will consider loan applicants based on payment history and willingness to participate in a homebuyer education program[77]

Housing providers such as Mercy Housing and the Gulf Coast Renaissance Corporation provide affordable housing options throughout the coastal region.

In order to expand access to housing, financial literacy and homebuyer education are essential skills, according to housing service providers. They emphasize the need to educate homebuyers about insurance and financing options in particular.

- Mercy Housing is a national housing service provider offering financial literacy education
- Hope Enterprise Corporation, a Mississippi-based organization, offers financial literacy, credit management, and housing counseling services

The region takes advantage of several federal programs to increase the affordability of housing. HUD provides Mississippi with:

- **Housing Choice Vouchers (HCV)** for low-income residents
- **Section 202 funding** to support elderly housing
- **Section 811 funding** to support housing for persons with disabilities

These programs have helped the region. However, **public housing authorities (PHAs)**, the primary administrators of affordable rental housing programs, point out that there are not enough funds to help all of those in need of assistance. Non-profit housing resource centers also have limited funds to effectively help residents with housing costs.

Priority Actions

The *Plan for Opportunity* identifies two priority actions to expand housing access. The priority actions will:

- Educate residents about housing finance options
- Increase funding to make housing affordable for all

Build Capacity And Promote Awareness Of Financial Literacy Initiatives And Programs

Financial illiteracy and the lack of many residents' ability to meet housing finance eligibility criteria are significant barriers to accessing housing in the region. Residents can learn more about their housing options through financial literacy initiatives and programs. The existing financial literacy programs on the coast are underutilized. Stronger partnerships and referral networks, along with formal marketing and outreach, will help raise awareness of programs. Expansion of funding would enhance existing programs and allow more people to access these services.

Subcommittee: Housing
Potential Partners: Gulf Coast Community Design Studio (GCCDS), GRPC, *Plan for Opportunity* Housing Subcommittee, GCRC
Funding Sources: Potential partners' operating budgets

Establish A Regional Housing Trust Fund Program

A **housing trust fund** provides a dedicated source of funding to support the creation, preservation and improvement of housing to meet a region's needs. Cities and counties work together to use the trust fund to leverage funding to meet housing needs. A Mississippi Gulf Coast Housing Trust Fund should support retrofit programs, housing for persons with disabilities and transitional housing for the homeless. The Trust Fund should work in conjunction with existing programs and financing opportunities.

Financial literacy programs allow more of the region's residents to buy homes.

The Housing Trust Fund should be created with state enabling legislation that establishes a dedicated funding source, an administering agency and a board of directors. To administer these programs, specific goals and requirements should be determined based on input from the board of the trust fund and the regional housing coalition.

Subcommittee: Housing
Potential Partners: GCRC
Funding Sources: GCRC, **CDBG funds**, developer fees, taxes, loan repayment fees

Priority Action Area: Improve Housing Resiliency

Current Conditions

Hurricane Katrina resulted in the destruction of many homes across the Mississippi Gulf Coast. Since the storm, insurance premiums for housing rose significantly, making it challenging for homeowners to afford the cost of insurance:

- Mississippi homeowners have the fourth-highest insurance premiums in the nation
- Insurance costs an average of $1,185 each year per home
- Wind insurance premiums have increased 90 percent since Hurricane Katrina
- Homeowners insurance premiums have increased 33 percent since Hurricane Katrina
- Insurance premiums can more than double the monthly cost of housing[78]

Public officials recognize that the cost of insurance is the greatest impediment to the affordability of housing. Rising insurance premiums have led to high rates of housing cost burden. Homeowners are required to carry insurance. For renters, the cost of insurance is built into the rent they pay. The result is that many families struggle to afford housing.

HUD defines affordable housing as housing that costs less than 30 percent of the resident's income. Households that spend more than 30 percent of their income on housing are considered to be housing cost burdened. When considering the combined cost of housing and insurance, many households are burdened.

On the Mississippi Gulf Coast, cost-burdened households are more likely to be:

- African American, Hispanic, or Asian descent
    - Non-white households are twice as likely to be extremely low income and more likely to be very low income or low income
- Head of household under 25 or over 65 years old

- 48 percent of households headed by someone over 60 are spending more than 30 percent of their household income on housing in Jackson County[79]

- Renter

  - 30 percent of homeowners are housing cost burdened

  - 50 percent of renters are housing cost burdened[80]

Many homeowners are looking for ways to reduce the cost of insurance. Insurance discounts can be achieved by making housing more resilient through **retrofitting** and fortification. Retrofitting and fortifying housing often requires:

- Elevating homes to a higher distance above grade
- Ensuring that hurricane straps are used to secure roofs
- Sealing roofs to prevent wind and water damage
- Installing hurricane rods to increase structural stability
- Attaching storm shutters to windows and doors

Insurance agents see retrofitting programs as a key strategy to reduce insurance premiums, but they have few clients that have taken advantage of these reductions. While many public officials are supportive of programs to make housing more resilient, a major concern is the cost to homeowners of retrofitting. Retrofit and fortification programs are not widely used because of the up-front costs.

A resilient housing system is one that allows for greater housing types and ownership within existing neighborhoods, while ensuring more fortification and storm resistance for those homes.

To reduce the cost, the Mississippi Emergency Management Agency (MEMA) has initiated **Coastal Retrofit Mississippi (CRM)**, a program that provides a 90 percent grant when the homeowner pays 10 percent of the retrofit cost. While the program was initiated for only two years, it is hoping to become an ongoing source of support for retrofitting homes.

In addition to CRM, other organizations are currently working to increase the resiliency of coastal housing. Smart Home America operates a FORTIFIED program to strengthen homes. The program was developed through the **Insurance Institute for Business and Home Safety (IBHS)** and promotes decreased insurance rates. Habitat for Humanity has also completed two affordable FORTIFIED homes along the Mississippi Gulf Coast.

Priority Actions

The *Plan for Opportunity* identifies a priority action to create resilient housing. The priority action will:

- Increase education and funding to fortify and retrofit housing

Roofing upgrades like strapping help reduce storm damage under high wind conditions.

Build Capacity And Promote Awareness Of Fortified Housing Initiatives And Programs

Regional insurance costs are high due to risk of wind and water damage. Retrofitting and fortified housing programs make homes more resistant to damage and help residents reduce their insurance premiums. Existing fortification and retrofit programs are underutilized and awareness of initiatives is limited. Cost/benefit analyses of retrofits and marketing for programs should be funded. More people are likely to use retrofit programs if they understand the direct benefits. Housing service providers can incorporate information about reducing insurance costs into existing homeowner education programs. Fortified housing initiatives will make housing more affordable and resilient.

Subcommittee: Housing
Potential Partners: MEMA, Cities, Counties
Funding Sources: FEMA, MEMA, Insurance Services Office (ISO), Mississippi-Alabama Sea Grant Consortium

Priority Action Area: Build Capacity to Increase Fair Housing

Current Conditions

Fair housing policies ensure that everyone has equal access to housing opportunities regardless of:

- Race, color and ethnicity
- Religion
- Sex
- Family status
- Handicap or disability[81]

Fair housing is a crucial aspect of promoting affordable, equitable housing. Access to fair housing defined by the Fair Housing Act as amended in 1988, is a key issue in the region that is intensified by the fact that there is no state-level fair housing enforcement agency or legislation in Mississippi and because the general public is not adequately informed about their fair housing rights.

A lack of fair housing policies can leads to households that are more likely to experience:

Fair housing principles ensure that all residents have equal access to housing opportunities. Zoning ordinances can allow for a variety of housing types and increase access to affordable options.

- "Steering" toward certain neighborhoods when they are buying or renting a home
- Denial of a mortgage loan

- Being offered a **predatory or subprime mortgage loan**
- Denial of a rental agreement

When it was operating, the Gulf Coast Fair Housing Center received 42 percent of the formal housing discrimination complaints in the state of Mississippi, even though the coastal counties make up only 12.5 percent of the state's population. Most fair housing complaints are based on race (37 percent), followed by disability status (29 percent).[82] In 2004, Gulfport and Pascagoula had two of the highest rates of subprime mortgage loans in the country, with many subprime loans targeted towards people of color and vulnerable neighborhoods.

Additionally, zoning ordinances throughout the region include definitions that do not support federal fair housing principles. For example, one jurisdiction defines a "family" as persons related by blood or marriage. This violates fair housing principles because it could lead to discrimination based on family status.

The current lack of state fair housing legislation and enforcement presents a significant challenge to promoting housing that is both affordable and equitable. While several organizations across the Mississippi Gulf Coast work to educate residents about their fair housing rights and ensure that everyone has equal access to housing, fair housing continues to be a challenge. Stakeholders throughout the region feel that it is necessary to improve fair housing opportunities.

Unfair Lending Practices

Predatory lending is the unfair, deceptive, or fraudulent practices that some lenders use during the lending process for home loans. This can include the practice of a lender in deceiving the borrower into agreeing to unfair or abusive loan terms. Subprime loans are used for people who may have difficulty maintaining a repayment schedule. These loans have higher interest rates and less favorable terms.

Payday loans are another example of lending that can be unfair. Payday loans can have an annual interest rate of up to 572 percent in the state of Mississippi. Based on a study by the Mississippi Department of Banking and Consumer Finance, payday lending has increased substantially in the state, with the highest concentration of payday lenders in the nation.

Priority Actions

The *Plan for Opportunity* identifies three priority actions to make housing more equitable for all. The priority actions will:

- Incorporate fair housing principles to allow for a variety of housing options

- Encourage compliance with fair housing laws and ensure every resident has access to housing that fits their needs

Encourage Jurisdictions To Review And Revise Policies To Comply With Fair Housing Laws

Fair housing laws ensure that everyone has access to housing options without discrimination. Zoning ordinances and policies can sometimes be barriers to fair housing compliance by limiting affordable housing options in a community. Exclusionary zoning can limit the types and size of housing, preventing the development of affordable housing. While many of these regulations affect access to affordable housing, they are not necessarily an impediment to fair housing choice as defined by HUD or in violation of the Fair Housing Act (FHAA). However, the regulation may be a violation of the FHAA if it disproportionately affects a population of a certain race, color, religion, sex, ability, family status, or national origin.

Jurisdictions on the coast are encouraged to revise the definitions of "family" and "group home" in their zoning ordinance to be more inclusive. Official definitions of "family" are inconsistent throughout the region and some limit fair housing choice.

Non-traditional households may not meet the jurisdictional definition of a family and may not be granted the same opportunities as other households. Group homes are one method of housing persons with disabilities and elderly populations within existing communities. Group homes are not allowed in most residential zones. Several jurisdictions have definitions or maximum occupancy rules that limit access to this type of housing.

Subcommittee: Housing
Potential Partners: GCCDS, USM Institute for Disability Studies, GRPC
Funding Sources: Potential partners' operating budgets

Establish A Regional Housing Coalition

A regional housing coalition will better identify the current and future housing needs of the Mississippi Gulf Coast region, monitor progress and continue planning for housing from a regional perspective. In addition, a housing coalition will enable continued collaboration between housing and housing-related service organizations. A housing coalition should be made up of existing organizations and jurisdictions on the coast under a formal agreement.

Subcommittee: Housing
Potential Partners: GCCDS, MJC
Funding Sources: Potential partners' operating budgets

Use Assessment Tools To Examine Housing From A Regional Perspective

The Fair Housing and Equity Assessment, part of the *Plan for Opportunity*, provides current information about housing in the Mississippi Gulf Coast region. Monitoring and planning for housing needs on the coast is important from a regional perspective. A regional, rather than jurisdictional, approach will be more successful at addressing housing challenges and will improve the coastal counties' eligibility for state and national funding opportunities. A regional Fair Housing and Equity Assessment or Regional **Analysis of Impediments (AI)** should ideally become a regular task of a regional housing coalition.

Subcommittee: Housing

Potential Partners: Mississippi Gulf Coast Housing Coalition, GCCDS

Funding Sources: Jurisdictional budgets, Mississippi Gulf Coast Housing Trust Fund

Planning for the future housing needs of the Mississippi Gulf Coast is important to ensuring access to housing throughout the region.

Portraits

Coastal Retrofit Mississippi

Following Hurricane Katrina the region has seen significant increases in insurance premiums. Many coastal families cannot afford this increased cost.

Coastal Retrofit Mississippi, managed by MEMA, is a program dedicated to helping the region increase the number of homes that are resilient to wind damage and cost less to insure. The program helps to retrofit homes with special shutters, doors and construction items for attics and roofs that are built to sustain wind loads in the region. MEMA provides 90 percent of the cost through the Hazard Mitigation Grant Program. The types of retrofits used by Coastal Retrofit reduce the potential for damage to a home and are designed to meet or exceed all local building codes.

Coastal Retrofit recognizes that each individual home has different retrofit needs. The agency offers different degrees of retrofitting in various packages from which homeowners can choose. Each home goes through an inspection followed by an analysis that helps to determine which retrofit package would be best suited to that home. After the homeowner decides on a

retrofit package, the installation process begins. Each step in the process is fulfilled by Applied Research Associates, Inc. Southern Division (ARA), a Mississippi engineering firm, providing continuity and security throughout the course of the project.

The philosophy of CRM is that a rapid return of residents to the region will mean a rapid recovery. Coastal Retrofit was designed to help current residents alleviate some costs of homeownership, but the hope is that the program may encourage other coastal residents to delve into homeownership or motivate past residents to return to the region.

Coastal Retrofit not only makes homeownership a feasible, viable reality; it creates an enjoyable, positive experience.

VIDEO 4 Retrofitting Housing Makes a Safer, More Resilient Coast

Source: The Ohio State University

Section 6

Measuring Progress

In this section the benefits are described and include indicators that will gauge the region's progress toward achieving the benefits. Each indicator has a target of quantifiable progress over the twenty year planning horizon.

The benefits to promoting affordable and equitable housing include:

1. Better Quality of Life
2. Decreased Housing Costs
3. Increased Resilient Housing

Better Quality of Life

Housing has a direct relationship with quality of life. Adequate and affordable housing strengthens communities and establishes homes that are stable, safe and not cost burdensome. When residents are able to rent or own a home without high cost burden, they can devote more of their income to other household needs. As a result, the stress associated with paying a large portion of household income towards housing is reduced leading to better mental and physical health.

The following indicators will measure the region's progress towards these benefits:

Racially Concentrated Areas Of Poverty

Racially Concentrated Areas of Poverty (RCAP) are defined as Census tracts that contain:

- A family poverty rate greater than or equal to 40 percent or a family poverty rate greater than or equal to 300 percent of the metro region's tract average (whichever is lower); and
- A majority (greater than 50 percent) non-white population

RCAPSs indicate the presence of both racial and economic segregation. Residents in these areas typically have decreased access to opportunities such as employment and quality education. There are currently five RCAPs within the Mississippi Gulf Coast Region. Two percent of the region's population lives in a RCAP.

Target: By 2035, the Mississippi Gulf Coast will reduce its number of RCAPs from five to three.

Housing Choice Voucher Recipient Location

Housing Choice Vouchers allow people to use housing subsidies in the private market. Vouchers are paid directly to landlords for affordable, safe and decent housing. By considering the HCV recipient locations, it is possible to assess whether low-income households have access to employment and adequate school systems. HCV recipient location data is available through HUD at the Census tract level through the online and free database "Picture of Subsidized Households." Currently, HCV recipients are clustered in areas with low access to important resources. Just over 50 percent of housing vouchers are used in low opportunity areas.

Target: By 2035, the Mississippi Gulf Coast will reduce its percentage of HCVs in low and very low opportunity areas to 25.

Decreased Housing Costs

Households that are not housing cost burdened can:

- Afford other expenses such as healthcare, education and food
- Reduce time searching for adequate housing
- Have housing stability

The following indicator will measure the region's progress towards achieving these benefits:

Location Affordability Index

The Location Affordability (LA) Index measures the median cost of housing and transportation for households at the census tract

level. While some housing affordability measurements leave out hidden costs of transportation, the LA Index takes these costs into account. The LA Index is maintained by the Partnership for Sustainable Communities and is updated following releases of the ACS. According to the LA Index, an average of 52% of income is spent on transportation and housing. Lower housing and transportation costs, combined with other indicators, would indicate that households have more transportation options from which to choose.

Target: By 2035, the Mississippi Gulf Coast will reduce combined housing and transportation costs by two percentage points.

Increased Resilient Housing

Natural disasters impact large percentages of homes along the Mississippi Gulf Coast. Wind and water damages are expensive and the experience of losing a home entirely can be traumatic. The *Plan for Opportunity*'s strategies will reduce the number of homes that are vulnerable to flooding from hurricanes. Housing should be adapted to prevent damage and loss. Residents and communities will be able to:

- Return to their homes after disasters
- Afford the cost of rebuilding
- Reduce trauma and stress
- Ensure property values will increase
- Ensure insurance costs will decrease
- Ensure neighborhoods will remain intact

The following indicator will measure the region's progress towards these benefits:

Improvement And Retrofit Program Use

Improvement and retrofit programs protect homes from potential natural disasters. MEMA currently offers a Hazard Mitigation Grant Program administered through CRM. CRM provides a variety of retrofit options, ranging from stabilization of roof structures to entire retrofits that achieve Insurance Institute for Business and Home Safety (IBHS) bronze or silver certification. This indicator will utilize CRM data on the number of retrofits and amount of dollars expended. To date, 425 homeowners have been approved for or completed retrofits

Target: 650 homes retrofitted under the CRM program

Chapter 4

Enhance Economic Competitiveness

Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

Section 1

Introduction

The *Plan for Opportunity* has three Priority Action Areas for guiding the economic growth and development of the Mississippi Gulf Coast and improving employment opportunities throughout the region:

1. *Increase the Region's Financial Security*
2. *Nurture A Culture Of Entrepreneurship And Innovation*
3. *Decrease Barriers to Employment*

Priority Action Area: Increase the Region's Financial Security

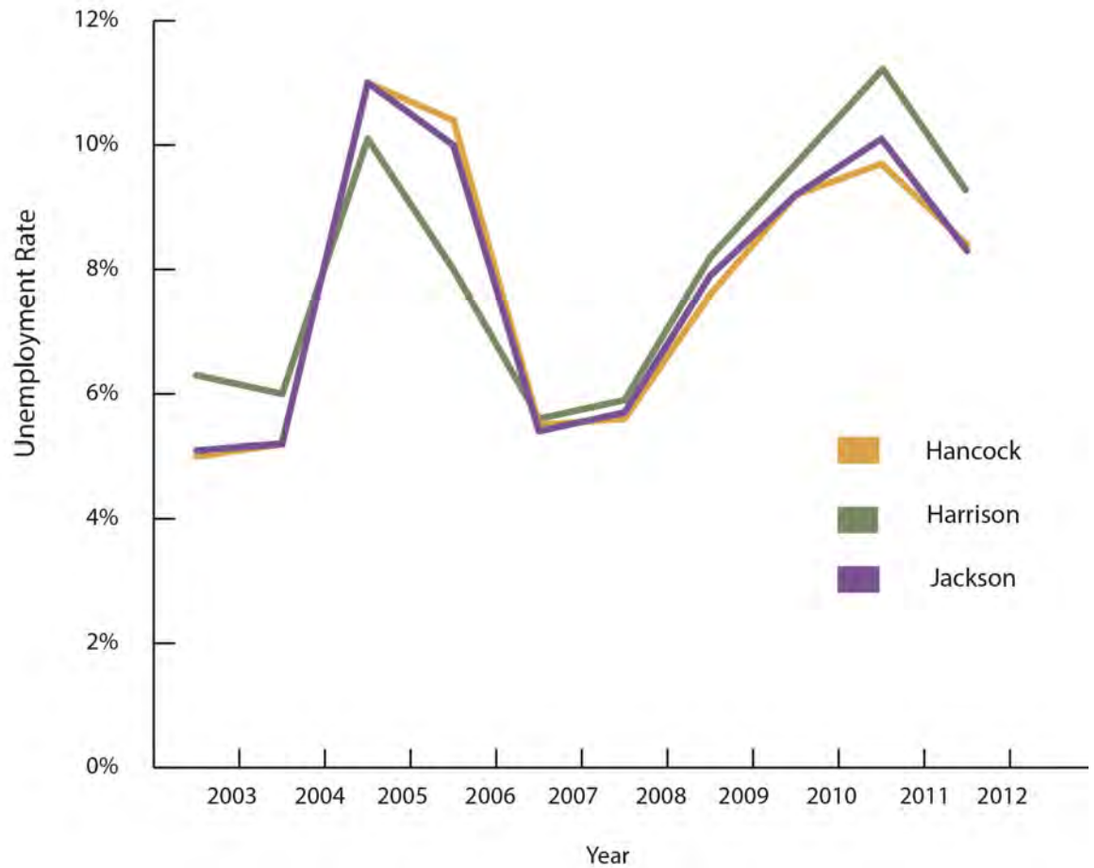
Current Conditions

The economy of the Mississippi Gulf Coast region suffered from the effects of Hurricane Katrina in 2005, the national recession beginning in 2007 and the oil spill in 2010. Unemployment rose sharply after each of these economic shocks, resulting in economic struggles for many households in the region.

- Unemployment reached a ten year high of 11.2 percent in Jackson County in 2011, as seen in **Figure 7**
- Unemployment varies by race/ethnicity, reaching as high as 39%, as seen in **Table 5**
- By 2018, the Mississippi Department of Employment Security forecasts the unemployment rate will decline to 5-6 percent

One of the biggest concerns on the Mississippi Gulf Coast is the lack of high wage jobs, making it difficult for people to afford basic needs such as housing. Fifteen percent of all persons and 11.9 percent of families on the Mississippi Gulf Coast have incomes below poverty level, according to the Regional Economic Development Assessment.

FIGURE 7 Ten Year Trend Line of Unemployment on the Mississippi Gulf Coast



Source: Mississippi Department of Employment Security

TABLE 5 Unemployment by Race/Ethnicity Between 2008 and 2012

	Hancock	Harrison	Jackson	Combined Average
White	10.7%	8.2%	8.3%	9.0%
Black or African American	6.6%	12.8%	14.9%	11.4%
American Indian and Alaska Native	0.0%	5.6%	15.7%	7.1%
Asian	10.0%	5.1%	7.0%	7.4%
Native Hawaiian/ Pacific Islander	-	-	-	
Some Other Race	9.3%	26.9%	6.4%	14.2%
Two or More Races	39.3%	10.4%	17.3%	22.3%

Source: American Community Survey 5-Year Estimates, 2008-2012

- The average wage rate for the Gulfport-Biloxi Metropolitan Statistical Area (MSA) is $17.52 hourly or $36,340 annually. The Pascagoula MSA is slightly higher with an average wage rate of $18.86 hourly or $39,240 annually
- While occupations in the areas of law and management have the highest rates of pay, these occupations are expected to show limited growth through 2018
- The lowest paying jobs in the region are food preparation and serving related, with Gulfport-Biloxi MSA paying an average of $9.58 an hour, while the Pascagoula MSA is slightly lower at $8.97 per hour
- The Food Service and Accommodations Industry employs the most people on the Mississippi Gulf Coast, other than the government. A 13 percent increase is projected in the employment numbers of the industry from 2008 to 2018, increasing the number of low wage jobs in the region
- Nationally, job growth in part-time employment is up. In June 2013, 19 percent of the US employment was in part-time jobs.

The region has well-defined target industry clusters and marketing programs to recruit new businesses and encourage expansion of existing businesses, such as aerospace and defense; data and call centers; metal fabrication; polymers and advanced materials; warehouse and distribution; energy; marine science; and tourism. These targeted industries are in part based on where job growth is expected, as seen in **Table 6**. In order to attract higher wage businesses to grow in the region, there must be an educated workforce ready to join these businesses.

TABLE 6 Industry Employment Projections for the Top 10 Fastest Growing Industries on the Mississippi Gulf Coast[83]

NAICS Category	2008 Employment	2018 Projected Employment	Growth - Number	Growth - Percentage
Retail Trade	20,340	22,970	2,630	12.9%
Transportation and Warehousing	3,840	4,240	400	10.4%
Real Estate and Rental and Leasing	2,180	2,470	290	13.3%
Administrative and Support and Waste Management and Remediation Services	9,040	11,110	2,070	22.8%
Educational Services	860	1,040	180	20.9%
Health Care and Social Assistance	14,260	17,900	3,640	25.5%
Arts, Entertainment and Rec	5,460	6,810	1,350	24.7%
Accommodation and Food Services	28,910	32,880	3,970	13.7%
Other Services (Except Government)	7,230	8,240	1,010	13.9%
Total Employment, All Jobs	**204,070**	**227,640**	**23,570**	**11.5%**

Source: United States Department of Labor, Bureau of Labor Statistics

- Economic development professionals report that there is a mismatch between jobs available and the skill sets of the existing workforce
- Specifically, economic developers have found that there is a shortage of welders and steel workers
- With a large percentage of the workforce in industrial trades nearing retirement age combined with a national trend away from technical college programs, there may soon be a large skills gap in the manufacturing and industrial job sector
- High school and college graduation rates have increased by more than 10 percent from 2000 to 2010 and are above the state averages. However, challenges still remain in ensuring the workforce is well educated to work in aerospace, healthcare, energy and manufacturing

The Mississippi Gulf Coast has many physical assets that help with recruitment and retention, such as:

- Commercial air service and general aviation are adequate with room to expand based on current demand
- The ports along the Mississippi Gulf Coast give the region's economic development efforts a competitive advantage
- The railways, highways, roads and bridges all adequately accommodate business and industry in the region

Priority Actions

The *Plan for Opportunity* identifies four priority actions to grow a regional workforce with the capabilities of earning a high wage job. The priority actions will:

- Enable the region to be proactive in aligning the skills of the local workforce with industry trends and identify areas of growth where a trained workforce is needed
- Improve the technological capabilities of the region to attract innovative industry
- Build the strength and resiliency of its economy by leveraging its assets

Target High Wage Industries

The region should target its economic development strategies towards industries and employers that pay higher than the average wage rates.

Subcommittee: Economic Development
Potential Partners: Gulf Coast Alliance for Economic Development
Funding Sources: Local economic development organizations

Grow The Healthcare And Energy Sectors

The Governor's office has identified health care and energy sectors as key targets for economic growth. The region should study the opportunities for growth in these sectors and develop strategies to attract growth in these industries.

Subcommittee: Economic Development
Potential Partners: SMPDD, Gulf Coast Alliance for Economic Development
Funding Sources: Mississippi Development Authority (MDA), U.S. Economic Development Administration

Monitor Growing Industries

Monitoring industries that have gained or lost employment in the past, as well as studying industry employment projections, will help determine where available jobs are likely to be in the coming years.

Subcommittee: Economic Development
Potential Partners: SMPDD, Gulf Coast Alliance for Economic Development, Community Colleges

Funding Sources: Mississippi Department of Employment Security, U.S. Department of Labor

Study The Perception Of "Brain Drain"

The region should study the perception of "**brain drain**" along the Mississippi Gulf Coast and identify its impacts. If "brain drain" does exist on the Mississippi Gulf Coast, the region should identify solutions and expand its young, educated workforce by creating an atmosphere that encourages college graduates to stay on the Mississippi Gulf Coast.

Subcommittee: Economic Development
Potential Partners: University of Southern Mississippi (USM) Trent Lott Center for Economic Development Excellence, SMPDD
Funding Sources: U.S. Economic Development Administration, MDA, Institutions of Higher Learning, U.S. Department of Labor

Priority Action Area: Nurture A Culture of Entrepreneurship and Innovation

Current Conditions

A culture of entrepreneurship is one in which aspiring business owners are encouraged and supported as they assume the personal and financial risk of launching a new business venture. Entrepreneurs have continued to open new businesses, but with varying success:

- Between 2009 and 2011, more businesses closed than opened in the region
  - This is similar to the state's trend in business closure
- Between 2007 and 2010, Mississippi's small businesses lost 37,490 jobs
- Most of Mississippi's small businesses have less than 20 employees
- In 2011, 545 new businesses opened in on the Mississippi Gulf Coast. However, that was matched with a closure of 545 businesses

Priority Actions

The *Plan for Opportunity* identifies four priority actions to nurture a culture of entrepreneurial innovation across the region. The priority actions will:

- Generate economic growth through new business and existing business expansion
- Increase the region's income levels by growing business successes
- Leverage the region's assets in the food industry

Improve Connections Between Small Business/ Entrepreneurship Assistance Providers

Improving connections between small businesses and entrepreneurship assistance providers will help aspiring entrepreneurs. There appears to be a disconnect between the different small business/entrepreneurship providers. Some offer provide one service, such as business plan assistance, while others some provide another service. Providers provide a mix of information to prospective businesses. Prospective businesses

Sharing success stories of the region's entrepreneurs should encourage others to start businesses.

would like to be able to go to one location and be provided with a comprehensive package of resources needed to successfully start their business. Having all the information needed would allow for businesses to successfully reach out to access the resources they most need.

Subcommittee: Economic Development
Potential Partners: Small Business Development Center, existing incubators, CLIMB CDC, Mississippi Enterprise for Technology, GCRC

Funding Sources: U.S. Small Business Administration, MDA, Edward Lowe Foundation, Kaufmann Foundation

Promote Entrepreneurial Successes In The Region

Many locally owned businesses on the Coast have prospered. It is important for the region to promote these entrepreneurial successes stories to encourage others to start businesses. The region should establish a coordinated promotional effort of these success stories.

Subcommittee: Economic Development
Potential Partners: Chambers of Commerce, Gulf Coast Alliance for Economic Development, Gulf Coast Business Council
Funding Sources: Chambers of Commerce, Mississippi Gulf Coast Alliance for Economic Development, Gulf Coast Business Council, MDA

Grow Food Businesses

Loans and grants for startup and/or expansion of local food-related businesses will focus investment in locally sourced foods by providing technical assistance, networking and idea exchange for home businesses looking to grow into commercial operations. Local markets can serve as direct outlets for food businesses.

Specific to the seafood industry, third party certification of products, private leasing of oyster beds and large-scale open sea

Food is an essential part of the culture of the Mississippi Gulf Coast. Programs to support home businesses looking to grow into commercial operations will help the region's economic competitiveness.

aquaculture operations all serve to help guide the future of the seafood industry. A round-table discussion connecting stakeholders throughout the seafood supply chain would aid in identifying and breaking down barriers to the successful future of the seafood industry.

Subcommittee: Food
Potential Partners: MDA, Mississippi Economic Development Council (MEDC), Harrison County Development Commission, Hancock County Development Commission, Jackson County Economic Development Foundation, SMPDD, Mississippi Gulf Coast Alliance, Mississippi Department of Agriculture and Commerce (MDAC), Mississippi Gulf Coast Alliance, Regional Food Policy Council, Mississippi Department of Marine Resources (MDMR), Alabama Department of Conservation and Natural Resources, Louisiana Department of Wildlife and Fisheries, Fishers, Seafood Processors, Mississippi-Alabama Sea Grant Consortium
Funding Sources: United States Department of Agriculture (USDA) Mississippi Department of Agriculture, MDA, NOAA, U.S. Department of Commerce, Mississippi/Alabama Sea Grant Consortium

Encourage Developer And Realtor Use Of The Online Downtown Inventory

A map-based listing of buildings and vacant land in downtowns has been developed for the twelve cities along the Mississippi Gulf Coast. It should be made accessible to realtors, cities and developers so they can promote reuse of properties for commercial, residential or public uses (such as parks or community gardens).

Subcommittee: Economic Development
Potential Partners: SMPDD, Mississippi Main Street Association
Funding Sources: Cities, Mississippi Power Company

Priority Action: Decrease Barriers to Employment

Current Conditions

A survey of the workforce in Gulfport and Pascagoula was conducted to gather information on vulnerable populations for the *Plan for Opportunity*. The survey revealed that twenty percent of participants were not currently employed, but looking for work. These people identified a number of potential barriers to employment:

- 31.8 percent of individuals identified lack of dependable transportation as a barrier to employment
  - Other barriers included childcare, health concerns, substance abuse, mental health conditions, or a criminal history
- 68.4 percent have utilized job search and placement assistance at a local **WIN Job Center**
  - 15.8 percent have used the career and aptitude assessment services as well as resume preparation assistance

Dependable transportation is a critical element of making sure people can get to and from their job. Public transit is one affordable form of dependable transportation:

- 15 of the region's low-income Census block groups are not served by regular bus service
- For those with transit access, the commute can be quite long
  - 36 percent of low-income households cannot reach a major employer within a 30 minute transit commute
- Coast Transit Authority riders identified the need for expanded evening and weekend hours to allow them to reach their jobs and to have a guaranteed ride home

Priority Actions

The *Plan for Opportunity* identifies two priority actions to improve access to places of employment in the Gulf Coast region. These priorities will:

- Improve employment opportunities for everyone

- Encourage employers to recruit employees from within rather than outside the region

Coordinate Workforce And Housing Organizations' Efforts

Regular meetings should be held between economic development/workforce organizations and housing organizations. Coordination among these agencies will help to ensure that the region's workforce is capable of earning a livable wage and better connected to affordable housing. Workforce and housing issues are interrelated; however, these organizations have traditionally tried to solve problems independently. Coordination of workforce and housing organizations can help the region address shared issues, such as the location of affordable housing close to jobs and focus workforce training on jobs that pay a livable wage so people can afford housing and transportation.

Subcommittee: Economic Development
Potential Partners: SMPDD, CLIMB CDC, proposed Mississippi Gulf Coast Housing Coalition
Funding Sources: HUD, U.S. Department of Labor, MSES, MDA

Encourage Employees To Live Closer To Work

Major employment centers in the region are located on the borders between Mississippi and Louisiana and Mississippi and Alabama. A number of employees at these centers are choosing to live out of state. Major employers in the region should encourage their employees to live in state and/or closer to work. One way to achieve this is to develop a relocation package and highlight housing, schools and recreational opportunities in the surrounding area.

A resilient economy is one that provides a diversity of educational opportunities, creating more job opportunities for Gulf Coast residents.

Subcommittee: Housing
Potential Partners: Chambers of Commerce, Development Commissions, Cities, Counties
Funding Sources: Potential partners' operating budgets

Portraits

Lazy Magnolia

Leslie and Mark Henderson at Christmas one year decided to try a homebrewing kit. Their beer brewing started as a hobby. With encouragement from friends and family the couple decided to build their hobby into a business.

In 2003, the Lazy Magnolia opened as the state's only brewery operation in Kiln, Mississippi. The brewing couple worked hard to create five selections of beer that have gained international recognition for their quality and they are now distributing across Mississippi and to five other states.

Leslie and Mark are committed to using local ingredients in their beers and they are conscious about how they dispose of their byproducts. Spent grains are diverted to a local hog farmer, spent yeast to a local cattle farmer and spent beer is used to water fields and supplement waste treatment plants.

When Leslie and Mark first wanted to expand, they found it challenging due to barriers in Mississippi law. Mississippi law limits beer to an alcohol content of five percent, making it difficult for Lazy Magnolia to compete in markets that have alcohol contents that are higher, ranging up to nine percent. The

Hendersons saw the ability to produce a higher alcohol content beer as a significant market opportunity. In 2012, the legislature passed a law raising the limit to eight percent. This higher limit has allowed the Lazy Magnolia to grow its export of beer and the coast has seen new brewers starting up brewing businesses.

However, the biggest challenge for Lazy Magnolia was difficulty in securing financing to expand their business. Securing startup funding was very difficult and now gaining funding to expand is even harder. They have found that state and local economic development agencies are focused on job creation on the scale of hundreds of jobs, while the Lazy Magnolia seeks to add five to ten jobs. They ultimately were able to obtain a USDA Rural Utility Service zero interest loan through the electric power association. This loan program enabled them to secure the funds needed to build an expansion onto their brewery.

With policy changes and a loan, the Hendersons continue to brew new concoctions, featuring southern fruits and the use of bourbon barrels. They are committed to their business and growing this industry in Mississippi.

Ingalls Shipyard Apprenticeship Program

Fred Howell serves as the Director of Talent Acquisition at Ingalls Shipyard in Pascagoula. Ingalls Shipyard is a large employer on the coast, currently employing 11,000 people with plans to hire an additional 3,000 employees in the next year. In recent years, demographics on the coast have shifted significantly. Ingalls Shipyard actively works to ensure that it incorporates diversity and inclusion into all hiring practices. They have added policies pertaining to diversity, advertise more frequently to marginalized populations and vigorously recruit in places where they know they will reach diverse groups. Another impressive aspect of their Talent Acquisition department is their apprenticeship program.

They have various arrangements with colleges in the region that recruit and train students through their apprenticeship program for positions at the shipyard. These students come from MGCCC, Bishop State University in Mobile, Alabama and American Hispanic College in Puerto Rico. Ingalls hires the students prior to the start of the program. They begin apprenticeships with a sense of economic security, knowing that upon completion they will immediately begin work at Ingalls as a welder, fitter, or other applicable position.

Ingalls' goal is not only to provide jobs with good living wages, but also to have a positive impact on the community, so that people they hire will be motivated to stay on the coast and be responsible members of the local community. Upon completion of the program employees start at $14.40 per hour with raises instituted at various increments within their time with the

Video 5 Preparing the Coast's Workforce for High Wage Jobs

Source: The Ohio State University

company. Within four years they will be earning about $22 to $23 per hour or close to $50,000 a year.

Ingalls recognizes the importance and need to promote a local workforce. Other barriers to acquiring a sustainable workforce may exist on the coast, but this apprenticeship program provides an effective way to keep coastal employees competitive in our ever-changing economic climate.

Ingalls Shipyard trains welders and pipefitters through their apprenticeship program, supporting high wage jobs in the region.

Section 6

Measuring Progress

There are substantial measurable benefits from the region's progress on these priority actions. Each indicator has a target of quantifiable progress over the twenty year planning horizon.

The benefits of improving economic competitiveness include:

1. Fuller Employment and a Better Trained Workforce
2. A Growing, Diverse Economy
3. Better Access to Employment Centers

These recommendations will help the region see decreased barriers to workforce participation and greater accessibility to employment. These recommendations will also help further the goal of increasing affordable housing units in close proximity to job centers and increasing mobility/transportation options from housing to places of employment. As the region focuses on diversifying its economy by targeting growth industries and readying the workforce for jobs that can enable them to earn livable wages, the region will become more resilient to natural or economic events. These goals will also help create a culture of entrepreneurship on the Mississippi Gulf Coast by expanding availability to capital

by better preparing businesses for loan applications, thus increasing the number of locally owned and operated businesses. In addition, one of the primary goals of this plan is to expand the food production business on the Mississippi Gulf Coast.

