



Savor the Coast:

A Recipe for a Sustainable Coast

September 2011

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This is a Working Document that has been approved by the Working Group and the Executive Committee. Working Documents provide information and recommendations that guide the on-going discussions and preparation of the final plan; these are not final plan documents. Once the draft final plan has been prepared, it will brought to the public through various outreach activities and reviewed by the various planning committees before the Executive Committee votes on adopting as the Final Plan for Opportunity.



The Plan for Opportunity

The Plan for Opportunity 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 stakeholder working committee including city and county leadership, key community and public partners, and residents of the region. The food systems subcommittee 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. The food systems subcommittee has prepared the following recommendations to support the sustainability of the region's food system.

FOOD SYSTEMS SUBCOMMITTEE

Aletha Burge, United Way

Ralph Hode, Gulf States Marine
Fisheries Commission

Kelvin Jackson, Harrison County

Mark Williams, Mississippi Department of Environmental Quality

PROJECT MANAGER	STUDENTS	
Jennifer Evans-Cowley PhD, AICP	Pei-Yu Chiang	Emily Moser
	Feifei Hu	Jonathan Nutt
TEAM LEADERS	Eri Ichikawa	Megan O'Connor
Angel Arroyo-Rodriguez, AICP	Ben Kerrick	Greg Overberg
Bob Cowell, AICP	Jim Melka	Jaime Pujol
Jill Clark, PhD	Amanda Meddles	Jennifer Silcott





Source: Jennifer Evans-Cowley

Goal 1: Support access to healthy food for all community members

Current Status:

Throughout the Mississippi Gulf Coast there are neighborhoods that have inadequate access to stores that sell fresh food. Stakeholders identified the need to expand access to fresh food items. Following Hurricane Katrina many grocery stores did not return, leaving neighborhoods without convenient access to grocery stores. Residents may shop at corner stores, but these stores often lack fresh food and when they have fresh food it is typically much more expensive than what one can find at a grocery store. The result is a food insecurity rate of 17 percent across the coast. Food banks and pantries noted that they do not have adequate donation of fresh food items, while grocery stores and distributors reported that they have a significant amount of edible food waste that is sent to landfills. The incidence of obesity and diet related diseases has been on the increase, with more than 11 percent of preschoolers in coastal counties who are obese.² School districts reported that they would like to

include more fresh local food items, such as fish, as part of school lunches. There are positive efforts, such as the Farm to School program, local farmers markets and health education programs that seek to support the needs of the regions.

Objectives:

- Enhance consumer access to healthy food
- Expand food diversion to food banks and food pantries
- Support the production of healthy food

Indicators:

- Increase fruit and vegetable consumption
- Decrease the portion of the population experiencing hunger
- Decrease in diet-related diseases
- Increase the volume of food available through food banks

Recommended Strategies:

1. Encourage crop diversification on farms

To diversify crop production in the foodshed, this project would encourage farmers to transition land to a greater variety of crops to adapt to changing weather patterns. For example, instead of a farmer producing 500 acres of soybeans, he or she could transition some land to vegetable and citrus fruit production. Farmers interested in transitioning crop production will need education to learn best practices in production, which can be provided by MSU Extension. This program will allow farmers to produce more value-added crops, support increased access to healthy foods for the regions residents, and minimize risk of system wide crop failures. Along with this, people should be able to access organic produce if they want to. In 2011 NRCS created the Mississippi EQIP Organic Initiative. This program offers funding for various practices in organic farming. There was only one applicant for this program. Many people see the regulatory requirements of organic farming to be overwhelming. This program can help cover costs to those transitioning into organic production, easing the expense of the process. The program was solely for 2011 and needs to be continued into the next several years in order to successfully establish more organic farms in the Gulf Coast.

2. Advocate for expanded redemption of SNAP and WIC benefits at retail and farmers market outlets.

Currently, SNAP and WIC benefits may be redeemed through farmers at farmers markets. However, farmers believe it is a difficult process to obtain approval to accept benefits. Farmers market managers would prefer to be able to receive benefits allowing beneficiaries to redeem their benefits at any farm stand. There are currently five WIC distribution centers located in the three coastal counties that are open Monday through Friday from 8am-5pm. Mississippi does not allow WIC participants to purchase items using their benefits outside of WIC distribution centers. WIC has plans to move to a retail store redemption system by 2020. By allowing WIC benefits to be redeemed at retail stores, WIC participants can shop without restrictions of getting to the distribution center location during specific times. SNAP and WIC programs should be expanded to allow for the purchase of heating fuels such as charcoal, allowing those without a kitchen a way to prepare food. The region's leaders should advocate for expanded redemption capabilities.

3. Establish a Local Food Distribution Program

To support the distribution of fresh food to food insecure neighborhoods a Local Food Distribution program would deliver fresh locally harvested/caught food directly to neighborhoods. An organization of farmers and fishers would pool their fresh food and this would be distributed in market boxes for households. Households would signup to receive a weekly box of food. Consumers could pay for the boxes using SNAP benefits or with another form of payment. This program would allow farmers to receive better prices while consumers receive better quality and value. The distribution service would operate with a few paid staff and many volunteers (who could be compensated with a market box).

4. Amend zoning ordinances to accommodate the food system

Amending local zoning ordinances to support food production and sales will enhance access to nutritious food. Several of these practices, including community gardens and organic composting pose very few nuisances and could be encouraged by permitting them in all zones, with some limitations. Local governments can evaluate the restrictions on keeping livestock, fowl, and bees and determine areas where it would not be a nuisance. This can be done by reducing the amount of land required for livestock, increasing the number of fowl permitted, or permitting limited beekeeping in residential areas and/or near community gardens. One method of encouraging local production would be to create a use category for urban agriculture, which would include community gardening, raising of animals, composting, and farmer's markets. Landscaping requirements should permit the use of edible landscapes. The urban agriculture use can be applied to medium-scale residential districts, business districts, and other zones as a conditional use. Protecting working waterfronts will promote a vibrant commercial fishing industry and restrict development near productive waters. Uses should be restricted to commercial harvesting of marine organisms and saltwater products by licensed fishers, and structures such as wharves, docks, piers, and facilities enabling the sale of Mississippi Sound harvested products should be permitted. Areas should be designated for the processing, distribution, and retail sales of seafood. Buildings in commercial areas should permit indoor agriculture and aquaculture. Sales of fresh food from vehicles should be permitted on private property along major roadways and encouraged in underserved food deserts. Zoning for food production promotes food security and provides potential sources of income.

5. Expand permitting of food sales

Permitting the sale of fresh, local foods from mobile vehicles and farm stands increases access to healthy foods and provides a source of income for the grower. To facilitate the sale of local, homegrown foods, farm stands should be permitted near garden sites, and language of the ordinance should not prohibit the selling of such goods from the home under certain conditions. Permitting food sales from community gardens and edible landscapes promotes food security and provides a potential source of income. Sales from vehicles should be permitted on private property along major roadways.

