

April, 2011



# Mississippi Gulf Coast Food System Stakeholder Analysis



## The Gulf Coast Plan

The Gulf Coast Plan is a collaborative planning project intended to guide the economic growth and development of the Mississippi Gulf Coast and to improve housing, employment and transportation opportunities throughout the region. The three year planning process will be guided by the Constituency for a Sustainable Coast (CSC), a group of stakeholder committees which will be organized and expanded over the course of the plan to include city and county leadership, key community and public partners, and residents of the region. The food systems working committee is charged with examining how the region's food system can be used to support increasing economic competitiveness, support existing communities, leverage federal investment and value communities and neighborhoods. To support the work of the food systems working committee, this stakeholder analysis has been undertaken to provide important perspectives on the challenges and opportunities facing the food system.

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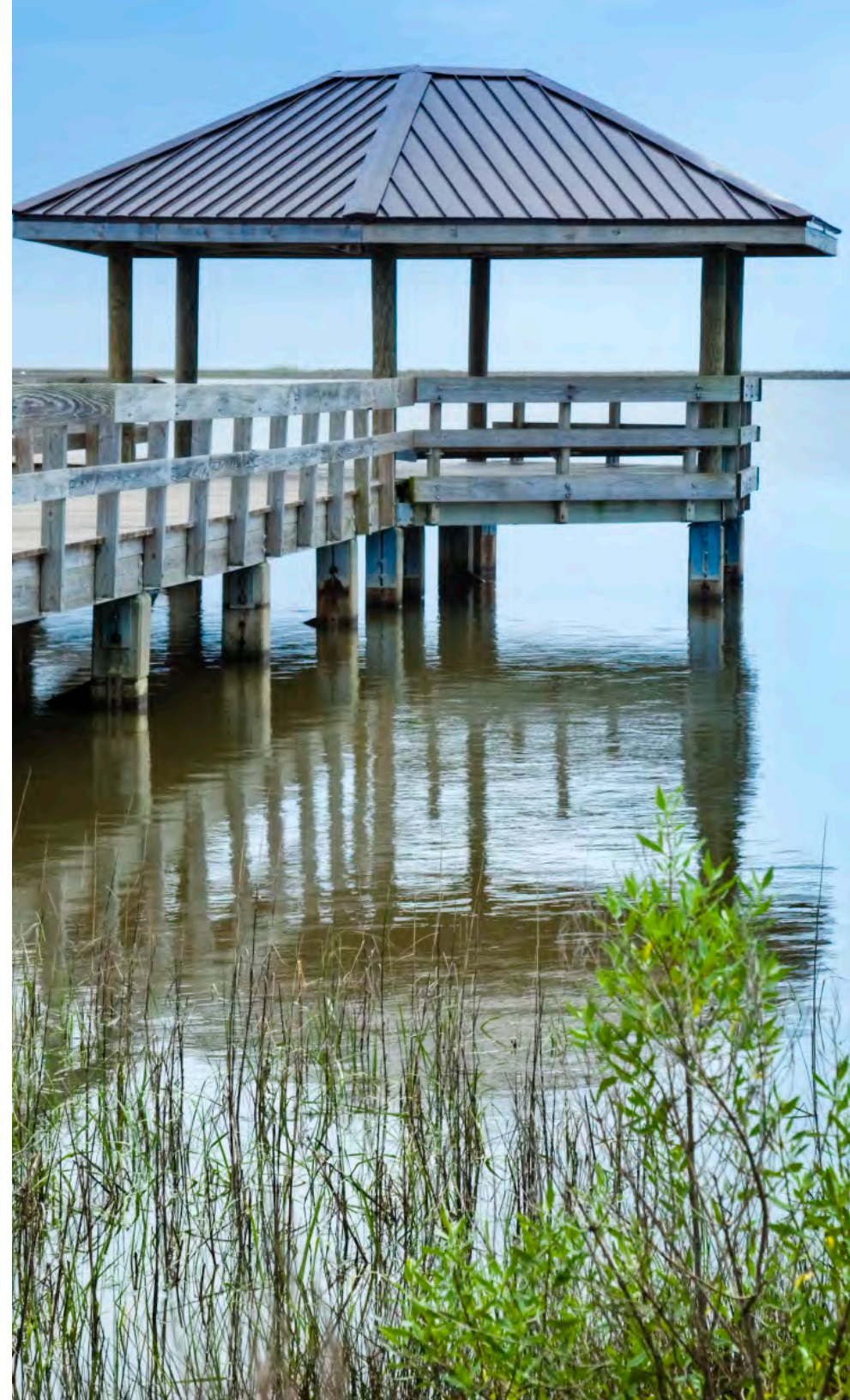
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## Introduction

A stakeholder assessment was conducted to gain local knowledge into relevant resources, challenges, and opportunities for the 100-mile foodshed. Stakeholders throughout the food system—producers, processors, distributors, educators, retailers, consumers, and waste managers—were interviewed between January and April 2011 to compile a comprehensive understanding of the Gulf Coast’s current food system and its future. This analysis summarizes efforts to engage in discussions around the food system as part of The Gulf Coast Plan.