Fuller Employment and Better Trained Workforce

With a more robust workforce training infrastructure in the region, the Mississippi Gulf Coast will be well positioned to attract and grow industries that match the regions assets. The region has significant educational institutions that can develop and expand programs that support industry needs and educate the workforce of the future. When residents are employed in high wage industries, they can afford to support their household needs.

The following indicator will measure the region's progress towards these benefits:

Employment Growth In Regionally Valued Industries

Employment growth in regionally valued industries is critical to the economic competitiveness of the region. The Bureau of Labor Statistics (BLS) regularly tracks employment by industry. In 2011, the employment in regionally valued industries is at:

- Energy: 2,579[84]
- Healthcare and Social Assistance: 19,443
- Manufacturing: 28,597
- Arts, Entertainment and Recreation: 2,857

Target: Substantial growth in these industries as presented in Table 7.

TABLE 7 Employment Growth in Regionally Valued Industries

Industry	5-Year Growth Rate	20-Year Growth Rate
Energy	5%	20%
Healthcare and Social Assistance	20%	65%
Manufacturing	8%	35%
Arts, Entertainment and Recreation	25%	70%

A Growing, Diverse Economy

Through efforts targeted at different industries like food and seafood, aeronautics, gaming and healthcare, profitable business opportunities in the service sector will be identified such that entrepreneurs can support these growing regional industries. By developing and supporting more entrepreneurs in the region, the Mississippi Gulf Coast economy will rebuild the middle sector of businesses and generate more middle class residents.

The following indicator will measure the region's progress towards these benefits:

Business Birth And Death Rates

The Mississippi Department of Employment Security (MDES) measures the number of businesses that open and close each year for each county in the state. Business birth and death rates are one measure of entrepreneurship and economic competitiveness in a region. According to the MDES, in 2011 the same number of businesses opened as closed across the Mississippi Gulf Coast, as seen in **Figure 8**. A larger number of businesses opening than closing would indicate that the economy is growing and thriving.

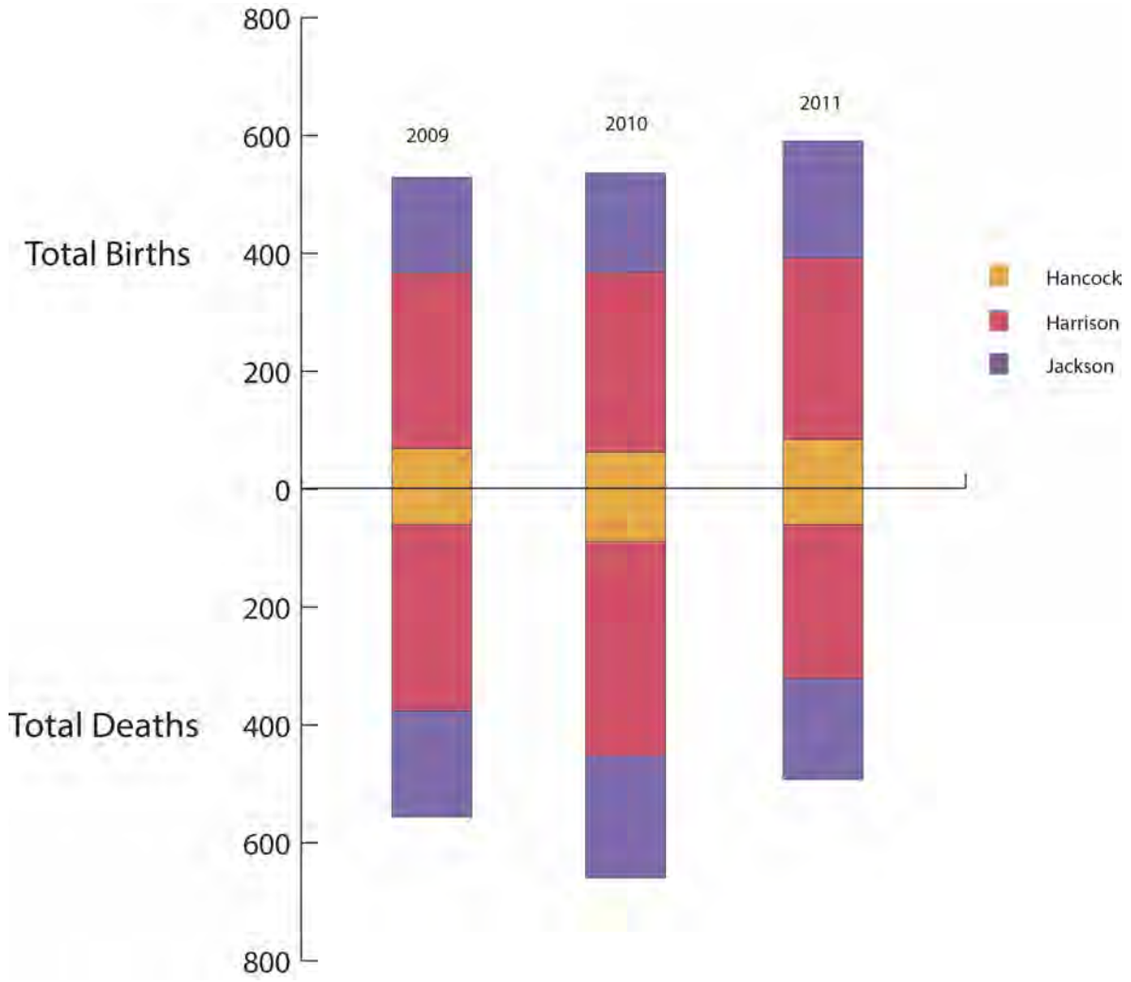
Target: The five year target is 205 more business births than death and the 20 year target is 820 more business births than deaths.

Better Access to Employment Centers

By coordinating the efforts of workforce development agencies and transportation authorities and aligning them with housing agencies, the region will see better access to places of employment for all residents. The ability to have reliable transportation to get to employment is a critical factor to successful employment of residents.

The following indicator will measure the region's progress towards these benefits:

FIGURE 8 Business Births and Deaths by County



Source: MDES Business Population Reports 2011, 2010, 2009

Transit Commute Times For Low-income Areas To Major Employment Centers

GRPC has identified low-income target areas that it seeks to reduce commute times in. Census tracts are used as the unit of analysis. Currently there is a substantial population of the coast that commutes more than 20 minutes. Reduction of commute times from these low income areas to employment centers would

be indicated by a drop in the overall commute times for these tracts. This information is provided from the 2009-2013 5-Year ACS from the US Census Bureau. County-wide commute times are shown in **Table 8**.

TABLE 8 Percentage of Residents in Low Income Census Tracts by Commute Times in Minutes

	<10	10-19	20-39	40-60	>60
Hancock	21%	23%	37%	10%	9%
Harrison	16%	39%	36%	6%	4%
Jackson	21%	44%	26%	6%	3%

Source: U.S. Census Bureau

Target: By 2035, the portion of people commuting less than 20 minutes would increase seven percentage points.

Community based training programs offer educational certifications and job placement services.

Chapter 5

Support Existing Communities

Target federal funding toward existing communities—through such strategies as transit-oriented, mixed-use development and land recycling—to increase community revitalization, improve the efficiency of public works investments, and safeguard rural landscapes.

Section 1

Introduction

The *Plan for Opportunity* has three Priority Action Areas for supporting existing communities:

1. *Promote Community Revitalization*
2. *Build for Resiliency*
3. *Protect the Region's Environment*

Priority Action Area: Promote Community Revitalization

Current Conditions

The region is made up of a series of connected communities that run in a linear pattern along the coast, as seen in **Map 6**. Activity centers lie along major transportation corridors. There is a significant distance between where many people live and the activity centers to which they most frequently travel. Many people have long commutes to work and rely on a vehicle to get to everyday activities such as shopping, parks and schools.

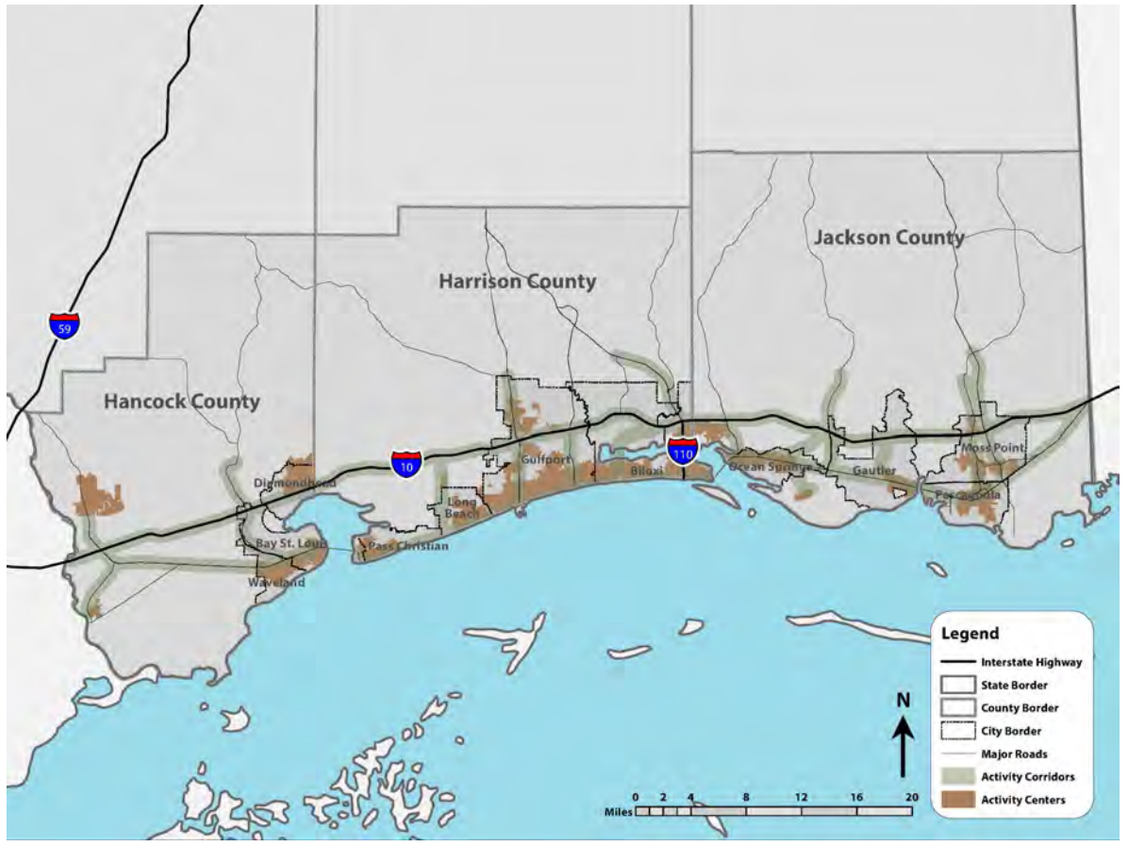
- 95 percent of Mississippi Gulf Coast Public Values Survey respondents report that they rely on a personal vehicle for daily travel[85]

All of this driving produces more vehicle emissions, which in turn decrease the quality of air in the region.

Vacant land is a challenge for the region. Eight years after Hurricane Katrina, there are many vacant lots throughout the coastal counties.

- 55 percent of vacant properties contained a structure prior to Hurricane Katrina

Map 6 The Major Activity Centers on the Mississippi Gulf Coast have Developed Along East-West Transportation Corridors[86]



Source: Gulf Regional Planning Commission

- Challenges to rebuilding include the high costs of insurance and construction as well as elevation requirements[87]

Residents, businesses and governments all agree that there should be an effort to repurpose vacant land to support community and economic development. While there is agreement about this issue as a priority, there is no coordinated region-wide effort to address this challenge.

Along the Mississippi Gulf Coast, 70 percent – over 1,600 square miles – of the land area is vacant, preserved or protected. The remaining 30 percent, just under 700 square miles, includes the region's developed communities.[88] There is plenty of opportunity to develop within these existing communities:

- 14,000 parcels totaling 62,000 acres designated as vacant and developable
- 80,000 parcels totaling 446,000 acres designated as redevelopable
- 16,000 vacant and redevelopable acres designated for employment uses[89]

Existing communities include activity centers or proposed activity centers, transportation corridors and areas where employment is concentrated. Growth in existing communities revitalizes downtowns and brings residents closer to a variety of transit options, such as biking, busing, or walking. Avoiding growth in areas that are undeveloped preserves natural habitats and protects agriculture.

Priority Actions

The *Plan for Opportunity* identifies three priority actions to encourage the revitalization of existing neighborhoods rather than funnel finite resources toward development of new neighborhoods. The priority actions will:

- Save taxpayer dollars, minimize the need for new land and make getting around the region easier
- Create opportunities for residents to work, shop and play near their homes
- Mitigate environmental impacts to improve the quality of life and resiliency of the region

Reinvest In Existing Neighborhoods

Redevelopment helps existing neighborhoods thrive by building communities and attracting jobs. Development incentives make it easier for residents and businesses to build in neighborhoods targeted for reinvestment. Example incentives include:

- Reduction in taxes and fees
- Reduction in setbacks, parking or other requirements

Jurisdictions should be encouraged to devise a set of development incentives that make the most sense for their community.

Subcommittee: Economic Development, Land Use, Housing, Transportation
Potential Partners: GRPC, Counties, Harrison County Geographic Information Systems (GIS) Coalition
Funding Sources: Potential partners' operating budgets

Encourage Transit Supportive Areas

Some areas of the region do not have enough people or businesses to support bus service. Adding bicycle routes and sidewalks to allow people to get to the bus service areas will expand the reach of the bus system. Bicycle routes present the opportunity to ride a bicycle to a bus service area and then take a bus for the remainder of the journey. Places without bus service should be encouraged to add a mix of businesses and housing over time, eventually allowing bus routes to be extended.

Subcommittee: Transportation
Potential Partners: GRPC, Cities, Counties
Funding Sources: Surface Transportation Program (STP), grant funding

Determine The Feasibility Of A Land Bank To Repurpose Vacant Sites

Vacant lots and buildings are a blight on the community. A **land bank** helps address this problem. Land banks are public or community-owned. Vacant land and abandoned buildings are strategically acquired by the land bank and returned to productive use. The land can be used for functional beautification projects like community gardens, urban agriculture or parks. Land and

MSU (Mississippi State University) Extension Community Garden in Biloxi.

vacant buildings can also be used for long-term projects that drive economic development and neighborhood stabilization. These include such projects as food-related **business incubators** or community kitchens. In order to create a land bank, a feasibility study needs to be undertaken in partnership with the Gulf Coast Renaissance Corporation to determine how a land bank could be structured for the Mississippi Gulf Coast.

Subcommittee: FooLand Use
Potential Partners: GCRC, Cities, Counties, MDA, SMPDD, GRPC
Funding Sources: Potential partners' operating budgets

Priority Action Area: Build for Resiliency

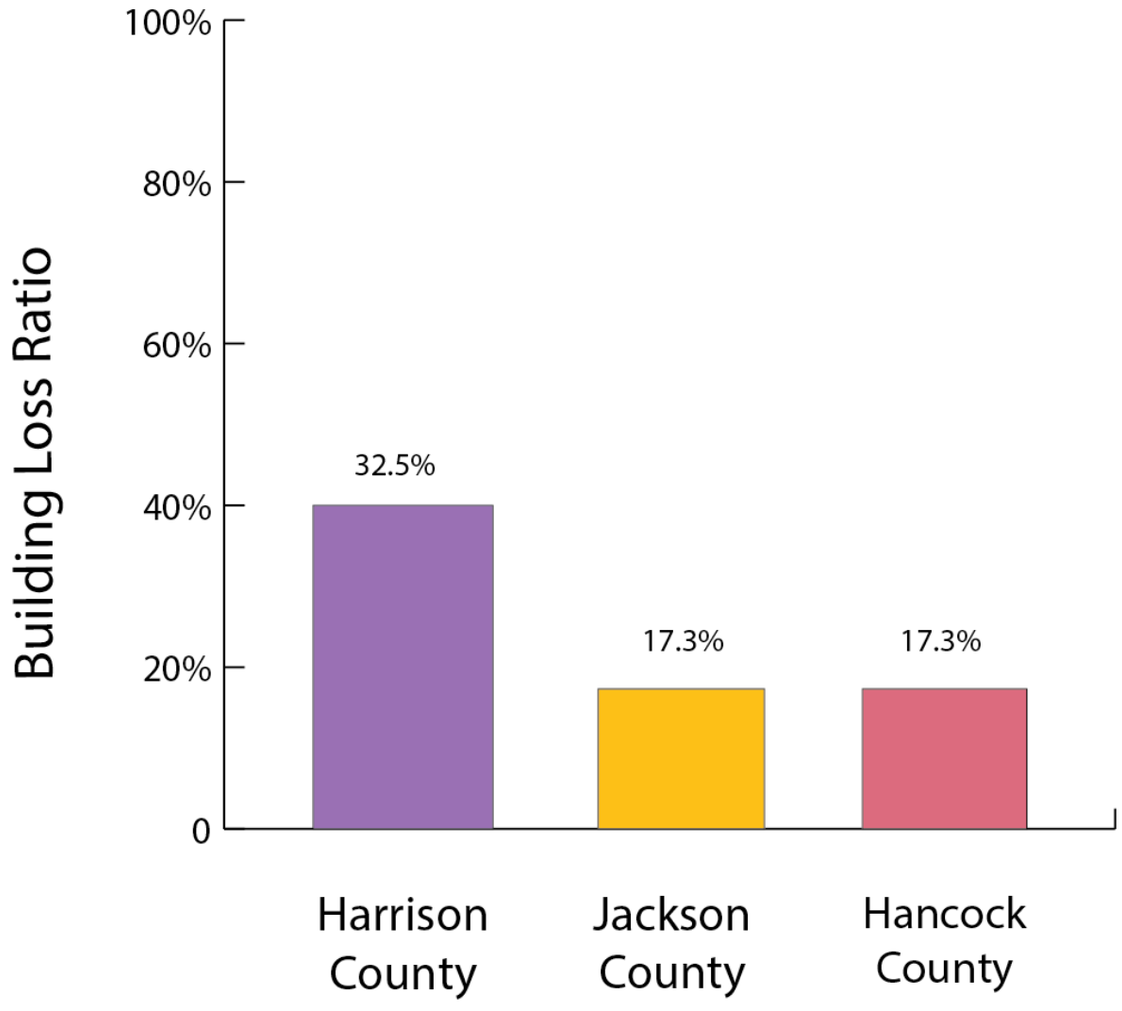
Current Conditions

Coastal communities are vulnerable to extreme weather events, including hurricanes, high winds, inland flooding and tornados.[90] The result of storm events is costly damage from floods and strong winds.

- Between 1978 and 2012, MEMA reports $4,090,394,000 in building damage as the result of major flood events[91]
- 35 percent of land in the coastal counties is within the 100-year floodplain; rising sea levels will likely increase that number
- The MDMR expects the sea to rise by 10 inches by 2100, placing an increased number of buildings at risk of flooding[92]

While much of the region is in low-lying areas, there are certain types of land uses that are particularly poorly suited for flood prone areas, such as community centers, shelters and food distribution centers. During a disaster residents seek shelter, supplies and other resources from these facilities. Yet, historically they have not been built to standards that can withstand strong storms or flooding, leaving them inaccessible in times of greatest need.

FIGURE 9 100-Year Flood Loss Estimation[93]



Source: Mississippi Emergency Management Agency

When buildings are located in flood plains, they are at risk for loss in each major storm event. **Repetitive-loss structures** are costly to repair and maintain. And property owners pay high insurance premiums in this areas.

Communities can mitigate storm damage and high insurance premiums by participating in the NFIP's **Community Rating System (CRS)**.[94] The CRS classifies communities on a scale of one to ten based on the number of credit points earned in each of the following categories:

- Public Information
- Mapping and Regulation
- Flood Damage Reduction
- Flood Preparedness

The CRS classification determines community policyholders' premium discount, which can be as high as 45 percent.[95] The City of Pascagoula, a participating CRS member, is one such success story. By 1998, Pascagoula had:[96]

- Established an elevation standard of 13.1 feet for all new construction
- Standards that saved many structures from flood damage in 2005
- Achieved one of the best CRS classifications on the coast

Priority Actions

The *Plan for Opportunity* identifies three priority actions to encourage development of infrastructure, buildings and community amenities to support the region now and into the future. The priority actions will:

- Improve resiliency against future weather events
- Reduce property damage from flooding
- Lower insurance premiums

Encourage Appropriate Development In Hazard Areas

Local, state and federal agencies should encourage appropriate development in hazard areas and work with property owners to mitigate the risk of property damage that results from flooding in areas defined by the FEMA as repetitive loss areas.

Measures to reduce risk in hazard areas include:

- Elevating existing buildings above the base flood level
- Being strategic about approval of new development within flood-prone areas
- Implementing local stormwater improvement projects

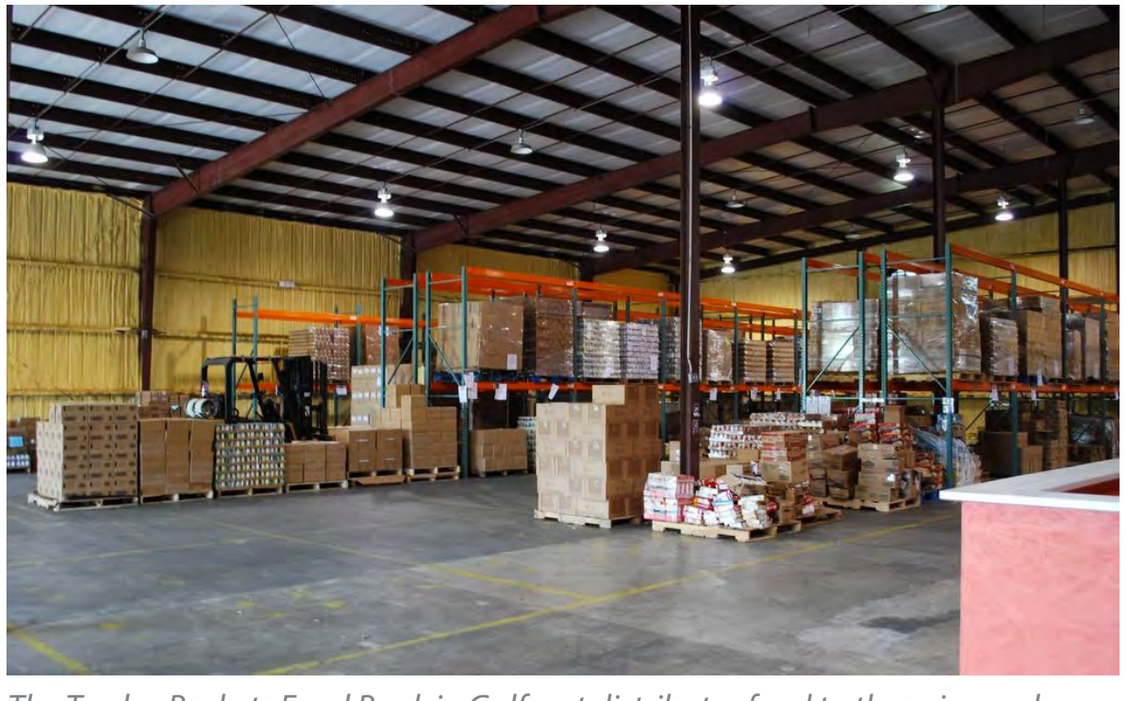
FEMA offers several grant programs to assist funding risk-reducing projects.

Subcommittee: Water, Resilience, Land Use
Potential Partners: Counties, Cities, MEMA, GRPC
Funding Sources: Potential partners' operating budgets

Encourage Jurisdictions To Join The Community Rating System Program And Improve Their Ratings

The CRS is a voluntary program for NFIP member communities to reduce flood hazards and the cost of flood insurance for property owners. Collaborative efforts by groups like SMPDD, the Mississippi Alabama Sea Grant Consortium and Coastal Hazard Outreach Strategy Team (C-HOST) have encouraged local governments to participate in the CRS program and improve their ratings. Because of these efforts to date, three more jurisdictions joined the program and seven existing members improved their ratings, resulting in insurance cost savings for residents and businesses. All jurisdictions should be encouraged to participate.

Subcommittee: Housing
Potential Partners: Cities, Counties, SMPDD, Mississippi-Alabama Sea Grant Consortium
Funding Sources: FEMA, MEMA, ISO, MDMR, Mississippi-Alabama Sea Grant Consortium



The Twelve Baskets Food Bank in Gulfport distributes food to those in need.

Develop Resilient Buildings For Food Distribution

During a storm or weather event, food pantry distribution centers are important resources for residents in need of food and supplies. Food distribution centers should be identified and, where needed, retrofitted to withstand strong storms. Resilient locations and construction techniques should be top considerations when planning for new food distribution centers.

Subcommittees: Food, Resilience
Potential Partners: FEMA, MEMA
Funding Sources: FEMA, MEMA, nonprofit organizations, HUD Emergency Shelter Program

Priority Action Area: Protect the Region's Environment

Current Conditions

The waters of the Mississippi Gulf Coast serve as a major economic and cultural resource. Water quality must be maintained for everyone to enjoy and use.

Flooding is a significant concern on the Mississippi Gulf Coast. **Impervious surfaces** – pavement and buildings – prevent stormwater from draining into the ground and the runoff can overwhelm streams, **bayous** and rivers. The result is not only flooding, but also reduced water quality.

- Impervious surfaces increased by 57 percent between 1972 and 2000[97]
- **Stormwater runoff** has increased an estimated 36 percent since 1919[98]

The Mississippi Gulf Coast is a diverse ecological system and one of the most biologically rich regions in North America. Growth of the seafood and nature tourism industries, important elements of the regional economy, is dependent on this ecological diversity.

- The Mississippi Gulf Coast constitutes 83 percent of U.S. shrimp landings and 56 percent of oyster landings[99]

Resilient communities are knowledgeable about best management practices for maintaining clean and plentiful water resources.

- Water-related nature-tourist activities along the coast include kayaking, canoeing, boat tours, fishing, swimming and sailing

Water is essential to human life and health. Coastal residents and visitors are constantly in contact with water for consumption,

cooking, cleaning, employment, or recreation. Clean water is threatened by man-made and natural events causing loss of habitat, changes to natural waterways and an influx of invasive species. As more polluting materials find their way into the region's water, the results can be harmful to human and marine health.

- Seagrass beds are vulnerable to diversion of freshwater into the Mississippi Sound, increased sediment and contaminants in the water, and boat traffic[100]
- Oyster reefs are equally sensitive to these manmade contributors to water pollution[101]

Priority Actions

The *Plan for Opportunity* identifies four priority actions to protect natural resources and improve water quality. The priority actions will:

- Reduce and monitor water pollution
- Protect natural habitats
- Enforce stricter requirements for those who use coastal waterways for pleasure or profit

Restore Bayous And Streams To Their Natural State

In urban areas throughout the Mississippi Gulf Coast, bayous have been converted into concrete drainage channels. Streams have been redirected into pipes or open culverts. These processes have altered the natural flow of stormwater runoff, reduced stormwater drainage capacity and caused a loss of habitat for native aquatic species. Local and county governments and utility authorities should identify opportunities to restore qualifying bayous and streams to their natural state. This process should be part of capital improvement planning.

Subcommittee: Water
Potential Partners: Cities, Counties, Utility Authorities
Funding Sources: NOAA

Expand The Documentation Of Water, Wastewater And Stormwater Infrastructure

The region needs clear and complete information on existing water, wastewater and stormwater infrastructure. This means digitizing existing paper records of drainage systems, including their connection points. This documented information is necessary for decision-makers who need to prioritize future capital improvement projects. Documented data should be expanded to include water flow and quality monitoring data. This expanded documentation allows proper assessment of drainage capacity and effective monitoring of regional water pollution control measures.

Subcommittee: Water
Potential Partners: City & County Engineers, Utility Authorities
Funding Sources: The Gulf of Mexico Program, EPA Environmental Information Exchange Network and Grant Program

Decreasing water pollution will support the health of the region's ecosystem.

Decrease Water Pollution

Nutrient pollution, including from failing septic tanks, is one of the nation's most widespread, costly and challenging environmental problems and is the most common impairment in the coast's waters. The Mississippi Department of Health (MDH) should maintain and share a database of septic systems with Mississippi Department of Environmental Quality (MDEQ). Together, the agencies should contact residents and/or wastewater professionals to obtain information about the maintenance of septic systems. This will allow the region to identify the location of high-risk areas for contamination. Public education and septic system regulation enforcement should be focused on problem areas.

Styrofoam is an increasing concern because it can break down into microscopic particles and threaten marine life. The Army Corps of Engineers should add requirements in general permits delegated to MDMR stating that no person shall attach a **polystyrene** ("Styrofoam") flotation device on a dock, buoy or float unless the device is surrounded by a protective covering or is designed to prevent the polystyrene from disintegrating into the waters.

Subcommittee: Water
Potential Partners: MDEQ, MDH, MDMR, Army Corps of Engineers
Funding Sources: Clean Water Act Section 319 Funding, Potential partners' operating budgets

No-wake zones can be found in congested and hazardous areas of a waterway where a boat's wake could endanger people or the environment. When motorboat operators enter a no wake zone, they must reduce their speed to "the slowest possible speed necessary to maintain steerage, but in no case greater than five miles per hour."[102]

Increase Protection Of Aquatic Species

City and County governments should adopt legislation to protect ecologically critical riverine, bayou and Gulf environments. This legislation should include:

- Creating additional **No Wake Zones**
- Expanding submerged aquatic vegetation (SAV) areas
- Requiring tilt boat motors to protect seagrass beds in No Wake Zones

Subcommittee: Water
Potential Partners: MDH, MDEQ
Funding Sources: Potential partners' operating budgets

Marshlands help filter water to protect aquatic species from storm run off.

Portraits

Pascagoula River Audubon Center

The Pascagoula River Audubon Center serves as a demonstration site for environmentally friendly ideas and a gateway to nature based programs on the coast. Shortly after Katrina, the region formed the Gulf Coast Business Council, a non-profit group designed to bring businesses together and spur hospitality and tourism in the region. The Audubon Center is one of the non-profit nature-oriented businesses represented in this group that advocates for an increase in nature tourism and ecology on the coast.

The Pascagoula River Audubon Center and supports expanded awareness and increased exposure to nature tourism for both coastal residents and visitors to the area. The Audubon Center makes possible many educational opportunities and events along the Mississippi Gulf Coast. An example is the Birder Wise small business seminar, a new educational outreach program designed to provide information to businesses in the region about the opportunity to capture tourism dollars from the mobile Bird Watcher population. On-site, the center provides visitors an opportunity to experience the Pascagoula River, one of the last free-flowing river systems in the United States. There,

Biloxi signage and public art invites tourists to explore downtown.

visitors observe conservation methods and techniques that can be practiced at home. Particularly important to coastal residents, the Audubon Center offers one of the few readily available direct access points to the river.

Programming at the center educates residents about critical concepts of watershed protection, management and stewardship, while connecting them to the waterfront and other nature-based amenities. The Pascagoula River Audubon Center plays an essential part in protecting the environment and preserving it as resource that people can enjoy for years to come.

Biloxi Main Street

Biloxi Main Street has done a lot to build and promote a resilient economy for the city. They believe that by promoting the downtown district in a positive manner, the community can focus on the downtown area as a source of pride, social activity and economic development. Kay Miller, the Executive Director of Biloxi Main Street, explains that they achieve this objective through a four-pronged mission centered on organization, promotion, design and economic restructuring. With only two employees and many committed volunteers, Biloxi Main Street is

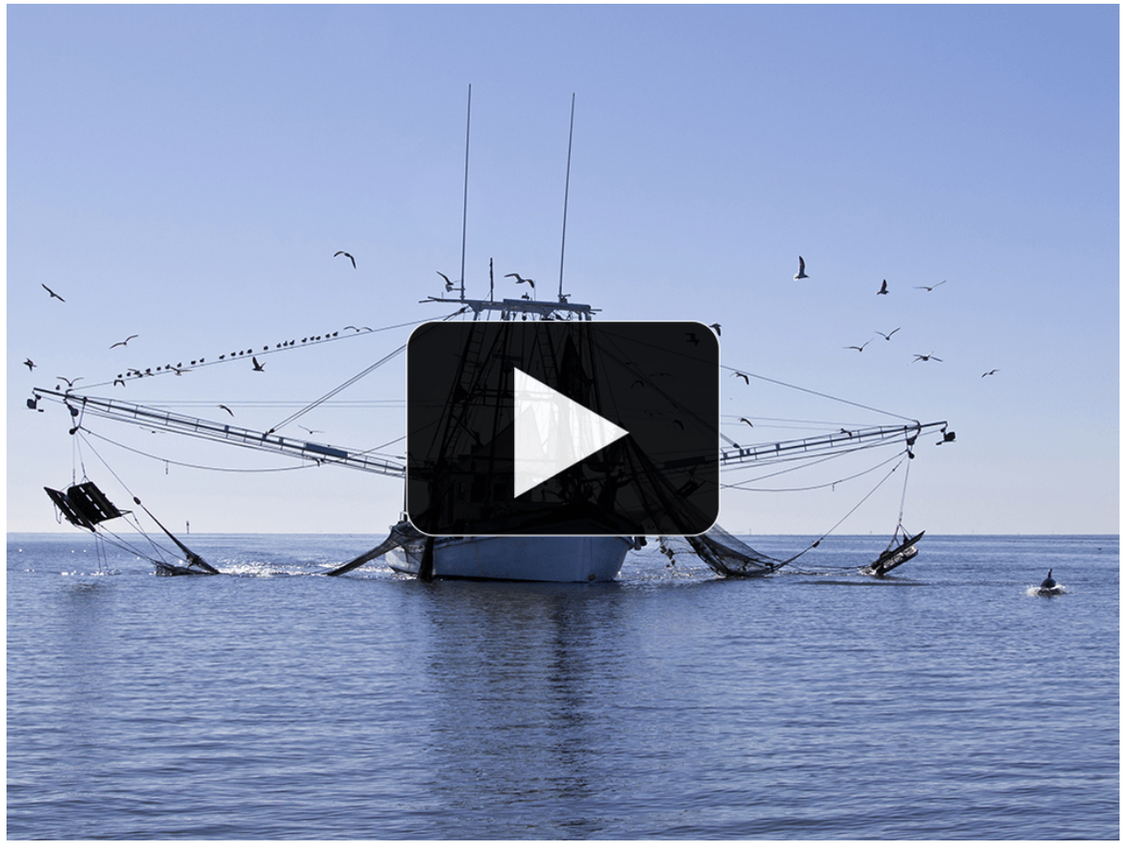
able to organize creative events that help to bring economic security to Biloxi in innovative ways.

These events are grand and many including Grillin' on the Green, a BBQ festival held in conjunction with the local St. Patrick's Day parade; four farmers' market festivals each year; cemetery history tours; an annual sale of Christmas ornaments that honor and highlight Biloxi's history and others. But they never fail to focus on retail, which was the original intent behind Biloxi Main Street. Rue Vieux, LLC is a group of women associated with Biloxi Main Street who are invested in growing local businesses. They have encouraged the start-up of several successful companies since their first venture in 2009, an artists' co-op called Gallery 782.

Biloxi Main Street has worked tirelessly to increase visibility and awareness for local businesses. They have introduced kiosks containing downtown guides in the Town Green and at CTA bus stops. To promote local businesses they host monthly First Fridays where they give away gift certificates from local retailers. Winners have been known to spend the gift certificate and then some at the retailer.

Biloxi Main Street has made a clear and valuable investment in the greater Biloxi community. Their commitment to keeping the economy of Biloxi viable is noteworthy and the organization

Video 6 Protecting the Region's Waters



Source: The Ohio State University

Section 6

Measuring Progress

There are substantial measurable benefits from the region's progress on these priority actions. Each indicator has a target of quantifiable progress over the twenty year planning horizon.

The benefits to Supporting Existing Communities are:

1. Strategic Development
2. Resilient Communities
3. Healthy Water

Strategic Development

Part of supporting existing communities includes physical redevelopment within coastal communities and near activity centers. There is available vacant land in existing communities to accommodate expected growth. More growth in existing communities will:

- Revitalize downtown areas
- Bring residents closer to more opportunities for employment, housing and services
- Bring residents closer to different transit options, such as biking, busing, or walking

- Save residents and businesses money with shorter commutes
- Reduce growth in undeveloped areas

The following indicators will measure the region's progress towards these benefits:

Land Conversion Rates

The National Oceanographic and Atmospheric Administration (NOAA) has compiled community snapshots for each of the coastal counties. These snapshots are a combination of FEMA's Flood Insurance Rate Maps (FIRM's), **Hazus** facilities and ACS and Census data. They are updated as information becomes available; components have various release dates, of which the largest are NOAA and USGS United States Ecological Survey land cover maps. These maps are updated at four to six year intervals. Between 2001 and 2006, a total of 1,533 acres of land were converted to development. Of that amount approximately 23 percent was inside floodplains and 84 percent was converted from natural areas.

Target: In order to increase resilience and support strategic development, the long-term targets for these conversion rates are: 1) a reduction of floodplain encroachment to 10 percent of new development, and 2) a reduction of natural area conversion to 50 percent of new development.

TABLE 9 Trends in Land Conversion, 2001-2006

	Acres of Land Converted to Development 2001-2006	
County	Inside FEMA Floodplain	Outside
Hancock	219	121
Harrison	62	641
Jackson	74	416
Total	**355**	**1,178**

Source: National Oceanic and Atmospheric Administration

Infill Development

The U.S. Environmental Protection Agency regularly combines data about the location of new housing construction with data about land cover and protected land to calculate the percentage of new home construction that is infill, or built within previously developed areas.[103] This allows for tracking of rates of infill development in regions across the country. For the Gulfport-Biloxi Metropolitan Statistical Area (MSA), 13,240 dwelling units were constructed during 2000-2004 and approximately 17 percent of those were on infill locations. For the following 2005-2009 period, construction slowed to a total of 9,787 dwelling units, but the infill share of those units jumped to 22 percent. This increase is consistent with Mississippi Gulf Coast households seeking community amenities, and locations with combined housing-transportation affordability.