6. Create a Surplus Food Matching Service

The surplus food matchmaking website will allow food suppliers (including retailers, producers and distributors) to post available food that can be picked up. Food banks, food pantries and soup kitchens can check the website and arrange to pickup the surpluses, as well as posting 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. The website could start as a directory for donors and recipients and grow to a daily posting of available items.

7. Create and implement a Fresh Corner Store Program to ensure fresh food access in food insecure neighborhoods

The Fresh Corner Store Program would provide financial incentivesforfoodstores, intargeted food insecure neighborhoods, to stock fresh food items. Incentives could include the provision of energy-efficient refrigeration units, such as those endorsed by USEPA's GreenChill program, to allow a food store to stock fresh items. In 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.

8. Advocate for the Harrison County Farm to donate farm products to food banks

This program would allow food produced at the Harrison County farm to be collected by the region's food banks. The Harrison County Farm has the potential to feed 1,200 to 1,500 people daily off of 30 acres of land. Current regulations state the over-crowded jails are not allowed to utilize the work center and Harrison County has an overcrowded jail. They only need two inmates for planting but need at least 20 for harvesting. Last year they had to plow under acres of produce because they did not have help to harvest and could not get many hunger organizations to come out. They would like to get back into full production to feed the prison inmates and, with excess produce, local institutions and food banks. Until the jail is not overcrowded, an interim solution would create a volunteer base to assist in harvesting the food to benefit the region's food banks. The surplus food matching website could also be used to identify harvesters

9. Establish a Healthy Food Financing Initiative to assist businesses in expanding into food insecure neighborhoods.

The healthy food financing initiative would provide financial, technical and development assistance to food store operators who wish to open stores in food insecure neighborhoods that do not have the market to attract a standard supermarket. 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 USEPA's GreenChill program.

10. Launch a Grocery Store shuttle from food insecure neighborhoods to grocery stores.

To expand access to grocery stores in food insecure areas, a grocery shuttle would run a regular service from these neighborhoods to grocery stores. This shuttle could be operated either by CTA or by 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. This would allow service of a portion of the region each day.



Source: Jennifer Cowley

11. Develop resilient buildings for food distribution centers

During a disaster, many food pantry distribution centers become a disaster resource center. All donations of food and supplies come to the locations and people can come and directly pick up needed resources. It has been mentioned that many are in low lying areas or not built to standards to withstand hurricanes. Many were destroyed or inaccessible during their greatest time of need. Distribution centers that are best suited in case of natural disasters should be identified. Where needed, these should be retrofitted to withstand a strong storm.

12. Create a community kitchen

Create a community kitchen where those without a kitchen could have storage lockers, where they can store food, and kitchen facilities that would allow for meal preparation. Along with this facility, support services such as nutrition counseling and cooking demonstrations could assist in identifying very low cost meal alternatives.



Source: Greg Overberg

Goal 2: Foster connections between stakeholders

Current Status:

The Mississippi Gulf Coast's food system currently demonstrates positive but limited existing collaboration among stakeholders, with the potential for many more connections. As with any food system, partnerships within and between food sectors here present a significant opportunity for innovation, increased access, economic growth, and environmental sustainability. Many of the obstacles cited by stakeholders can be addressed through stronger connections. Stakeholders identified the need for increased communication with regulators, focused direct marketing efforts, and infrastructure for food waste diversion as examples of simple connections that could be made to bridge gaps in the food system and to optimize productivity, efficiency, and growth.

Objectives:

- Support local food entrepreneurs
- Improve producers' and consumers' access to markets
- Amplify communication among stakeholders
- Educate consumers about the food system

Indicators:

- Increase the number of food businesses
- Increase the poundage of seafood landings
- Reduce site violations by fishers
- Achieve Marine Stewardship Council certification

Recommended Strategies:

1. Establish a Regional Food Policy Council

The Mississippi Gulf Coast Regional Food Policy Council would work to implement many of the other strategies outlined in this plan element. The Council would work to solve locally relevant issues related to improving healthy food access, affecting food-related policy at multiple levels of government, promoting public health, fostering connections between different sectors of the food system, and providing a voice to those underserved by the current food system.

The Food Policy Council would be comprised of volunteer members who represent the full range of food system activities: producers, processors, distributors, and waste management.

Within the Council there would be task forces engaged in working on different projects. For example, this would include:

Food Waste Task Force: This task force would help to coordinate, communicate and advance food waste diversion on the coast. The task force could also administer the surplus food matchmaking website.

Matchmaking Task Force: This task force would identify ways to capitalize on the existing resources of the region through matchmaking. For example, opportunities might be explored for products that often go to waste, such as overripe blueberries, by connecting berry producers with juice producers, cheese makers, breweries, and bakers to create value added products. New relationships can lead to innovative products, more efficient food systems, and an improved food economy.

2. Start a School to Farm and Sea Program

The Youth Farming program provides the opportunity for urban students to engaging in farm and sea activities through internships in the field. Students get to explore career opportunities in agriculture and seafood, while farmers and fishers gain access to labor. This may be a once in a lifetime chance for students to get an in depth look at where their food comes from and explore a crucial part of their lives that many take for granted every day. This would allows students to benefit from being informed food consumers. Schools would distribute lists of farms and fishers with job opportunities and students would apply directly with

the farm.

3. Expand the reach of the Mississippi MarketMaker Program

The Mississippi MarketMaker program connects buyers and sellers of local products through an online database. Businesses, producers, processors and consumers can post what they have for sale or what they are in need of. It is an easy tool to connect local people and increase the use of products produces in the region. MSU Extension is already dedicating a small percentage of time towards this program and are seeking funding to hire a part time extension associate to assist with this program more. As the program grows, a focus should be placed on reaching out to producers and processors to grow the database.

4. Target food businesses for economic development.

Local food businesses would be a target for economic development. Loans and grants would be available to support the startup and/or expansion of local food-related businesses. The program would emphasize business development that focuses on sourcing locally to the greatest degree possible.

5. Create a vendor guidebook

A direct market guidebook would assist small scale producers in understanding the regulations and permits required to sell directly to the public. It would also provide information on how to become eligible to accept SNAP and other benefits programs. This could be combined with a small grant program to encourage proper permitting of food entrepreneurs. Successfully integrating producers and other food entrepreneurs into existing markets will shorten the local supply chain, strengthen the bond between fishers and consumers, and encourage local consumption. Guides should be multilingual, incorporate intuitive visual graphics and be locally produced.