## Purpose

The goal of the engagement effort was to understand the entire cycle of the regional food system from production to plate and the disposal of waste. The Mississippi Gulf Coast food system is large and complex. The individuals and organizations directly involved in and affected by the food system are the best sources to explain who is doing what, when, where, and how. These stakeholders provided the stories that help explain the data included in the Mississippi Gulf Coast Food System Assessment. They provide the context for changes throughout the foodshed, its future challenges and opportunities, and creates a context for the The Gulf Coast Plan food element.

## Methodology

The first step in understanding the entirety of the food system was to concentrate on the relationships between producers and consumers. This relationship encompasses the production to plate story; what food is produced in the foodshed, how it is prepared for sale, where it is purchased and by whom. Stakeholder engagement included meetings with farmers, fishers, processors, wholesalers, distributors, retailers, farmers markets, community gardens, food pantries/food banks, educators, consumers, environmental protection organizations and regulatory agencies.

The second step was to identify the waste stream throughout the food system. In this context, the waste stream includes both inedible food scraps and non-salable edible products. Diversion



Source: Jennifer Evans-Cowley

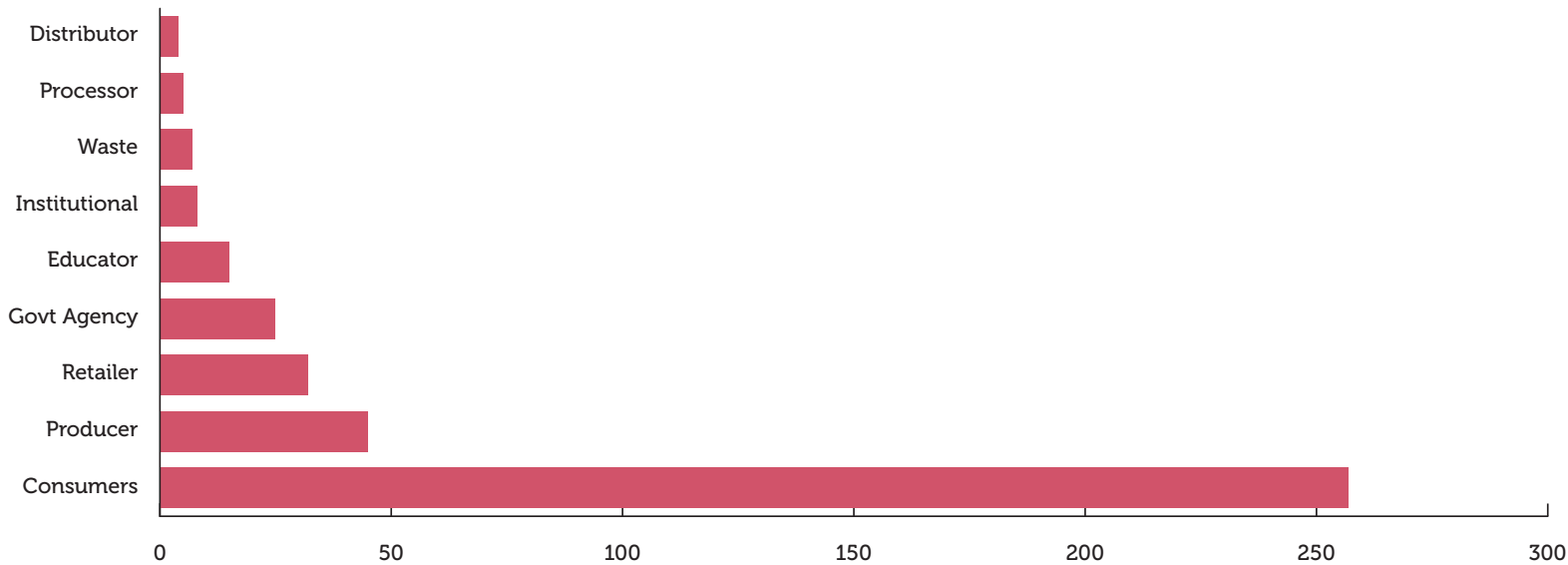
*Charter boat captains reported that the oil spill has reduced demand for recreational fishing due to concerns about seafood safety.*

of edible foods to food banks and inedible refuse away from landfills is an important component of a sustainable food system. Stakeholders involved in this aspect of the foodshed include farms, processors, distributors, solid waste authorities, food banks, consumers, and regulatory agencies.

The results of this analysis are organized by the stakeholder’s position in the food system: production, processing, distribution, markets, consumers, and waste disposal.