Target: In order to support existing communities and strategic development, the long-term target for infill development is 40 percent.

Resilient Communities

The Mississippi Gulf Coast is a flood- and storm-prone region. It is critical to encourage development that can withstand the impacts of storm damage. Investments in construction to fortify buildings against storms will achieve:

- Less damage to structures and infrastructure
- A quicker return to normalcy for residents
- Faster recovery for the community
- Less monetary impact to residents and businesses

The following indicator will measure the region's progress towards these benefits:

Community Rating System Participation

The CRS is a voluntary incentive program under the NFIP. The CRS awards points to communities based on floodplain management and efforts lead to reductions in flood insurance premium rates. Currently all but two communities on the Mississippi Gulf Coast participate in the program, as seen in **Table 10**. The classes range from 9 (the lowest) to 1 (the most-prepared communities). Classes 4 to 1 are the best CRS classes to be in and show significant movement towards the mitigation of hazard events. Currently there are no class 4 communities on the Mississippi Gulf Coast.

TABLE 10 CRS Participation by Jurisdiction

Community Name	CRS Class	Insurance Discount
City of Pascagoula	5	25%
City of Waveland	5	25%
City of Biloxi	5	25%
City of D'Iberville	6	20%
City of Gulfport	6	20%
City of Pass Christian	6	20%
City of Ocean Springs	6	20%
City of Bay St. Louis	7	15%
City of Long Beach	7	15%
City of Gautier	7	15%
City of Jackson	8	10%
Harrison County	8	10%
Jackson County	9	5%
Hancock County	Not Participating	0%
City of Moss Point	Not Participating	0%

Source: Federal Emergency Management Agency

Target: That Diamondhead, Moss Point and Hancock County enroll in CRS in the next 5 years, and that the overall average of the communities Class (which is currently a 5.6) drops to 5.0 (Minimum Standard of success) or a 4.0 (Preferred Standard) within twenty years.

Healthy Water

Water acts as a pillar to coastal life and industry. Clean water free of harmful chemicals and pollutants is necessary to better ensure the health of residents and marine life. When the water is not clean the result can be devastating to marine populations, industries and residents. Healthy water will:

- Allow the seafood and nature-tourism industries to flourish
- Protect aquatic/marine life
- Improve the overall quality of water for resident consumption and usage

The following indicator will measure the region's progress towards these benefits:

Impaired Waterways

For the Mississippi Gulf Coast Region, a healthy ecosystem and watershed is important in promoting resilient environmental health. Reduction of the number of impaired waters under the EPA 303(d) standards in the Lower Pearl, Mississippi Coastal and Pascagoula basins furthers these efforts. Data is reported to the EPA by states for even years and is available online through the EPA's website. For 2010, eight percent of the region's waters were impaired, as seen in **Table 11**.

TABLE 11 Miles of Impaired Waterways Under 303(d) Standards (2010)

	Coastal Basin	Pearl River Basin	Pascagoula Basin
Good	107.6	99.8	32.7
Impaired	13.3	17	0.7
Remediated	23.5	0	90.9

Source: US Environmental Protection Agency

Target: Over the next twenty years, the portion of **impaired waterways** should fall to less than five percent.

Chapter 6

Coordinate Policies and Leverage Investment

Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

Section 1

Introduction

The *Plan for Opportunity* has four Priority Action Areas for coordinating policies and prioritizing investment:

1. *Invest strategically for long-term benefits*
2. *Advocate for policies that support housing*
3. *Share information to better inform decision-making*
4. *Coordinate natural resource policies*

Priority Action Area: Invest Strategically For Long-Term Benefits

Current Conditions

Wisely-invested public funds maximize benefits for the residents and businesses of today and tomorrow. By planning ahead, the Mississippi Gulf Coast will be a stronger region, prepared to deal with the challenges that are only now appearing on the horizon. One area of strategic investment is in infrastructure that supports information, energy and transportation.

A strong **broadband network** is a powerful tool for the Mississippi Gulf Coast. Improved technological capabilities can foster economic development by supporting current industry and by attracting new businesses. Many of the industries targeted by the Mississippi Gulf Coast, such as aerospace, defense, data and call center, rely heavily on information technology. The Mississippi Gulf Coast can better recruit and retain industry when technology infrastructure is already in place.

Energy security is a national priority affecting this region and everyone in it. Renewable energy provided 2.8 percent of Mississippi's electricity in 2010.[104] Local renewable energy sources are a crucial component of energy security. Using renewable energy sources helps maintain the reliability and affordability of the energy supply, as well as reduce emissions that contribute to the creation of ground-level **ozone**. There are several examples of renewable energy in use across the region:

- Arbor Station, an apartment complex in Long Beach, uses a 2,400-kilowatt wind turbine to generate electricity to help power lighting and a trash compactor[105]
- The Solar Sunflowers at Lynn Meadows Discovery Center serve as an exhibit that teaches children about renewable solar energy while generating electricity for an average savings of $40 a month
- The Pecan Grove Landfill and Recycling Center in Harrison County captures methane for use at the DuPont facility in DeLisle[106]

The region also consumes substantial amounts of energy to support the transportation system. Mississippi is sixth in the nation in per capita consumption of transportation energy.[107]

Fuel costs to support transportation are a drain on residents and businesses alike. Alternative fuels offer one way to reduce the cost of transportation. Another way is through the use of public transit. Cleaner-burning fuels and alternative modes of transportation help to reduce transportation costs and the amount of mobile emissions from vehicles.

While public transit is an effective way to reduce the cost of transportation and decrease VMT, it is a challenge to expand service to areas in need. The CTA has no dedicated source of funding in the region. The Federal Transit Administration (FTA) requires 50 percent of operational costs and 20 percent of capital costs, such as buses, to be funded locally. Funding for CTA operations and capital projects is currently provided by:

- Self-generated revenues
  - Passenger fares
  - Advertising revenue
  - Sale of surplus equipment
- Federal, state and local sources
  - FTA funding for approximately 50 percent of operating costs
  - Operating subsidies from local governments (including Harrison County, the City of Biloxi, the City of Gulfport and the City of Ocean Springs)

The Mississippi Gulf Coast has a solid foundation upon which to expand its investments.

Priority Actions

The *Plan for Opportunity* identifies nine priority actions to develop dependable broadband service, advance reliable and affordable energy and encourage transit to reduce transportation costs and decrease emissions on the Coast. These priority actions will:

- Foster economic development by improving information technology on the Coast
- Reduce utility and transportation costs, important factors affecting housing affordability for renters and homeowners
- Reduce energy costs that affect all kinds of businesses; for example, fishers are concerned about rising fuel costs while the sales price of seafood to wholesalers has remained flat[108]
- Increase transit to meet the needs of an aging population that may not be able to drive
- Help CTA expand service and meet their goal of cutting existing headways in half in some communities

- Decrease ozone-contributing emissions resulting from on-road vehicles as well as other mobile sources on the Coast, including the airport, ports and freight

Build A Strong Broadband Network That Will Support High-tech Job Growth And Serve As A Quality Of Life Amenity

High-speed internet capacity will help the Mississippi Gulf Coast recruit technology-based companies, attract potential entrepreneurs and increase economic growth. Establishing a council to look at specific broadband needs in the region would help determine where broadband investment is most needed.

Subcommittee: Economic Development
Potential Partners: Mississippi Enterprise for Technology
Funding Sources: Resources and Ecosystems Sustainability, Tourist Opportunity, and Revived Economies (**RESTORE**) Act and MDA

Launch A Renewable Energy Technology Innovation Investment Strategy

Potential energy sources are found throughout Mississippi. The coastal breezes and sunny days can power wind turbines and solar panels. Waste products, from food scraps to animal manure, can also produce energy sources by using **anaerobic digesters** to capture the methane resulting from their decomposition.

Investment in renewable energy can help stimulate sustainable energy practices. For example, the Lynn Meadows Discovery Center has installed solar sunflowers.

Grocery stores that install solar panels to power their refrigeration units and maintain power during electricity outages will benefit from lower energy costs and a redundant power source. Working with stakeholders to integrate anaerobic digesters at Mississippi's wastewater treatment plants is another opportunity for energy generation. State and local tax incentives, subsidies, or economic development initiatives can further stimulate innovation and adoption of sustainable energy practices.

Subcommittee: Air Quality, Food

A dedicated source of funding will help the CTA expand its service.

Potential Partners: MDEQ, MDA, Mississippi Fisherman's Association, Mississippi Gulf Coast Alliance for Economic Development, Mississippi Gulf Coast Regional Wastewater Authority and County Development Commissions
Funding Sources: Federal Government, State of Mississippi, National Science Foundation

Establish Dedicated Funding For The Coast Transit Authority (CTA)

A dedicated, stable source of local funds for CTA will secure the current level of service and allow the Mississippi Gulf Coast to pursue projects that increase mobility across the region, creating connectivity through new transportation options such as vanpools, express bus routes and public/private transportation service. While today the CTA engages new local sponsors with every project, in the future, the organization can plan, expand, improve and implement proactively.

Subcommittee: Transportation
Potential Partners: Cities, Counties, CTA
Funding Sources: CTA, Cities, Counties, State of Mississippi, U.S. Department of Transportation

Establish Infrastructure For The Use Of Alternative Fuels

As sustainable alternative fuels (cellulosic ethanol, compressed natural gas, other biofuels, and rechargeable batteries) and/or highly efficient vehicles emerge, the region should invest in infrastructure and promote and support the use of such alternative fuels and vehicles to reduce carbon emissions and air pollution.

Subcommittee: Air Quality
Potential Partners: CTA, GRPC, Mississippi Department of Transportation (MDOT), MDA, Transportation/Private Sector
Funding Sources: Public/Private Partnerships, MDOT/CTA and Federal Capital Funds

Resiliency links education and stewardship to support policies and investments that promote sustainable systems. A resilient region is one that recognizes its vulnerabilities, while planning and preparing for threats to the systems that support daily coastal life.

Assist The Ports In Developing Clean Air Programs

The ports of the Mississippi Gulf Coast, in partnership with the EPA and the State should produce a strategic plan for reducing maritime emissions. This could be in conjunction with the EPA Ozone Advance Program and could include a number of different actions, such as using cleaner fuels for port equipment.

Subcommittee: Air Quality
Potential Partners: GRPC, MDEQ, MDA, MDOT and the Ports on the Mississippi Gulf Coast
Funding Sources: Mississippi State Port Authority, Ports on the Mississippi Gulf Coast, EPA, MDEQ

Encourage The Airport To Apply For Voluntary Airport Low Emissions (VALE) Funding

The Airport should consider applying for Voluntary Airport Low Emissions (VALE) Program funds to minimize the cost of reducing ground emissions at the airport. This could include the use of low emission vehicles on the airport grounds, providing alternative refueling and recharging stations.

Subcommittee: Air Quality
Potential Partners: Gulfport/Biloxi International Airport, GRPC
Funding Sources: Federal Aviation Administration

Support Anti-idling Programs And Projects For Freight

Reducing emissions from idling motor vehicle engines is one of the most important air-quality issues on the Mississippi Gulf Coast. Idling vehicles cause air pollution which in turn can aggravate common health issues like asthma and allergies. Anti-idling programs work to reduce emissions by prohibiting vehicles from unnecessarily idling. This is especially important for freight vehicles as truck drivers often idle for long periods of time when

truck stop electrification is not available. Partners on the Coast should support an anti-idling program and projects for freight that help alleviate the need for unnecessary idling.

Subcommittee: Air Quality
Potential Partners: GRPC, MDOT, MDEQ, MDA, industries and trucking associations
Funding Sources: Public/Private Partnerships with federal funding

Support Path Forward And The Implementation And Monitoring Of Ozone Reduction Strategies

The 2008 EPA National Ambient Air Quality Standard (NAAQS) for ground-level ozone, 75 parts per billion (ppb), remains in effect in 2013. It is anticipated that the 2014 EPA review of the NAAQS will lower the standard, possibly between 60 – 70ppb. In 2013, the Gulf Regional Planning Commission partnered with MDEQ to participate in the EPA Ozone Advance "Path Forward" Program. The program is intended to help attainment areas take action to keep ozone levels below the NAAQS and ensure continued health protection for their citizens. The program better positions areas to remain in attainment, directs available resources towards actions that address ozone problems quickly and encourages strategies to reduce ground-level ozone. The cooperation of industries, agencies and organizations will be crucial to the success of this effort.

Shifting freight from trucks to rail can reduce idling and provide air quality benefits to the Mississippi Gulf Coast.

Subcommittee: Air Quality
Potential Partners: GRPC, MDEQ, MDOT, MDA and other State/ Federal agencies and Public/Private Partners
Funding Sources: Federal Highway Administration (FHWA)/FTA, state planning grants, surface transportation program and public/ private support

Priority Action Area: Advocate for Policies That Support Housing

Current Conditions

In recent years, a number of state laws have been passed to ensure fair housing and protect residents against rising insurance costs. These two issues are key to ensuring coastal residents have access to fair and equitable housing.

From 2003 to 2012, the **Gulf Coast Fair Housing Center (GCFHC)** responded to fair housing complaints, researching complaints of fair housing within the region rather than sending these complaints to HUD. The GCFHC closed due to a lack of funding in 2012.

A fair housing center helps people to understand their housing rights and to report violations of those rights. The lack of a fair housing center in the region is a major challenge to ensuring all Mississippians' rights are protected. The closest regional HUD Fair Housing/Equal Opportunity office is in Atlanta, Georgia. Routing cases here is inefficient and burdensome for residents.

Many agencies and organizations are listed as fair housing agencies, but none has the capacity to intake fair housing complaints or to conduct the degree of outreach needed. Examples of such agencies include:

- Gulf Coast Community Action Agency
- Jackson County Community Action Agency
- The Mississippi Center for Legal Services, which is often listed as a fair housing service provider, but no longer provides fair housing services

The Mississippi Center for Justice recently received a U.S. HUD grant to support fair housing enforcement.

The high cost of insurance is a major barrier to the affordability of housing and is also a barrier to redevelopment on the coast.[109] Higher wind insurance costs south of Interstate Highway 10 have a disparate impact on African-American communities which are primarily located south of the interstate. And only a limited number of insurance companies are providing coverage to coastal residents. Other residents have raised concerns that a lapse in coverage, due to their inability to afford the increased cost of insurance, has led to an inability to regain coverage.

The Mississippi legislature has actively worked to address insurance: in 2012, the Mississippi legislature passed House Bill 1410 mandating that insurance companies give discounts for fortified homes.[110] This is an important step; however, the region's residents and leaders recognize more needs to be done to reduce insurance costs.

Priority Actions

The *Plan for Opportunity* identifies two priority actions to address fair housing and rising insurance costs. The priority actions will:

- Ensure residents have a convenient place to report fair housing complaints
- Protect residents of the Mississippi Gulf Coast from the burden of high insurance costs
- Improve housing affordability across the coast

Advocate For The Establishment Of A Permanent HUD And State Recognized Fair Housing Organization

There is no permanent fair housing organization to meet the needs of the region. While the State and local AI list many organizations as fair housing agencies, all would need additional capacity to conduct outreach or intake complaints. The region will greatly benefit from a regional or state-level fair housing

What Is A Fair Housing And Equity Assessment?

Developing a Fair Housing and Equity Assessment (FHEA) is a requirement under the Sustainable Communities Regional Planning Grant initiative and a key part of understanding sustainability:

Sustainability includes creating "geographies of opportunity," places that effectively connect people to jobs, quality public schools, and other amenities. Today, too many families are stuck in neighborhoods of concentrated poverty and segregation, where one's zip code predicts poor education, employment, and even health outcomes. These neighborhoods are not sustainable in their present state.

The purpose of the FHEA is to identify and address these inequalities in opportunity.

The end result of this regional scale analysis is to understand the historical, current, and future context for equity and opportunity in the region and to integrate the findings into the planning process and the recommendations into the final *Plan for Opportunity*.

For example, in a focus group in Moss Point residents focused on the need to leverage public investment to ensure public services are available across the region and in Moss Point specifically.

Residents of the coast want to see more affordable insurance and want to see legislative reforms.

enforcement agency that expedites claims, responds urgently to fair housing needs and proactively provides fair housing outreach and education. Ideally, this organization will be established through state-level enabling legislation to give it legitimacy and a permanent funding stream.

Subcommittee: Housing
Potential Partners: Mississippi Gulf Coast Housing Coalition and Mississippi Center for Justice
Funding Sources: State of Mississippi, HUD

Advocate For Insurance Reform

Representatives of Mississippi and the region should advocate for legislation that reforms insurance on a local, state and national level. Reforms to be considered should protect homeowners from all forms of disaster. The insurance system should discourage development in high-risk areas, while encouraging credit for actions to protect against risk.

Subcommittee: Water
Potential Partners: Mississippi Federal Congressional Representatives and the Mississippi Insurance Commissioner
Funding Sources: Federal Government, State of Mississippi, Private Insurance Companies

Priority Action Area: Share Information to Improve Government Efficiency

Current Conditions

Improving connections between local governments, organizations and residents is critical to keeping the region economically competitive and making efficient use of taxpayer dollars.

Because of Hurricane Katrina, important records belonging to individuals, businesses and public services were lost. Records ranging from birth certificates to maps of the locations of water and sewer pipes were lost in the storm. These losses are expensive and difficult to recover from. Sharing information may help to prevent these losses in the future.

Partners across the region are engaged in sharing data, which helps local governments to understand what neighboring cities are planning for and reduces the number of conflicting uses across municipal boundaries To encourage communities to share data, GRPC developed a new parcel database and a regional land use classification system, which pulls data from all of the cities and counties in the region. The system allows cities and counties to share data easily and allows for better coordination of infrastructure investments and land use plans. Communities can also use this kind of database to engage in scenario planning. For example, the region's planning leaders have collaborated to explore how future land uses could affect the number of miles residents travel in a day.

Priority Actions

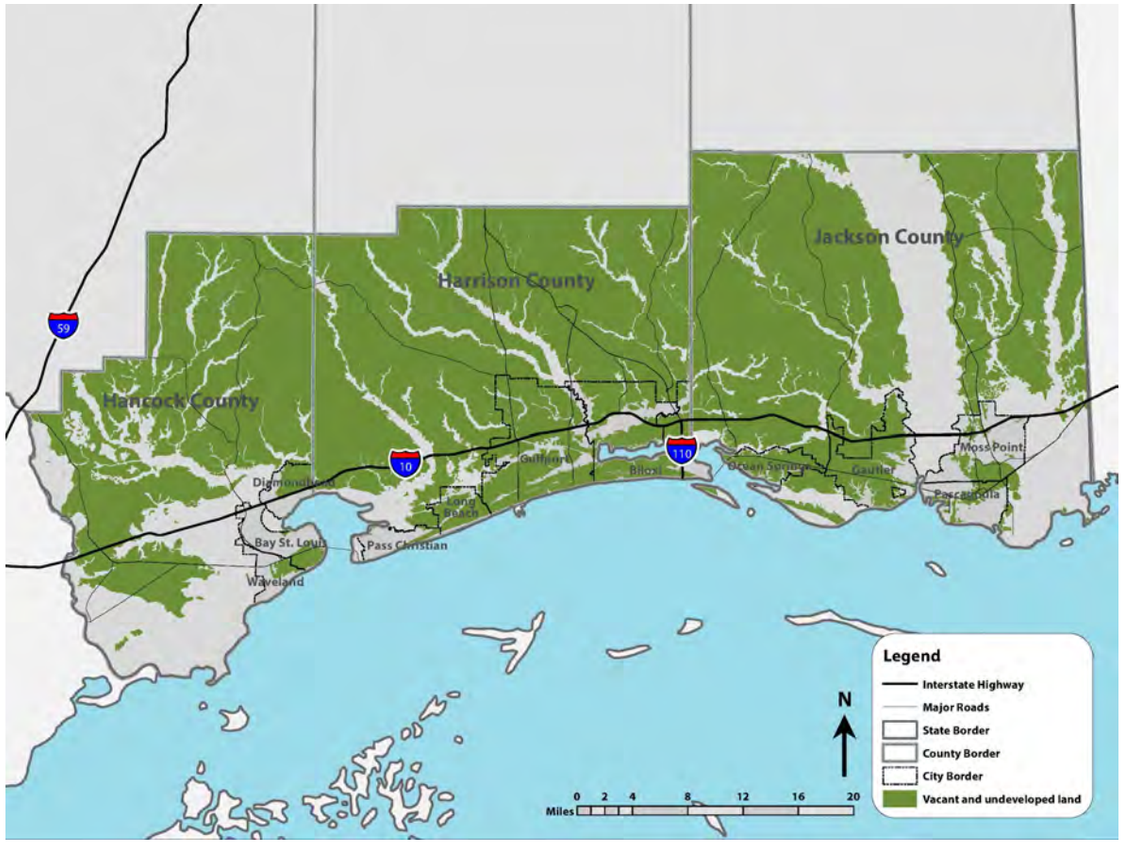
The *Plan for Opportunity* identifies three priority actions that enable information sharing so communities across the region can better plan for their future. These priority actions will:

- Encourage collaboration that extends investments beyond jurisdictional boundaries
- Coordinate policies and projects across the region
- Improve accessibility and transparency
- Save time and money

Share Information Regionally

Communities across the coast need to use similar types of data, for example where storm water flows and how many cars travel

Map 7 Vacant and Rural Land



To encourage communities to share data, GRPC developed a parcel database system that allows communities to easily gain information, such as where vacant land is located.

Source: Gulf Regional Planning Commission and Coastal Impact Assistance Program

on roads. By creating a common regional database, communities across the region will be able to easily share data to help coordinate regional infrastructure and land use planning efforts.

Each community keeps its own maps that relate to land use. A regional map repository will be a central location for the region's planning data, encouraging information sharing between communities and with residents of the coast. Harrison County has taken the initiative to adopt a county-wide land use map that will be maintained through the assessor's land roll.

Subcommittee: Economic Development, Land Use
Potential Partner: GRPC
Funding Sources: Potential partners' operating budgets

Generate Scenarios Supporting Livability Principles

Development or redevelopment scenarios for vacant properties will help illustrate how livability principles could be integrated into future development. For example, scenarios that show how transit oriented development could support a reduction in VMT may inform discussion in a community. Scenarios should be used to encourage incorporation of features that increase the livability of future development projects.

Subcommittee: Land Use
Potential Partners: GRPC
Funding Sources: FHWA, FTA, MDOT, GRPC

Track Conservation Lands

Working with natural resource stakeholders, GRPC will be able to use scenario planning as a tool to identify areas that are currently undeveloped and adjacent to existing prioritized conservation

lands. This will establish a regional tracking mechanism for conservation land and areas likely to be developed.

Subcommittee: Land Use
Potential Partners: GRPC, MDMR, The Land Trust for the Mississippi Coastal Plain, Cities, Counties
Funding Sources: MDMR and other grant sources

Efficient government provides valued services responding to residents key needs.

Priority Action Area: Coordinate Natural Resource Policies

Current Conditions

The Mississippi Gulf Coast has a unique geography that supports a distinct coastal ecology and exceptional natural resources. These ecosystems and resources cross county and jurisdictional boundaries. For example, the headwaters of the Pascagoula River are located in Jackson County, but the watershed stretches as far north as Meridian. The same can be said of the De Soto National Forest, stretching across ten counties.

It is challenging to align policies in ways that effectively manage natural resources across the region. Coastal stakeholders have identified the following policy challenges:

- Separate plans and maps related to the conservation of natural resources
- Variations in water pricing and metering across jurisdictions
- Insufficient enabling legislation for local authorities

Many governments and organizations have their own plans and maps related to the conservation of natural resources. Although different strategies may facilitate the gathering of stakeholder input, ultimately policy implementation is more difficult without a singular, clear vision.

Consumers and utility authorities recognize the role of water prices in encouraging conservation. For example, residents in Long Beach pay a flat rate regardless of how much water they use, while D'Iberville residents pay based on the amount of water they use, encouraging lower water use. Jackson County has a **sediment control** policy that is used throughout the county, including its cities, making it easier for construction companies to comply with the policy.

The U.S. Coast Guard has emphasized the need for an enabling policy to empower them to stop ship sewage disposal in the Mississippi Sound. With the Sound used for fishing and swimming, it is important to maintain water quality.

Priority Actions

The *Plan for Opportunity* identifies three priority actions to provide ways to collaborate and coordinate policies to effectively

manage the natural resources in the region now and into the future. The priority actions will:

- Ensure clean and plentiful water to support the region's multiple uses of water

Institute Region-Wide Water Metering And Consumption-Based Water And Sewage Pricing

Utility Authorities should consider adopting pricing that encourages consumers to conserve water. Possible rate structures include: increasing block rate (price increases for each "block" of water used), seasonal pricing, or linking sewer charges with water use (high water use results in a high sewer charge).

Electronic meters should be installed in households, businesses and industries to allow for accurate measurement of water consumption and consumption-based pricing. Consumers who participate in metering and consumption-pricing may expect to see savings on their utility bills.

Subcommittee: Water
Potential Partners: Local Departments of Health, local Departments of Public Works, Utility Districts and other utility service providers
Funding Source: U.S. EPA's Clean Water State Revolving Fund (CWSRF) Program

Construction results in sediment disruption that can run offsite if not properly managed.

Consistently Manage Sediment

Sediment running off from construction sites can smother spaces where fish lay eggs, reduce water quality and reduce the capacity of a stream or bayou to manage water, increasing flood risk. Every jurisdiction has a different policy for managing sediment, making it hard for construction companies to follow the rules and difficult for code enforcement officers to ensure compliance. A consistent regional sediment control policy would support minimizing sediment loss from construction sites. The cities and counties

could work together to create a regional sediment management plan, develop a consistent policy and train officials and construction companies on effectively managing sediment. This work would support the implementation of recommendations made by the Gulf of Mexico Regional Sediment Management Master Plan.

Subcommittee: Water
Potential Partners: U.S. Army Corps of Engineers (USACE), EPA, MDMR, MDEQ, regional planning bodies and local and state policy makers
Funding Sources: Local Government, State of Mississippi

Establish A No Discharge Zone In State Waters

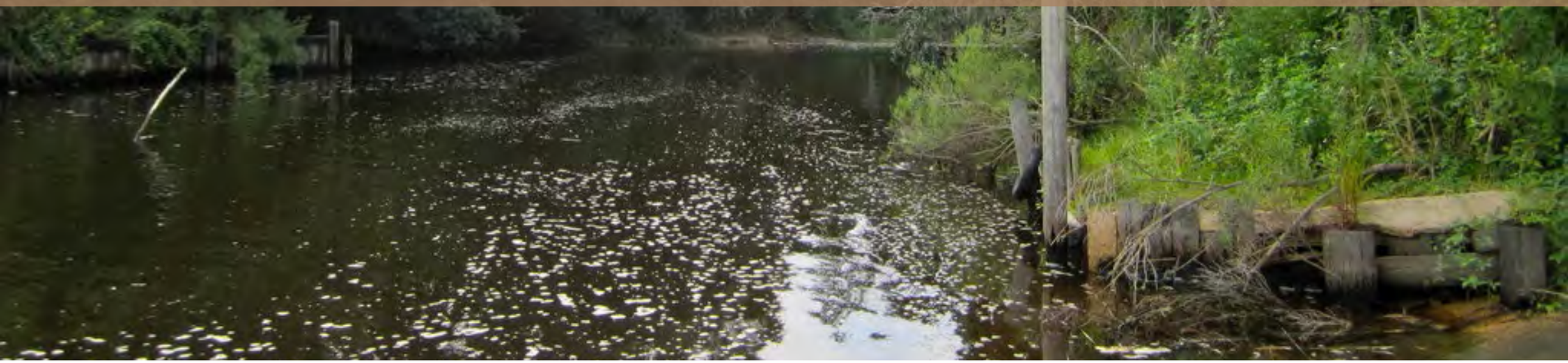
Mississippi should work with EPA to designate a **No Discharge Zone (NDZ)** across its territorial waters to prevent ships from releasing treated or untreated bilge and sewage into the water. Within NDZ boundaries, vessel operators are required to retain their sewage onboard for disposal onshore at a pump-out facility or at least three miles from shore. NDZs enhance water quality and allow for greater environmental protection than current federal standards. NDZs protect aquatic species such as fish, shrimp and oysters in addition to making sure water quality is to a standard safe for human health. In designated NDZs, the United States Coast Guard enforces EPA regulations, but the state could also assist.

A no discharge zone will help keep Mississippi Gulf Coast waters clean and healthy.

Subcommittee: Water
Potential Partners: MDMR, Mississippi Commission on Marine Resources (MCMR), U.S. Coast Guard (USCG) and EPA
Funding Sources: Federal Government, USCG, EPA

Section 6

Portrait



The Van Arsdales

The Van Arsdales purchased their home in Gautier, Mississippi in late July of 2005. At the time, they were told they did not need to purchase flood insurance for their home because it was not located in a flood plain. Their annual insurance costs were expected to be $900. Thirty days after the Van Arsdales purchased their home, Hurricane Katrina struck the region. Their familiarity with the neighborhood helped them to feel safe and they made the decision to remain in their home during the storm, but they received four feet of flood water in their home.

In the initial moments after the storm, the Van Arsdales did not worry about attempting to salvage their belongings. They trusted that their homeowners' insurance would pay for any damage. However, when they attempted to collect their insurance benefits, they were notified they would only receive funds to repair their roof and were not covered for additional damages because they did not have flood insurance. This news made the recovery process strenuous and complicated for the Van Arsdale family. Although FEMA provided them with $26,000 to assist with repairing their home, the Van Arsdales invested $59,000 in order to repair damages and restore the quality of the home to the state it was in prior to Katrina.

Quality was an important element for the Van Arsdales because they both have allergies and one suffers from asthma. Both had worked in construction and knew the extent of work that was necessary to ensure no long term problems with the house. They tore out the drywall and let the wood framing dry for weeks to make sure that there would be no mold or mildew. They replaced all of their cabinetry and bleached all of their floors. In order to cover the difference in costs, they delayed replacing their cars so they could utilize the payment received from their automobile claim on house repairs.

Complications with insurance did not end after restoring their home. The insurance that once cost the Van Arsdales $900 has since tripled in price. The additional costs have made it incredibly difficult to get by. Mr. Van Arsdale recently injured his back and had knee replacement surgery and can no longer work in his industry. To remain competitive in the current economic climate, both of the Van Arsdales are back in school, making it very difficult to afford their mortgage and insurance while being unemployed.

The Van Arsdales' story highlights the need for policies surrounding affordable insurance costs and the consequence associated with failing to provide that necessity to coastal residents. Affordable insurance provides coastal homeowners with security in homeownership to improve their quality of life.

Planning for a Sustainable Port of Gulfport

The *Plan for Opportunity* recognizes the importance of the ports across the coast in supporting the economic competitiveness of the region. Operating on more than 250 acres, the Port of Gulfport averages more than 2 million tons of cargo and ships 200,000 twenty-foot equivalent units per year. A range of products funnel through the Port of Gulfport, including bulk, break-bulk and container cargo. As the third busiest container port in the Gulf of Mexico, it is the second largest importer of green fruit in the U.S. This activity is projected to grow with the completion of the expansion of the Panama Canal in 2015. The port sought to leverage the investment being made in the Panama Canal to grow the region's international trade.

The Port of Gulfport, is creating the "Port of the Future", investing $570 million in community development block grant (CDBG) funds, to create a regional employment center to support the economic competitiveness of the region for future generations. While the port expansion will have regional impacts, it also has local impacts in the neighborhoods and communities surround the port.

Any port expansion can bring **environmental justice** challenges, such as increased traffic, noise, pollution, and other

environmental impacts. Residents in the neighborhoods surrounding the port have raised concerns about the proposed road connecting the port to the region's transportation network, wetlands loss, inland port development, increase vehicle and rail traffic, water pollution, noise and air quality.

To address part of these concerns, The Port of Gulfport, under the leadership of Port Director Jonathan Daniels, is proposing to take positive steps to enhance the public health for communities adjacent to the Port. In October 2013, Director Daniels announced that the Port of Gulfport was considering joining the "Green Marine" environmental initiative, a voluntary marine industry effort to certify Ports as green through incentivizing environmentally friendly practices that exceed requirements set out in current regulations for air, land and water emissions. The Port of Gulfport has set the goal to become the first green certified port on the Gulf of Mexico.

Creating a green Port of Gulfport aligns with a number of priority actions in the *Plan for Opportunity*. In assessing what strategic investments hold the greatest potential for creating long-term benefits for all Gulf Coast residents, the *Plan for Opportunity* establishes priority actions that include "Assist the Ports in Developing Clean Air Programs" and "Support Anti-Idling Programs and Projects for Freight". These two priority actions seek to reduce maritime and vehicle emissions. Through leveraging

VIDEO 7 Advocating for Affordable Insurance

Source: The Ohio State University

current investments of public funds and by using the *Plan for Opportunity*'s priority actions, the Port of Gulfport has the opportunity to attract partnerships with the EPA, DOT and state agencies to create a strategic plan for emissions reduction.

Greening the port is one example of how the Port in partnership with the region can better ensure environmental justice, through a safe and healthy environment, for the North Gulfport community and all Gulf Coast residents.

Section 7

Measuring Progress

In this section the benefits are described and include indicators that will gauge the region's progress toward achieving the benefits. Each indicator has a target of quantifiable progress over the twenty year planning horizon.

The benefits to Coordinating Policies and Leveraging Investment are:

1. Strengthened Resilience
2. Decreased Service Costs
3. Increased Transparency and Accountability

Strengthened Resilience

A diverse energy economy, in both energy and transportation sectors, creates a stronger region for residents and employers alike. Investing in locally-generated renewable energy will create skilled jobs on the Mississippi Gulf Coast and improve air quality, resulting in benefits for the region.

Alternative energy systems provide long-term savings for residences and businesses. In addition, they can provide a source of energy following a natural disaster, allowing a faster return to normalcy.

Investing in renewable energy and alternative fuels and transportation options will reduce emissions and improve air quality, preserving the health of regional residents for many years to come.

The following indicators will measure if the region's plans and investments are aligned in ways that strengthen resilience:

Alternative Fueling Stations

Alternative transportation fuels include biodiesel, electricity, ethanol, hydrogen, natural gas, and propane, among others. Building the infrastructure to make these fuels available gives people the option to drive cars that diversify the energy economy, reduce fossil fuel consumption and harmful emissions, and save money over the long term. Currently, the Mississippi Gulf Coast has nine alternative fueling stations (excluding private stations), two of which are electric and seven of which are propane.

Target: By 2035, the Mississippi Gulf Coast will expand its number of alternative fueling stations from nine to 27.

Annual Eight-hour Average Ozone Readings

Ozone is a byproduct of fossil fuel consumption; at ground level, it can have adverse effects on human health. Working to ensure that ozone levels on the Mississippi Gulf Coast are safe helps both current and future residents, keeping the region a good place to live.

Target: The Mississippi Gulf Coast will attain annual eight-hour average ozone readings of 65 – 69 ppb in 2014; 63 ppb by 2017; and 60 ppb by 2020.

Decreased Service Costs

Policies and investments that help to reduce costs to households, businesses and government is important for the region. For example, creating land development policies and investing in storm water infrastructure can reduce flood risk for the community driving down the cost of insurance.

The following indicator will measure if the region's plans and investment are aligned in ways that decrease public and private costs:

CRS Participation

The Mississippi Gulf Coast region is particularly prone to flooding. The CRS is a voluntary program that rewards communities that reduce flood liability to existing buildings, protect new buildings, preserve and/or restore natural functions of floodplains, help insurance agents obtain flood data and help people obtain flood insurance. The reward for obtaining CRS classification is a collective decrease in insurance premiums for that region. Many

communities within the Mississippi Gulf Coast participate in the CRS program, though Diamondhead, Moss Point and Hancock County do not.

Target: That Diamondhead, Moss Point and Hancock County enroll in CRS in the next 5 years, and that the overall average of the communities Class (which is currently a 5.6) drops to 5.0 (Minimum Standard of success) or a 4.0 (Preferred Standard) within twenty years.

Increased Transparency and Accountability

Easy access to information makes government projects more transparent and enables greater accountability, making it a key tool for public endeavors. A single site for clear and helpful information increases citizens' awareness of projects in their community and how to take action.

The following indicator will measure if the region's plans and investment are aligned in ways that increase transparency and accountability:

Participation In The Regional Information Sharing System

Sharing information such as data, models and maps enables communities to coordinate plans and projects. The more local governments take advantage of the system, the more useful and effective it will be.

Target: All counties formally and actively engaged in cross agency information sharing with city and county government agencies and a unified digital storefront for shared information.

Chapter 7

Value Communities and Neighborhoods

Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

Section 1

Introduction

The *Plan for Opportunity* has three Priority Action Areas for valuing communities and neighborhoods in the region:

1. *Create healthy, safe, walkable neighborhoods*
2. *Foster a responsible food system*
3. *Connect communities to the waterfront*

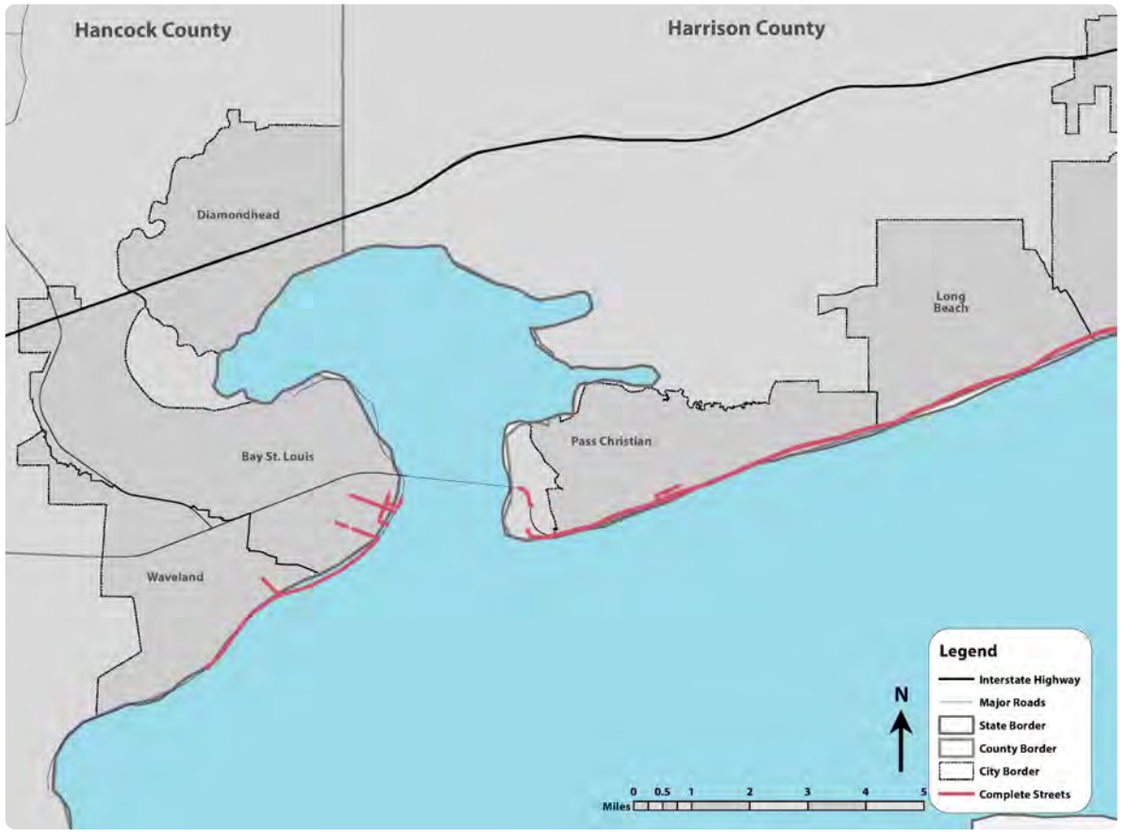
Priority Action Area: Create Healthy, Safe, Walkable Neighborhoods

Current Conditions

Many residents who are looking for housing are interested in neighborhoods that are healthy, safe and walkable. Stakeholders across the region share a preference for walkable neighborhoods.