6. Expand information resources for fishers

The Department of Marine Resources offers phone-in hotlines site conditions for oyster and shrimp harvesting in English. This service can be expanded to other languages to support the diversity of the fisher community. Over time these alerts can be expanded to offer mobile device text alerts or a mobile app to allow for increased access across multiple communication



Source: Jim Melka

mediums. Information should also be visually communicated for fishers with low literacy. These can be featured on the webpage in a user-friendly interface accessible to non-native and native English speakers alike.

7. Guide the future of the seafood industry

The Gulf Coast seafood industry must work together to adapt to changing conditions. For example, many major seafood retailers are turning to third party certification programs to assure their customers of seafood safety and quality. Identification of additional locations for fishing boats to dock should be a priority. The Gulf Coast should seek third party certification to ensure access to major retail outlets. Another topic for discussion is privately leasing oyster beds, which is uncommon in Mississippi State waters. Private leases are thought by some experts to be an important component in conservation and water quality improvement. Finally NOAA is developing a policy to guide large-scale open sea aquaculture operations in federal waters. Although the Gulf of Mexico currently has a comprehensive open sea mariculture policy from the Gulf Coast Fisheries Management Council, changes in federal policy indicate that expanding the

mariculture industry in the United States is a priority.

In order to address these challenges and opportunities, round-table discussion between stakeholders throughout the seafood supply chain should be held to discuss the future role of mariculture in the region and to identify barriers to implementing sustainable harvesting and processing practices. Stakeholders may include, but are not limited to, regulatory agencies, seafood processors, fishers, distributors and consumers. The Regional Food Council should take the ideas and knowledge generated from these discussions and advocate for the necessary policy level changes to prepare fisheries for certification and to prepare for an increase in mariculture activity in federal waters.

8. Establish a Sea to School Program

The Sea to School concept that brings fresh locally caught low allergen fish into school lunches. Schools would subscribe to participating fishers and receive a weekly or biweekly allotment of fresh seasonal seafood. This program would useful during times of increased seafood consumption such as Lent. This initiative could expand to include hands on education opportunities for

students.

9. Expand Food Business Incubators

To support food entrepreneurs, expanding the number of food business incubators, such as the Innovation Center in Biloxi would provide facilities and technical support to startup their business.

Certified commercial kitchens would allow food entrepreneurs a space to prepare their food products. The space would also provide an environment for food entrepreneurs to receive technical assistance, network and exchange ideas. The local market would be a direct outlet for businesses and serve as a hub and nexus for the region's food system, with on-site production, processing, education, retail, and sustainable waste practices. Combining elements of public market, commercial kitchen, business incubator, and culinary tourism destination, the food center or market would offer a tangible celebration of all aspects of the region's food system.

10. Expand School Garden Demonstration Projects

The School Food Demonstration Project would expand upon existing school-based community gardens to create a network of gardens. School garden projects will educate the region's youth about the interconnectedness of the food system, as well as opportunities for producing and consuming healthier foods. Public events and partnerships will extend the impact of the demonstration projects beyond the schoolyard. To provide education about the interconnectedness of the food system, these demonstration projects should include food waste diversion and composting projects that utilize food waste from the school.

A potential pilot effort for the demonstration project network could be a day-long workshop led by school garden practitioners in the region, highlighting their efforts and showing interested educators from the region how they might initiate a demonstration project in their own school.

11. Expand cooking and food preparation demonstrations

Expanding cooking and food preparation demonstrations at community events, such as farmers' markets and cultural events would allow residents to increase awareness of healthy eating options and diet related disease prevention. For example, hosting canning workshops to teach people how to store their

summer vegetables. Cooking demonstrations by local chefs using seasonal produce could provide creative ideas for how to make savory dishes. Cooking demonstrations can be expanded to reach children by going into pre-schools and providing handson cooking activities allowing children to learn about ways to prepare healthy food.

12. Distribute disaster relief resources for agriculture

The Gulf Coast has been hit with one disaster after another. Hurricane Katrina devastated farmers who were never able to recover. There are many resources available on disaster relief for farmers as well as Best Management Practices to alleviate weather related disasters. These need to be compiled into a packet and distributed to farmers so they have these resources at the fingertips when they need them, instead of searching for them after a disaster has occurred. MSU Extension, the Farm Service Agency, Mississippi Department of Agriculture and Commerce and the USDA-NRCS should have these resources on hand or the ability to create fact sheets on missing information. They also will work with farmers in the area and can distribute the materials easily.

13. Develop a food defense strategies website serving the Mississippi Gulf Coast.

Steps for emergency mitigation should be available for farmers, fishers, retailers, and consumers. FEMA's Food Defense Mitigation Strategies Database provides food defense tools that allow companies to conduct vulnerability assessments and implement mitigation strategies. A similar approach to emergency food mitigation strategies could be adapted to suit the needs of the Mississippi Gulf Coast, including vulnerability assessments, identification of appropriate mitigation strategies, and implementation of mitigation approaches. Defense strategies could also include food distribution resources in the event of a pandemic or other disaster to connect consumers to food resources.



Source: Jenna Silcott

Goal 3: Strengthen the Regional Food Economy

Current Status:

The Mississippi Gulf Coast has been hit with major disasters in the past decade that have dramatically affected their economy. Many Gulf Coast businesses are supported by the large tourism industry. Hurricane Katrina and the oil spill scared tourists away and they have been slow to return, leaving food businesses such as fishers and restaurants struggling. The oil spill also affected fishers who lost at least a season's worth of income and are now facing concerns as flood waters threaten to wipe out the oyster crop. Approximately 84 percent of seafood in America is imported.3 Increasing marketing of Gulf Coast seafood will better enable fishers to provide more seafood to Americans. There is an opportunity to strengthen the local food industries to keep local dollars local. The majority of local food businesses in existence employ less than five people. Local food industries will be more likely to invest back into their communities so strengthening these businesses strengthens the local economy.

Objectives:

- Stimulate purchasing and consumption of locally produced food
- Increase marketing of local foods
- Promote economic efficiency through resource reuse

Indicators:

- Increase the total number of food system jobs
- Increase in direct sales of food
- Increase in farm-related employment
- Reduce the average age of farmers

Recommended Strategies:

1. Support expansion of the Market Ready Program

The Market Ready program assists farmers and fishers with conducting market assessments, preparing to market their products, and reaching restaurants to directly sell their food products. It could also provide training on how to create or participate in a Community Support Agriculture or Community Supported Fishery. This provides farmers and fishers with a wholesale market which is different from the direct to the consumer market they may have been in before. The Market Ready program is emerging in Mississippi with two key people at the forefront, one at MSU Extension and one at Alcorn Extension that have gone through a training program. There are plans in place to conduct a train the trainer event in the Gulf Coast Region. This program will also provide a market for farmers diversifying their crops by providing a wholesale market.