Key government agencies involved in the food system were contacted to begin the stakeholder engagement process. These agencies provided insight on stakeholders within the categories listed above. Participating agencies include the Mississippi Department of Agriculture and Commerce, Mississippi Department of Environmental Quality, Mississippi Department of Health, Mississippi Department of Marine Resources, Mississippi Department of Wildlife and Fisheries, U.S. Department of Agriculture, and the U.S. Environmental Protection Agency. The Mississippi State University Agricultural Extension and Coastal





**Figure 1**  
**Number of stakeholders engaged by group**  
**Source:** *The Constituency for a Sustainable Coast*

*Note: A number of stakeholders can be associated with multiple groups. Stakeholders were classified based on their primary role for the purposes of the interview questions.*

Research and Extension Center also provided valuable insight into the food system and its relevant stakeholders.

Individual interviews and group meetings were arranged with the stakeholders identified in part by the government agencies. In many cases, the stakeholders themselves identified other pertinent stakeholders. Consumers were engaged through visits to farmers markets, talking to bus riders, an in-school event, and informal conversations at restaurants and other food outlets. Through this organic process, the total numbers of participating stakeholders grew to exceed 400 individuals, see Figure 1. The majority of the stakeholders are located in the three coastal counties, see Map 1. Where possible, stakeholders were contacted in the broader foodshed, particularly as it related to the production of agriculture and aquaculture. While not every stakeholder in the food system could be contacted, a diversity of representatives were included to inform The Gulf Coast Plan. A complete list of organizations and individuals involved in this process are available in Appendix A.

Face to face interviews were undertaken where possible and constitute 98 percent of all stakeholder interactions. Other communication efforts include telephone and e-mail correspondence. In many cases, telephone calls and e-mail were used to clarify information provided during an individual or group interview. During these individual and group interviews, stakeholders were asked about their role in the food system and their perspectives on the challenges and opportunities to improve the food system at their level. A survey was undertaken asking consumers about their preferences for whether they purchase seafood

## Findings

The Mississippi Gulf Coast Food System is complex. In order to understand this complexity, the food system is presented as a series of steps including production, processing, distribution, markets, consumers and waste management. Stakeholders identified critical issues, challenges and opportunities in each



*Small scale producers raised concerns about state requirements for commercial kitchens making it difficult to sell low risk value added products such as jellies.*

step in the food system which are summarized on the following pages.

## Production

The starting point for any food system is the production and harvesting of raw products from the natural environment. In the 100-mile foodshed, these products originate from water and land sources. Fresh and saltwater species are either farm raised or wild caught in artificial ponds, tanks, rivers, ponds, or coastal waters. Many freshwater species are aquaculture products including catfish, crawfish, gamefish and tilapia. While the locally-sourced marine species popular in the foodshed—shrimp, crab, oysters and finfish—are wild caught. Land-based inputs are sourced from produce, grain and livestock farms.

### Aquaculture

The aquaculture farms of Mississippi are the highest value in the United States, primarily from catfish. However, some stakeholders were skeptical of the industry's future importance due to the high cost of food and low market prices for catfish. Within the

foodshed there is a Tilapia farm. Tilapia fillets are imported because domestic production costs are too high to be competitive on the global market. There is significant market opportunity for Tilapia in the live fish market, with current Mississippi production being shipped to New York for consumption. However, there is significant challenge in marketing live fish for consumption in Mississippi.

### Seafood

Marine seafood is an important piece of the foodshed's culture and economy, and future viability of the industry is largely dependent on maintaining a healthy environment. Estuary health was recognized as a major concern among stakeholders because it serves as the nursery for the majority of commercially significant species. The MDMR's Living Shoreline initiatives serves as an example of an effort to protect estuary health by replacing concrete seawalls with biodegradable material reinforced by vegetation. With the National Oceanic and Atmospheric Administration currently considering rules for mariculture in federal waters, stakeholders expressed concerns about the potential environmental impacts of such operations.

recognized that income from direct sales are limited. Many vendors at farmer's markets were either leisure gardeners or small producers interested in social interaction. Medium and large scale farmers did not see direct sales as a viable source of income.

Larger farms collect their income through sales to wholesalers or directly to large retailers when possible. Farmers operating at this scale identified opportunities for food diversion at this point in the food system; produce not salable to wholesalers could be sold at farmers markets or diverted to food banks. Farmers felt that, with this infrastructure in place, they could operate at multiple scales and better connect with the local food economy.