- CTA has expressed a strong desire for its buses to become a competitive alternative to the automobile, a prospect that depends heavily on walkability
- Developers have reported that providing housing in locations accessible to amenities and services better ensures the success of their investments
- The *Plan for Opportunity*'s Values Survey reveals that residents would be more inclined to leave behind their vehicles if sidewalks, crosswalks and safe biking opportunities were present
- The region has a number of Complete Streets, as seen in **Map 8**, and has the opportunity to increase over time

MAP 8 Complete Streets on the Mississippi Gulf Coast



Source: Gulf Regional Planning Commission and The Ohio State University

Downtown Ocean Springs is an example of a healthy, safe, walkable neighborhood. The neighborhood is known for its central core centered along Washington Avenue and Government Street, where a strong sense of place endures. Residential and

Downtown Ocean Springs is an example of a comfortable walking environment in the region.

commercial buildings closely line the sidewalks shaded by a canopy of live oak, enhancing pedestrian comfort. CTA buses, private automobiles, bicyclists and pedestrians all share rights of way comfortably. Daily conveniences are within a short distance of residences. Housing and commercial uses are close to one another. A concentration of cultural activity enhances the neighborhood's uniqueness. Ocean Springs' thriving downtown district consists of 208 properties and there is a mix of uses. In Ocean Springs, there are:

- 100+ commercial properties including retail, office and restaurants
- Four schools
- Seven churches
- Six multi-family residential buildings

The neighborhood's 96 percent occupancy rate makes for a strong, successful community core. In 2013, the city was awarded the prestigious Great American Main Street award, one of only three communities to win the award annually.[111]

Neighborhood air quality is another important factor to residents on the Mississippi Gulf Coast. Ozone caused by emissions from cars, trucks, gas stations and factories is a key contributor to air quality reduction. Because children's respiratory systems are still developing, they are more susceptible than adults to environmental threats like ozone. To address this threat, students at an elementary school in Long Beach participated in a research project about reducing idling outside of the school.

- Average idling time for a vehicle parked outside of the school was 15 minutes
- Students initiated several programs that helped to reduce idling time to 8.5 minutes

Residents desire to live in safe communities that have reduced risk of damage from flooding and storms. Jurisdictions across the coast have invested in significant efforts to protect communities from hazards associated with severe weather and potential sea level rise. Pascagoula, Pass Christian and Bay St. Louis, for example, have integrated hazard mitigation into their comprehensive plans. The three coastal counties have all adopted hazard mitigation plans. These plans call for actions that would improve the resiliency of communities in areas such as emergency response, public outreach and development codes. Examples include:

- Harrison County's sustainable development point system encourages developers to make their buildings and sites safer and more energy efficient, creating long-term savings
- Pass Christian's zoning code has encouraged safe, compact, walkable neighborhoods such as the Cottages at 2nd Street, which contains 40 elevated homes with energy efficient appliances close to downtown

Residents and government officials cite a lack of knowledge as a barrier to the creation of safe, healthy, walkable communities they would like to see.

Priority Actions

The *Plan for Opportunity* identifies five priority actions to create healthy, safe and walkable neighborhoods in the region. The priority actions will:

- Encourage a healthy lifestyle
- Conserve energy and protect the environment
- Promote the unique character and resiliency of communities in the region

Encourage And Incentivize Sustainable Development Codes

A development point system encourages the integration of site and building features that conserve energy, reduce water consumption, promote a healthy landscape and support public health and safety. Approval of nonresidential, multifamily and mixed-use development should be dependent on achievement of a specified number of points, with a focus on long-term cost savings for the building owner and the community.

Subcommittee: Land Use, Resilience, Water
Potential Partners: Community Design Studio, Cities, Counties
Funding Sources: Sustainability Grants

Integrate Hazard Mitigation Principles Into Long Range Planning To Promote Community Resiliency

Community resiliency improves when hazard mitigation principles are integrated into long-range land use planning. Individual community comprehensive plans should include recommendations from county hazard mitigation plans. SMPDD completed a study in 2013 that identifies how each jurisdiction can integrate hazard mitigation into their local plans.

Subcommittee: Land Use, Resilience
Potential Partners: GRPC, Cities and Counties, SMPDD
Funding Sources: Federal, state and local funds

Educate Elected Officials And Planners On Best Practices For Furthering Sustainability

Elected officials and planning professionals will benefit from understanding how other communities address key challenges such as managing growth, protecting the coastline and withstanding storms. Greater education among elected officials, planners, developers and residents will ensure the people of the coast experience sustainable communities.

Subcommittee: Land Use
Potential Partners: GRPC, American Planning Association - Mississippi Chapter
Funding Sources: GRPC

Create A Citizen's Guide To Land Use

The goal of this guide will be to educate and inform residents on how land use can influence what their city could look like in the future. This manual will include a citizen's guide to land use with an educational component. It will define land uses, give insight on key terms used by land use planners and serve as a resource guide for land use professionals and citizens.

Subcommittee: Land Use
Potential Partners: GRPC, County Assessors Offices, Harrison County GIS Coalition
Funding Sources: GRPC, CIAP

Encourage School Districts To Adopt Anti-Idling Programs

GRPC recently started a program to increase public awareness of air quality issues and help get parents and students on board with reducing idling outside of schools on the Coast. The program piloted at Long Beach Elementary was a resounding success. All schools on the Mississippi Gulf Coast can replicate this program and the GRPC should encourage all school districts to adopt anti-idling programs.

Subcommittee: Air Quality
Potential Partners: GRPC, MDEQ, Mississippi Department of Education (MDE), local School Districts
Funding Sources: GRPC, MDEQ

Priority Action Area: Foster a Responsible Food System

Current Conditions

Food is cultivated, harvested and then eaten. Along each step, there are industries that both support the food system and benefit from it. Food system planning works to facilitate community **food security**. It ensures equitable physical and economic access to safe, nutritious, culturally appropriate and sustainably grown food, especially for vulnerable populations. A healthy responsible food system is essential to improving regional health.

- In 2012, 34.6 percent of the population of the state of Mississippi was obese[112]
- 11.3 percent of people in Mississippi have diabetes[113]
- There were 22,000 hospitalizations for heart disease and stroke in Mississippi in 2010[114]

Food insecurity rates are also a concern. Each of the counties has a household food insecurity rate higher than the national average of 14.5 percent:[115]

- 15.4 percent in Hancock County
- 17.8 percent in Harrison County
- 17.5 percent in Jackson County

Local officials and community organizations are concerned with promoting a healthy lifestyle. Health educators teach individuals to eat healthier on all levels – from community workshops for adults to programs within elementary schools –and have identified the need for further outreach efforts. Taconi Elementary School in Ocean Springs has been nationally recognized for its school garden. Children are taught how food is grown and encouraged to make healthy food choices. Many residents say they would eat healthier if they had access to healthy food choices.

- 27.5 percent of the population in Hancock County is low-income and lives more than one mile from a supermarket or large grocery store
  - 22.3 percent of Harrison County residents and

  - 18.5 percent of Jackson County residents face the same challenge

- More than 2,400 households in the region are low-income and live more than 10 miles from the nearest grocery store, see **Map 10**

  - Bus routes, when available, are often considered too long to be practical. People may wait on buses for hours, which could cause food to spoil[116]

Many residents who cannot afford to meet their daily food needs on their income rely on food pantries. The food pantries and soup kitchens of the Mississippi Gulf Coast have expressed frustration over not being able to obtain enough food to meet the region's need.

Many local food distributors have excess food that is consumable, yet not donated. Hancock, Harrison and Jackson Counties produced 84,700 tons of food waste collected at the two Municipal Solid Waste facilities within the three-county region.[117] Store operators say they would like to provide this excess food to those who need it, but lack of understanding about how and what can be donated is a barrier.

Food waste that cannot be donated can still be recycled. Composting provides a way to generate quality soil for use by farmers and gardeners.

- Keesler Air Force Base and the Naval Construction Battalion Center (Seabees) divert their food waste for composting

Priority Actions

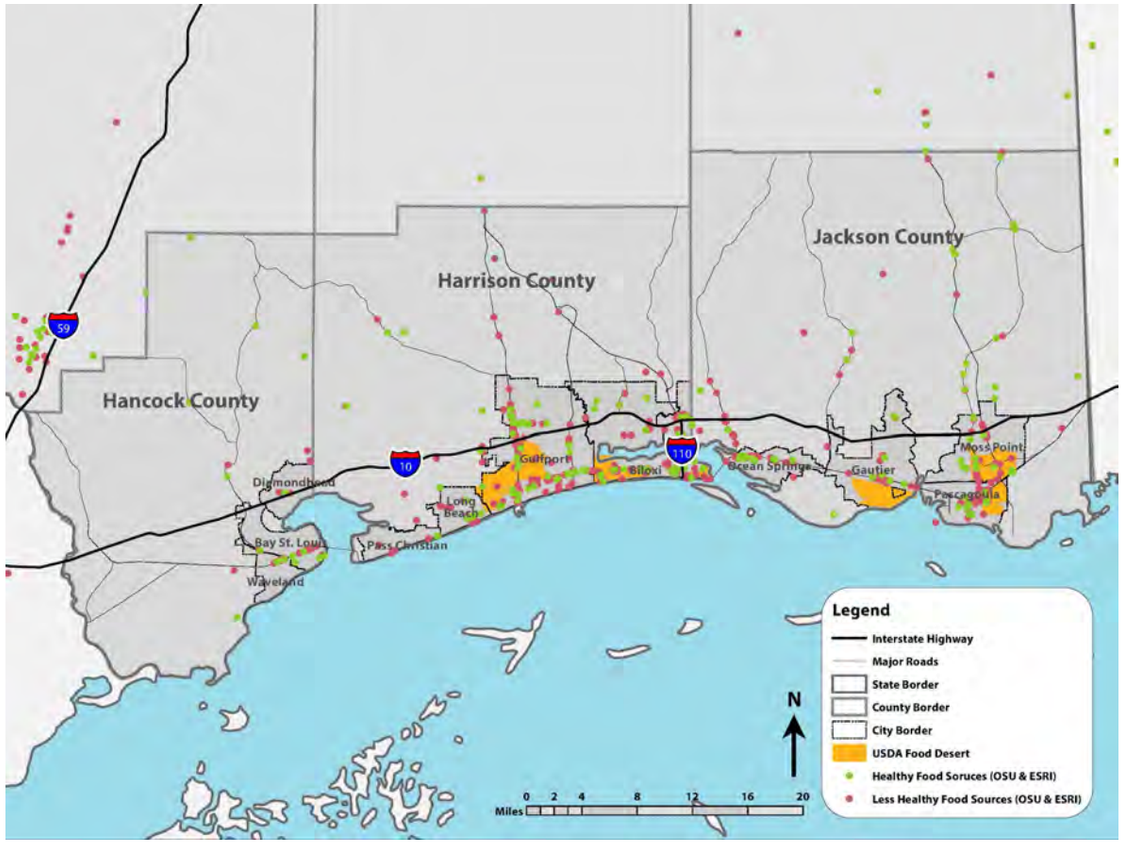
The *Plan for Opportunity* identifies five priority actions to foster a responsible food system. The priorities will:

- Increase access to food, including healthy and local options, to all communities
- Enhance the health and well-being of the region
- Promote the economic prosperity of local food industries

Bring Fresh Food To Food Insecure Neighborhoods

There are two ways fresh food might be brought to neighborhoods lacking grocery stores. First, a Fresh Corner Store Program could be initiated to provide financial incentives for food stores, in targeted food insecure neighborhoods, to stock fresh food items. Incentives could include the provision of energy-efficient refrigeration units, such as those endorsed by EPA's **GreenChill** program, to allow a food store to stock fresh items. In

Map 9 Areas with Limited Access to Healthy Food Options



Source: Kirwan Institute for the Study of Race and Ethnicity

addition, store owners/managers would be provided with training on how to effectively market fresh food items. This initiative could be supported through engagement with the **Healthy Corner Store Network**, which provides consulting to stores that wish to sell healthy food items.

Second, a healthy food financing initiative could be implemented to provide financial, technical and development assistance to food store operators who wish to open stores in food insecure neighborhoods. The financing initiative can provide grants and loans to bridge the gap that would make a store economically viable. Recipients of financing should be encouraged to utilize environmentally friendly advanced refrigeration technology endorsed by EPA's GreenChill program.

Subcommittee: Food
Potential Partners: Store Owners, Non-Profit
Funding Sources: The United States Department of Health and Human Services Administration for Children and Families Community Economic Development (CED) Centers for Disease Control and Prevention

Launch A Grocery Store Shuttle From Food Insecure Neighborhoods To Grocery Stores

A grocery shuttle could run a regular service to bring residents of food insecure neighborhoods to grocery stores. This shuttle could be operated by CTA or grocery stores. In rural areas this could be a door-to-door service on a scheduled day and time, similar to the senior service currently operated.

Subcommittee: Food
Potential Partners: CTA, Local Grocery Stores, Farmers Markets
Funding Sources: CTA, FTA State of Mississippi, Harrison County, City of Biloxi, City of Gulfport and the City of Ocean Springs

Farmers markets are one way residents can access locally grown fresh produce in their neighborhood.

Connect Surplus Food To Communities In Need

A surplus food matchmaking website would allow food suppliers (including retailers, producers and distributors) to post available food that can be picked up. The website could start as a directory for donors and recipients and grow to a daily posting of available items. Food banks, food pantries and soup kitchens could use the website to locate surplus food or post particular needs. The website could also host basic information for potential donors, including details about the **Good Samaritan Law** and tax incentives for food donors.

Subcommittee: Food
Potential Partners: Mississippi State Department of Health, Local Planning, Zoning and Codes Departments, United Way
Funding Sources: ConAgra Foods Foundation, USDA

Create A Compost Mississippi Program

The **Compost Mississippi Program** provides outreach education, funding and technical support for residents, organizations and businesses aimed at increasing diversion of food waste, yard wastes and other organic materials at the household and community levels. Households will be encouraged to engage in backyard composting. Composting demonstration projects could be established at community gardens, schools, parks, institutions, or businesses. These demonstration sites can potentially serve as collection/drop-off sites for leaves, garden trimmings, food waste and other organic materials.

The program could be launched with public events as a part of the nationwide actions during the International Composting Awareness Week (ICAW). The event could feature the sale of backyard composting bins directly by manufacturers at a low cost, host a compost tea party, or offer a tour of a composting facility. The event could be coordinated with organizations that provide

demonstrations on backyard composting, home gardening, cooking classes, soil conservation and similar topics.

Subcommittee: Food
Potential Partners: MDEQ, Mississippi Recycling Coalition (MRC), Counties, Cities, Waste Management companies
Funding Sources: EPA, MDEQ

Expand Sustainable Agriculture And Aquaculture Practices

Urban agriculture could provide productive uses for currently vacant properties. The food produced could be sold at local farmers markets and distributed to local food banks/pantries. The region has a number of vacant buildings that are suitable for indoor food production techniques like hydroponic gardens, adjustable artificial oyster beds and aquaculture. This provides an opportunity to increase local food production while utilizing existing infrastructure.

Subcommittee: Food
Potential Partners: MDMR, Mississippi-Alabama Sea Grant Consortium, Mississippi Coast Fisherman's Association
Funding Sources: AFRI, USDA, Mississippi-Alabama Sea Grant Consortium, NOAA, US Department of Commerce

The Mississippi Gulf Coast is famous for its agriculture and aquaculture. From locally grown blueberries, to seafood, to non-traditional agriculture such as alpaca, there are opportunities to increase agriculture and aquaculture.

Priority Action Area: Connect Communities to the Waterfront

Current Conditions

On the Mississippi Gulf Coast, there are diverse fresh and saltwater landscapes and habitats that include:

- Approximately 500,000 acres of the Mississippi Sound
- Eight tidally influenced rivers that extend over 85 miles
- More than 300 **tidal creeks** and riverine bayous
- 100 coastal **estuarine ponds and lakes**[118]

Water is a defining feature of the region. The coastal community and its visitors engage in various recreational activities centered on the waterfront through an extensive network of waterfront amenities. Beach visitation is the most popular type of outdoor recreation along the Mississippi Gulf Coast:

- 30 percent of tourists state that their primary interest in coming to the Mississippi Gulf Coast is the water and the natural beauty[119]
- Fishing and recreational swimming are among the region's top three activities
- The Mississippi Gulf Coast provides 191 public water access points[120]
- Birding attracts a significant number of tourists[121]

While many on the coast enjoy the waterfront amenities, those with disabilities have had a difficult time accessing recreational opportunities.

Overall the water quality in the coastal waters is good. The MDEQ monitors water quality on the Coast and its 2010 report illustrates that most Mississippi coastal waters are in attainment with state and federal water quality standards.[122] However, residents and visitors associate the murky, brown water with poor water quality. Other issues that threaten the region's waters include:

- 12 percent of intertidal marshes on the Mississippi coast have been drained, filled, or fragmented[123]
- Coastal erosion is a major contributor of wetland loss

- Potential sea level rise is a significant risk to wetland habitat loss[124]
- 20 species are endangered or threatened in the three coastal counties[125]

Stakeholders are concerned about maintaining the waterfront as both a significant natural resource and an economic engine for the Mississippi Gulf Coast. In order to safeguard its role in this region, it must be protected and yet made accessible to community members and visitors. With increased access, awareness and conservation efforts surrounding the waterfront, people will be able to enjoy this resource now and in the future.

Priority Actions

The *Plan for Opportunity* identifies three priority actions to continue to connect regional residents and visitors to Mississippi Gulf Coast's unique waterfront. The priority actions will:

- Educate residents and visitors about the importance of water quality
- Provide access to the Mississippi Gulf Coast's unique and valuable waterfront
- Protect the region's natural environment

Expand Public Access To Water Quality Information

Monthly monitoring of water quality should be expanded to include freshwater recreational access points on rivers and lakes in addition to saltwater beaches. Volunteer-based organizations could assist with water quality testing and install water quality signs in major public access points and at fishing locations. Signs should list methods, like text or e-mail, for accessing water quality information. Local organizations in charge of a recreational location (e.g. Harrison County Sand Beach Authority, road departments and parks departments) could develop new signs using current schemes for signs on the beaches.

Subcommittee: Water
Potential Partners: MDEQ
Funding Sources: EPA Mississippi/Alabama Sea Grant Program

Make Amenities Accessible To All At Public Waterfronts

Accessible amenities should be added to fishing piers, beaches and other waterfront recreational destinations. This could include accessible ramps and paths, seating areas, handrails, additional trash cans with lids and emergency phone posts.

Subcommittee: Land Use, Water

Creating accessible amenities, such as ramps and paths to the water will allow all the region's residents to enjoy the recreational opportunities on the water.

Potential Partners: Sand Beach Authority, Mississippi Department of Wildlife, Fisheries and Parks (MDWFP), MDEQ, City and County Governments, County Utility Providers
Funding Sources: Sand Beach Authority, MDMR, Public Improvement Districts, regional Parking Authorities

Expand The Living Shorelines Initiative

The **Living Shorelines Initiative** is a long-term project to control erosion through the use of vegetation. The Living Shorelines Initiative is currently a voluntary program but should be a site standard as part of new waterfront development. Communities could offer tax incentives for existing uses to implement living shoreline practices. This encourages an awareness of the health of the estuaries and natural environments that make the commercial seafood trade possible.

Subcommittee: Food, Resilience
Potential Partners: MDMR, Mississippi-Alabama Sea Grant Consortium, Schools, Gulf Islands National Seashore, MDEQ, GCCDS
Funding Sources: NOAA NFWF U.S. Department of Commerce

Portraits

American Truck Group

Louie Norman opened the American Truck Group with a clear vision in mind: to run a truck washing company utilizing the most sustainable and energy efficient means possible. Louie believes that conserving energy and reducing water consumption leads to a healthier landscape and safer environment for all residents. He has been extremely successful in implementing various conservation and renewable energy efforts at his truck wash to demonstrate this is a feasible outcome for the coast.

The truck wash features a water retention pond with koi fish. All of the water used at the truck wash is recycled through their water treatment facility, which has a series of tanks that clean the water and remove the motor oil. Once the water is clean, it is safe enough to drink. Trucks are cleaned with water and steam, which lifts almost all dirt and grime off the trucks. When needed, only a biodegradable cleaner is added to the process. No other chemicals are used.

Changes in the facility's infrastructure include LED lights throughout the office area and lining the driveway and periphery of the property. These lights are battery operated, brighter and

Community gardens bring people together and support the health and wellness of the region's communities.

more energy efficient than fluorescent light bulbs. The office walls do not reach the ceiling to allow for air from the air conditioning/ heating units to pass to different rooms more efficiently. The windows are tinted to prevent solar rays from heating the inside. The kitchen is operated by a local, well-known chef who only serves fresh foods without preservatives.

The American Truck Group is not stopping there. Louie has plans to expand the business utilizing further conservation efforts including an enclosed wetland and updated LED lights that will better diffuse light on the site. In the long run, these changes are cost effective for American Truck Group. Perhaps more importantly, these creative, inventive solutions will reduce the cost of operating the truck facility and minimizing the environmental impact on the community.

Mississippi Renaissance Garden Foundation

Many years ago, Martha Boyce was involved in a devastating accident that left her with only one leg. Following the accident, she was looking for new activities in which she could engage given her disability. Once she found gardening, she never looked back. The immense joy she found motivated her to introduce

other coastal residents to the therapeutic benefits of gardening and eventually to establish the Mississippi Renaissance Garden Foundation.

Martha's passion led to the creation of an accessible garden in the backyard of her home and ultimately to a full-scale community garden in Biloxi. Martha acquired land for the community garden from the city at Hiller Park. Several other community members have joined Martha in maintaining this garden. All of them are volunteers who provide labor and materials. They grow all of their vegetables and flowers from seedlings and produce compost that improves the soil for organic gardening. Mississippi Renaissance Garden Foundation also distributes seeds and food at farmers' markets, various events and to mobile vendors. They have plans to expand to a 1.4 acre community garden. In the future Martha would be interested in using vacant lots throughout the coastal counties to establish additional community gardens.

The garden's surplus food is donated to the Go Green Bus, community food kitchens and food banks. Volunteers perform garden demonstrations within local schools. Mississippi Renaissance Garden Foundation embraces the local community and sustains it through food. What started as a mission to acquire personal serenity resulted in an organization that provides solace to community members and creative solutions to food security issues in the region.

Video 8 Valuing our Region's Landscape

Source: The Ohio State University

Section 6

Measuring Progress

There are substantial measurable benefits from the region's progress on these priority actions. Each indicator has a target of quantifiable progress over the twenty year planning horizon.

The benefits to valuing neighborhoods and communities in the region include:

1. Creating Accessible Neighborhoods
2. Developing a Resilient Food System

Creating Accessible Neighborhoods

Valuing communities and neighborhoods is directly tied to creating more accessible neighborhoods. Alternative modes of transportation, improved walkability and increased access to local goods and services will set the region apart as an increasingly desirable place to live. Residents and visitors alike will experience:

- Better mental and physical health
- More enhanced social interaction
- Increased mobility for all populations

The following indicator will measure the region's progress towards these benefits:

Miles Of Complete Streets

Complete Streets not only are increasingly desirable in cities across the United States, but provide for all forms of transportation. While there are various forms of Complete Streets the most common form on the Mississippi Gulf Coast are two way streets with sidewalks that are removed from the automotive and bicycle right-of-way, see **Table 12**. Mississippi also has bicycle lane infrastructure, and those streets are also included. Currently, many of the new streets being built are taking into consideration pedestrian, cyclist and automotive transit methods. Because of this, the miles of complete streets in the Mississippi Gulf Coast are expected to increase. A 50 percent increase in the miles of complete streets, as compared to the total mileage of streets, would indicate that the Gulf Coast is making positive progress related to alternative transportation priority actions.

Target: A 50 percent increase in the miles of complete streets would indicate that the Gulf Coast is making positive progress related to alternative transportation priority actions.

TABLE 12 Miles and Percentage of Streets

	Miles of Infrastructure		
	Harrison	**Hancock**	**Jackson**
Walkable	111.09	15.77	47.85
One Side	0	8.19	14.61
Two Sides	111.09	7.58	33.24
Bike Lanes	58.19	2.66	1.31
GRPC Bikeable	124.97	27.92	62.17
Complete Street	65.95	6.67	7.57
Total	2611.38	1622.15	1790.63

	Percentage of Total Miles		
	Harrison	**Hancock**	**Jackson**
Walkable	4.3%	1.0%	2.7%
One Side	0%	0.5%	0.8%
Two Sides	4.3%	0.5%	1.9%
Bike Lanes	2.2%	0.2%	0.1%
GRPC Bikeable	4.8%	1.7%	3.5%
Complete Street	2.5%	0.4%	0.4%

Source: Gulf Regional Planning Commission and The Ohio State University

TABLE 13 Access to Food Stores

	Hancock	Harrison	Jackson	Regional Average
Children, low access to store (%), 2010	10.56%	10.53%	6.16%	9.08%
Children, low access to store, 2010	4,634.64	19,695.25	8,592.37	
Households, no car & low access to store (%), 2010	1.94%	2.36%	1.72%	2.01%
Households, no car & low access to store, 2010	337.17	1,682.91	895.62	
Low income & low access to store (%), 2010	17.01%	16.28%	8.58%	13.96%
Low income & low access to store, 2010	7,469.64	30,447.14	11,980.38	
Population, low access to store (%), 2010	44.82%	41.37%	25.16%	37.12%
Population, low access to store, 2010	19,685.63	77,395.57	35,135.11	
Seniors, low access to store (%), 2010	6.92%	4.72%	3.30%	4.98%
Seniors, low access to store, 2010	3,036.45	8,815.95	4,608.56	

Source: USDA ERS Community Food Security

Developing a Resilient Food System

A resilient food system along the Mississippi Gulf Coast will lead to:

- Reduced risk of diet-related disease among residents
- Better mental and physical health
- A more prosperous food economy

The following indicator will measure the region's progress towards these benefits:

Food Security Rates

Food security, as a component of resilience, ensures that citizens have opportunity to access fresh food. The USDA Economic Research Service recently created the Community Food Security dataset in 2010. While there is data for previous years, this dataset is expected to be updated at each release of the American Community Survey. As of 2010, there is a large portion of the

region that is lacking access to stores, see **Table 13**. While more than a third of the population has low access, those who are most food insecure, the low income and seniors, also have varying rates. Low income individuals are challenged in all three counties, but especially in Hancock and Harrison. Because the region is continuing to redevelop following Hurricane Katrina, store locations are continuing to rebuild. Trends in food security should be monitored.

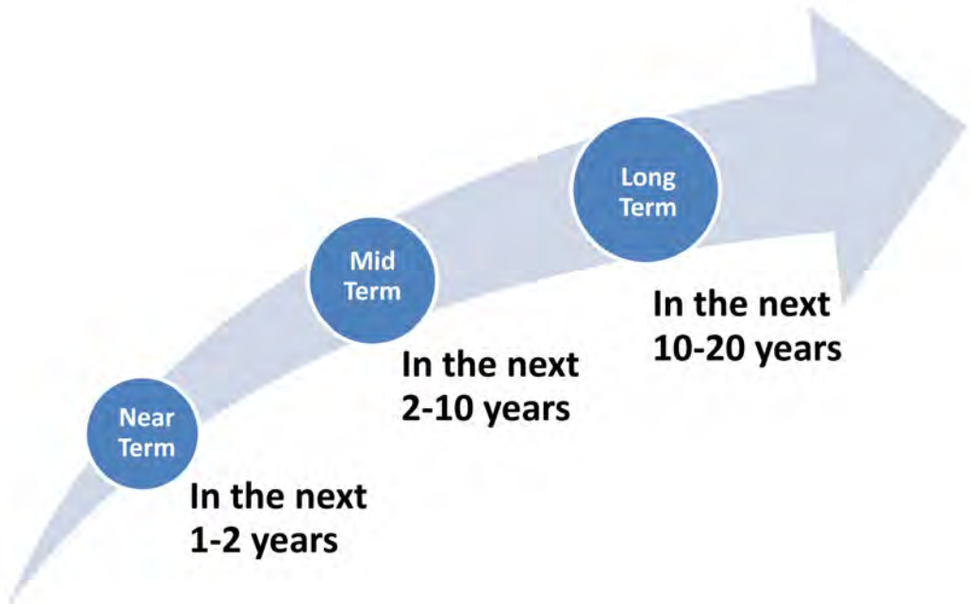
Target: That, at a minimum, the decrease of all percentages is proportional to the decrease in the total population with low access. The goal would be to see a one-fourth to one-sixth reduction in each of the measures at 5 year intervals.

Too many of the region's residents are food insecure. The Plan for Opportunity seeks to increase access to healthy food.

Chapter 8

Implementation Strategy

FIGURE 10 Project Time Horizons



Source: Renaissance Planning Group

A vision is a community's process for determining its future. Implementing that vision is done through a strategic action plan that organizes the vision into achievable and actionable steps. The *Plan for Opportunity* has outlined both a far-reaching vision and a specific set of priority actions for the Mississippi Gulf Coast region, based on each community's objectives, planning activities and public and stakeholder input. Achieving the Plan's desired outcomes for a more aligned and successful region will take a coordinated effort among many local, regional and state entities over the coming years.

The following Implementation Framework is intended to enable all partners to best focus their efforts and energies toward achieving goals for the region. The Implementation Framework provides a measure of progress against mutually established expectations. It is also organized into near, mid and long term priorities to accommodate the different plan priority actions. While there is flexibility in the time frames, the initial recommendation for this plan is to address near term actions in 1-2 years, mid-term actions in 2-10 years and long term actions in 10-20 years (see **Figure 10**).

Section 1

Implementation Framework

While communities and major institutions have been establishing policies and plans for their jurisdictional areas, the *Plan for Opportunity* is the first true intergovernmental and inter-agency plan to focus on the human, natural and physical resources of the three-county Mississippi Gulf Coast region. The Plan establishes a unifying vision for the future of the region, which can be achieved by accomplishing the identified priority actions that will make the region more livable, resilient and economically successful. Realizing the vision and implementing the priority actions will require coordinated action through long-term partnerships among many groups and entities.

A critical factor in successful implementation is to have a well-defined organizational structure in place that is accountable for the ultimate outcome of the plan and will help guide a well-coordinated strategy for achieving milestones and making progress on indicators. That may be one lead agency responsible for convening and coordinating the actions and decision-making of multiple organizations. However, it does not necessarily have to be a singular agency with overall responsibility; a suitable organization structure may be a collaboration between two or more organizations with the interest and capacity

to jointly move the plan forward, For instance, there could be a coordinating body established through a Memorandum of Understanding among several organizations to spell out an operating plan. The operating plan would identify a policy board and its members, terms and responsibilities, as well as staff roles and responsibilities. Roles and responsibilities could be static or could rotate among partner organizations quarterly or annually. However it is formed, the organization will be responsible for guiding the completion of priority actions among the Plan's partners and stakeholder organizations, tracking progress and facilitating discussions to address challenges or conflicts that may arise. The entity will provide the coordinating framework for all activities in the region related to plan implementation actions between levels of government and across jurisdictions.

Transitioning From Plan To Implementation

With the *Plan for Opportunity* completed and the focus shifting toward implementation activities, consideration should be given to re-branding the next phase with the name of the Partnership for Opportunity (the Partnership for short). This re-branding places the emphasis on the next steps of communication, coordination and leveraging partnerships that are needed to keep the plan alive. The *Plan for Opportunity* has achieved a milestone; it was developed through a partnership that will need to grow stronger over time.

The Partnership Structure

The first step is to determine the membership and organization of the Partnership entity, including naming lead partners and stakeholders, as well as establishing a structure for regular meetings. Lead partners should define the mission and goals of the organization and establish commonly agreed-upon commitments, responsibilities, staffing and funding.

There are many partners involved in developing the *Plan for Opportunity* and even more with responsibilities for carrying out the Plan's priority actions. There needs to be a clear structure for the partners involved to ensure that they remain engaged throughout the implementation process. At the top is a core group of lead partners that are engaged to provide decision-making and conflict resolution for the Partnership.

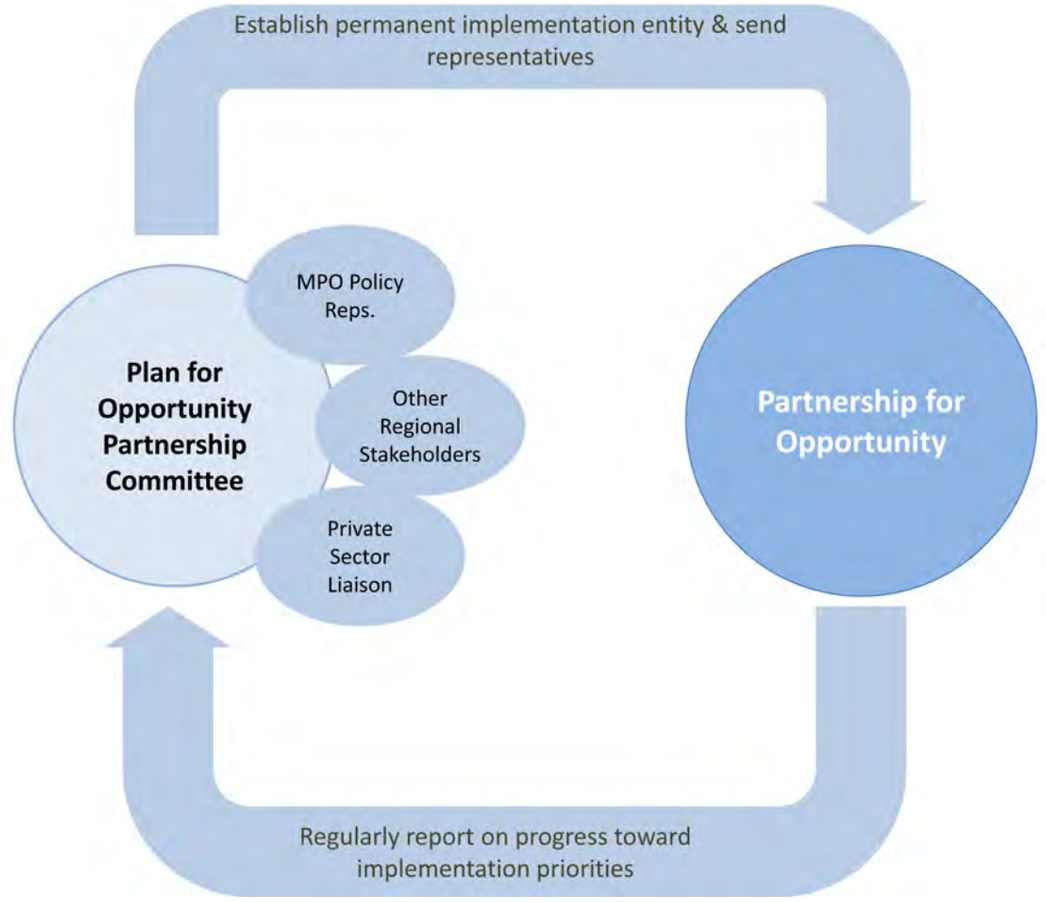
Lead partners could be comprised of members from the existing governance, including members of the PMC, the executive, working and topical committees. The transition partnership may commence with few members and expand to incorporate new members as the work grows in scope and need.

Other local and regional stakeholders, service providers, institutions, and individuals would be invited as part of a broader stakeholder group to interact regularly through the Partnership. They would have a goal of attracting a broad range of expertise

and representation. These should be members of the existing Working Group used during plan development, but most importantly, they will also need to include the existing municipal and organizational level decision makers who are most directly responsible for how plans and programs are carried out at the local level.

The operations of these groups of stakeholders would need to accommodate the different roles of participants. There could be a senior staff-level group that meets regularly (e.g., monthly, bi-monthly or at least quarterly) to discuss progress and coordinate actions being carried out by each responsible organization. With support from the lead entity, meetings could also focus on achieving benchmarks for achieving plan implementation actions and producing an updated progress report on plan outcomes. A second group comprised of key local elected officials and organizational decision-makers could also meet semi-annually (at least once per year) to receive reports on progress and actions, and discussing any barriers or constraints that are limiting progress on priority actions. To help broaden the base of support for the plan, this group should include one or more private sector liaisons who can help ensure continued alignment of plan implementation actions with key economic drivers. Private sector involvement will also help keep the pressure on making the decisions necessary to move priority actions forward.

FIGURE 11 Project Information Loop



Source: Renaissance Planning Group

Figure 11 shows how the key partners could interact with the Partnership. It shows a feedback loop with the Partnership regularly reporting on progress toward implementing priority actions.