2. Initiate a Farm Succession Program

Farmers nearing retirement report challenges in transferring their farm to the next generation. The Farm Succession program assists farmers in setting up a succession plan. A staff member would assist farmers in developing a succession plan and organizing meetings between the retiring farmer and the new farmer. This will help ensure residents have access to local foods and foster connections between new and experienced farmers. There were 208 applications and contracts to the NRCS EQIP program from beginning farmers. This is a clear indication that the next generation is interested in farming but need help getting started.

3. Investigate the expansion of meat processing facilities

In order to support local processing of meat, additional meat processing facilities are needed. This could range from mobile meat processing units to a USDA certified meat processing plant. An investigation of the feasibility of establishing a meat processing facility should be undertaken, considering demand, waste processing alternatives, and workforce development. Expansion of meat processing facilities would reduce the time, transportation and cost associated with processing meat. This would also allow meat producers to market their product as

locally produced and processed.

4. Launch a Culinary Tourism Mapping Initiative

The establishment of a Mississippi Coastal Foodways map that identifies important food locations on the coast would support culinary tourists in finding local food businesses. This would support state and federal agencies are currently working together to develop a regional seafood marketing initiative. The websites or marketing products could emphasize the distinctive culinary traits of the Mississippi Gulf Coast generating tourist interest and instill local pride.

The Southern Foodways website maps foodways and could host a Mississippi Gulf Coast map highlighting restaurants and other seafood venues. Plugging in the Biloxi shrimping community as well as other unique culinary sites such as restaurants, bakeries, retailers, and breweries would generate a culinary tourism map that can be distributed to tourists and locals. Other information would include a "one-stop shop" directory of supply-side stakeholders and articles highlighting personal stories from fishers, the health benefits of seafood, the economic impact of local purchasing and other relevant topics.

5. Expand Mississippi seafood marketing

A marketing campaign that expands information available on Gulf Coast seafood would help connect consumers, fishers, retailers/restaurants, and others in the food system. The marketing would build on efforts by the DMR in a campaign that could include a Mississippi focused seafood site that would provide information on the economic impact of seafood, seafood as a sustainable resource, celebrating the tradition of seafood, hazards of imported foods, differences between wild caught and farm raised seafood, the uniqueness of Mississippi seafood, the health benefits of seafood, and where Mississippi caught seafood can be found, recipes for home preparation, and upcoming festivals. The website could include a feature where seafood is documented and a consumer can learn about where it was caught and who caught it. The site can also provide resources for fishers such as information and links to MarketMaker and other online initiatives being undertaken by Gulf States Marine Fisheries Council.



Source: Pei-Yu Chiana

6. Reestablish dockside markets

New dockside markets will provide an opportunity to directly market fresh seafood to consumers. Dockside markets would include permanent infrastructure and temporary space for both vendors and the public to utilize daily. Possible locations for this dockside market include Biloxi small craft harbor, Pass Christian harbor, Ocean Springs harbor, and Waveland as a supplement to the current fishing pier. Additional uses and activities can be accommodated around the market to further activate the space. These could include farmers markets, bike parking/trails, living shorelines, kayaking trails, and art spaces. This space would incorporate organic waste diversion of seafood waste.

7. Use vacant lots for community gardens

As an interim use, urban agriculture can provide a productive use for currently vacant properties. The food produced can be sold at local farmers markets, distributed to local food banks/pantries, and promote food security and healthy eating among the coasts residents. In tandem, composting can transpire on-site to encourage food waste recovery and develop rich, organic soil.

8. Use vacant buildings for urban agriculture and aquaculture

Given the economic decline, the region has a number of vacant buildings that be used for indoor food production, such as hydroponic gardens and aquaculture. Urban agriculture provides an opportunity to increase local food production while utilizing existing infrastructure and otherwise vacant buildings.



Source: istockphoto.com

Goal 4: Promote environmental health Current Status:

The Mississippi Gulf Coast is a vibrant and diverse region with a variety of ecosystems and animal species. Seafood is a major component of the regional economy and 90 percent of commercially significant seafood species spend at least part of their lifecycle in the estuaries. The fresh water estuaries that act as nurseries for the young and then they transition to the brackish tidal marshes and then to the waters of the Mississippi Sound and Gulf. This coastal environment is challenged by disasters. Hurricanes uproot vegetation and disrupt farmland, while the 2010 Deepwater Horizon oil spill and 2011 Mississippi River flooding threatened sensitive estuaries and marshlands. Stakeholders identified the importance of maintaining the overall health of coastal and inland waterways. Other stakeholders were concerned about the volume of food waste sent to landfills. There are efforts focused on shoreline protection, such as the Living Seashores Initiative and efforts to divert food waste.

Objectives:

- Protect, preserve and conserve natural resources supporting food production
- Increase awareness of human impacts on the food system
- Integrate adaptation and mitigation measures to accommodate changes in the region's climate over time
- Foster a waste conscious culture

Indicators:

- Increase number of permits issued for living shorelines
- Increase the number of businesses receiving 3rd party certification
- Number of square or linear feet of coastal shoreline stabilized
- Increase tons of food waste diverted
- Increase in number of oyster reefs

Recommended Strategies:

1. Launch a Renewable Energy Technology Innovation Investment Strategy

Innovations for integrating renewable energy projects into the food system can illustrate the economic benefits of these approaches. Waste can be converted to energy through biodigestion and unutilized open space can capitalize on southern Mississippi's ample sunshine through solar panels. Aquaculture producers can install floating or land-based solar panels to become more energy self-sufficient, and open-sea mariculture can be integrated with off-shore wind power turbines. By collecting and distributing information about the region's innovators in this field, more food producers will be encouraged to invest in renewable energy infrastructure. Likewise, Mississippi's wastewater treatment plants could explore the integration of anaerobic digesters to generate energy. Grocery stores can install solar panels to power their GreenChill refrigeration units and maintain functioning during power outages. State and local tax incentives, subsidies, or economic development initiatives could further stimulate innovation and adoption of sustainable energy practices.

2. Explore a Sustainable Oyster Farming Program

Sustainable oyster farming practices could protect oysters beds from extreme weather events and encourage job growth. For example, the use of adjustable artificial oyster beds can support resilience in the face of severe environmental stress. Oysters are seeded in baskets that can be raised and lowered according to external conditions, giving the oyster farmer a technique to control shell growth, improve quality and protect the oysters.

3. Support Third Party Certification through incentives

Local building and zoning departments can put in place incentives for projects receiving third party certification. For example, a department could provide expedited inspections or reduced time to receive a permit. Examples of third party certification programs that could qualify include US Green Build Council's LEED, USEPA GreenChill for environmentally friendly refrigeration, the Green Restaurant Association and the National Organic Program.