Farmers identified a lack of local or regional meat processing plants as a prohibitive factor to increasing consumption of local livestock. Some small scale facilities exist, but farmers interviewed lived nearly hundred miles from a large slaughterhouse, and are often put on waiting lists for several days before they can bring in their livestock. Not only can this affect the optimal weight of the animal at time of slaughter, but it incurs high costs of transportation and lodging for farmers. Having to rely on large processing facilities in other states inhibits the farmer's ability to market a high-quality, local meat product to consumers within the region. Farmers were confident the demand for quality local meat products by consumers and/or businesses who wished to purchase it (whether by whole cow or side cow) was such that they would have no difficulty is selling their product if they had a more convenient means of processing their products.

Area farmers also face challenges that are common among farmers across the U.S.: an aging agricultural workforce, high cost of entry for new farmers, immigrant labor, and the conversion of agriculture land to more lucrative uses such as forestry or urban development. Farmers cited changes in immigrant labor rules as a serious challenge. For labor intensive crops, farmers rely on immigrant labor and they feel that placing the burden on the farmer for hiring an illegal immigrant who provided false documentation is unfair. As the region continues to urbanize, stakeholders expect these challenges to increase. In addition, large-scale farmers are not likely to switch from subsidized



Source: Jennifer Silcott

## School Children's Perspective on the Local Food System

In March 2011, the gifted third grade class of W.J. Quarles Elementary School in Long Beach hosted an event to help students learn about the sustainability of the food system. Their teacher, Mrs. Carol Paola, believed the curriculum was a nice complement to the students' recent social studies work. Students were led in a discussion of food, why it is important to know where it comes from and what some of the advantages of having a local food source are.

With the attention turned towards food the students were asked about where their parents buy their food, and how they get to the store. Most of the students went by car. All of the students reported that their parents hunted or fished and they get to eat the catch. Many of the students held hunting licenses themselves. Students were also asked about recycling and composting. Only one student said that his parents composted, but most students know what composting is.

Students also brainstormed a list of things vital to a community. All students included roads, grocery stores, banks and expressed interest in community gardens and greenhouses. Some, however, felt that sugar factories and circuses were equally relevant to a community's well being. Overall, the students were able to demonstrate how the production, distribution and disposal of food can be incorporated into their own community.





Source: Benjamin Kerrick

## Perspectives from Food Scraps Stakeholders

A food scraps management stakeholder meeting was held to bring together stakeholders representing waste hauling, schools, restaurants, area military bases, and extension services.

It was noted that while landfill stress is a motivating benefit in some other parts of the country, it is not an effective factor in this region because there is ample landfill space for the foreseeable future. A common theme that came up with many stakeholders is the psychological or attitude barriers relating to waste. The need for education about food waste and incorporating it into the public dialogue around food and sustainability were identified as potential steps for addressing this barrier.

Prohibitive or discouraging regulatory frameworks were also cited as a major barrier. The Mississippi Department of Environmental Quality (MDEQ) is currently exploring ways to update regulations relating to composting of food waste. Likewise, a proposed Long Beach ordinance would allow composting of yard waste but specifically prohibits food scrap composting. Involving government stakeholders in further dialogue, as suggested during the stakeholder meeting, could help mitigate regulatory barriers.

The region lacks facilities for handling food waste, a likely result of the problematic regulatory framework. Novo Terra, the only food waste hauler operating in the region, must haul collected waste to a composting facility in Louisiana. Until the stakeholder meeting, Keesler Air Force Base was separating – but landfilling – food scraps, unaware of infrastructure for handling the scraps. Adjustments to existing regulations could allow or encourage new waste handling facilities in the region, create jobs and products, and provide new waste management options, all of which were potential benefits identified by our stakeholders

Finally, many stakeholders identified the creation of financial incentives as a necessary step in changing the way the region handles its food waste. Kick starting innovation with tax incentives, grant programs, or other investment could support new projects and push the region’s waste management in a new direction. As one stakeholder put it, waste management must be economically feasible or it will not happen.

The meeting concluded with a discussion of which state or local agencies should be involved and what immediate steps should be taken. Agencies discussed included chambers of commerce, school systems, faith-based groups, planning departments, and various regulatory and permitting bodies, such as MDEQ, USDA, USEPA, and the Department of Health. Immediate steps included the sharing of contact information to continue dialogue and promoting communication in the area. Creating communication networks and fostering information sharing can lead to new partnerships, such as that between Novo Terra and Keesler, to help in “closing the loop” of waste. Stakeholders are committed and engaged in their sectors, and open to new ways of working, but do not often have the time or resources to seek out or create new collaborations without a framework for doing so.

Throughout the stakeholder process, large managed institutions were recognized as valuable starting points for diverting food waste. Hierarchical management and efficiencies of scale mean that new waste practices can be successfully implemented with relative ease, compared to, for example, households or independent restaurants. Keesler Air Force Base, in pursuit of the federal government’s goal to divert 40 percent of all waste, has made significant strides toward that goal in just a few months of concerted effort. Continuing to engage and highlight interested institutions will be crucial in changing waste management practices in the region.