Section 2

Regular Communication

The Partnership will at some point likely need dedicated staffing to coordinate meetings, prepare progress reports and integrate individual priority actions for implementation. The staffing could be a rotating responsibility among organizations or it could be dedicated staff from one agency, but there will be a time commitment regardless.

The Partner's responsibilities would be to:

- Maintain communication through the plan's web site, social media tools and traditional media;
- Prepare agendas and assemble materials for the meetings
- Develop progress reports
- Work with key partners to coordinate and align activities

In addition, an agreement will have to be established for the timing and frequency of regular meetings among the partners and stakeholders to assess implementation progress. Regular communications could be set up at three levels:

- **Partners** – the Partners would be the standing representatives from the composition of the current Project Management Committee. Partners could meet semi-annually at one location like the Gulf Regional Planning Commission's office in Biloxi or each partner could host the meeting on a rotating basis.

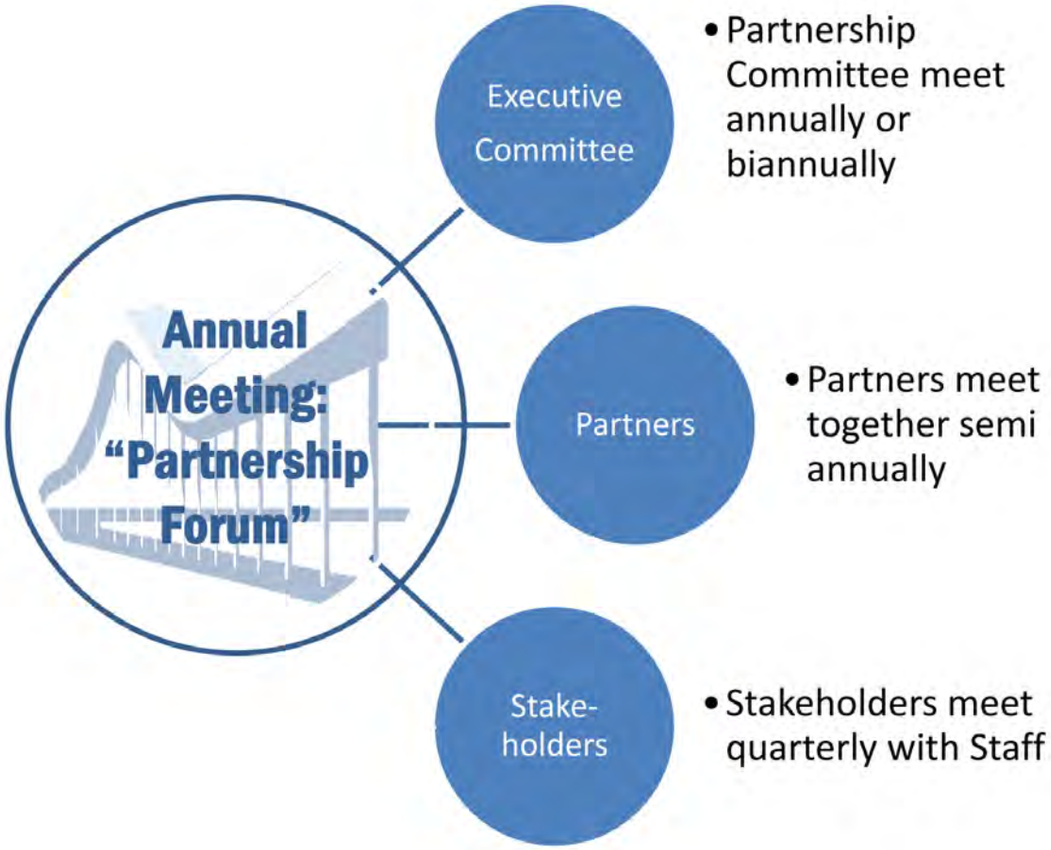
- **Policy Board** – the Gulf Coast Mayors Council or some collaboration of representatives from MPO Policy Committee, other local elected officials and the decision-makers from area stakeholders with regional interests, as in the composition of the current Executive Committee, could meet on an annual or bi-annual (2 year) basis for big picture coordination, touting implementation success, and to maintain the level of mutual political commitment to the implementation of the master plan.

- **Stakeholders** – a larger group of stakeholder participants that would include community, private, governmental and industry representatives could meet on the most frequent basis with the Partnership staff member(s) to coordinate specific implementation roles and priorities. Again, this could be divided into two groups consisting of senior staff and local and regional decision-makers, along with a private sector liaison, who can help ensure continued alignment of priority actions with ongoing local and regional planning and development activities.

This structure would allow for communication to flow at multiple levels and be guided by a common commitment to the plan, vision and specific action strategies for each element. It is important, as well, to have a regular annual or semi-annual meeting of all three of these groups at a "Partnership Summit." This combined meeting would provide an opportunity for key partners, stakeholders and elected officials to discuss the implementation of the plan, including pursuit of regional, state or federal funding sources.

The meeting would also serve as a chance for participating organizations to discuss implementation progress. It should also be a forum for updating all on the progress of the implementation actions through a "State of the Region" report on progress across key indicators and a sharing of stories that highlight successful completion of actions by individual stakeholders. This would focus on measuring progress for "moving the needle" on key indicators related to the priority actions and targets established for each topic area. Opportunities and challenges for meeting those targets should also be addressed as a means of using the State of the Region report as a catalyst for overcoming obstacles and seizing upon opportunities.

Figure 12 Partnership for Opportunity Communication Flow



Source: Renaissance Planning Group

In addition, the Summit would be an opportunity for the Partnership to recognize particular key accomplishments since the prior Summit with awards or a recognition program. Holding a Summit every one to two years would be an appropriate time period to maintain the momentum while allowing time for progress to be made. The information developed for the Summit can be used to emphasize the benefits of creating a positive and strong "One Coast," which could become a new brand identity

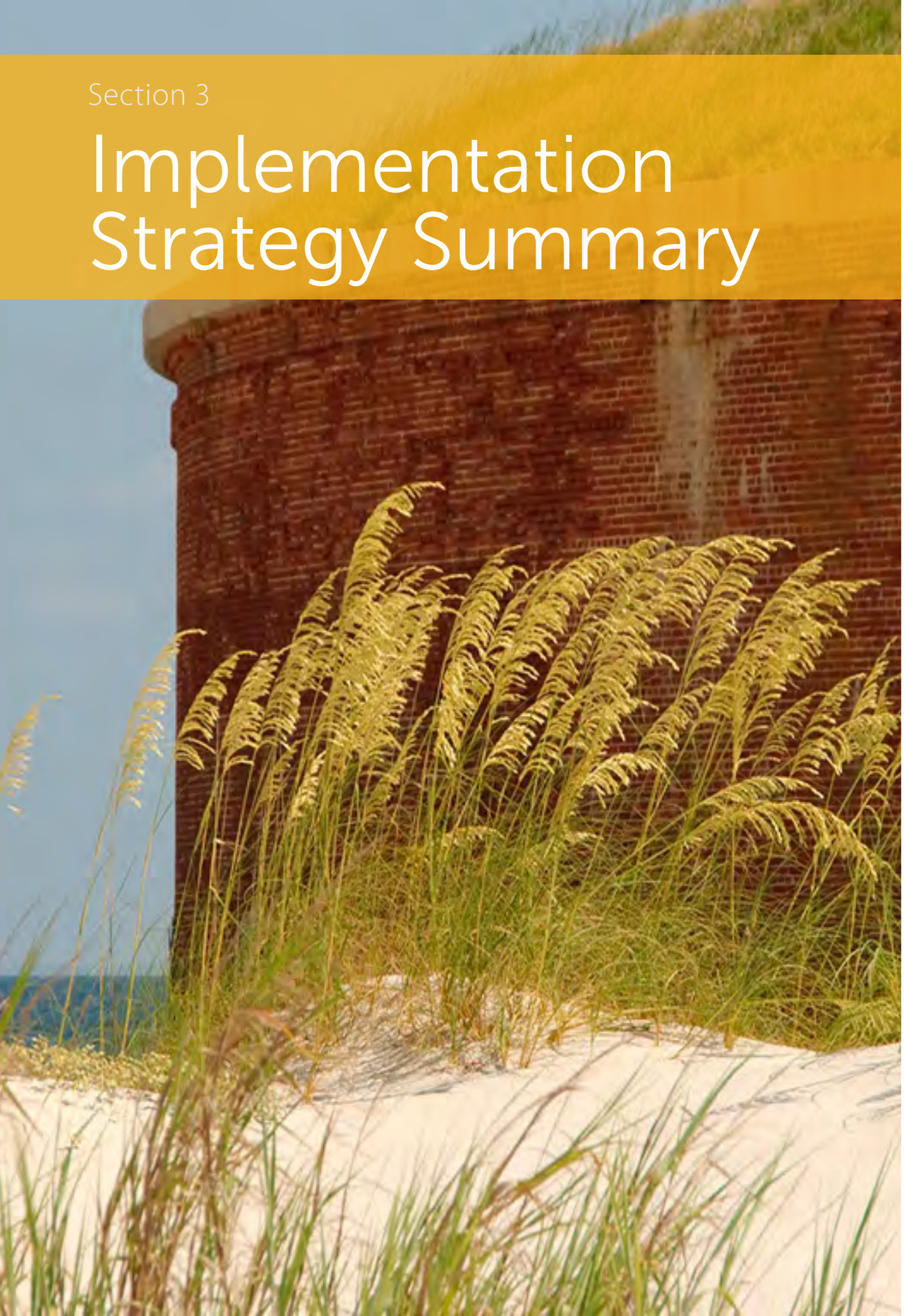
Engaged partners will steward the priority actions to implementation.

with the assistance of business and industry groups and other regional partners.

Figure 12 summarizes the three levels of communication flow as well as the annual or semi-annual Forum that integrates all the levels.

Section 3

Implementation Strategy Summary



The key to successful implementation will depend on a diverse network of people working together toward the *Plan for Opportunity*'s shared goals. Long term realization of the Plan's vision will not be based on investments from only one major source. Rather, a network of partners can effectively leverage resources and coordinate investments The true value of a partnership emerges through partners working simultaneously on multiple actions to achieve progress.

The *Plan for Opportunity* process has nurtured relationships between key partners. A first step in implementing the vision will be to develop a coalition of partners that agrees to an implementation framework, and to communicate with all community members and key stakeholders about this agreement. This agreement should form the basis for a consistent plan of action. Establishing an ongoing and stable Partnership for Opportunity will be the ultimate platform for maintaining a prosperous, sustainable and resilient Gulf Coast.

Appendices

Appendix A

Subcommittee Strategies

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Provide More Transportation Choices	Air Quality	Expand Park And Ride Facilities For Regional Transportation	Construct And Improve Transit Hubs And Bus Stops
Provide More Transportation Choices	Air Quality	Advocate For Expanded Bicycle Infrastructure	Expand Bicycle And Pedestrian Networks
Provide More Transportation Choices	Economic Development	Monitor Need For Late Night Transportation Supporting Regional Employment Requirements Generated By A Growing 24-hour Economy	
Provide More Transportation Choices	Economic Development	Support Paratransit Service To Bridge Gap Between Assisted Housing Development And Existing Public Transit Network.	Expand CTA's ADA Paratransit Plus Program To Include Commuters
Provide More Transportation Choices	Housing	Encourage Establishment Of Demand-response Transportation And Paratransit Services To Bridge Gaps In Existing Public Transit Network For Seniors And Lower Income Populations.	Expand CTA's ADA Paratransit Plus Program To Include Commuters
Provide More Transportation Choices	Housing	Encourage County Boards Of Supervisors To Contract With The Coast Transit Authority To Provide Senior Demand-response Transportation.	
Provide More Transportation Choices	Housing, Transportation	Update Zoning Regulations To Require Facilities And Amenities For Transit, Bicycles And Pedestrians	Design Roads To Include Walking & Bicycling
Provide More Transportation Choices	Land Use	Support Smart Land Use Investment Strategies Which Support All Modes Of Transportation	
Provide More Transportation Choices	Land Use	Consider Paratransit Service To Bridge Gap Between Assisted Housing Developments And Existing Public Transit Network.	Expand CTA's ADA Paratransit Plus Program To Include Commuters
Provide More Transportation Choices	Land Use	Adopt Capacity Project Justification Process For The MPO	Improve Transportation Forecasts
Provide More Transportation Choices	Land Use, Transportation	Construct Transit Hubs On I-10 At US 49, I-110 And Cedar Lake Interchanges	Construct And Improve Transit Hubs And Bus Stops

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Provide More Transportation Choices	Transportation	Amend MPO's Transportation Improvement Program (TIP) Project Selection Process	
Provide More Transportation Choices	Transportation	Assign A High Priority To Closing Gaps And Providing Links In The Major Street Network	
Provide More Transportation Choices	Transportation	Assign Non-dedicated HOV Lanes On I-10 From Hwy 609 To Canal Road Interchanges	
Provide More Transportation Choices	Transportation	Connect The Pass Rd, Beachcomber, And Planned Popps Ferry Road Transit Routes To Ease Transfers	
Provide More Transportation Choices	Transportation	Construct Park And Ride Lots At All Other I-10 Interchanges That Are Connected To Destination Corridors	
Provide More Transportation Choices	Transportation	Develop Air Quality And Congestion Reduction Data From Alternative Transportation For Use In Decision Making	
Provide More Transportation Choices	Transportation	Develop Regional Vision For US 90	
Provide More Transportation Choices	Transportation	Expand The Program To Provide Transportation For Work Trips In Areas Of The Region Not Served By Fixed Route Transit	
Provide More Transportation Choices	Transportation	Give High Priority To Transit Improvements On Commuter And Destination Corridors	
Provide More Transportation Choices	Transportation	I-10 Transfer Points For Users Of Alternative Modes	
Provide More Transportation Choices	Transportation	Identify High-use Bus Stops And Maximize Access Around Them	
Provide More Transportation Choices	Transportation	Install Equipment For Transit Bus Signal Preemption On US 90 And US 49	
Provide More Transportation Choices	Transportation	Locate Key Community Facilities On Transit Routes	
Provide More Transportation Choices	Transportation	Modify Posted Speed Limits In The Identified Activiey Centers To Less Than 45 Mph	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Provide More Transportation Choices	Transportation	Monitor The Need For Late Night Transportation Supporting Regional Employment Requirements	
Provide More Transportation Choices	Transportation	Move The Existing Edgewater Mall Transit Hub To Eisenhower Road	
Provide More Transportation Choices	Transportation	Study The Feasibility Of Bus Lanes On US 90 Between White Avenue And Main Street	
Provide More Transportation Choices	Transportation	Use Cost Savings Data To Help Commuters Realize The Benefits Of Using Transit	
Provide More Transportation Choices	Transportation	Use Mobility Corridors To Assist With Transportation Decision Making For Improved Transit, Bicycle And Pedestrian Mobility	
Provide More Transportation Choices	Transportation	Develop Bicycle And Pedestrian Networks That Facilitate Mobility Between And Within Activity Centers	Expand Bicycle And Pedestrian Networks
Provide More Transportation Choices	Transportation	Adjust CTA's "ADA Paratransit Plus" Program To Drop Existing Passengers Off At CTA Hubs To Access The Fixed Route System	Expand CTA's ADA Paratransit Plus Program To Include Commuters
Provide More Transportation Choices	Transportation	Upgrade The MPO Model To Include Transit	Improve Transportation Forecasts
Provide More Transportation Choices	Transportation	Adopt Standards For Transit Service Including Transition To A 30/60 Minute Headway System	Reduce Wait Time For Buses
Provide More Transportation Choices	Transportation	Upgrade Regional Transportation Model For Walk/bike/ transit Sensitivity	Require Amenities For Transit, Bicycles And Pedestrians
Provide More Transportation Choices	Transportation	Consider Express Transit On Key Commuter And/or Destination Corridors To Reach Desired Travel Time And Headways	Run Express Buses On Busy Commuter Corridors
Provide More Transportation Choices	Transportation	Market Transit As A Viable Option For Commuters	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Provide More Transportation Choices	Transportation/ Resilience	Update Existing Criteria Used To Prioritize Transportation Projects With A Focus On Alternative Transportation	
Provide More Transportation Choices	Water	Explore Feasibility Of A Water Taxi Service	
Promote Affordable, Equitable Housing	Housing	Promote Awareness Of Programs To Rehabilitate And Retrofit Existing Houses.	Build Capacity And Promote Awareness Of Fortified Housing Initiatives And Programs
Promote Equitable, Affordable Housing	Housing	Build Capacity And Promote Awareness Of Financial Literacy Initiatives And Programs.	Build Capacity And Promote Awareness Of Financial Literacy Initiatives And Programs.
Promote Equitable, Affordable Housing	Housing	Encourage Jurisdictions To Review And Revise Their Zoning Ordinance And Other Policies To Comply With Fair Housing Law, Specifically In Regards To The Definition Of "family" And Treatment Of Group Homes.	Encourage Jurisdictions To Review And Revise Policies To Comply With Fair Housing Laws
Promote Equitable, Affordable Housing	Housing	Advocate For More Programs Addressing Remediation Of Past Criminal Records As A Means Of Removing Barriers To Housing And Housing Finance	
Promote Equitable, Affordable Housing	Housing	Advocate For The Incorporation Of More Universal Design Principals In Mississippi Home Corporation's (MHC) Qualified Allocation Plan (QAP) And Notifications Of Funding Availability (NOFA) For HOME Funds.	
Promote Equitable, Affordable Housing	Housing	Consider Instating A Regional Housing Mobility Program Targeted At The Most Segregated Communities As Identified In The FHEA.	
Promote Equitable, Affordable Housing	Housing	Consider Reactivating REACH Program And Including A Rent Subsidy Component.	
Promote Equitable, Affordable Housing	Housing	Educate Jurisdictions, Residents And Developers On Alternative Housing Options	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Promote Equitable, Affordable Housing	Housing	Encourage Collaboration Between Housing Resource Centers And Workforce And Economic Development Agencies.	
Promote Equitable, Affordable Housing	Housing	Encourage Education And Outreach Through Existing Senior Centers And Service Organizations To Assist Seniors In Planning For Their Current And Future Housing Needs	
Promote Equitable, Affordable Housing	Housing	Encourage Jurisdictions To Look At Their Inventory Of Rental Housing Stock, Identify Type(s) Most In Need Of Repair, And Create A Plan To Address Concerns.	
Promote Equitable, Affordable Housing	Housing	Encourage Jurisdictions To Promote Housing Diversity In Comprehensive Plans.	
Promote Equitable, Affordable Housing	Housing	Encourage Partnership Between Existing Disability Rights Organizations, Developers, Jurisdiction Leaders And Building Code Departments To Ensure Code Enforcement.	
Promote Equitable, Affordable Housing	Housing	Encourage Recipients Of Housing Choice Vouchers To Locate In Areas Of Higher Opportunity And Outside Areas Of Concentrated Poverty.	
Promote Equitable, Affordable Housing	Housing	Fund Accessibility Audit To Determine Compliance With The Fair Housing Amendments Act (FHAA) And Section 504 Building Standards.	
Promote Equitable, Affordable Housing	Housing	Advocate For Funding To Promote Awareness Of Existing Financial Literacy Programs And Housing Finance Opportunities.	Build Capacity And Promote Awareness Of Financial Literacy Initiatives And Programs.
Promote Equitable, Affordable Housing	Housing	Conduct Research To Identify And Address The Attitudinal And Behavioral Barriers To Improved Financial Literacy	Build Capacity And Promote Awareness Of Financial Literacy Initiatives And Programs.
Promote Equitable, Affordable Housing	Housing	Create A Central Location Where Residents And Community Leaders Can Learn More About The Challenges And Opportunities Around Elevated Housing	Build Capacity And Promote Awareness Of Fortified Housing Initiatives And Programs

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Promote Equitable, Affordable Housing	Housing	Educate Residents And Property Owners On Strategies For Reducing Insurance Costs.	Build Capacity And Promote Awareness Of Fortified Housing Initiatives And Programs
Promote Equitable, Affordable Housing	Housing	Encourage Jurisdictions To Amend Or Remove Minimum Floor Area Requirements For Single Family Homes Especially In Developable Areas Near Transportation And Services.	Encourage Jurisdictions To Review And Revise Policies To Comply With Fair Housing Laws
Promote Equitable, Affordable Housing	Housing	Encourage Jurisdictions To Review The Definition Of "family" In Their Zoning Code And Amend Zoning Ordinances To Include A More Inclusive Definition.	Encourage Jurisdictions To Review And Revise Policies To Comply With Fair Housing Laws
Promote Equitable, Affordable Housing	Housing	Encourage Jurisdictions To Review Their Policies In Regards To Group Homes, Revise Their Zoning Ordinance To Comply With Fair Housing Law, And Allow Group Homes In Residential Zones.	Encourage Jurisdictions To Review And Revise Policies To Comply With Fair Housing Laws
Promote Equitable, Affordable Housing	Housing	Promote Principals And Best Practices For Affirmatively Furthering Fair Housing Through Training And Education At The Mississippi Chapter Of The American Planners Association (APA MS), Mississippi Coast Building Officials Association (MCBOA) And Mississippi Municipal League (MML) Events.	Encourage Jurisdictions To Review And Revise Policies To Comply With Fair Housing Laws
Promote Equitable, Affordable Housing	Housing	Establish A Regional Housing Trust Fund Program To Help Improve The Building Performance Of Existing Homes	Establish A Regional Housing Trust Fund Program
Promote Equitable, Affordable Housing	Housing	Establish A Regional Housing Trust Fund Program To Help Remove Barriers To Accessibility For Persons With Disabilities.	Establish A Regional Housing Trust Fund Program
Promote Equitable, Affordable Housing	Housing/Land Use	Encourage Jurisdictions To Offer Incentives To Developers To Use Universal Deign Principles And To Build Housing For Seniors And Persons With Disabilities In Areas Of High Opportunity	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Promote Equitable, Affordable Housing	Land Use	Build Capacity And Promote Awareness Of Fortified Housing Initiatives And Programs	Build Capacity And Promote Awareness Of Fortified Housing Initiatives And Programs
Promote Equitable, Affordable Housing	Housing	Establish A Regional Housing Coalition.	Establish A Regional Housing Coalition
Promote Equitable, Affordable Housing	Housing	Establish A Regional Housing Trust Fund Program To Subsidize Transitional Housing And Permanent Supportive Housing For The Homeless.	Establish A Regional Housing Trust Fund Program
Promote Equitable, Affordable Housing	Housing	Continue To Look At Housing Regionally Through A Fair Housing And Equity Assessment Or Regional Analysis Of Impediments.	Use Assessment Tools To Examine Housing From A Regional Perspective
Enhance Economic Competitiveness	Economic Development	Commission A Job And Housing Balance Analysis – Look Geographically At Jobs By Wage Type And Number Of Housing Units By Cost Type. (duplicated In Land Use)	
Enhance Economic Competitiveness	Economic Development	Create A Business-to-business Marketing Program That Encourages Small Business To Become Acquainted With Local Products And Services And Supportibe Of Each Other Through Cross-marketing And Selling.	
Enhance Economic Competitiveness	Economic Development	Encourage Government Services To Stay Downtown And For New Government Buildings To Be Located Downtown (duplicate With Land Use)	
Enhance Economic Competitiveness	Economic Development	Expand The Permitting Of Food Sales – Local Homegrown Foods, Farm Stands, Urban Agriculture And Mobile Vehicles.	
Enhance Economic Competitiveness	Economic Development	Market Downtown To Entrepreneurs And Home-grown Companies	
Enhance Economic Competitiveness	Economic Development	Participate As A Region In The International Council Of Shopping Centers	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Enhance Economic Competitiveness	Economic Development	Coordinate Regular Meetings Between Economic Development/workforce Organizations And Housing Organizations	Coordinate Workforce And Housing Organizations' Efforts
Enhance Economic Competitiveness	Economic Development	Make The Online Downtown Inventory Accessible To Developers And Realtors	Encourage Developer And Realtor Use Of The Online Downtown Inventory
Enhance Economic Competitiveness	Economic Development	Study The Competitive Advantages For Growing The Healthcare And Energy Sectors, Which Have Ben Identified As Economic Development Initiatives By The Governor's Office.	Grow The Healthcare And Energy Sectors
Enhance Economic Competitiveness	Economic Development	Improve Connections Between Small Business/ entrepreneurship Assistance Providers, Looking At Effectiveness And Reorganizing When Needed.	Improve Connections Between Small Business/ entrepreneurship Assistance Providers
Enhance Economic Competitiveness	Economic Development	Monitor The Types Of Industries That Have Gained Or Lost Employment In The Past As Well As Study Industry Employment Projections To Determine Where The Available Jobs Are Likely To Be In The Coming Years.	Monitor Growing Industries
Enhance Economic Competitiveness	Economic Development	Establish A Coordinated Promotional Effort On Entrepreneurial Success Stories In The Region.	Promote Entrepreneurial Successes In The Region
Enhance Economic Competitiveness	Economic Development	Study The Perception Of "brain Drain" Along The Gulf Coast And Impacts/solutions If It Does Exist.	Study The Perception Of "brain Drain"
Enhance Economic Competitiveness	Economic Development	Target Industries/employers Paying Higher Than The Average Wage Rates.	Target High Wage Industries
Enhance Economic Competitiveness	Food	Create A Vendor Guidebook	
Enhance Economic Competitiveness	Food	Expand Information Resources For Fishers	
Enhance Economic Competitiveness	Food	Expand Mississippi Seafood Marketing	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Enhance Economic Competitiveness	Food	Expand Mississippi Seafood Marketing	
Enhance Economic Competitiveness	Food	Expand Permitting Of Food Sales	
Enhance Economic Competitiveness	Food	Expand The Reach Of The Mississippi MarketMaker Program	
Enhance Economic Competitiveness	Food	Initiate A Farm Succession Program	
Enhance Economic Competitiveness	Food	Investigate The Expansion Of Meat Processing Facilities	
Enhance Economic Competitiveness	Food	Launch A Culinary Tourism Mapping Initiative	
Enhance Economic Competitiveness	Food	Reestablish Dockside Markets	
Enhance Economic Competitiveness	Food	Support Expansion Of The Market Ready Program	
Enhance Economic Competitiveness	Food	Support Third Party Certification Through Incentives	
Enhance Economic Competitiveness	Food	Expand Food Business Incubators	Grow Food Businesses
Enhance Economic Competitiveness	Food	Guide The Future Of The Seafood Industry	Grow Food Businesses
Enhance Economic Competitiveness	Food	Target Food Businesses For Economic Development	Grow Food Businesses
Enhance Economic Competitiveness	Housing	Work With Major Employers In The Region To Encourage Employees To Live In-state And Closer To Work	Encourage Employees To Live Closer To Work
Enhance Economic Competitiveness	Housing	Conduct A Job/housing Balance Analysis.	Use Assessment Tools To Examine Housing From A Regional Perspective
Enhance Economic Competitiveness	Land Use	Protect Existing Employment Centers Or Industrial Areas From Being Impacted By Other Permanent Land Uses.	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Enhance Economic Competitiveness	Water	Emphasize Waterfront Development That Benefits The Economy And Community (duplicate With Land Use)	
Enhance Economic Competitiveness	Water	Encourage Casinos To Work Together To Connect With Waterfront Activities	
Enhance Economic Competitiveness	Water	Increase Waterfront Business Access Points Along Coastal And Intercoastal Waterways (duplicate With Land Use)	
Enhance Economic Competitiveness	Water	Organize An Eco-tourism Council	
Support Existing Communities	Air Quality	Increase Parking Lot Tree Shading	
Support Existing Communities	Air Quality	Map The Urban Tree Canopy	
Support Existing Communities	Air Quality	Promote Low Impact Development	
Support Existing Communities	Economic Development	Encourage Adaptive Reuse Of Empty Buildings For Recreation Purposes	
Support Existing Communities	Economic Development	Organize A Coast-wide Public Arts Project To Draw Visitors To Downtowns.	
Support Existing Communities	Economic Development	Advocate For Mississippi Home Corp And HOME Funds To Incentivize Infill Development	Reinvest In Existing Neighborhoods
Support Existing Communities	Economic Development/Land Use/Resilience	Incentivize Housing Development Near Existing Infrastructure, Transportation, Employment And Services	
Support Existing Communities	Food/Economic Development	Use Vacant Lots For Community Gardens And/or Pocket Parks	
Support Existing Communities	Food/Land Use	Encourage Jurisdictions/ Gulf Coast Renaissance Corporation Consider Land Banking Strategies	Determine The Feasibility Of A Land Bank To Repurpose Vacant Sites

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Support Existing Communities	Food/Land Use	Use Vacant Buildings For Urban Agriculture And Aquaculture	Determine The Feasibility Of A Land Bank To Repurpose Vacant Sites
Support Existing Communities	Food/Resilience	Develop Resilient Buildings For Food Distribution Centers	Develop Resilient Buildings For Food Distribution
Support Existing Communities	Housing	Work With Jurisdictions To Join The Community Rating System (CRS) Program And/or Improve Their CRS Rating.	Encourage Jurisdictions To Join The Community Rating System (CRS) Program And Improve Their Ratings
Support Existing Communities	Housing	Advocate For Mississippi Home Corporation's (MHC) Qualified Allocation Plan (QAP) And Notifications Of Funding Availability (NOFA) For HOME Funds To Incentivize Infill Development.	Reinvest In Existing Neighborhoods
Support Existing Communities	Housing /Resilience	Fund Cost/benefit Analysis Of Housing Retrofits To Support Existing And Future Retrofit And Rehabilitation Programs.	
Support Existing Communities	Housing / Transportation/Land Use/Resilience	Encourage Amendments To Zoning Ordinances That Allow For A Mix Of Housing Types Near Existing Infrastructure, Transportation, Employment And Services.	
Support Existing Communities	Housing/Economic Development/Land Use	Encourage Jurisdictions To Promote Infill And Investment In Revitalizing Existing Neighborhoods In Comprehensive Plans.	Reinvest In Existing Neighborhoods
Support Existing Communities	Housing/Land Use	Encourage Jurisdictions To Offer Incentives To Developers Locate A Mix Of Residential Development Near Existing Infrastructure, Transportation, Employment And Services	
Support Existing Communities	Land Use	Amend Zoning Ordinances To Accommodate In-fill And Mixed Use Developments	Reinvest In Existing Neighborhoods
Support Existing Communities	Transportation	Identify And Map Nodes For Transit Oriented Development (TOD)	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Support Existing Communities	Transportation	Encourage Transit Supportive Areas To Extend Reach Of Identified Transit Oriented Nodes	Encourage Transit Supportive Areas
Support Existing Communities	Transportation	Infill Development Incentives Within Transit Oriented Development (TOD) Areas	Reinvest In Existing Neighborhoods
Support Existing Communities	Water	Add 12-digit Hydrologic Unit Code-defined Watersheds To Special Management Area Plans	
Support Existing Communities	Water	Create A Waterfront Wayfinding Signage System	
Support Existing Communities	Water	Ensure Expansion And Connection Of The Blueway/ Greenway System	
Support Existing Communities	Water	Establish Encapsulation Requirements For Polystyrene Floating Structures	Decrease Water Pollution
Support Existing Communities	Water	Implement A Septic System Maintenance Verification System	Decrease Water Pollution
Support Existing Communities	Water	Expand The Digital Inventory Of Water, Wastewater And Stormwater Infrastructure	Expand The Documentation Of Water, Wastewater And Stormwater Infrastructure
Support Existing Communities	Water	Implement Policies For Increased Protection Of Aquatic Species	Increase Protection Of Aquatic Species
Support Existing Communities	Water	Encourage Daylighting Of Streams Through Capital Improvement Planning	Restore Bayous And Streams To Their Natural State
Support Existing Communities	Water/Resilience/Land Use	Discourage Development In Repetitive Loss/hazard Areas.	Encourage Appropriate Development In Hazard Areas
Coordinate Policies And Leverage Investment	Air Quality	Encourage Transit-oriented Developments Along Commuting Corridors	
Coordinate Policies And Leverage Investment	Air Quality	Assist Ports In Developing Clean Air Programs	Assist Ports In Developing Clean Air Programs

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Coordinate Policies And Leverage Investment	Air Quality	Encourage The Airport To Apply For Voluntary Airport Low Emissions (VALE) Funding	Encourage The Airport To Apply For Voluntary Airport Low Emissions (VALE) Funding
Coordinate Policies And Leverage Investment	Air Quality	Establish Infrastructure For The Use Of Alternative Fuels	Establish Infrastructure For The Use Of Alternative Fuels
Coordinate Policies And Leverage Investment	Air Quality	Implement The Path Forward Plan	Implement The Path Forward Plan
Coordinate Policies And Leverage Investment	Air Quality	Promote Energy Efficiency Improvement Financing And Incentives	Launch A Renewable Energy Technology Innovation Investment Strategy
Coordinate Policies And Leverage Investment	Air Quality	Support Anti-idling Programs And Projects For Freight	Support Anti-idling Programs And Projects For Freight
Coordinate Policies And Leverage Investment	Air Quality	Support Path Forward And The Implementation And Monitoring Of Ozone Reduction Strategies	Support Path Forward And The Implementation And Monitoring Of Ozone Reduction Strategies
Coordinate Policies And Leverage Investment	Air Quality	Support The Implementation And Monitoring Of Ozone Reduction Strategies	Support The Implementation And Monitoring Of Ozone Reduction Strategies
Coordinate Policies And Leverage Investment	Economic Development	Assess The Legality And Feasibility Of The Establishment Of Impact Fees For New Development	
Coordinate Policies And Leverage Investment	Economic Development	Explore Community Benefits Agreements For Major New Development – Industrial, Commercial Or Waterfront	
Coordinate Policies And Leverage Investment	Economic Development	Establish A Council To Look At The Specific Needs To Build A Strong Broadband Network In The Region	Build A Strong Broadband Network That Will Support High-tech Job Growth And Serve As A Quality-of-life Amenity

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Coordinate Policies And Leverage Investment	Food	Advocate For Expanded Redemption Of SNAP And WIC Benefits At Retail And Farmers Market Outlets	
Coordinate Policies And Leverage Investment	Food	Amend Zoning Ordinances To Accommodate The Food System	
Coordinate Policies And Leverage Investment	Food	Develop A Food Defense Strategies Website Serving The Mississippi Gulf Coast	
Coordinate Policies And Leverage Investment	Food	Establish A Regional Food Policy Council	
Coordinate Policies And Leverage Investment	Food	Streamline State Permitting Rules For Composting And Anaerobic Digesters	
Coordinate Policies And Leverage Investment	Food	Launch A Renewable Energy Technology Innovation Investment Strategy	Launch A Renewable Energy Technology Innovation Investment Strategy
Coordinate Policies And Leverage Investment	Housing	Continue To Work With Federal Agencies And Congress To Increase Funding Levels For Additional Housing Vouchers To Help Meet The Demand For Housing Assistance In The Region.	
Coordinate Policies And Leverage Investment	Housing	Encourage Collaboration And Information Sharing Between Insurance Companies, Building Code Officials, City Councils, Boards Of Supervisors, Code Enforcement Court Officials And Contractors On The Importance Of Building To Stronger Standards And Improving Uniformity In Code Enforcement Across The Coast.	
Coordinate Policies And Leverage Investment	Housing	Encourage Jurisdictions To Offer Development Incentives For Developers Who Employ Best Practices In Regards To Indoor Air Quality.	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Coordinate Policies And Leverage Investment	Housing	Encourage Partnerships And Information Sharing Between Housing Nonprofits, Financial Institutions, Employers And Local Cultural Centers Such As Churches To Increase Awareness Of Existing Financial Literacy Programs And Housing Finance Opportunities.	
Coordinate Policies And Leverage Investment	Housing	Introduce State Legislation To Reduce The Age A Person Is Allowed To Enter Into A Legal Contract In Mississippi From 21 To 18 In Compliance With Federal Standards.	
Coordinate Policies And Leverage Investment	Housing	Promote Uniformity In Zoning Codes For Jurisdictions In The Region	
Coordinate Policies And Leverage Investment	Housing	Advocate For The Establishment Of A Permanent HUD And State Recognized Fair Housing Organization To Serve The Needs Of The Region.	Advocate For The Establishment Of A Permanent HUD And State Recognized Fair Housing Organization
Coordinate Policies And Leverage Investment	Land Use	Consolidate Parcel Databases And Identify Maintenance Procedures	
Coordinate Policies And Leverage Investment	Land Use	Educate Planners On Land Use Issues	
Coordinate Policies And Leverage Investment	Land Use	Encourage Appropriate Buffering Between Different Land Uses	
Coordinate Policies And Leverage Investment	Land Use	Encourage County Boards Of Supervisors To Adopt A Regional Land Use Coding Manual	
Coordinate Policies And Leverage Investment	Land Use	Incentivize Sustainable Land Use Decisions	
Coordinate Policies And Leverage Investment	Land Use	Investigate The Legal Feasibility Of Implementing Transferable Development Rights Programs At The Local Level.	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Coordinate Policies And Leverage Investment	Land Use	Review Existing Codes And Their Land Use Impacts From A Sustainability Goals Achievement Perspective.	
Coordinate Policies And Leverage Investment	Land Use	Subdivide TAZs In Policy Focus Areas For Detailing And Re-combining At The TAZ Level.	
Coordinate Policies And Leverage Investment	Land Use	Design/Model Potential TOD In Hancock County @ I-10 & Diamondhead	Generate Scenarios Supporting Livability Principles
Coordinate Policies And Leverage Investment	Land Use	Design/Model Potential TOD In Harrison County @ The Highlands In Gulfport And @ Popps Ferry And Cedar Lake	Generate Scenarios Supporting Livability Principles
Coordinate Policies And Leverage Investment	Land Use	Design/Model Potential TOD In Jackson County @ Hwy 57 & 90, @ Gautier Vancleave Road & 90, And @ The Pascagoula Waterfront	Generate Scenarios Supporting Livability Principles
Coordinate Policies And Leverage Investment	Land Use	Identify Areas In The Region That Could Be Modeled For Sustainable Developments Using The INDEX Tool In SPARC	Generate Scenarios Supporting Livability Principles
Coordinate Policies And Leverage Investment	Land Use	Identify Existing And Future Locations For TOD's, Industrial/commercial Development And Infill Areas	Generate Scenarios Supporting Livability Principles
Coordinate Policies And Leverage Investment	Land Use	Establish SPARC As Regional Online Info Repository For The Public And Partner Agencies, Including Provision Of Online Comprehensive Regional Mapping.	Share Information Regionally
Coordinate Policies And Leverage Investment	Land Use	Interagency Data Sharing/maintenance MOU	Share Information Regionally
Coordinate Policies And Leverage Investment	Land Use	Protect Existing Natural Resources	Track Conservation Lands
Coordinate Policies And Leverage Investment	Transportation	Encourage Adoption Of Complete Streets Policies By The MPO And MDOT	
Coordinate Policies And Leverage Investment	Transportation	Establish Dedicated Funding Source For Coast Transit Authority (CTA)	Establish Dedicated Funding For The Coast Transit Authority (CTA)