4. Expand the Living Shorelines Initiative

The Living Shorelines initiative is a multi-phase project to encourage long-term sustainable erosion control practices through the use of natural 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. Communities, in addition, could offer tax incentives for existing uses to implement living shoreline practices. This practice could encourage an awareness of the health of the estuaries and natural environments that make the commercial seafood trade possible.

5. Institute a Compost Mississippi Program

The Compost Mississippi Project 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 can 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 can be coordinated with organizations that provide demonstrations on backyard composting, home gardening, cooking classes, soil conservation and similar topics.

6. Incorporate food waste recovery at public events

Incorporating waste management Best Management Practices (BMP) as part of the Coast's many public events would highlight the importance of recycling and food waste diversion and foster a cultural shift for turning wastes into resources. To that end, recyclables and food waste could be separated at all large public events. In addition, each event could have educational displays specifically centered on recycling, composting, biogas, food bank donations, materials reuse, and alike. Demonstrations

on backyard composting, home gardening, cooking classes, soil conservation, and similar topics could demonstrate how citizens can be more environmentally sustainable at home. Including these activities into the Gulf Coast's existing suite of festivals will help educate community members while yielding reductions of regional waste.

7. Streamline state permitting rules for composting and anaerobic digesters

Food waste and other organic wastes are produced through every step of the food system. The cost of disposing of these wastes can be very significant, especially for seafood processors, grocers and others generating high volumes of waste. Seafood processing waste had been prohibited from landfills due to the high incidence of nuisance odors. After Katrina destroyed the alternatives for disposal, seafood processing waste is again allowed on landfills on a temporary basis. Currently the majority of these wastes are disposed at landfills. There is need for disposal alternative to landfills that are beneficial to the community, the environment and that makes economic sense.

Composting and anaerobic digesters (biogas production) promise to be great alternatives, but due to stringent permitting regulations none has been established on the gulf coast. Permitting process for establishing a food waste composting facility is as rigorous as for permitting a landfill. The regulations governing the permitting process should be changed to streamline the process and encourage the establishment of food waste composting facilities.

Anaerobic digesters with biogas recovery have been commonplace at farms for the past several years, however the permitting requirements for these facilities outside a farm setting can be confusing due to the different regulatory jurisdictions that could be involved. There is need to coordinate regulations for solid waste management, clean water and agricultural permitting.

Funding Source

Goal 1: Support Access to Healthy Food for all Community Members

Encourage Crop Diversification on Farms

LEAD IMPLEMENTERS:

Farmers, United States Department of Agriculture Natural Resources Conservation Service (NRCS), Mississippi State University (MSU) Extension, Alcorn State The United States Department of Agriculture (USDA) provides a number of funding opportunities to support agricultural crop diversification. The USDA Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Programs (EQIP) High Tunnels provides farmers with funds to install high tunnels, which are used to extend the growing season of vegetables. USDA National Institute of Food and Agriculture (NIFA) Specialty Crop grants aid in research addressing genetics to improve crop characteristics, identifying pests and diseases threats, improving production efficiency, new innovations and technology, and finally, food safety hazards. The USDA NRCS Mississippi EQIP Organic Initiative can provide funding to cover production expenses for both established or transitioning organic farmers.

More Information:

http://192.73.224.129/fo/specialtycropresearchinitiative.cfm http://www.ms.nrcs.usda.gov/programs/MSEQIPOrganicInitiative.html http://www.ms.nrcs.usda.gov/programs/2011StatewideEQIPProgram.html

Advocate for Women Infant and Children (WIC) benefits to be redeemed at retail stores

LEAD IMPLEMENTERS:

Mississippi State Department of Health (MSDH), Retail Store Owners

The Mississippi Department of Health should spearhead the initial transition, and thus, cover the administrative cost associated with oversight. However, once initiated, WIC distribution centers operating costs should reduce, which should enable initial investments to be recouped and supplement revolving administrative costs.

Establish a Local Food Distribution Program

LEAD IMPLEMENTERS:

Local non-profit to facilitate the collection and distribution of produce from farmers to consumers, farmers markets, community centers, consumers

Several programs support establishing local food distribution. A non-profit or organization such as the Gulf Coast Community Foundation can obtain seed grants for local food distribution program, which would cover costs associated with hiring a program manager and marketing materials for the program. Member subscriptions would then cover the distribution program's operational costs; however, a portion of the subscription fee should subsidize low-income households. Additionally, Why Hunger Harry Chapin Self-Reliance Awards (HCSRA) supports exemplary community-based organizations that boast creative and effective approaches to fighting hunger and poverty in the US.

Funding Source

Amend Zoning Ordinances to accommodate the Food System

While some organizational costs associated drafting, revising, and approving the regulatory changes exist, these should be paid for as part of normal administrative procedures of the respective departments.

LEAD IMPLEMENTERS:

Local Planning, Zoning, and Codes Departments

Expand Permitting of Food Sales

LEAD IMPLEMENTERS:

Mississippi State Department of Health (MSDH), Local Planning, Zoning, and Codes Departments

While some organizational costs associated drafting, revising, and approving the regulatory changes exist, these should be paid for as part of normal administrative procedures of the respective departments.

Create a Surplus Food Matching Service

LEAD IMPLEMENTERS:

Mississippi State Department of Health (MSDH), Local Planning, Zoning, and Codes Departments, United Way

An initial philanthropic outreach campaign should engage participating retail partners as possible funding sources. Resources raised could support initial design and upkeep of the website, as well as outreach efforts to other retail partners. Next, the ConAgra Foods Foundation's Community Impact Grants target grassroots organizations addressing child hunger and nutrition. In addition, the United States Department of Agriculture's Agriculture and Food Research Initiative Competitive Grants Program includes a priority area for agricultural economics and rural communities.

More Information:

http://www.conagrafoodsfoundation.org/help-conagra-foods-foundation/conagra-foods-foundation-grants.jsp

 $http://www.csrees.usda.gov/fo/agricultural and food research initiative a fri.\\ cfm$

Funding Source

Create and implement a Fresh Corner Store Program to ensure fresh food access in food insecure neighborhoods

LEAD IMPLEMENTERS:

Store Owners, Non-Profit

Several funding opportunities exist for implementing a fresh corner store program. The United States Department of Health and Human Services Administration for Children and Families Community Economic Development (CED) projects offers grant money for eliminating food deserts, financing grocery stores, farmers markets, or other retail that provides access to fresh, nutritious food. Additionally, the Public Prevention Health Fund's Community Transformation Grant through the Centers for Disease Control and Prevention is for the implementation, evaluation, and dissemination of community preventive health activities.

Advocate for the Harrison County Farm to donate farm products to food banks

LEAD IMPLEMENTERS:

Harrison County Sheriff's Department, Mississippi Department of Corrections, 12 Baskets Food Bank, The Society of St. Andrews in Mississippi While some clerical and transportation costs would be incurred during the coordination and procurement, these should be compensated under normal administrative procedures of the respective organizations.

Establish a Healthy Food Financing initiative to assist businesses in expanding into food insecure neighborhoods.

LEAD IMPLEMENTERS:

Regional Food Policy Council, non-profit

The Healthy Food Financing Initiative (HFFI) is a joint effort with the USDA, Department of Treasury, and Health and Human Services. To that end, HFFI funds the Community Economic Development Program under the Office of Community Services, which is specifically designed for economically distressed neighborhoods that lack access to nutritious foods. Additionally, the Department of Treasury Office of Inspector General supports the New Markets Tax Credit Program that endeavors to catalyze private sector investment in nutritious foods.

More Information:

http://www.hhs.gov/news/press/2010pres/02/20100219a.html http://www.acf.hhs.gov/programs/ocs/ocs_food.html

Funding Source

Launch a Grocery Store Shuttle from food insecure neighborhoods to grocery stores

LEAD IMPLEMENTERS:

Coastal Transit Authority (CTA), Local Grocery Stores, Farmers Markets

Public-private partnerships should support the Grocery Store Shuttle. Currently, the Coastal Transit Authority (CTA) is funded through a number of public sources including the Federal Transit Authority Operating and Capital grants, the State of Mississippi, Harrison County, City of Biloxi, City of Gulfport, and the City of Ocean Springs. Supplemental funds could partially be generated through additional revenues incurred by increased ridership, advertising, charters, contracts, vending, and sale of surplus equipment could support the shuttle. In conjunction, local grocery stores could be encouraged to supplement shuttle costs with increased profits.

Develop resilient buildings for food distribution centers information

LEAD IMPLEMENTERS:

Mississippi Emergency Management Agency (MEMA), Non-profit organizations, Flood Emergency Management Agency (FEMA)

Several funding sources are available to support the project. Initial funding for the existing site analysis, along with support for retrofits or relocations should be from a joint FEMA and MEMA collaborative. Additional support could be raised through the nonprofit organizations that own distribution centers and the US Department of Housing and Urban Development's Emergency Shelter Program.

More Information:

http://www.fema.gov/news/newsrelease.fema?id=11688 http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_ planning/homeless/programs/esg

Create a community kitchen

LEAD IMPLEMENTERS:

United Way, Non-profit organizations, social service agencies, homeless shelters

Government funds and grants are possible funding sources available to support the project. Non-profit organizations and foundations such as the Blue Cross & Blue Shield of Mississippi Foundation are funding successful health programs and initiatives that are working to improve the health of Mississippians.

Goal 2: Foster Connections Between Stakeholder

Establish a Regional Food Policy Council

LEAD IMPLEMENTERS:

Cities, Counties, Mississippi State Department of Health (MSDH), Mississippi Department of Agriculture and Commerce (MDAC), Real Food Gulf Coast, Mississippi Department of Environmental Quality (MDEQ), Farm Bureau, Farmers, Fishers Government funds and grants are possible funding sources for operating costs; however, many food policy councils are comprised of volunteers. Historically, food councils have received USDA Food Project Grants and Grants through W.K. Kellogg Foundation. Furthermore, County or City governments should appropriate funds and provide staff support as needed for successful implementation.

Funding Source

Start a School to Farm and Sea Program

LEAD IMPLEMENTERS:

School systems, Mississippi State University Extension, Farmers, and Fishers

The Beginning Farmer Rancher Development Program creates competitive grants for the purpose of education, outreach, training and technical assistance to benefit beginning farmers and ranchers in the United States; particularly, in mentoring, apprenticeship, and internship activities.

More Information:

http://www.csrees.usda.gov/funding/rfas/bfrdp.html

Expand the reach of the Mississippi MarketMaker Program

LEAD IMPLEMENTERS:

MSU Extension and County Master Gardeners

Several funding sources exist to expand the Mississippi MarketMarker program. Federal State Marketing Improvement grants allocate funds for research projects that address barriers, challenges, and opportunities in marketing food and agriculture products. In addition, the Specialty Crop Block Grant Program aims to enhance the competitiveness of specialty crops that align with the goals of the market maker program.

More Information:

http://www07.grants.gov/search/search.do?mode=VIEW&oppId=40159 http://www.ams.usda.gov/AMSv1.0/FMPP

Target food businesses for economic development

LEAD IMPLEMENTERS:

Mississippi State Department of Economic and Community Development (MSDECD), Mississippi Economic Development Commission (MEDC), Harrison County Development Commission, Hancock County Development Commission, Jackson County Economic Development Foundation, Southern Mississippi Planning and Development District (SMPDD), Mississippi Gulf Coast Alliance The programs and investment strategies should be a realignment of fiscal priorities to diversifying the statewide portfolio. In particular, the Mississippi State Department of Economic and Community Development should be the primary supporter with additional support potentially available with the USDA.

Funding Source

Create a vendor guidebook

LEAD IMPLEMENTERS:

Mississippi Department of Marine Resources (MDMR), Mississippi State Department of Health (MSDH), Cities, Counties, Regional Food Policy Council While the production of a vendor guidebook would be best lead through a public-private partnership, the USDA Agricultural Marketing Service offers a Farmer's Market and Local Food Marketing grant to improve and expand domestic farmer's markets. The Food Council or Real Foods Gulf Coast could undertake such promotional materials.

More Information:

http://www.ams.usda.gov/AMSv1.0/FMPP

Expand information resources for fishers

LEAD IMPLEMENTERS:

Mississippi Department of Marine Resources (MDMR)

Currently, information hotlines exist for English-speaking fishers, and therefore, little cost would be associated with adding Vietnamese or Spanish options; much in the same way callers can select specific voice mailboxes. Spanish or Vietnamese speaking MDMR staff could provide translation services, which should be covered under normal administrative services.

Guide the future of the seafood industry

LEAD IMPLEMENTERS:

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 Numerous funding opportunities exist to support a sustainable seafood industry. Presently, NOAA and the Department of Commerce offer grants that advance climate adaptation, sustainable seafood, coastal and marine spatial planning, Gulf of Mexico restoration, and/or ecosystem-based management. Additionally, the MS AL Sea Grant Consortium funds research that contributes to a safe and sustainable seafood supply

More Information:

http://www.masgc.org/page.asp?id=20

Funding Source

Establish a Sea to School Program

LEAD IMPLEMENTERS:

Fishers and School Districts

Multiple funding sources exist to support sea to school programs. In 2010, the USDA Food and Nutrition Agency awarded millions of dollars to research improving or strengthening local food-sheds. The Donors Choose program is an innovative platform that might help fund the educational component. Furthermore, Newman's Own Foundation provides millions of dollars in grants to projects that have an impact on future generations.