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Coordinate Policies And Leverage Investment	Transportation	Establish The East-West Corridor Development Group To Oversee Initial Planning Activities	Implement Harrison County East-West Multi-Modal Corridor
Coordinate Policies And Leverage Investment	Water	Enable Stormwater Revenue Streams	
Coordinate Policies And Leverage Investment	Water	Encourage The Gulf Of Mexico Alliance To Coordinate Policies Among The States	
Coordinate Policies And Leverage Investment	Water	Advocate For Insurance Reform	Advocate For Insurance Reform
Coordinate Policies And Leverage Investment	Water	Create And Provide Education On A Comprehensive Regional Sediment Control Code	Consistently Manage Sediment
Coordinate Policies And Leverage Investment	Water	Establish A No Disposal Zone In State Waters	Establish A No Discharge Zone In State Waters
Coordinate Policies And Leverage Investment	Water	Institute Region-wide Water Metering And Consumption-based Water And Sewage Pricing	Institute Region-wide Water Metering And Consumption-based Water And Sewage Pricing
Value Communities And Neighborhoods	Air Quality	Encourage School Districts To Adopt Anti-idling Programs	Encourage School Districts To Adopt Anti-Idling Programs
Value Communities And Neighborhoods	Economic Development/Land Use/Transportation	Encourage And Incentivize Development Patterns (residential And Non-residential) That Support Transportation Alternatives And Increase Connectivity	
Value Communities And Neighborhoods	Food	Advocate For The Harrison County Farm To Donate Farm Products To Food Banks	
Value Communities And Neighborhoods	Food	Create A Community Kitchen	
Value Communities And Neighborhoods	Food	Distribute Disaster Relief Resources For Agriculture	

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Value Communities And Neighborhoods	Food	Encourage Crop Diversification On Farms	
Value Communities And Neighborhoods	Food	Establish A Healthy Food Financing Initiative To Assist Businesses In Expanding Into Food Insecure Neighborhoods (duplicate With Land Use)	
Value Communities And Neighborhoods	Food	Establish A Local Food Distribution Program	
Value Communities And Neighborhoods	Food	Establish A Sea To School Program	
Value Communities And Neighborhoods	Food	Expand Cooking And Food Preparation Demonstrations	
Value Communities And Neighborhoods	Food	Expand School Garden Demonstration Projects	
Value Communities And Neighborhoods	Food	Start A School To Farm And Sea Program	
Value Communities And Neighborhoods	Food	Create And Implement A Fresh Corner Store Program To Ensure Fresh Food Access In Food Insecure Neighborhoods	Bring Fresh Food To Food Insecure Neighborhoods
Value Communities And Neighborhoods	Food	Create A Surplus Food Matching Service	Connect Surplus Food To Communities In Need
Value Communities And Neighborhoods	Food	Incorporate Food Waste Recovery At Public Events	Create A Compost Mississippi Program
Value Communities And Neighborhoods	Food	Institute A Compost Mississippi Program	Create A Compost Mississippi Program
Value Communities And Neighborhoods	Food	Explore A Sustainable Oyster Farming Program	Expand Sustainable Agriculture And Aquaculture Practices

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Value Communities And Neighborhoods	Food	Launch A Grocery Store Shuttle From Food Insecure Neighborhoods To Grocery Stores	Launch A Grocery Store Shuttle From Food Insecure Neighborhoods To Grocery Stores
Value Communities And Neighborhoods	Food/Resilience	Institute The Living Shorelines Initiative	Expand The Living Shorelines Initiative
Value Communities And Neighborhoods	Housing	Promote Awareness Of Indoor Air Quality	
Value Communities And Neighborhoods	Housing	Advocate For Expansion Of The Mississippi Department Of Health And Human Services' Weatherization Assistance Program (WAP) To Include Multifamily Properties And Encourage Power Companies To Create Multifamily Energy Efficiency Retrofit And/or Rebate Programs.	
Value Communities And Neighborhoods	Land Use	Assist Communities In Monitoring Excess Amounts Of Vacant Land, And In Evaluating Alternative Methods Of Incentivizing Infill And Reuse Of Vacant Property	
Value Communities And Neighborhoods	Land Use	Encourage A Safe Environment For Pedestrians And Cyclists By Implementing Land Use Improvements Aimed At Reducing Volumes And Speed	
Value Communities And Neighborhoods	Land Use	Maintain The Character Of Existing Established Neighborhoods	
Value Communities And Neighborhoods	Land Use	Promote Land Use Success Stories In The Region	
Value Communities And Neighborhoods	Land Use	Educate Citizens On Land Use Topics	Create A Citizen's Guide To Land Use
Value Communities And Neighborhoods	Land Use	Promote Principles And Best Practices For Furthering Sustainable Land Use Decisions Through Training And Education At The Mississippi Chapter Of The American Planners Association (APA MS)	Educate Elected Officials And Planners On Best Practices For Furthering Sustainability

Livability Principle	Topical Area	Strategy	Priority Action (if applicable)
Value Communities And Neighborhoods	Land Use/Resilience	Encourage Jurisdictions To Integrate Hazard Mitigation Principles And Plans Into Comprehensive Plans	Integrate Hazard Mitigation Principles Into Long Range Planning To Promote Community Resiliency
Value Communities And Neighborhoods	Land Use/Water/ Resilience	Encourage And Incentivize Sustainable Development Codes	Encourage And Incentivize Sustainable Development Codes
Value Communities And Neighborhoods	Water	Bring The Master Composter Program To Mississippi	
Value Communities And Neighborhoods	Water	Improve Public Opinion Of Mississippi Gulf Coast Waters	
Value Communities And Neighborhoods	Water	Include Composting Of Animal Wastes In The Farm-a-Syst Program	
Value Communities And Neighborhoods	Water	Organize The Gulf-friendly Landscaping And Gardening Coalition	
Value Communities And Neighborhoods	Water	Provide Greater Public Education And Outreach On Water Resources	
Value Communities And Neighborhoods	Water	Expand Public Access To Water Quality Information	Expand Public Access To Water Quality Information
Value Communities And Neighborhoods	Water/Land Use	Preserve Deer Island In Its Natural State	
Value Communities And Neighborhoods	Water/Land Use	Ensure Accessible Amenities At Public Waterfronts	Make Amenities Accessible To All At Public Waterfronts

Appendix B

Sustainability In Action

Sustainability in Action

Best practices of sustainability are emerging across the Mississippi Gulf Coast consistent with the livability principles that guide the *Plan for Opportunity*. The following examples show that sustainability is in action on the coast, in ways that are cost-effective, practical and successful. Some of these sustainable projects and policies were under way before the *Plan for Opportunity* took shape but offer concrete examples of how communities are making sustainability real. Other examples have emerged as a direct result of the *Plan for Opportunity* planning process. The text in bold are recommended strategies from the subcommittees. All of these efforts rely on extensive collaboration with partners across the region and demonstrate that there is momentum to create a more livable coast.

Livability Principle 1: Provide More Transportation Choices

There are a number of programs already in place that help people with the everyday parts of life, such as getting around from place to place. When encouraging jurisdictions to establish demand-response transportation and paratransit services to bridge gaps in the existing public transit network, the Harrison County Board of Supervisors provides a concrete example by contracting with the CTA to provide demand-response transportation free to seniors.

Demand-response transit is an important component of providing more transportation choices.

Livability Principle 2: Promote Equitable, Affordable Housing

Maintaining safe and affordable residences for everyone, from rental housing to homeownership, is vital to livability on the Coast. In regards to homeownership, many organizations, such as HOPE Enterprise and Mercy Housing, are part of an effort to build capacity and promote awareness of financial literacy initiatives and programs. They are working to educate residents about ways to reduce insurance costs and improve housing affordability.

When securing rental properties, encouraging jurisdictions to create an inventory of rental housing stock and a plan to address concerns is an essential step. Ocean Springs provides an example by requiring safety inspections of rental manufactured homes every time the name on the utility bill changes. These measures have been successful in improving the condition of rental housing stock and can be used as a model by other jurisdictions.

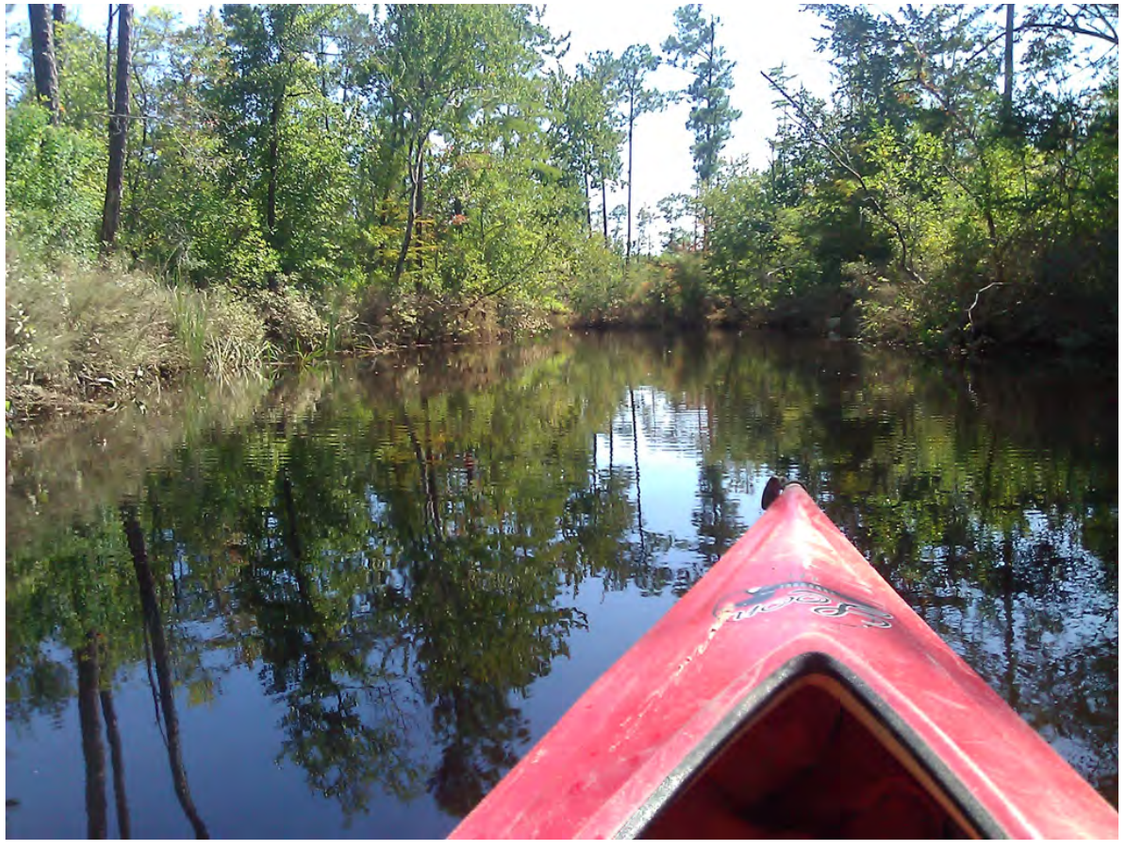
While many of these programs focus on finances and physical structure, housing choice is also a social issue. Programs that address the remediation of past criminal records as a means of removing barriers to housing and housing finance help people rebuild their lives after tough times and serve as an important resource. State law allows people found guilty of certain misdemeanors and some felonies (after five years) to request **expungement**, which if granted will remove the conviction from criminal background checks. In Gulfport, the **Steps Coalition** in collaboration with the Mississippi Center for Justice and Kingdom CDC, held an expungement clinic in 2012. The Kingdom CDC and The Coalition of African American Communities and Churches sponsored another in 2013. Such clinics successfully remove barriers to housing finance opportunities for Mississippi Gulf Coast residents.

Equitable housing efforts help both homeowners and renters.

Livability Principle 3: Enhance Economic Competitiveness

Economic competitiveness benefits everyone – from producers to consumers, from employers to employees. The reestablishment of dockside markets, such as the farmers and fishers market in Gulfport, is one such example. Residents and visitors alike can purchase seafood directly from the fishers who caught it, supporting the local economy and preserving the local culture.

Another effort that benefits the regional economy while encouraging local culture is the Gulf Coast Regional Tourism



The opportunity to explore the Mississippi Gulf Coast brings visitors from across the country.

Partnership. Formed to advocate for Mississippi's three coastal counties, part of its mission is to serve as a nature-tourism council, featuring the natural environment, from wildlife to the waterfront, as one of the highlights of the region. Their efforts will help local landscapes and habitats achieve the regional and national attention that they merit.

Livability Principle 4: Support Existing Communities

Supporting existing communities involves not only preserving cities and towns, but also safeguarding rural landscapes. To help preserve existing communities for the future, SMPDD, with funding from the MDMR and other organizations such as the Mississippi Alabama Sea Grant Consortium, have been working with the jurisdictions on the coast and the C-HOST to increase participation in the CRS program and improve their ratings. The result has been a reduction of flooding risks and increased savings on flood insurance for residents. These organizations' efforts have resulted in three additional communities joining the program and seven more improving their scores.

To safeguard rural areas for community benefits now and in the future, the region is working to expand the **blueway** and greenway system, or the system of trails along water and land on the Mississippi Gulf Coast. It attracts visitors from around the country and educates people of all ages about the valuable environmental assets of the Coast. The Heritage Trails Partnership is in the process of connecting 101 miles of multi-use paths for walking and biking across the three counties. In August 2013, the latest segment, a 3.2-mile trail called Possum Walk, opened. Creating a waterfront wayfinding signage system, or a consistent system of signs to help direct trail-users, is an important element of the trails that, like the blueways and greenways, is already being implemented. A signature signage system featuring the art of Walter Anderson is visible along bike trails in the area.

Wayfinding signs encourage the use of bicycle trails and routes.

Livability Principle 5: Coordinate Policies And Leverage Investment

In many cases, success stems from cooperating to accomplish common goals. Issues such as food access and the success of local farmers and fishers are not confined to any single jurisdiction. Establishing a regional food policy council, in the form of the Mississippi Food Policy Council, has created a voice with regional representation for local food production and consumption. Working for both economic benefits and public health, the Mississippi Food Policy Council is an important early success.

The food systems of the Mississippi Gulf Coast, vibrant parts of everyday life and favorites of visitors from around the world, have accomplished a number of recommendations from Savor the Coast, the plan for the Mississippi Gulf Coast's food systems. MDEQ volunteered to organize quarterly meetings of the Mississippi Gulf Coast Food Waste Task Force. By streamlining state permitting rules for composting and anaerobic digesters, the Task Force has helped one composting business obtain approval for a food waste composting pilot project and make connections with organic farmers who are currently buying compost from out of state. The Keesler Air Force Base was also able to connect with a company specializing in the collection and transportation of food wastes and now sends its food waste to a composting facility.

Livability Principle 6: Value Communities And Neighborhoods

By keeping communities healthy, safe and walkable, the region can work towards the preservation of urban, suburban and rural areas. There are currently a number of efforts in the region to make amenities accessible to all at public waterfronts. Along Highway 90 in Gulfport, relief stations on the beach incorporate universal design that allows everyone to use them. Possum Walk near Stennis Space Center leads to the Pearl River along a boardwalk, allowing people to enjoy equal access to the trail and

The kayak launch at the Possum Walk trail is accessible for people using wheelchairs.

its amenities. The kayak launch there is also accessible to people who use mobility devices such as wheelchairs.

MDEQ, with the help of the Food Waste Task Force, has created a Compost Mississippi program to help raise awareness about how society views and treats waste. One of their latest projects, due to be implemented in the fall of 2013, is a fifth and sixth grade curriculum to educate students about the benefits of composting.

The *Plan for Opportunity* is working to preserve and maintain the assets of the Mississippi Gulf Coast. However, the people of the Coast are truly its greatest resource. Acting as individuals and organizations, they have demonstrated sustainability is in action in the region.

Appendix C

Definitions

100-Year Flood
A flood that has a 1 percent chance of being equaled to or exceeded during any given year.

100-Year Floodplain
An area in which a flood has occurred, where there is a 1 percent chance of the flood being equaled to or exceeded during any given year.

ADA Paratransit PLUS
An expansion of the regular Coast Transit Authority (CTA) ADA Paratransit service. The PLUS service is not required by the American's with Disabilities Act (ADA), so the service operates differently than the regular CTA ADA Paratransit service. The goal of ADA Paratransit PLUS is to provide transportation to people with disabilities that live outside of the ADA mandated ¾ mile service corridors. The PLUS service is a countywide service that is currently available in Hancock, Harrison and Jackson counties.[126]

Anaerobic Digesters
Something that performs the biological process of breaking down waste in the absence of oxygen to produce methane gas, which is flared or used as an energy source.

Analysis of Impediments (AI)
HUD defines this as a "review of impediments or barriers that affect the rights of fair housing choice. It covers public and private policies, practices, and procedures affecting housing choice. Impediments to fair housing choice are defined as any actions, omissions, or decisions that restrict, or have the effect of restricting, the availability of housing choices, based on race, color, religion, sex, disability, familial status, or national origin. The AI serves as the basis for fair housing planning, provides essential information to policy makers, administrative staff, housing providers, lenders, and fair housing advocates, and assists in building public support for fair housing efforts."[127]

Aquaculture
A practice of raising fresh-water fish and shellfish species in ponds or tanks. Unless otherwise noted, aquaculture ventures in this document raise species for human consumption.

Bayou
A slow-moving body of water typically located in low-lying, flat areas within the Gulf Coast region of the southern United States. It also refers to a marshy lake, wetland, or an extremely slow-moving stream or river.

Best Practices
A method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark.

Blueway
A water path or trail that is developed with launch points and points of interest for canoeists, paddle boarders and kayakers.

Brain Drain
The emigration of skilled and educated residents out of a region. Brain drain usually refers to the phenomenon of young, college educated residents leaving the region permanently.

Broadband Network
High-speed Internet access that allows users to access the Internet and Internet-related services at significantly higher speeds than those available through "dial-up" Internet access services.[128]

Business Incubator
A business support process that provides startup companies and entrepreneurs with management guidance, technical assistance and consulting. "Incubators usually also provide clients access to appropriate rental space and flexible leases, shared basic business services and equipment, technology support services and assistance in obtaining the financing necessary for company growth."[129]

Coastal Retrofit Mississippi (CRM)
A program initiated in 2011 through a FEMA grant. Through this program, eligible homeowners can receive subsidies of up to 75 percent of the cost of a wind retrofit. Eligibility depends on cost effectiveness, the property location, local building codes, homestead exemptions, dwelling type and the homeowner's ability to provide the 25 percent match.[130]

Community Development Block Grant (CDBG) Funds
A program administered by HUD that allocates grants to communities to address a wide range of unique community development needs.[131]

Community Rating System (CRS)
A voluntary program for Nation Flood Insurance participants that provides incentives in the form of premium discounts for communities to go beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding.[132]

Complete Street
A street that gives equal priority to all modes of transportation—walking, biking, automobiles, and transit.

Compost Mississippi Program
A program that provides outreach education, funding, and technical support for residents, organizations, and businesses aimed at increasing diversion of food waste, yard wastes and other organic materials at the household and community levels.

Demand Response Service
Any non-fixed route system of transporting individuals that requires advanced scheduling by the customer, including services provided by public entities, nonprofits, and private providers.

Passenger trips are generated by calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick the passengers up and transport them to their destinations.[133]

Environmental Justice
Environmental Protection Agency (EPA) defines environmental justice as the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

EPA GreenChill Partnership
An EPA partnership with food retailers to reduce refrigerant emissions and decrease their impact on the ozone layer and climate change.[134]

Estuarine Ponds and Lakes
Ponds and lakes located in estuary areas, which are located where fresh water meets sea water.

Expungement
The removal of a criminal conviction from public records.

Fair Housing
Policies that ensure that everyone has equal access to housing opportunities regardless of race, color, ethnicity, religion, sex, family status, handicap, or disability.

Food Security
Access by all people at all times to enough food for an active, healthy life. Households that lack consistent access throughout the year to adequate food for active healthy living for all household members are considered food insecure households.[135]

Good Samaritan Law
A law or act offering legal protection to people who give reasonable assistance to those who are injured, ill, in peril, or otherwise incapacitated.

Greenhouse Gas Emissions
Gasses that trap heat in the Earth's atmosphere; these gasses are: carbon dioxide, methane, nitrous oxide, and fluorinated gasses. Many of these emissions result from the burning of fuel for energy, as well as agricultural and industrial activities.

Gulf Coast Fair Housing Center
A private non-profit organization dedicated to eliminating housing discrimination and furthering equal housing opportunities through education, outreach, advocacy, and enforcement of fair housing laws.[136]

Gulf Coast Renaissance Corporation (GCRC)
A non-profit created in 2006 "to bridge the gap in the need for safe, attractive and affordable workforce housing in Mississippi." Its mission is to "provide support through financial assistance and development services which facilitates the development of

communities that provide safe, quality housing for the residents of Mississippi and creates economic opportunities that will add/ retain jobs in the community."[137]

Hazus
A nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods, and hurricanes. Hazus uses Geographic Information Systems (GIS) technology to estimate physical, economic, and social impacts of disasters.[138]

Headway
The time interval between two consecutive buses of the same route.

Healthy Corner Store Network
An organization that works to promote the availability of healthier food options at small scale, neighborhood food stores.

Hope Enterprise Corporation
A private, nonprofit community development financial institution (CDFI), that provides commercial financing, mortgage loans and technical assistance to support businesses, entrepreneurs, home buyers and community development projects. HOPE's mission is to strengthen communities, build assets and improve lives of people in economically distressed areas of Arkansas, Louisiana, Mississippi, and Memphis, Tennessee.[139]

Housing and Transportation Index
An index maintained by the Center for Neighborhood Technology that measures the median cost of housing and transportation for households at the census tract level. The Index defines affordable housing as costing no more than 30 percent of a household's income and affordable transportation is taking no more than 15 percent a household's income. Combined housing and transportation costs that exceed 45 percent of a household's income are thus deemed unaffordable.

Housing Choice Vouchers (HCV)
Allocations paid by HUD to PHAs to make up the difference in a tenant's rent, so that rent is kept at affordable levels – that is 30 percent of household income. There are two types of HCVs: tenant-based vouchers and project-based vouchers (PBV). Tenant-based vouchers are allocated to eligible households for use toward any apartment that leases at or below fair market rent. Project-based vouchers are tied to a particular housing unit, whether in public housing, a tax credit development, or another assisted apartment complex.

Housing Cost Burdened Households
Households that spend more than 30 percent of their income on housing.

Housing Trust Fund
An organization that helps cities and counties work together to meet regional housing needs and leverage funding.

Impaired Waterways
Waterways that are too polluted or otherwise degraded to meet the water quality standards set by states.[140]

Impervious Surfaces
Land cover material, such as pavement, that is impenetrable by rainwater.

Infill Development
New development that is sited on vacant or undeveloped land within an existing community, and that is enclosed by other types of development.[141]

Insurance Institute for Business and Home Safety (IBHS) FORTIFIED Home Program
A program designed to strengthen homes against natural disasters, including hurricane winds. Through the FORTIFIED program, homeowners request and pay for an evaluation of the current condition of their home. The FORTIFIED evaluator provides the homeowners with a list of retrofits needed to meet the FORTIFIED certification criteria. Once those criteria are met, the home is inspected by an IBHS agent and is designated a FORTIFIED home. FORTIFIED homeowners can receive up to 25 percent discount on premiums through the wind pool.[142]

Labor Mismatch
The difference between the jobs a worker is qualified for and the jobs that are available to a worker in a certain region.

Land Bank
An organization, usually public, that works to acquire parcels of land in a community that can be sold for redevelopment.

Living Shorelines Initiative
A long-term project to control erosion through the use of vegetation. This project seeks to expand the current Living Shoreline initiative from voluntary residential developments to a site standard as part of new waterfront development.

Living Wage
A wage that provides enough money for residents to meet all of their basic financial needs without being burdened by them.

North American Industry Classification System (NAICS)
A system developed as the standard for use by federal statistical agencies in classifying business establishments for the collection, tabulation, presentation, and analysis of statistical data describing the U.S. economy. Use of the standard provides uniformity and comparability in the presentation of these statistical data. NAICS is based on a production-oriented concept, meaning that it groups establishments into industries according to similarity in the processes used to produce goods or services.[143]

No Discharge Zone (NDZ)
An area in which both treated and untreated sewage discharges from vessels are prohibited. Within NDZ boundaries, vessel operators are required to retain their sewage discharges onboard for disposal at sea (beyond three miles from shore) or onshore at a pump-out facility.[144]

No Wake Zone
An area in congested and hazardous areas of a waterway where a boat's wake could endanger people or the environment. When motorboat operators enter a no wake zone, they must reduce their speed to the slowest possible speed necessary to maintain steerage, but in no case greater than five miles per hour.[145]

Opportunity Mapping
A research tool used to understand the dynamics of "opportunity" within metropolitan areas. The purpose of opportunity mapping is to illustrate where opportunity rich communities exist (and assess who has access to these communities) and to understand what needs to be remedied in opportunity poor communities.[146]

Ozone
A byproduct of fossil fuel consumption that, when at ground level, can have adverse effects on human health.

Polystyrene
The material commonly known as Styrofoam.

Predatory or Subprime Mortgage Loan
Lending practices that strip borrowers of home equity and threaten families with foreclosure.[147]

Public Housing Authorities (PHAs)
Local housing agencies through which HUD administers federal aid to manage housing for low-income tenants.

Racially Concentrated Areas of Poverty (RCAP)
Census Tracts with family poverty rate greater than or equal to 40 percent or a family poverty rate greater than or equal to 300 percent of the metro region's tract average (whichever is lower), and a majority non-white population. These areas indicate the presence of both racial and economic segregation.

Repetitive Loss Properties
A home, business, or property that has received two or more claim payments of more than $1,000 from the NFIP within any rolling 10-year period.[148]

Renewable Energy
Energy sources replenish themselves over short periods of time and do not diminish, such as wind or solar energy.

Repetitive-Loss Structures
See repetitive loss properties.

Resiliency
As defined by the Resilience subcommittee, having the capacity, the will and the resources to adapt to incremental changes or sudden traumatic events, to sustain remaining resources while incorporating changes and to emerge stronger.

Additionally it is having the foundation of understanding and knowledge of sustainable practices and the ability to implement those practices within a culture of resilience that teaches self-reliance as well as collaboration on a personal and community-wide scale; and community planning, preparation and collaboration to develop and retain the ability to respond to changes, adapt to changes, and thrive.

RESTORE Act
Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act, passed by congress in 2012 in response to the Deepwater Horizon oil spill. The Act dedicates 80 percent of any civil and administrative penalties paid under the Clean Water Act by responsible parties in connection with the Deepwater Horizon oil spill to the Gulf Coast Restoration Trust Fund (the Trust Fund) for ecosystem restoration, economic recovery, and tourism promotion in the Gulf Coast region.[149]

Retrofitting
The addition of features to an existing structure in order to improve on certain features. For example, adding hurricane strapping to better withstand high winds.

Ride-Share
The practice of carpooling and vanpooling, in which a vehicle carries additional passengers when making a trip, with minimal additional mileage.

Scenario Planning
A method of conceptualizing alternative land-use schemes allowing for the creation of alternative futures.

Section 202 Funding
A program that provides interest-free advances to housing developments that will serve very low-income seniors for at least 40 years.

Section 811 Funding
A program of HUD that provides capital advances and project rental assistance for affordable rental housing for persons with disabilities.

Sediment Control
The practice of keeping eroded soil on a site.

Steps Coalition
An organization formed in 2006 to build a democratic movement to support and create a healthy, just and equitable Mississippi Gulf Coast. The coalition is comprised of over 39 non-profit organizations.[150]

Stormwater runoff
Surface runoff is the water flow that occurs when the soil is infiltrated to full capacity and excess water from rain, meltwater, or other sources flows over the land.

Tidal Creeks
See Estuary.

Truck Stop Electrification
Technology that allows a truck, when parked, to power systems within the vehicle such as heating, air conditioning, or appliances, without idling the engine. Also known as electrified parking spaces (EPS), truck stop electrification can reduce diesel emissions and save on fuel costs, although there are indirect impacts associated with the method of electricity generation.[151]

Vehicle Miles Traveled (VMT)
VMT measures the aggregate number of miles traveled by vehicle. A drop in VMT can be taken as a positive indicator of higher alternative transportation use, lower transportation costs, lower vehicle emissions, better air quality and reduced vehicle congestion. VMT data are collected at the TAZ level by the GRPC as the MPO for the Mississippi Gulf Coast.

Walkable Area
An area easily travelled on foot, defined as having 125 or more intersections per square mile.

WIN Job Center
A service center providing resources for job-seekers, operated by the Mississippi Department of Employment Security. There are currently three WIN Job Center locations in the region, in Gulfport, Biloxi, and Pascagoula.

Appendix D

Acronyms and Abbreviations

ADA
Americans with Disabilities Act

AFRI
Agriculture and Food Research Initiative

AI
Analysis of Impediments

BLS
Bureau of Labor and Statistics

CDBG
Community Development Block Grant

CDC
Community Development Corporation

C-HOST
Coastal Hazard Outreach Strategy Team

CIAP
Coastal Impact Assistance Program

COAAC
Coalition of African American Communities

CRM
Coastal Retrofit Mississippi

CRS
Community Rating System

CTA
Coast Transit Authority

CWPPRA
Coastal Wetlands Planning Protection and Restoration Act

DOT
Department of Transportation

EPA
Environmental Protection Agency

FEMA
Federal Emergency Management Agency

FHWA
Federal Highway Administration

FIRM
Flood Insurance Rate Maps

FTA
Federal Transit Administration

GCBC
Gulf Coast Business Council

GCCDS
Gulf Coast Community Design Studio

GCFHC
Gulf Coast Fair Housing Center

GCHTP
Gulf Coast Heritage Trails Partnership

GCRC
Gulf Coast Renaissance Corporation

GIS
Geographic Information Systems

GRPC
Gulf Regional Planning Commission

HCDC
Harrison County Development Commission

HCV
Housing Choice Vouchers

HUD
United States Department of Housing and Urban Development

IBHS
Insurance Institute for Business and Home Safety

ICAW
International Composting Awareness Week

IRD
International Relief and Development

JCEDF
Jackson County Economic Development Foundation

LA
Location Affordability Index

MASGC
Mississippi Alabama Sea Grant Consortium

MCIP
Mississippi Coastal Improvement Program

MCJ
Mississippi Center for Justice

MDA
Mississippi Development Authority

MDAC
Mississippi Department of Agriculture and Commerce

MDEQ
Mississippi Department of Environmental Quality

MDH
Mississippi Department of Health

MDMR
Mississippi Department of Marine Resources

MDWFP
Mississippi Department of Wildlife, Fisheries, and Parks

MEDC
Mississippi Economic Development Council

MEMA
Mississippi Emergency Management Agency

MGCCC
Mississippi Gulf Coast Community College

MPO
Metropolitan Planning Organization

MRC
Mississippi Recycling Coalition

MSA
Metropolitan Statistical Area

NAAQS
National Ambient Air Quality Standard

NAICS
North American Industry Classification System

NDZ
No Discharge Zone

NERR
National Estuarine Research Reserve

NFIP
National Flood Insurance Program

NFWF
National Fish and Wildlife Foundation

NOAA
National Oceanic and Atmospheric Administration

PHA
Public Housing Authority

PMC
Project Management Committee

RCAP
Racially Concentrated Areas of Poverty

SAV
Submerged Aquatic Vegetation

SMHD
South Mississippi Housing and Development Corp.

SMPDD
Southern Mississippi Planning and Development District

SMVOAD
South Mississippi Voluntary Organizations Active in Disaster

SNAP
Supplemental Nutrition Assistance Program

TAZ
Traffic Analysis Zone

USACE
United States Army Corps of Engineers

USDA
United States Department of Agriculture

USM
University of Southern Mississippi

VALE
Voluntary Airport Low Emission

VMT
Vehicle Miles Traveled

WIN
Workforce Investment Network

Appendix E

Committee Membership

The *Plan for Opportunity* would not be possible without the time and dedication of many members of the Mississippi Gulf Coast region. Below is a list of the people who made the *Plan for Opportunity* possible.

Project Management Committee

- Criterion
- GCCDS
- GRPC
- Gulf Coast Renaissance Corporation
- Kirwan Institute
- Mississippi Center for Justice
- The Ohio State University
- SMPDD
- Steps Coalition

Executive Committee

- Mary Bankston, Chair, Coast Transit Authority
- Ed Daniels, Coalition Of African American Churches
- Van Grundmann, Mississippi State Port Authority
- Bobby Hensley, Director, Biloxi Housing
- Billy Hewes, Mayor, City of Gulfport
- A.J. Holloway, Mayor, City of Biloxi
- Everett Lewis, Back Bay Mission
- Aneice Liddell, Former Mayor, Moss Point
- Wendy McDonald, Bay-Waveland Habitat for Humanity, Bay St. Louis City Council
- John McKay, Supervisor, Jackson County
- Connie Moran, Mayor, City of Ocean Springs
- Shari Prestemon, Former Executive Director, Back Bay Mission
- Latisha Price, Former Vice President, Mercy Housing & Human Development
- Susan Scaggs, Vice President, Mississippi Gulf Coast Community College, JD Campus
- George Schloegel, Former Mayor, City of Gulfport
- Arnie Williams, Director of Economic Development, Mississippi Power

Working Group Committee

- Allison Anderson, Unabridged Architecture
- Paul Barnes, Harrison County
- Pat Bonck, Harrison County
- Aletha Burge, United Way South Mississippi
- Joe Cloyd, Private Developer
- Kevin Coggin, Coast Transit Authority
- Kim Compton, Hancock County Development Commission
- Jerry Creel/Ed Shambra, City of Biloxi
- Jen Dearman, City of Pascagoula
- Natalia Diaz, Jackson County Economic Development Foundation
- Derrick Evans, Turkey Creek Community Initiatives
- Jim Foster, Gulf Coast Heritage Trails Partnership
- Philip Goudy, South Mississippi Housing & Development
- Angela Grajeda/Monica Owens, American Red Cross
- Kelvin Jackson, Harrison County
- Kellie Lamb, American Lung Association
- Sarah Landry, Mercy Housing & Human Development
- Grant Larsen, Mississippi Department of Marine Resources
- Everett Lewis, Back Bay Mission
- Ron Magee, NASA--Stennis
- Eric Meyer, City of Gautier
- Chris Monforton, Habitat for Humanity of the Mississippi Gulf Coast
- Kim Nastasi, Mississippi Coast Chamber
- Jack Norris/Scott King, Gulf Coast Business Council
- Harold "Buz" Olsen, City of Bay St. Louis
- Stephen O'Mara, Gulf Coast Renaissance Corporation
- Harry Schmidt, Jackson County Economic Development Foundation
- Stephen Sempier, Mississippi-Alabama SeaGrant Consortium
- Tracie Sempier, Mississippi-Alabama SeaGrant Consortium

- Don Shepley, Gulfport-Biloxi International Airport
- Danit Simon, City of Pass Christian
- Judy Steckler, Land Trust
- David Taylor, Gulf Regional Planning Commission
- Pastor Anthony Thompson, Tabernacle of Faith
- Daphne Viverette, City of Moss Point
- Thao Vu, Mercy Housing & Human Development
- Brad Williams, Mississippi Department of Health
- Tammy Wisco, Eco-Systems, LLC.

Food Systems Subcommittee

(Led by The Ohio State University)

- Aletha Burge, United Way South Mississippi
- Ralph Hode, Gulf States Marine Fisheries Commission
- Kelvin Jackson, Harrison County
- Wendy McDonald, Bay-Waveland Habitat for Humanity
- Brad Williams, Mississippi Department of Health
- Mark Williams, Mississippi Department of Environmental Quality

Housing Subcommittee

(Led by MSU GCCDS)

- Joe Cloyd, Private Developer
- Phil Eide, Hope Enterprise Corp.
- Charmel Gaulden, Gulf Coast Fair Housing
- Monica Gonzalez, Enterprise Community Partners
- Cassie Hicks, University of Southern Miss
- Caleb Koonce, University of Southern Miss
- Sarah Landy, Mercy Housing & Human Development
- Janine Lee, Bay-Waveland Housing Authority
- Everett Lewis, Back Bay Mission
- Jerrie Magruder, HUD
- Chris Monforton, Gulf Coast Habitat for Humanity
- Reilly Morse, Mississippi Center for Justice
- Steve Nettles, Lemon Mohler Insurance

- Rhoda Rhodes, Hancock Housing Resource Center
- Camille Schafer, Gulf Coast Renaissance Corporation
- Demetria Simpson, South Mississippi Housing & Development/Region 8
- Cindi Tarver, Steps Coalition
- Helen Werby, Biloxi Housing Authority
- Lori West, International Relief & Development
- Matt Williams, Mississippi Center for Justice
- Amy Wood, Amy Wood Properties

Economic Development & Workforce Subcommittee

(Led by SMPDD)

- Scott Alsobrooks, Pearl River Community College
- Sam Alsogood, Ingalls Shipbuilding
- Charlie Beasley, Mississippi Enterprise for Technology
- Yolanda Boone, Mississippi Department of Employment Security
- Kim Compton, Hancock County Development Commission
- Sandi Cutler, Southern Mississippi Planning & Development District
- Natalia Diaz, Jackson County Economic Development Foundation
- Rick Duke, University of Southern Mississippi
- George Freeland, Jackson County Economic Development Foundation
- Bill Hessell, Harrison County Development Commission
- Enrique Hurtado, Mississippi State Port Authority
- Guy Johnson, Coast Electric
- Anna Faye Kelley-Winders, Mississippi Gulf Coast Community College
- Wanda Land, Mississippi Development Authority
- Ron Magee, NASA-Stennis
- Kim Nastasi, Mississippi Gulf Coast Chamber
- Jack Norris, Gulf Coast Business Council
- Stephen O'Mara, Gulf Coast Renaissance Corporation
- Stacy Pair, Mississippi Main Street Association

- Pastor Anthony Thompson, Tabernacle of Faith
- Chuck Ueltschey, Mississippi Power
- Clay Wagner, Hancock Bank
- Monica Walker, Southern Mississippi Planning & Development District
- Bill Webb, Mississippi Development Authority
- Tish Williams, Hancock County Chamber

Transportation/Land Use Subcommittee

(Led by GRPC)

- Paul Barnes, Harrison County - GIS
- Pat Bonck, Harrison County - Zoning
- Karen Clark, Southern Mississippi Planning & Development District - GIS Director
- Joe Cloyd, Private Developer
- Kevin Coggin, Coast Transit Authority
- Lydia Davis, Southern Mississippi Planning & Development District - Area Aging
- Derrick Evans, Turkey Creek Community Initiatives
- Jim Foster, Heritage Trails Partnership
- Keith Head, Mississippi Department of Environmental Quality
- Greg Holmes, City of Gulfport - Planning
- Eric Meyer, City of Gautier
- Chris Monforton, Habitat for Humanity of the Mississippi Gulf Coast
- Mike Montgomery, The ARC of Mississippi
- Robert Moore, Southern Mississippi Planning & Development District - Area for Aging
- Howard Page, Steps Coalition
- Harry Schmidt, Jackson County Economic Development Foundation
- Ed Shambra, City of Biloxi - Planning
- Thao Vu, Mercy Housing & Human Development
- Tammy Wisco, Eco-Systems, LLC
- Eliot Allen, Criterion Planners
- Don Shepley, Gulfport-Biloxi International Airport

- Perry Brown, Mississippi Department Of Transportation
- Jeff Loftus, Gulf Regional Planning Commission – Bike/ Pedestrian

Water Subcommittee

(Led by The Ohio State University)

- Beth D'Aquilla, Harrison County Soil & Water Conservation
- Jim Foster, Gulf Coast Heritage Trails Partnership
- Bill Hawkins, University of Southern Mississippi
- Raleigh Hoke, Gulf Restoration Network
- Joe Jewell, Mississippi Department of Marine Resources
- Mark LaSalle, Sea Grant Advisory Service
- Coen Perott, Mississippi Department of Environmental Quality
- Troy Pierce, Environmental Protection Agency – Gulf of Mexico Alliance
- Tracie Sempier, Mississippi-Alabama SeaGrant Consortium
- Judy Steckler, Land Trust

Resiliency Subcommittee

(Led by GRPC)

- Allison Anderson, Unabridged Architecture
- Gerald Blessey, Columbus Communities, LLC
- Alex Cary, SmartHome America
- Jack Covarubias, University of Southern Mississippi - Center for Policy & Resilience
- Alice Graham, Mississippi Interfaith Disaster Task Force
- Larissa Graham, Coastal Training Program Coordinator, Grand Bay NERR
- Mike Grote, Mississippi State University – Gulf Coast Community Design Studio
- Van Grundmann, Mississippi State Port Authority
- Marian Hanisko, NOAA Coastal Services Center
- John Hosey, United Way - SMVOAD
- Wendy McDonald, Bay-Waveland Habitat for Humanity, Bay St. Louis City Council

- Beth Ousley, Southern Mississippi Planning & Development District
- Monica Owens/Angela Grajeda, American Red Cross
- Niki Pace, Mississippi-Alabama SeaGrant Consortium
- Rhonda Price, Mississippi Department of Marine Resources
- Tracie Sempier, Mississippi-Alabama SeaGrant Consortium
- LaDon Swann, Mississippi-Alabama SeaGrant Consortium
- Jody Thompson, A. U. Marine Ext. Res. Center
- Daphne Viverette, City of Moss Point
- Ann Weaver - Gulf Coast Services Center
- Kenneth Yarrow, Gulf Regional Planning Commission, Transportation/Land Use

Appendix F

Relationship to Other Plans

The *Plan for Opportunity* examined many different plans that involve the Mississippi Gulf Coast. Below is a list of plans examined in this planning effort.

Comprehensive Plans

- 2030 Harrison County Comprehensive Plan
- Bay St. Louis Comprehensive Plan
- Biloxi Comprehensive Plan; Vision 2020
- City of D'Iberville Comprehensive Plan
- Gautier Comprehensive Plan
- Hancock County Comprehensive Plan
- Long Beach Comprehensive Plan
- Jackson County Comprehensive Plan
- Moss Point Comprehensive Plan
- Pascagoula Comprehensive Plan
- Pass Christian Comprehensive Plan
- Ocean Springs Comprehensive Plan
- Waveland Comprehensive Plan

Mitigation Plans

- City of Bay St. Louis, Mississippi Hazard Mitigation & Flood Management Plan
- Hancock County Hazard Mitigation & Flood Protection Plan
- Jackson County, Mississippi Multi-jurisdictional Hazard Mitigation Plan
- City of Pascagoula Hazard Mitigation & Flood Protection Plan
- Pass Christian Hazard Mitigation Plan
- Harrison County Multi-jurisdictional Hazard Mitigation Plan

State Plans

- Mississippi Gulf Coast National Heritage Area Management Plan and Environmental Assessment
- Mississippi 2009-2014 Statewide Comprehensive Outdoor Recreation Plan
- Gulf Region Water and Wastewater Plan
- Mississippi's Comprehensive Wildlife Conservation Strategy, 2005-2015

- State of Mississippi Coastal and Estuarine Land Conservation Program Plan
- Mississippi Coastal Improvements Program Comprehensive Plan
- Go Coast 2020 Final Report
- Comprehensive Economic Development Strategy 2007-2012
- Comprehensive Economic Development Strategy 2013-2017
- Mississippi's Unified Long-Range Transportation Infrastructure Plan
- Mississippi State Asthma Plan
- Mississippi Development Authority Public Housing Program CDBG Disaster Recovery Action Plan Amendment I
- State of Mississippi Qualified Allocation Plan
- Coastal Impact Assistance Plan

Regional Plans

- Mississippi Gulf Coast Area Transportation Study: 2035 Long Range Transportation Plan
- 2035 Gulf Coast Transit Development Plan

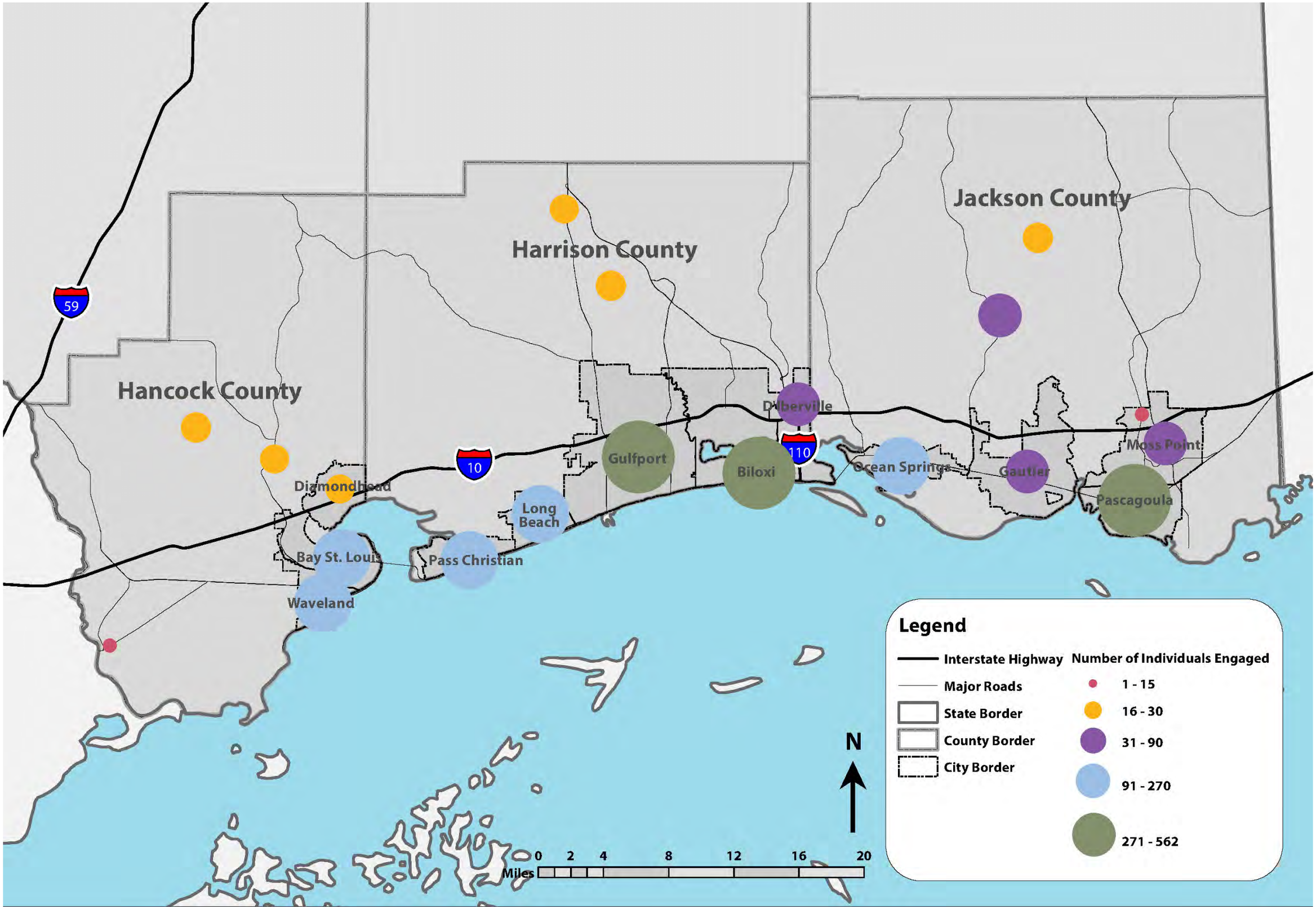
Other Plans

- Sand Beach Master Plan: Harrison County, Mississippi

Appendix G

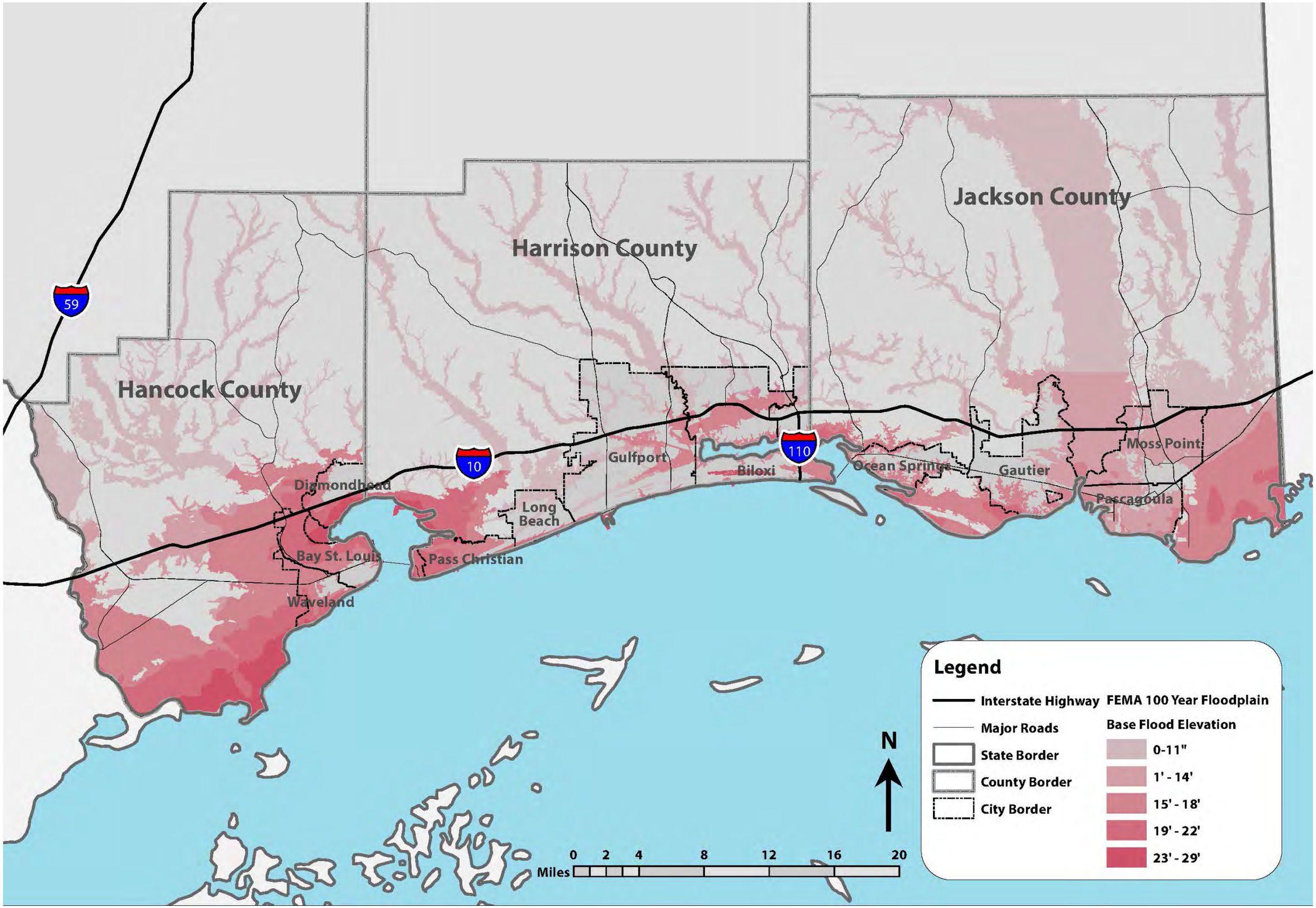
Maps

Map 1 The *Plan for Opportunity* engaged with more than 2,800 people on the Mississippi Gulf Coast. This map illustrates the communities where participants reside, or where the engagement took place.



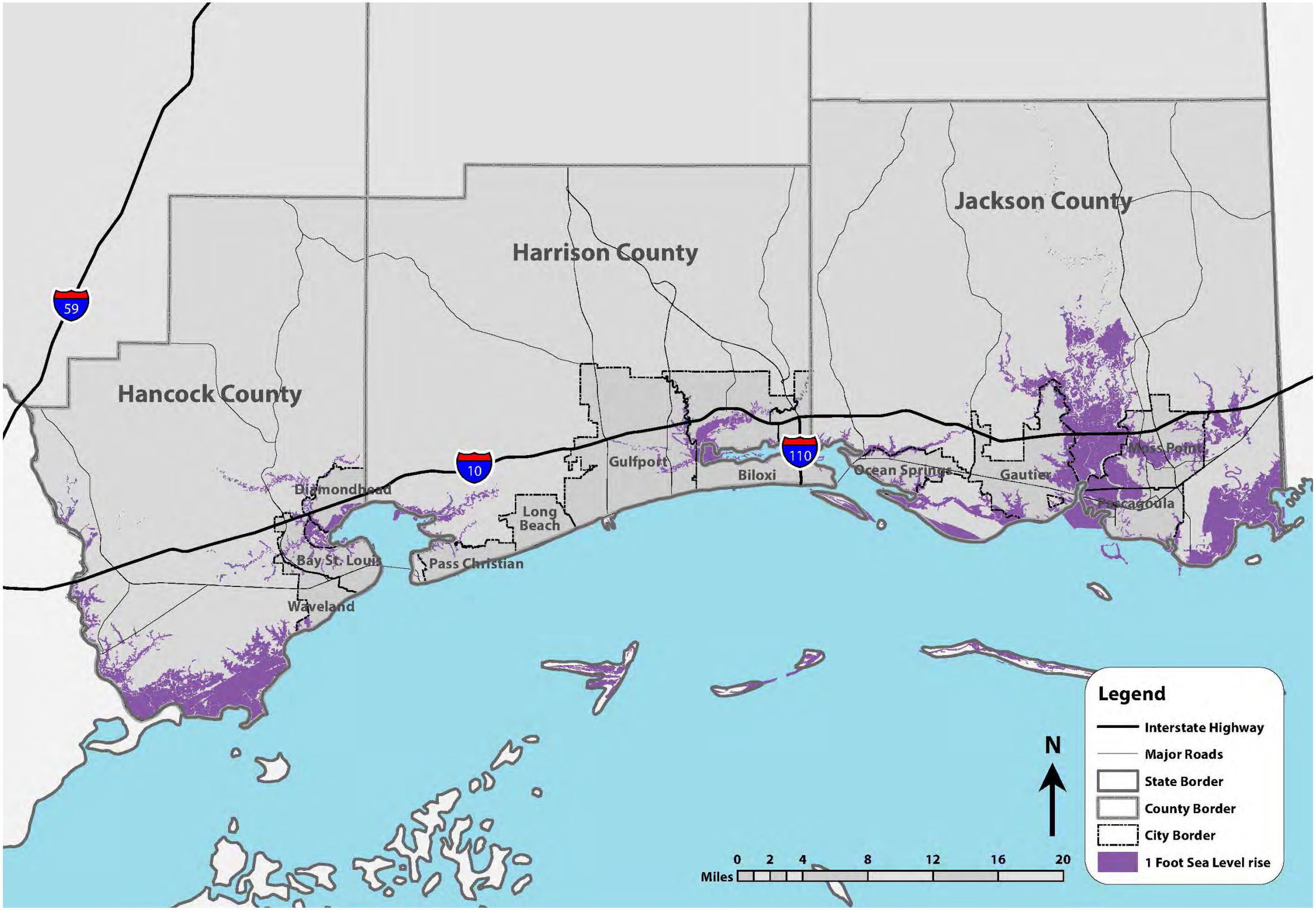
Source: The Ohio State University

Map 2 FEMA 100-Year Floodplain



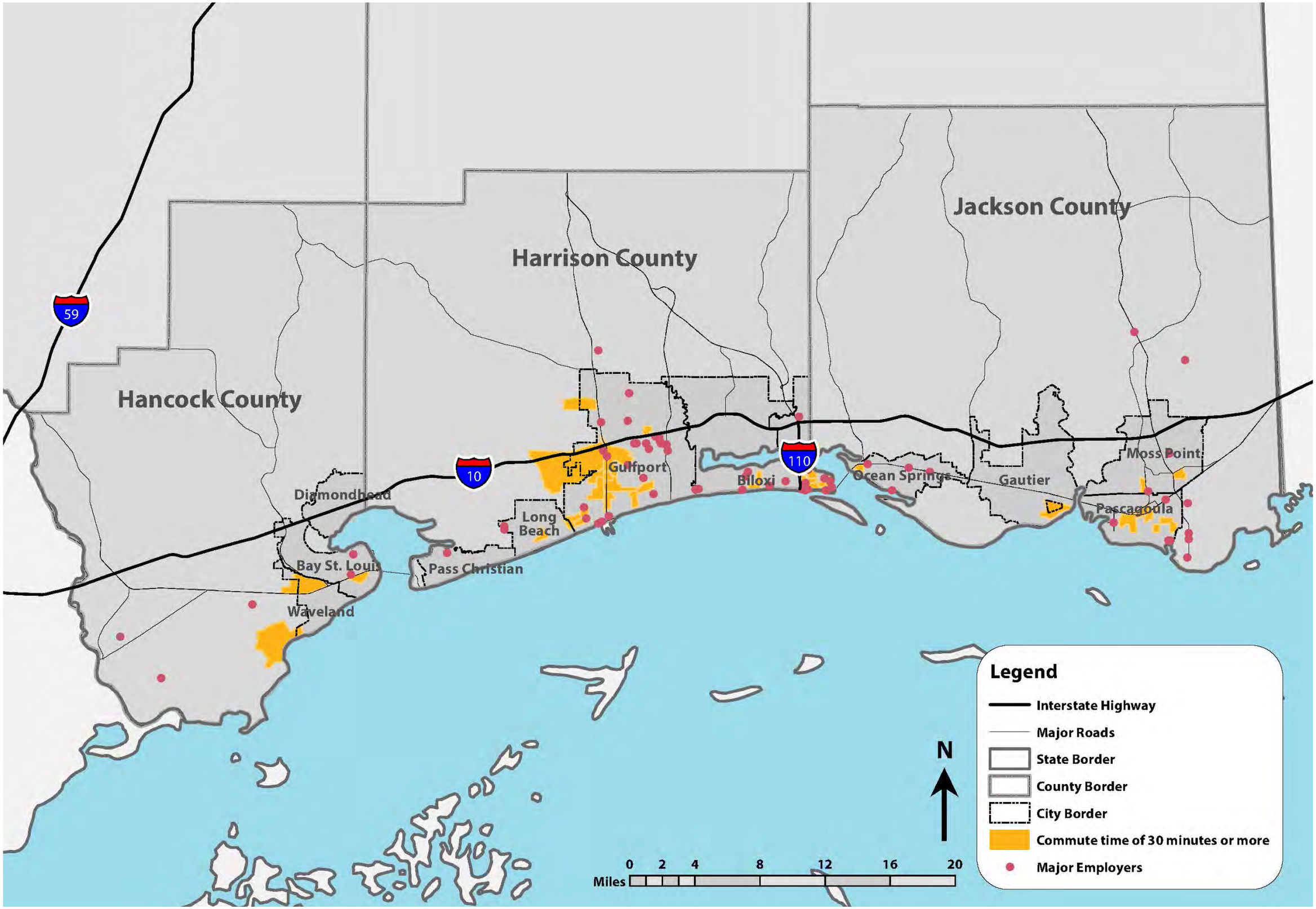
Source: Gulf Regional Planning Commission and Federal Emergency Management Agency

Map 3 Projected Sea Level Rise



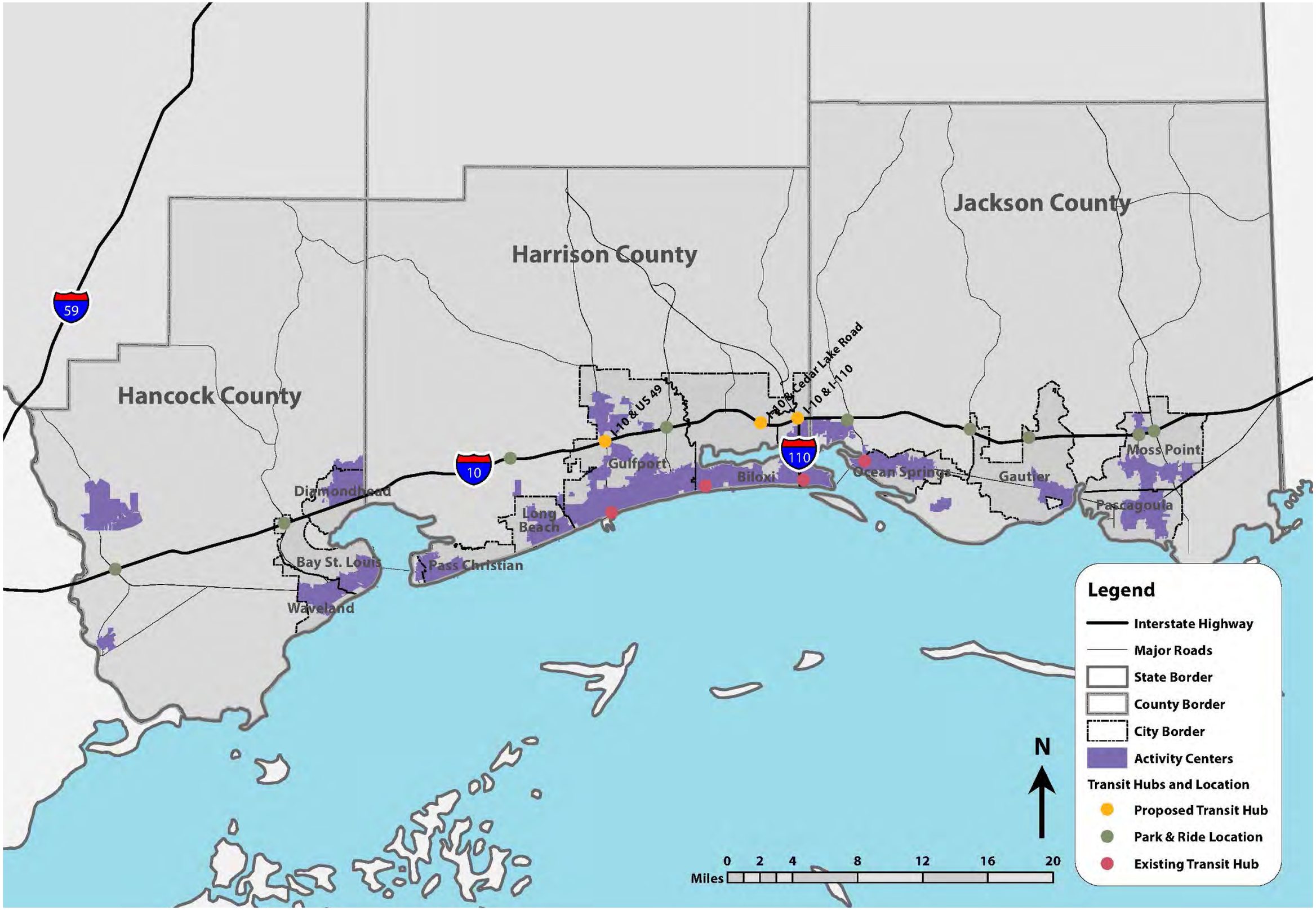
Source: National Oceanic and Atmospheric Administration

Map 4 Low Income Areas with More Than a 30 Minute Commute



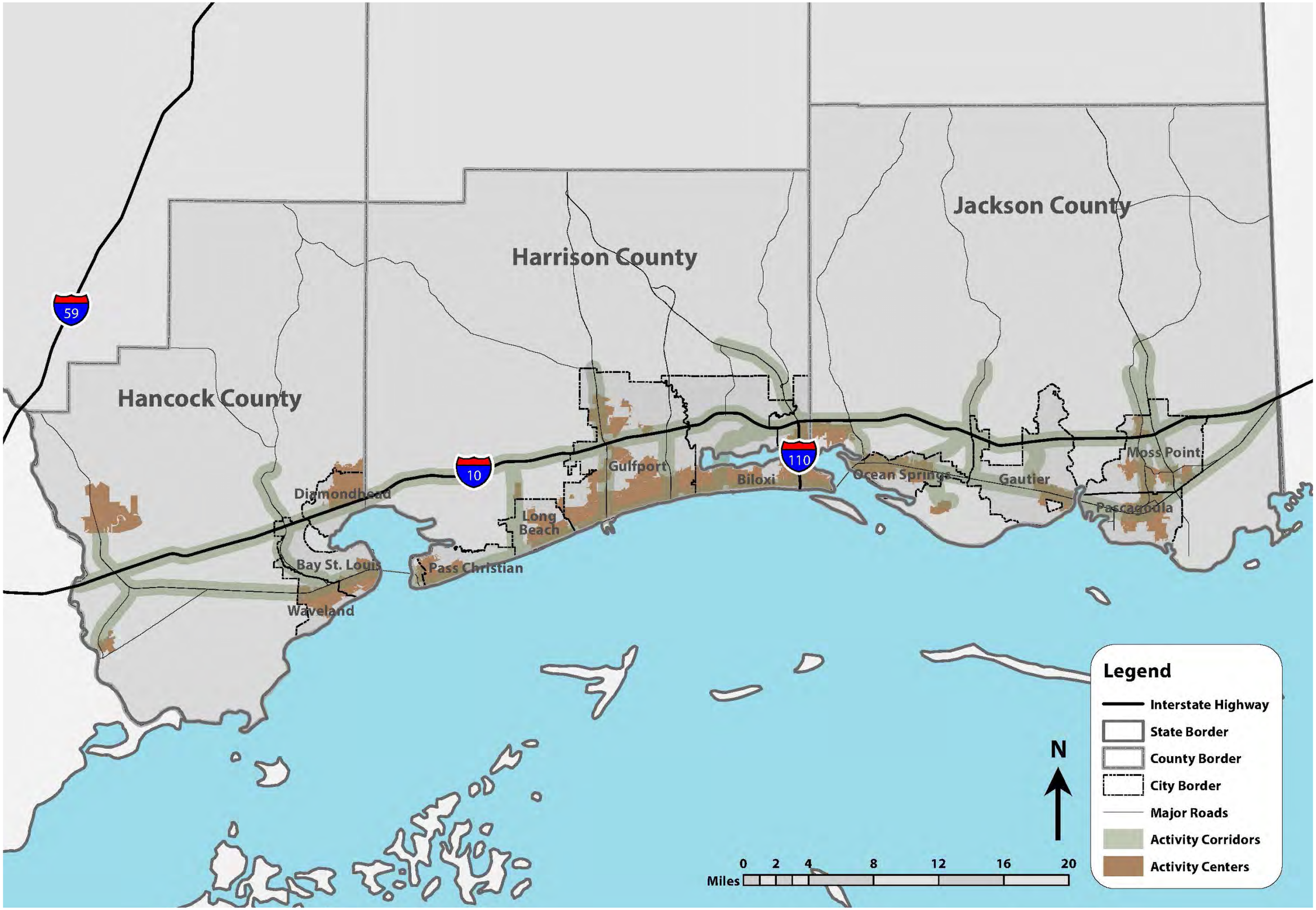
Source: Gulf Regional Planning Commission

Map 5 Existing and Potential Transit Hubs Along Interstate Highway 10



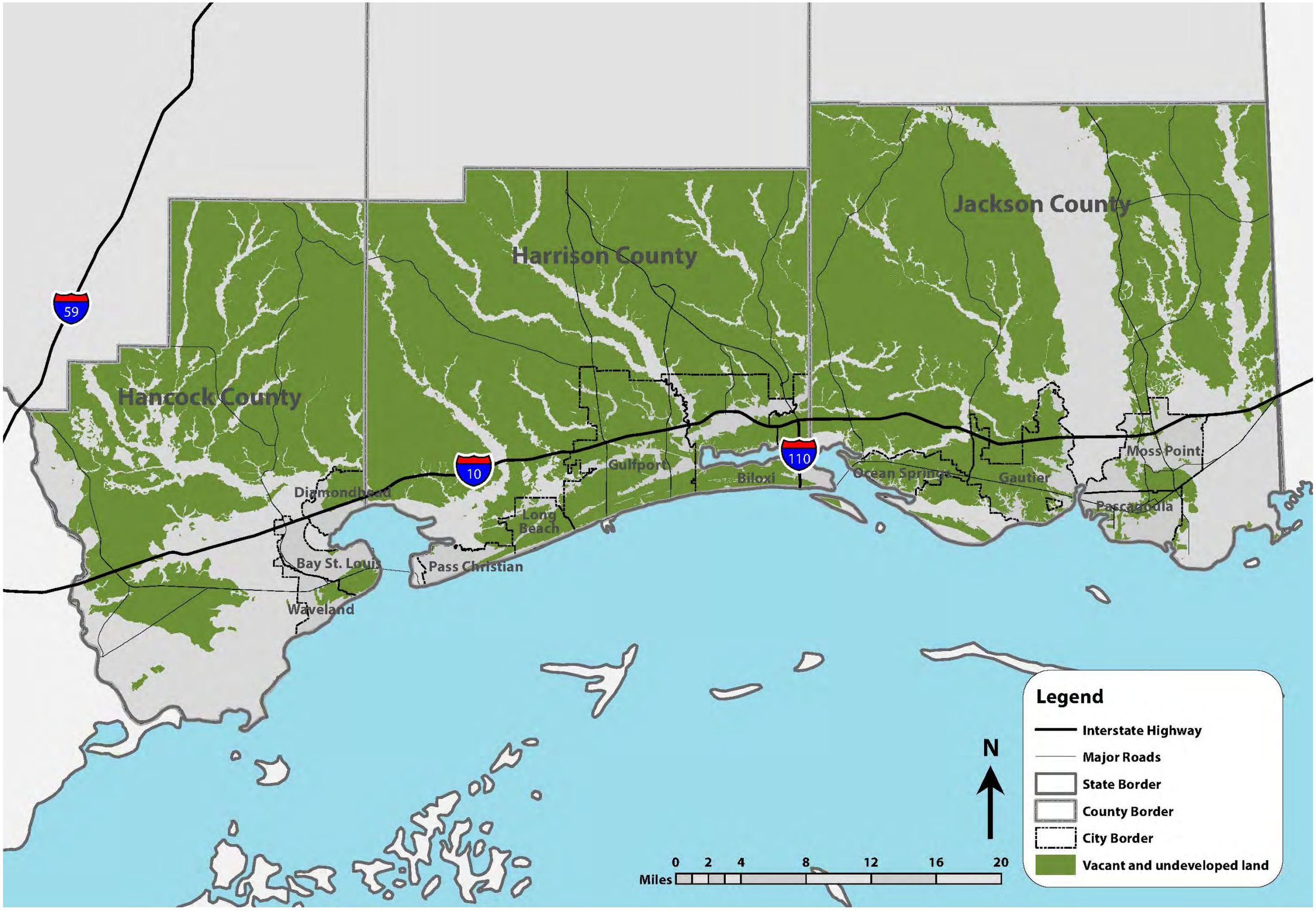
Source: Coast Transit Authority

Map 6 Major Activity Centers on the Mississippi Gulf Coast



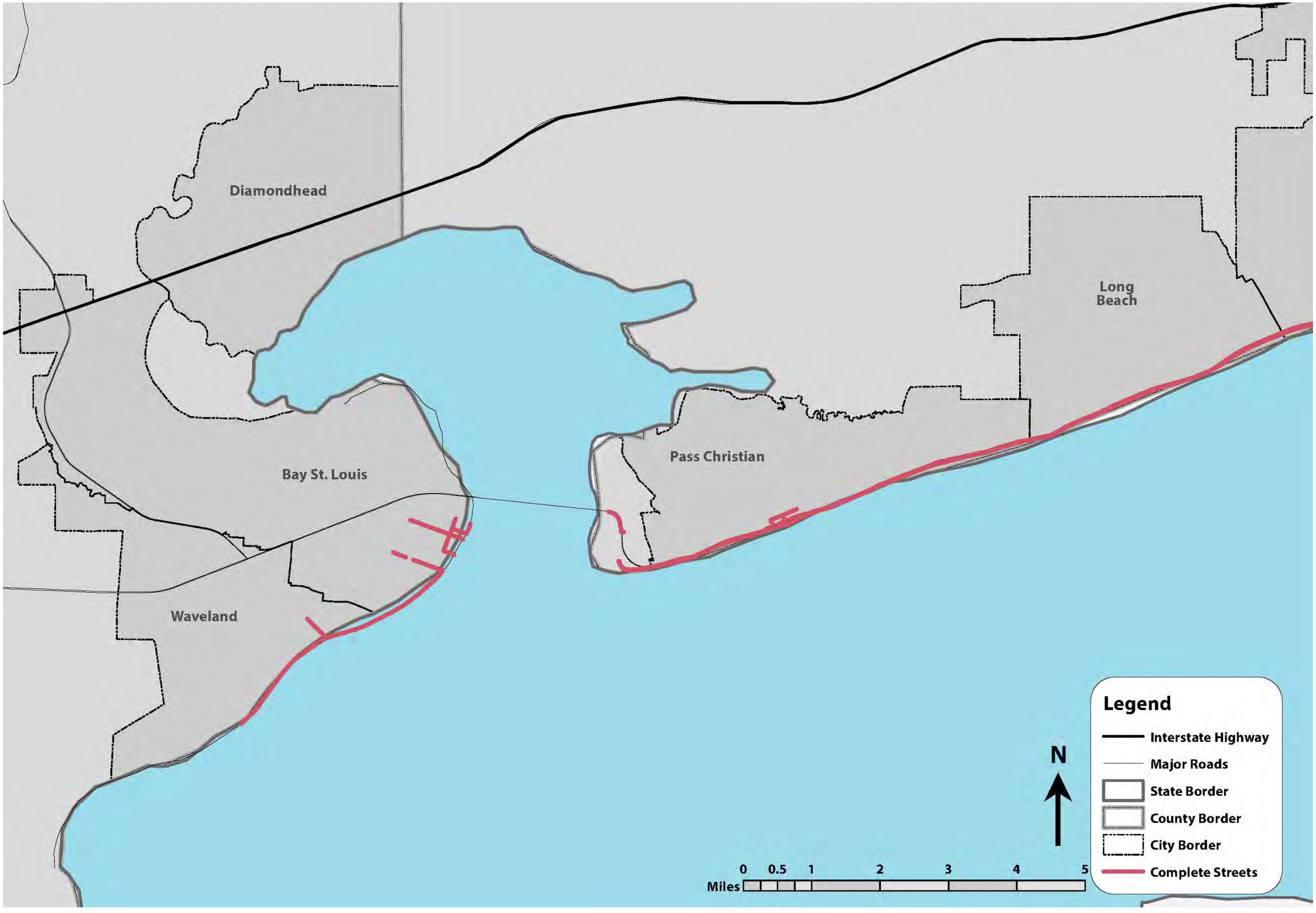
Source: Gulf Regional Planning Commission