More Information:

http://www.fns.usda.gov/cga/PressReleases/2011/0199.htm

http://www.donorschoose.org/

http://www.newmansownfoundation.org/giving/

Expand Food Business Incubators

LEAD IMPLEMENTERS:

State and local Development Commissions, Mississippi Department of Agriculutre and Commerce (MDAC), Southern Mississippi Planning and Development District (SMPDD), Mississippi Gulf Coast Alliance, Regional Food Policy Council Possible funding sources include USDA Community Food Project Grants and USDA Know Your Farmer, Know Your Food grants. Other options may include Mississippi Department of Agriculture, or Conservation Block Grants offered through the Mississippi Development Authority as part of the American Recovery and Reinvestment Act of 2009. There is also opportunity available through the USDA and the Farmers Market Promotion Program that makes available funds for agricultural cooperatives, producer networks, producer associations, local governments, nonprofit corporations, public benefit corporations, economic development corporations, and regional farmers' market authorities.

Expand School Garden Demonstration Projects

LEAD IMPLEMENTERS:

School Districts, PTAs, Mississippi Environmental Education Alliance, Master Gardenerse

Multiple revenue sources are available to implement garden demonstration projects in schools. Money saved from waste reduction could be diverted to fund the project. In tandem, the National Gardening Association Youth Garden Grants program targets child-centered garden programs. Also, the website kidsgardening.org is a clearinghouse for school garden grant programs. The MS Office of Healthy Schools administers USDA Team Nutrition School Garden grants, available to Team Nutrition schools, of which there are several in the region. The Captain Planet Foundation will soon be launching a Learning Gardens grant program. Additionally, the US EPA's Environmental Education grants support environmental education projects that enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality.

More Information:

http://www.kidsgardening.org/grants.asp

http://assoc.garden.org/grants/

Funding Source

Expand nutrition and cooking demonstrations

LEAD IMPLEMENTERS:

Mississippi State Department of Health (MSDH), Gulf Coast Health Educators, Festival Organizers, Real Food Gulf Coast, MSU Extension Presently, MSDH hosts several public screenings annually. To that end, local event coordinators or non-profits could easily collaborate with MSDH to target funds to desirable regions. While organizational and transportation costs will accrue, these should be covered within the department's normal operational funds.

Distribute disaster relief resources for agriculture

LEAD IMPLEMENTERS:

Mississippi State University (MSU) Extension, Farm Service Agency, Mississippi Department of Agriculture and Commerce (MDAC) and USDA- Natural Resources Conservation Service (NRCS) While some organizational costs associated drafting, revising, and approving the regulatory changes exist, these should be paid for as part of normal administrative procedures of the respective departments.

Develop a food defense strategies website serving the Mississippi Gulf Coast.

LEAD IMPLEMENTERS:

Mississippi Emergency Management Agency (MEMA), State and City officials The Federal Emergency Management Agency supports several hazard mitigation grants, including some that provide for food defense measures.

More Information:

http://www.fema.gov/government/grant/empg/

Goal 3: Strengthen the Regional Food Economy

Support expansion of the Market Ready Program

The Mississippi State University is already funding this program.

LEAD IMPLEMENTERS:

Mississippi State University (MSU) Extension and Alcorn State University Extension, Mississippi Gulf Coast Fisherman's Association, Mississippi Department of Marine Resources (MDMR), Real Food Gulf Coast

Funding Source

Initiate a Farm Succession Program

LEAD IMPLEMENTERS:

Farm Bureau's Young Farmers Group, Mississippi State University (MSU) Extension

The Beginning Farmer Rancher Development Program creates competitive grants for the purpose of education, outreach, training and technical assistance to benefit beginning farmers and ranchers in the United States; particularly, the program includes assistance with legal strategies of beginning farmers acquiring land from retiring farmers

More Infromation:

http://www.csrees.usda.gov/funding/rfas/bfrdp.html

Investigate the expansion of meat processing facilities

LEAD IMPLEMENTERS:

United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS), Mississippi State University (MSU) Extension, USDA Food Safety and Inspection Service (FSIS), Mississippi Department of Environmental Quality (MDEQ), Mississippi Boar of Animal Health (MBAH), and Local Municipal Solid Waste Authorities

The USDA, Farm Bureau, and other private interests groups may be able to defray initial start up costs. A successfully operating unit will be able to generate funds through processing costs. Start-up grant options may include Southern Sustainable Agriculture Research & Education (SARE) Producer Grant, National Institute of Food and Agriculture (NIFA) grants, and Rural Business Enterprise Grants (RBEG).

Launch a Culinary Tourism Mapping Initiative

LEAD IMPLEMENTERS:

University of Mississippi Southern Foodways Alliance, Mississippi Restaurant and Hospitality Association While the initial start-up would require some administrative time, the maintenance of this project would require minimal staff time. Currently, the Southern Foodways Alliance offered to host the culinary tourism map and the Mississippi Restaurant and Hospitality Association and Mississippi Gulf Coast Convention and Tourism Bureau could provide assistance populating the map's data.

Expand Mississippi seafood marketing

LEAD IMPLEMENTERS:

Mississippi Department of Marine Resources (MDMR), Regional Food Policy Council, Mississippi Gulf Coast Convention and Visitors Bureau, Mississippi Restaurant and Hospitality Association, Mississippi-Alabama Sea Grant Consortium The Seafood Marketing initiative would expand projects undertaken by the Mississippi Department of Marine Resources. Endeavors such as website redesign, could be handled under MDMR's normal organizational purview with partnerships from local schools or the Gulf Coast Community Design Studio who could provide oversight and technical support. With that said, this would be a good opportunity for student interns in computer science or design at regional schools.

Funding Source

Reestablish dockside markets

LEAD IMPLEMENTERS:

Cities, MSDH, Fishers, Southern Mississippi Planning and Development District (SMPDD), Mississippi Department of Marine Resources (MDMR) As proposed, the dockside market meets the US Economic Development Administration's funding priorities. Within the US Economic Development Administration, the Public Works and Economic Development Facilities Program allocated \$133,280,000 for public works projects in 2010. Additionally, the Mississippi-Alabama Sea Grant Consortium currently supports research in sustainable coastal development, which is similar to the Louisiana Sea Grant that funds the Delcambre Direct Seafood Marketing operation at the Port of Delcambre in Louisiana. Moreover, federal funding through NOAA and support from the MS/AL Sea Grant could revitalize the coastal culture of the Mississippi Gulf.