Map 7 Vacant Land



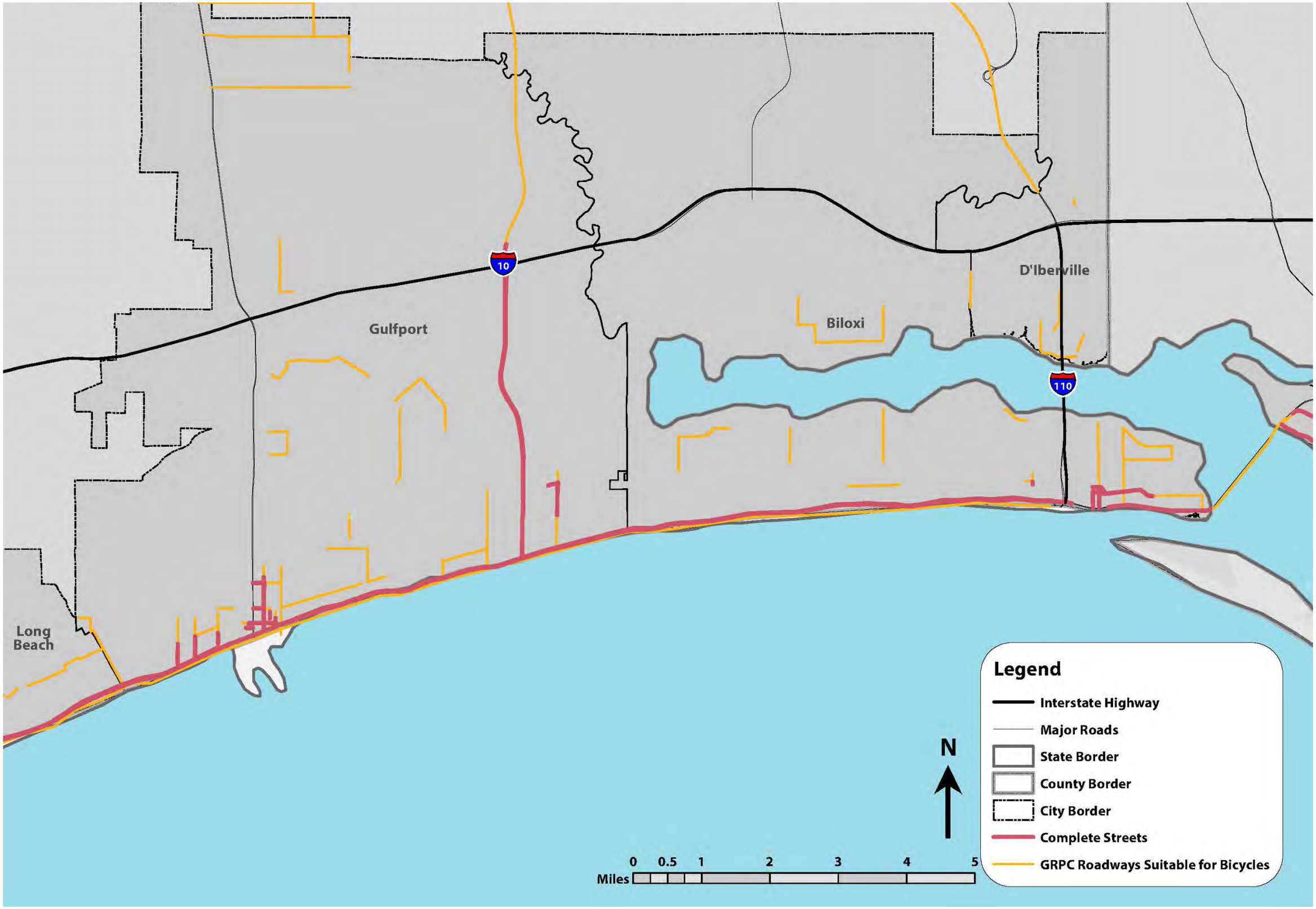
Source: Gulf Regional Planning Commission and Coastal Impact Assistance Program

Map 8.1 Complete Streets



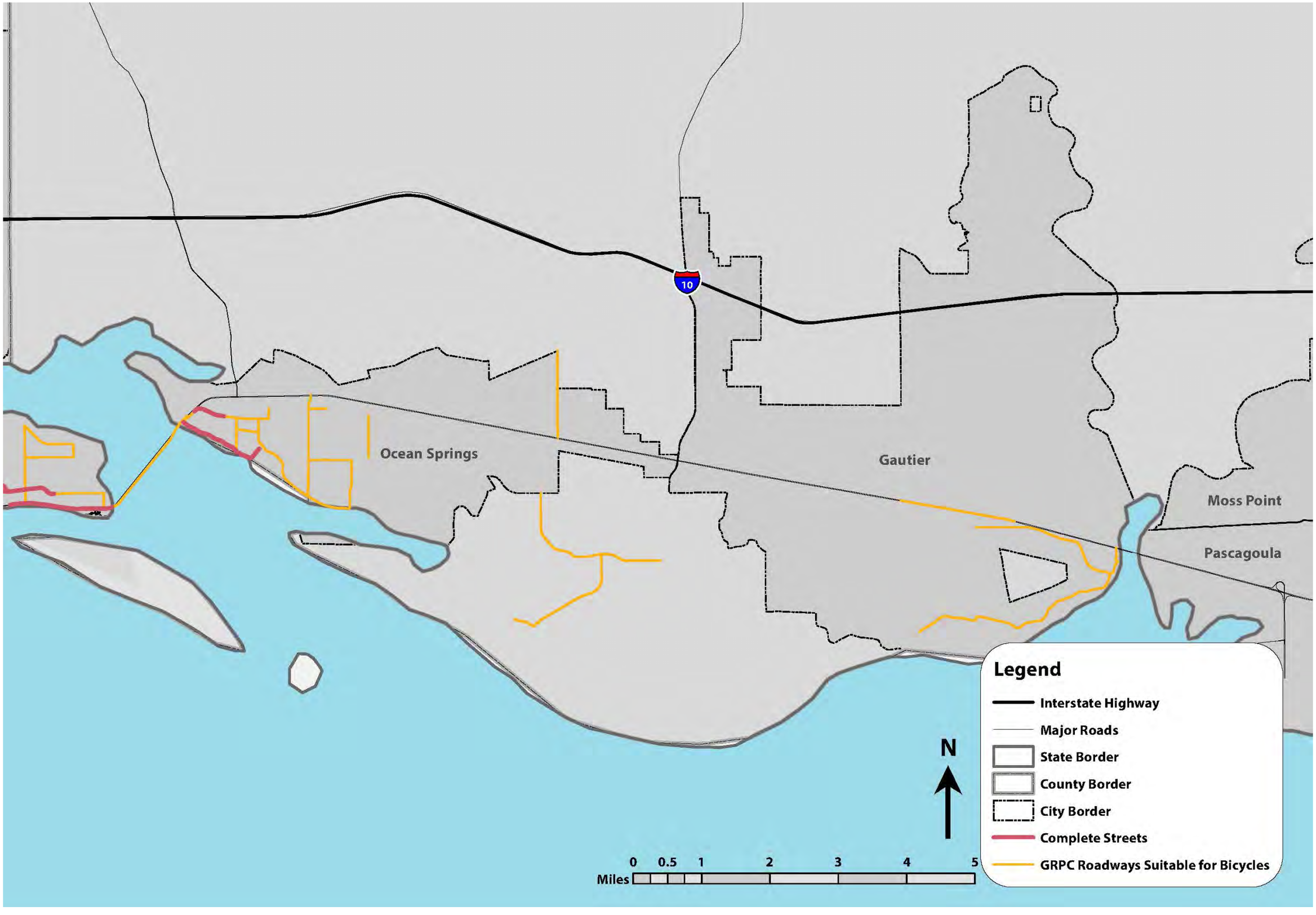
Source: Gulf Regional Planning Commission and The Ohio State University

Map 8.2 Complete Streets



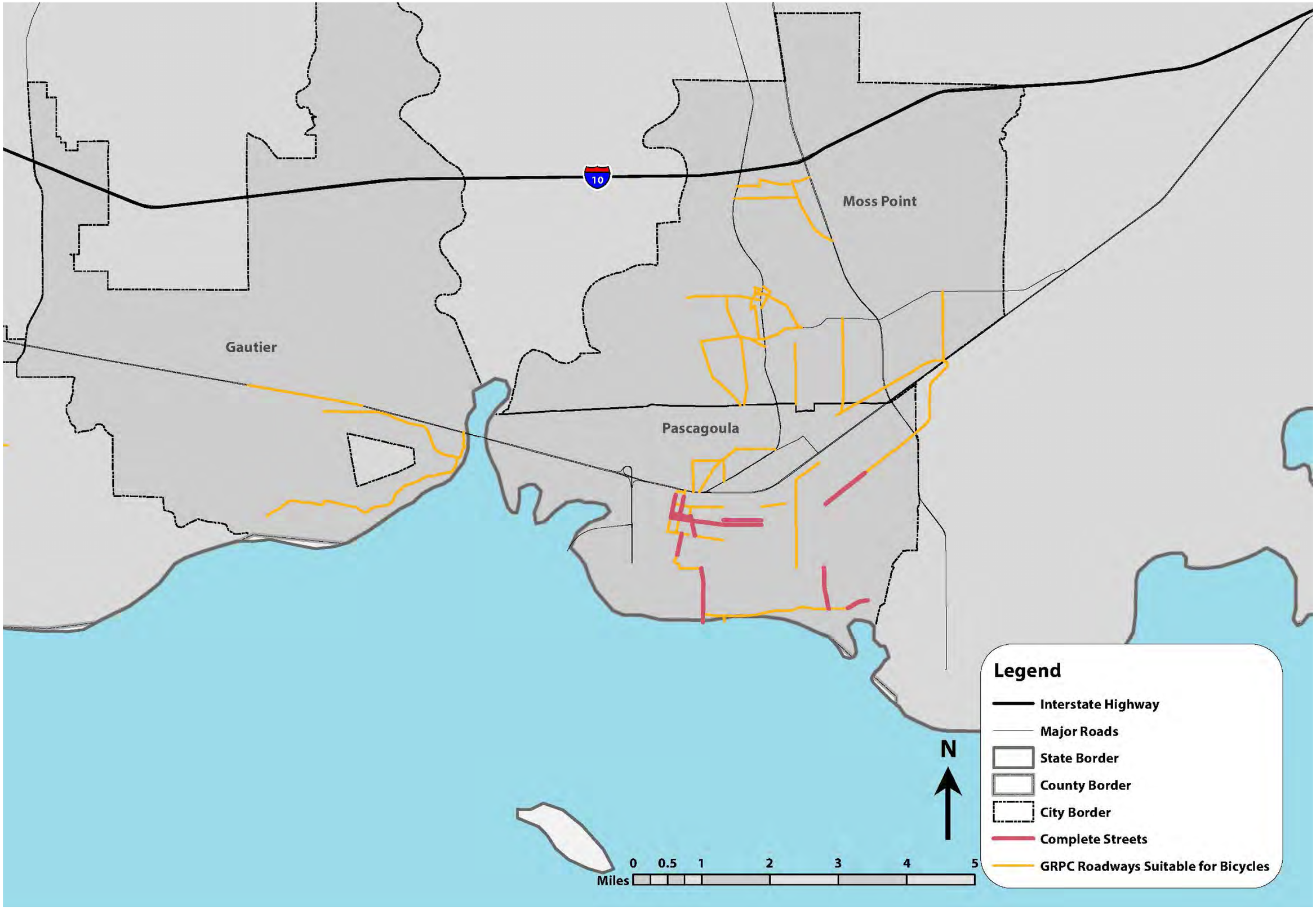
Source: Gulf Regional Planning Commission and The Ohio State University

Map 8.3 Complete Streets



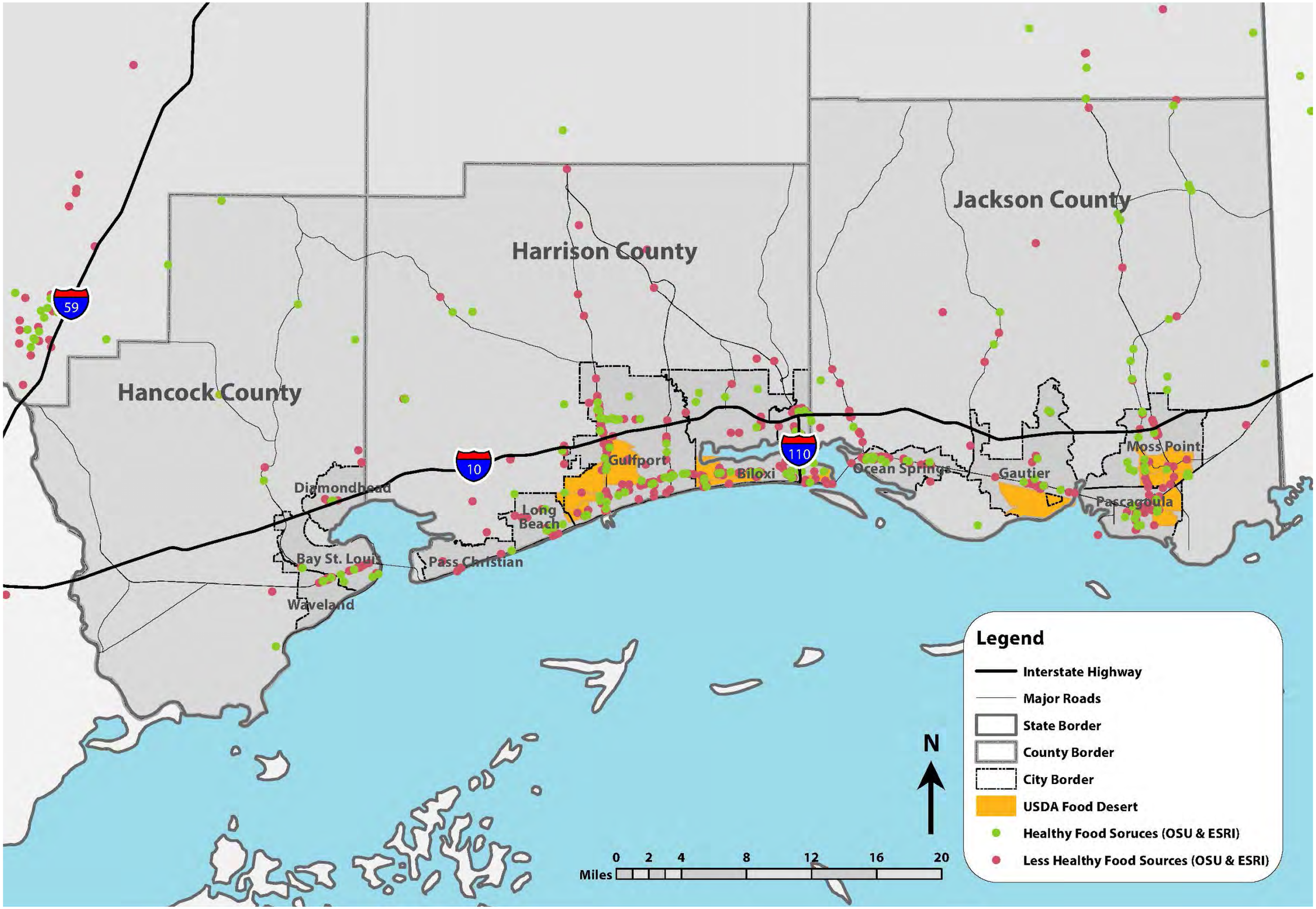
Source: Gulf Regional Planning Commission and The Ohio State University

Map 8.4 Complete Streets



Source: Gulf Regional Planning Commission and The Ohio State University

Map 9 Areas with Limited Access to Healthy Food Options



Source: Kirwan Institute for the Study of Race and Ethnicity

Appendix H

Works Cited

1. Wolbers, M.H.J. (2003). Job mismatches and their labor-market effects among school-leavers in Europe. European Sociological Review, Vol. 19 No. 3, 249-266.
2. Gulf Regional Planning Commission. (2012). Land Use Assessment. Prepared for the *Plan for Opportunity*. Page 22.
3. Federal Emergency Management Agency. 2005. FEMA Releases New Flood Maps; Blog Retrieved from : http://geocarta.blogspot.com/2005/11/fema-releases-new-flood-maps-for-miss.html.
4. Federal Emergency Management Agency (2013). Map Services. Washington, DC. Retrieved from: https://msc.fema.gov/webapp/wcs/stores/servlet/mapstore/homepage/MapSearch.html
5. Hancock County Hazard Mitigation and Flood Protection Plan Update. (2006). Hancock County, Mississippi.
6. Ibid.
7. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, p. 51. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
8. Federal Emergency Management Agency (2005). National Flood Insurance Program: Frequently Asked Questions. Washington DC. Retrieved from: http://www.fema.gov/txt/rebuild/repetitive_loss_faqs.txt
9. Ibid.
10. Hancock County Hazard Mitigation and Flood Protection Plan Update. (2006). Hancock County, Mississippi.
11. Ibid.
12. Harrison County Multi-Jurisdictional Hazard Mitigation Plan. (2008). Harrison County, Mississippi.
13. Ibid.
14. Jackson County, Mississippi Multi-Jurisdictional Hazard Mitigation Plan. (2005). Jackson County, Mississippi.
15. Ibid.
16. Grinsted, A., Moore, J.C., Jevrejeva, S. (2013). Projected Atlantic hurricane surge threat from rising temperatures. Proceedings of the National Academy of Sciences.
17. Ibid.
18. Environmental Protection Agency. (n.d.) "Future Climate Change." Web. 18 Oct. 2013.
19. Land Use Assessment. (2013). Draft Document. Gulfport, Mississippi.
20. Gulf Regional Planning Commission. Scenario Planning Data. (2013). Retrieved from: http://grpc.sparcdata.com/map-gis?cllist=GRPC
21. Anker, R. (2011). International Labor Organization. Estimating a Living Wage: A Methodological Review. Retrieved from: http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_162117.pdf
22. EDWF Stakeholder Analysis. (2013). Draft document. Biloxi, Mississippi. https://mississippi.basecamphq.com/projects/10861409/file/161625332/EDWF%20Stakeholder%20Analysis_071013.pdf

23. Jones, Charisse. (2011). Tourism Returning a Year after Gulf Oil Spill. USA Today. April 22. http://usatoday30.usatoday.com/news/nation/2011-04-20-tourism-rebounds-gulf-.htm
24. Mississippi Development Authority Tourism Division, "Travel and Tourism Economic Contribution Report." 2011. http://www.visitmississippi.org/uploads/docs/PDF/FY2011_Economic_Contribution_Report.pdf
25. U.S. Census Bureau. (2011). 2011 County Business Patterns. Web. 25 Oct. 2013. http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
26. Bureau of Labor Statistics (2013). National Compensation Survey Databases. Retrieved from: http://www.bls.gov/ncs/data.htm.
27. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
28. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Economic Development Assessment, Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/RegionalAnalysis.pdf
29. Bryant, Phil. 2012. Governor Phil Bryant Gives His First State of the State Address. http://www.governorbryant.com/governor-phil-bryant-gives-his-first-state-of-the-state-address/
30. U.S. Bureau of Labor Statistics. (2013). National Compensation Survey. From the Bureau of Labor Statistics National Compensation Survey. http://www.bls.gov/data/#employment
31. Wolbers, M.H.J. (2003). Job mismatches and their labor-market effects among school-leavers in Europe. European Sociological Review, Vol. 19 No. 3, 249-266.
32. Howell, F. (September 2013.) Personal Interview on Talent Acquisition at Ingalls Shipyard with Angel Arroyo Rodriguez.
33. Ibid.
34. Ibid.
35. Ibid.
36. Ibid.
37. Ibid.
38. Ibid.
39. Ibid.
40. Housing Assessment. (2012). Biloxi, Mississippi. Page 11. http://gulfcoastplan.org/wp-content/uploads/2012/08/Housing-Assessment_FINAL_reduced.pdf
41. Housing Assessment. (2012). Biloxi, Mississippi. Page 14. http://gulfcoastplan.org/wp-content/uploads/2012/08/Housing-Assessment_FINAL_reduced.pdf
42. U.S. Census Bureau. (2012). 2012 American Community Survey 1-Year Demographic and Housing Estimates. Retrieved from: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
43. Howell, F. (September 2013.) Personal Interview on Talent Acquisition at Ingalls Shipyard with Angel Arroyo Rodriguez.
44. Eberts, R., Erickcek, G., & Kleinhenz, J. (2006). Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our economic Future, Working Paper 06-05 Cleveland: The Federal

Reserve Bank of Cleveland. Retrieved from http://www.clevelandfed.org/Research/Workpaper/2006/wp06-05.pdf

45. Burrage, D.D. (n.d.). How Sea Grant Extension Engages the Asian American Sector of the Gulf of Mexico Commercial Fishing Industry. Page 6-7. http://www.masgc.org/pdf/bab/cca/Burrage.pdf Web. 26 Oct. 2013
46. Shrestha, L.B., Heisler, E.J. (2011). The Changing Demographic Profile of the United States. Congressional Research Service. Web. 26 Oct. 2013. http://www.fas.org/sgp/crs/misc/RL32701.pdf
47. Ibid.
48. U.S. Census Bureau. (2012). 2012 American Community Survey 1-Year Demographic and Housing Estimates. Retrieved from: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
49. Gallagher, Leigh. 2013. The End of the Suburbs: Where the American Dream is Moving. Portfolio Hardcover. New York.
50. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
51. Ibid.
52. Jacobsen, L.A., Kent, M., Lee, M., Mather, M. (2011). America's Aging Population. Population Reference Bureau. Vol. 66, No. 1, February. Retrieved from: http://www.prb.org/pdf11/aging-in-america.pdf
53. See Transportation Chapter for further details.
54. See Transportation Chapter for further details.
55. See Transportation Chapter for further details.
56. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
57. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Assessment, p. 15. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Assessment-2013_22_05-Draft.pdf
58. U.S. Census Bureau. (2011). Commuting in the United States: 2009. Retrieved from: http://www.census.gov/prod/2011pubs/acs-15.pdf
59. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Assessment, p. 35. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Assessment-2013_22_05-Draft.pdf
60. Metro – Los Angeles Metropolitan Transportation Authority. (2010). Bike to Work Calculator. Retrieved from: http://www.metro.net/projects_studies/bikeway_planning/biketowork/images/bike_to_work_calculator.htm
61. Bike to Work Day. (2013). Bike Commute Calculator. Retrieved from: http://www.youcanbikethere.com/bike-commute-calculator
62. Metro – Los Angeles Metropolitan Transportation Authority. (2010). Bike to Work Calculator. Retrieved from: http://www.metro.net/projects_studies/bikeway_planning/biketowork/images/bike_to_work_calculator.htm
63. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Stakeholder Analysis, p. 27. Retrieved from: http://

www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Stakeholder-Analysis.pdf

64. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Stakeholder Analysis, pp. 12-14. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Stakeholder-Analysis.pdf
65. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Stakeholder Analysis, pp. 15-16. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Stakeholder-Analysis.pdf
66. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Assessment, p. 28. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Assessment-2013_22_05-Draft.pdf
67. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Transportation Stakeholder Analysis, p. 9. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Stakeholder-Analysis.pdf
68. Coast Transit Authority. (2007). Gulf Coast Transit Development Plan, pp. 24-25. Retrieved from: http://coasttransit.com/admin/wp-content/uploads/gc_tdp_april-07.pdf.
69. *Plan for Opportunity*. (2013). Mississippi Gulf Coast Regional Housing Stakeholder Analysis, pp. 13 – 15.. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/Transportation-Stakeholder-Analysis.pdf
70. United States Census Bureau. (2012). American Community Survey. Retrieved from: https://www.census.gov/acs/www/about_the_survey/american_community_survey/
71. Federal Deposit Insurance Corporation. FDIC National Survey of Unbanked and Underbanked Households. http://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf. September 2012. Pg. 11.
72. Federal Deposit Insurance Corporation. FDIC National Survey of Unbanked and Underbanked Households. http://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf. September 2012. Pg. 14.
73. Federal Deposit Insurance Corporation. FDIC National Survey of Unbanked and Underbanked Households. http://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf. September 2012. Pg. 29.
74. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, p. 31. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
75. Mississippi Economic Policy Center. (2009). Protecting Working Families: Building and Sustaining Wealth. Retrieved from: http://mepconline.org/wp-content/uploads/2011/12/Protecting_Working_Families.pdf
76. Federal Deposit Insurance Corporation. (2012). The 2011 National Survey of Unbanked and Underbanked Households: Unbanked and Underbanked Findings. Retrieved from: http://

economicinclusion.gov/surveys/2011household/banking-status-findings/

77. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Stakeholder Analysis, p. 11. Retrieved from: http://gulfcoastplan.org/wp-content/uploads/2013/01/Stakeholder-Analysis_FINAL.pdf
78. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, p. 51. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
79. U.S. Census Bureau. 2011 ACS 5-year estimates – S0102.
80. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, pp. 10-15. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
81. US Department of Housing and Urban Development. (2013). Fair Housing – It's Your Right. Retrieved from: http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/FHLaws/yourrights
82. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Assessment, pp. 76-77. Retrieved from: http://www.gulfcoastplan.org/wp-content/uploads/2013/09/COMPLETE-HOUSING-ASSESSMENT_20130603.pdf
83. The figures were compiled by adding together the numbers reported for the Gulfport-Biloxi MSA and the Pascagoula MSA. It should be noted that the MSA's encompass Stone County and George County, respectively.
84. Note that BLS Estimates have withheld data at the county level. The midpoint of the category estimates were used from the 2011 BLS County Level statistics.
85. The *Plan for Opportunity* Transportation Subcommittee. (2012). The Mississippi Gulf Coast Public Values Survey. Prepared for the *Plan for Opportunity*. Page 21.
86. Gulf Regional Planning Commission. (2012). Land Use Assessment. Prepared for the *Plan for Opportunity*. Page 6.
87. Gulf Coast Community Design Studio. (2012). Mississippi Gulf Coast Regional Housing Stakeholder Analysis. Prepared for the *Plan for Opportunity*. Page 18.
88. Gulf Regional Planning Commission. (2012). Land Use Assessment. Prepared for the *Plan for Opportunity*. Page 3.
89. Ibid. Page 37.
90. Boyd, K., Hervey, R., & Stradtner, J. (2002). Assessing the Vulnerability of the Mississippi Gulf Coast to Coastal Storms Using an On-Line GIS-Based Coastal Risk Atlas. Ocean, 2, 1127-1133. Page 3.
91. Mississippi Emergency Management Agency. (2010). The State of Mississippi Standard Mitigation Plan. Accessed July 10, 2011 from: http://www.southeastcoastalmaps.com/resources/resources.php, Pages 3-185.
92. Mississippi Department of Marine Resources. (2011). Assessment of Sea Level Rise in Coastal Mississippi. Accessed September 24, 2011

from: www.dmr.state.ms.us/CMP/CRMP/pdfs/2011-slr-final.pdf. Page 30.

93. Mississippi Emergency Management Agency. (2010). The State of Mississippi Standard Mitigation Plan. Accessed July 10, 2011 from: http://www.southeastcoastalmaps.com/resources/resources.php, Pages 3-185.
94. Federal Emergency Management Agency. (2011). National Flood Insurance Program. Flood Insurance Manual Chapter 19. Community Rating System. Page 1.
95. Ibid.
96. Federal Emergency Management Agency. (2006). Hurricane Katrina in the Gulf Coast. Mitigation Assessment Team Report Chapter 9. Mitigation Successes and Best Practices. Page 9-11.
97. Mississippi Engineering Group, Inc. (2007, January 9). Gulf Region Water and Wastewater Plan. Retrieved from http://www.deq.state.ms.us/MDEQ.nsf/page/About_MGRWaterWastewaterPlan2006?OpenDocument
98. IPCC. (2001). Confronting Climate Change in the Gulf Coast Region. Retrieved from: http://www.ucusa.org/assetsdocuments/global_warming/acfxt3p3v.pdf
99. National Ocean Service, NOAA (2008). Gulf of Mexico at a Glance. Washington, D.C.: US Department of Commerce, National Oceanic and Atmospheric Administration.
100. 75 Jacob, J.S. and Showalter, S. (2007) The Resilient Coast: Policy Frameworks for Adapting the Wetlands to Climate Change and Growth in Coastal Areas of the U.S. Gulf of Mexico. Assessed September 30, 2011: http://tcwp.tamu.edu/files/2012/06/ResilentCoastWetlands-sm2.pdf

Mississippi Department of Wildlife, Fisheries and Parks n.d. Estuary and Mississippi Sound. Mississippi's Comprehensive Wildlife Conservation Strategy. Retrieved from: http://www.mdwfp.com/homeLinks/More/Final/Chapter%204.%20Habitat%20Type%2014.pdf

Moncreiff, C.A. (n.d.) Mississippi Sound and the Gulf Islands. Accessed July 8,2011. http://pubs.usgs.gov/sir/2006/5287/pdf/Miss_Sound_Gulf%20Islands.pdf. Page 1.

101. Mississippi Department of Wildlife, Fisheries and Parks. n.d. Estuary and Mississippi Sound. Mississippi's Comprehensive Wildlife Conservation Strategy. http://www.mdwfp.com/homeLinks/More/Final/Chapter%204.%20Habitat%20Type%2014.pdf

Gulf of Mexico Alliance. (2011). Habitat Conservation and Restoration: Gulf Habitat. http://www.gulfallianceeducation.org/edl_conservation_gulf_habitat.php#Coral

102. Mississippi Department of Natural Resources. ( ). Mississippi River Guide. Accessed October 1, 2013 from: http://files.dnr.state.mn.us/education_safety/safety/boatwater/miss_river_guide.pdf. Page 30.
103. United States Environmental Protection Agency (EPA) Residential Construction Trends in America's Metropolitan Regions, Office of Sustainable Communities, Washington DC, December 2012
104. U.S. Energy Information Administration. (2013). "Mississippi State Energy Profile." Web.

105. WLOX. (2011). “Long Beach apartment complex installs wind turbine.” Web.
106. Waste Management of Mississippi, Gulf Coast Area. (2013). “Waste Management of Mississippi, Inc. Pecan Grove Landfill and Recycling Center Landfill Gas to Energy Project.” Web.
107. U.S. Energy Information Administration. (2013). “Selected States Comparison.” Web.
108. *Plan for Opportunity*. (2011).“Mississippi Gulf Coast Food System Assessment.” Web.
109. Ibid.
110. "FORTIFIED Home: Hurricane Financial Incentives." Fortified Home. Insurance Institute for Business & Home Safety, 2013. Web. 18 Sept. 2013.
111. National Trust for Historic Preservation. Ocean Springs, Mississippi Honored with 2013 Great American Main Street Award. (2013, April 14). Retrieved from PreservationNation.org: http://www.preservationnation.org/who-we-are/press-center/press-releases/2013/ocean-springs-mississippi.html#.UmiOyXl3uM9
112. Centers for Disease Control and Prevention. Overweight and Obesity. (2013, August 16). Retrieved from cdc.gov: http://www.cdc.gov/obesity/data/adult.html
113. American Diabetes Association. The Burden of Diabetes in Mississippi. (2010) Retrieved from diabetes.org: http://www.diabetes.org/in-my-community/local-offices/jackson-mississippi/mississippi-diabetes.html
114. Mississippi State Department of Health. 2011 Heart Disease and Stroke Facts. (2011) Retrieve from msdh.ms.gov: http://msdh.ms.gov/msdhsite/_static/resources/5273.pdf
115. Feeding America. Map the Meal Gap.(2011) Retrieved from FeedingAmerica.org: http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx
116. Economic Research Service (ERS), USDA. (October 2002). Indicators. Access and Proximity to Grocery Store. In Food Environment Atlas Documentation. Retrieved from http://ers.usda.gov/FoodAtlas/documentation.htm#percenthh2006
117. State of Alabama. (July 7, 2010). Deep Water Horizon/Mississippi Canyon 252.: Alabama Unified Command Briefing. Retrieved March 16, 2011 from http://ema.alabama.gov/filelibrary/SituationReport/DEEP_WATER_HORIZONSITRPT_July_04_WEBSITE.pdf
118. Mississippi Department of Wildlife, Fisheries and Parks. (2005). Mississippi’s Comprehensive Wildlife Conservation Strategy. Accessed August 3, 2011: http://home.mdwfp.com/ContentManagement/Html/htmldownload.aspx?id=281#strategy
119. National Oceanic and Atmospheric Administration (2010) National Survey on Recreation and the Environment (NSRE) 2000 - Current Participation Patterns in Marine Recreation. Retrieved on July 22, 2011 from the NOAA’s National Ocean Service website, http://egisws02.nos.noaa.gov/socioeco/genericProfile.html?datasource=nsre2000

120. Mississippi Department of Wildlife, Fisheries and Parks (2008, October). Statewide Comprehensive Outdoor Recreation Plan. Retrieved from http://www.smpdd.com/data-center/scorp.html
121. Ibid.
122. Mississippi Commission on Environmental Quality (2011). State Of Mississippi Water Quality Criteria For Interstate, Intrastate and Coastal Water. Mississippi Department Of Environmental Quality Office Of Pollution Control. Jackson, MS. 8.
123. Mississippi Department of Wildlife, Fisheries and Parks. (n.d.) Estuary and Mississippi Sound. Mississippi's Comprehensive Wildlife Conservation Strategy. http://www.mdwfp.com/homeLinks/More/Final/Chapter%204.%20Habitat%20Type%2014.pdf
124. Ibid.
125. U.S. Fish and Wildlife Service (n.d.) Mississippi Ecological Services: http://www.fws.gov/mississippiES/endsp.html
126. Coast Transit Authority. (n.d.). ADA Plus Brochure. Retrieved from Coasttransit.com: http://coasttransit.com/special-programs/ada-paratransit-plus/
127. US Department of Housing and Urban Development. (n.d.). Promoting Fair Housing. Retrieved from HUD.gov: http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/promotingfh
128. Federal Communications Commission. (2012, May 8). Getting Broadband. Retrieved from fcc.gov: http://www.fcc.gov/guides/getting-broadband
129. National Business Incubator Association. (2009). What is Business Incubation? Retrieved from nbia.org: http://www.nbia.org/resource_library/what_is/index.php
130. Barbour, G. H. (2011). Press Release. Grant Assistance Available to Coastal Homeowners. State of Mississippi Department of Finance Administration.
131. US Department of Housing and Urban Development. (n.d.). Community Development Block Grant Program - CDBG. Retrieved from HUD.gov: http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs
132. Federal Emergency Management Agency. (2013). Community Rating System. Retrieved from FEMA.gov: https://www.fema.gov/media-library/assets/documents/15846
133. Federal Transit Administration. (2013, February). Demand Response Service Explained.
134. United States Environmental Protection Agency. (2013, September 11). GreenChill Partnership. Retrieved from epa.gov: http://www2.epa.gov/greenchill
135. United States Department of Agriculture. (2013, Sept. 4). Food Security in the US Overview. Retrieved from usda.gov: http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us.aspx
136. Gulf Coast Fair Housing Center. (n.d.). The Center. Retrieved from Gulf Coast Fair Housing Center: http://www.makeitfair.com/about/the-center/

137. Gulf Coast Renaissance Corporation. (n.d.). About Us. Retrieved from Gulf Coast Renaissance Corporation: http://www.msgcrc.com/about.html
138. Federal Emergency Management Agency. (2013, October 23). Hazus. Retrieved from FEMA.gov: http://www.fema.gov/hazus
139. Hope Enterprise Corporation. (n.d.). About Us. Retrieved from hope-ec.org: http://www.hope-ec.org/index.php/about-us
140. United States Environmental Protection Agency. (2013, September 11). Impaired Water and Total Maximum Daily Loads. Retrieved from water.epa.gov: http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/
141. Sustainable Cities Institute. (2012). Urban Infill: Overview. Retrieved from sustainablecitiesinstitute.org: http://www.sustainablecitiesinstitute.org/view/page.basic/class/feature.class/Lesson_Urban_Infill_Overview
142. Mississippi Windstorm Underwriting Association. (2008). Manual of Rules and Procedures.
143. US Census Bureau. (2013, Sept. 13). North American Industry Classification System Frequently Asked Questions. Retrieved from census.gov: http://www.census.gov/eos/www/naics/faqs/faqs.html#q1
144. United States Environmental Protection Agency. (2012). No Discharge Zones. Retrieved from water.epa.gov: http://water.epa.gov/polwaste/vwd/ndz.cfm
145. Mississippi Department of Natural Resources. (n.d.). Mississippi River Guide. Accessed October 1, 2013 from: http://files.dnr.state.mn.us/education_safety/safety/boatwater/miss_river_guide.pdf. Page 30.
146. Kirwan Institute for the Study of Race and Ethnicity. (2013). Opportunity Mapping Initiative and Project Listing. Retrieved from kirwaninstitute.osu.edu: http://kirwaninstitute.osu.edu/opportunity-communities/mapping/
147. US Department of Housing and Urban Development. (n.d.). Predator Lending. Retrieved October 6, 2013, from HUD.gov: http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/pred/predlend
148. Federal Emergency Management Agency. (2007). Repetitive Loss. Retrieved from FEMA.gov: http://www.fema.gov/media-library/assets/documents/11353
149. Gulf Coast Ecosystem Restoration Council. (2013, May 23). Gulf Coast Ecosystem Restoration Council releases Draft Initial Comprehensive Plan: Restoring the Gulf Coast's Ecosystem and Economy. Retrieved from RestoreTheGulf.gov: http://www.restorethegulf.gov/release/2013/05/23/gulf-coast-ecosystem-restoration-council-releases-draft-initial-comprehensive-pla
150. Steps Coalition. (n.d.). About. Retrieved from stepscoalition.org: http://www.stepscoalition.org/?page_id=4
151. US Department of Energy. (2013, June 11). Truck Stop Electrification for Heavy-Duty Trucks. Retrieved from energy.gov: http://www.afdc.energy.gov/conserve/idle_reduction_electrification.html

Appendix I

Photographs Cited

Name	Page(s)
Alex Beim	70, 88, 192
Amanda Meddles	102
Ambler Cackler	157 (top)
Angel Arroyo-Rodriguez	107, 120
Ben Requet	Cover, 15, 16, 17, 18
Bernadette Hanlon	26
Brittany Kubinski	58, 62, 129, 137, 193
Corrin Hoegen Wendell	22, 43, 84, 91, 105, 110, 115, 124, 130, 131, 165
Ellis Anderson	65
Eri Ichikawa	157 (bottom)
Greg Overberg	53, 152 (right)
Hancock County Development	121
iStockPhoto	1, 5, 21, 32, 34, 37, 39 (top), 45, 54, 90, 106 (top), 114, 158, 160, 166, 167, 168, 195, 204, 217, 220, 233, 243
Jennifer Evans-Cowley	40, 71, 139, 151, 163, 190
Jennifer Noll	77, 154
Jennifer Silcott	41, 50, 119
Joshua Bates	94, 191
Jim Melka	52
Kelsey Johnson	39 (bottom), 63, 140, 209
Neetika Wahi	85
Pei-Yu Chang	152 (left)
Robert Lemon	127, 134

Name	Page(s)
Ronni Nimps	51, 67, 87, 118, 146, 150, 189, 194
Stephanie Plancich	49
Stuart Davidovich	96
Tatiana Parfenova	32
Todd Mills	76, 95, 103, 106 (bottom), 108
Unknown	2
Whitney Airgood-Obrycki	59, 60, 66, 73, 99