More Information:

http://www.masgc.org/page.asp?id=20

http://www.eda.gov/PDF/FY%202011%20EDAP%20FFO-FINAL.pdf

Use vacant lots for community gardens

LEAD IMPLEMENTERS:

Gulf Coast Community Design Studio (GCCDS), Beautification Commissions, Land Trust for the Mississippi Coastal Plain, Mississippi Master Gardeners Several funding sources are available to start community gardens. The Simply Organic 1% fund supports organic and sustainable agriculture. Specifically, research into organic production methods and crop improvement; educating farmers on organic growing techniques, certification standards and documentation; educating the public on the value of organic agriculture; developing projects that help organic farmers to be more efficient, produce better products, and add value to their products. Further, the Blue Cross & Blue Shield of Mississippi Foundation supports health programs and initiatives that improve the health of Mississippians. For example, the Mississippi Food Network is benefiting from a grant to promote community gardens for three of its agencies throughout the state to encourage communities to include more fresh fruits and vegetables into their diets.

More Information:

http://www.healthiermississippi.org/about.php

Use vacant buildings for urban agriculture and aquaculture

LEAD IMPLEMENTERS:

Gulf Coast Community Design Studio (GCCDS), Beautification Commissions, Land Trust for the Mississippi Coastal Plain, and Chamber of Commerce

Funding Source

Several funding sources are available to implement urban agriculture. The Agriculture and Food Research Initiative (AFRI) has seven programs available that include the foundation program, childhood obesity prevention, climate change, global food security, food safety, sustainable bioenergy, fellowships grant program, fellowships grant program. In addition, the USDA Sustainable Agriculture Research & Education has a number of competitive grants for researchers, agricultural educators, students, farmers, and ranchers. In particular, the Southeastern region boasts the Sustainable Community Innovation Grant that promotes successful linkages between sustainable agriculture with healthy economic community development.

More Information:

http://www.sare.org/Grants/Grants-Information

Goal 4: Promote environmental health

Launch a Renewable Energy Technology Innovation Investment Strategy

LEAD IMPLEMENTERS:

County Development Commissions, Mississippi Gulf Coast Alliance for Economic Development, Mississippi Development Authority, Mississippi Department of Environmental Quality, Mississippi Gulf Coast Regional Wastewater Authority, Mississippi Fisherman's Association The programs and investment strategies should be a realignment of fiscal priorities to diversifying the statewide portfolio. Currently, State Incentives exist for renewable energy sources such as bio-diesel or methane harvesting from municipal waste. In this context, existing funds are redistributed to promote a suite of renewable energy sources. In addition, a number of federal funds are available that could work in concert such as the i6 Challenge that seeks to promote the link between economic development and environmental quality. Similarly, the National Science Foundation's Environmental Sustainability program supports research in Industrial Ecology, Green Engineering, Ecological Engineering, and Earth Systems Engineering.

More Information:

http://www.eda.gov/i6

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501027

Funding Source

Establish a Sustainable Oyster Farming Program

LEAD IMPLEMENTERS:

Mississippi Department of Marine Resources (MDMR), Mississippi-Alabama Sea Grant Consortium, Mississippi Gulf Coast Fisherman's Association Several funds are available for creating a sustainable oyster-farming program. The Mississippi-Alabama Sea Grant Consortium funds research that contributes to a safe and sustainable seafood supply. Also, NOAA and the Department of Commerce are offering grants for projects that advance climate adaptation, sustainable seafood, coastal and marine spatial planning, Gulf of Mexico restoration, and/or ecosystem-based management.

http://www.masgc.org/page.asp?id=20.

Support Third Party Certification through incentives

LEAD IMPLEMENTERS:

Cities, Counties, Mississippi Department of Environmental Quality, Chambers of Commerce, Mississippi Restaurant and Hospitality Association While some organizational costs associated drafting, revising, and approving the regulatory changes exist, these should be paid for as part of normal administrative procedures of the respective departments.

Expand the Living Shorelines Initiative

LEAD IMPLEMENTERS:

Mississippi Department of Marine Resources (MDMR), Mississippi-Alabama Sea Grant Consortium, Schools, Gulf Islands National Seashore, Mississippi Department of Environmental Quality (MDEQ), Gulf Coast Community Design Studio (GCCDS)

Funding Source

Multiple programs work to support living shoreline implementation. The NOAA community-based Restoration Program provides funding opportunities for Mississippi and Alabama land restoration projects. These opportunities include a variety of sea grants to help conserve marine and coastal habitats such as the NFWF Shell Marine Habitat Program, the Nature Conservancy Community grants, Gulf of Mexico Sea Grant Hydrologic Restoration, and the Southeast Aquatic Resources Partnership. In addition, Federal policy also provides financial assistance for coastal restoration projects. The Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) focuses on marsh creation, restoration, protection, and enhancement as well as barrier island restoration. The program is the oldest and largest Federally funded restoration program in Louisiana are for small-scale coastal restoration projects from revenues through the Sport Fisheries Restoration and Boating Trust Fund. Next, An environmental assessment is a mandatory prerequisite for a coastal management plan. The Mississippi Coastal Improvement Program (MCIP) Comprehensive Plan was developed to analyze and design comprehensive improvements or modifications to existing conditions in the coastal areas of Mississippi relating to the prevention of storm damage, soil erosion, and saltwater intrusion, as well as preserve fish and wildlife preservation.

NOAA and the Department of Commerce are offering grants to support projects that advance climate adaptation, sustainable seafood, coastal and marine spatial planning, Gulf of Mexico restoration, and/or ecosystem-based management.

More Information:

http://lacoast.gov/new/About/Default.aspx

http://www.usace.army.mil/CECW/CWRB/Documents/mcip/mcip.pdf

Funding Source

Institute a Compost Mississippi Program

LEAD IMPLEMENTERS:

Mississippi Department of Environmental Quality (MDEQ), Mississippi Recycling Coalition (MRC), Counties, Cities, Waste Management companies

A number of programs offer funds that align with the Compost Mississippi's mission. The US Environmental Protection Agency's Environmental Education grant supports environmental education projects that enhance the public's awareness, knowledge, and skills so that people can make informed decisions that affect environmental quality. US EPA's Community Action for a Renewed Environment (CARE) program creates a competitive grant program that offers an innovative way for a community to organize and take action to reduce toxic pollution in its local environment. Also, MDEQ offers Solid Waste Assistance Grants to municipalities, counties, and multi-county agencies to develop local recycling programs and provide public information services to the local community. Finally, sales of items such as compost bins could support the organization minimally.

More Information:

http://www.epa.gov/enviroed/grants.htm

http://www.epa.gov/care/index.htm

Incorporate food waste recovery at public events

LEAD IMPLEMENTERS:

Municipalities, Regional Food Policy Council, County Beautification Commissions, Jackson County Solid Waste, Harrison County Wastewater and Solid Waste Management District, Hancock County Solid Waste, Chambers of Commerce, Event Organizers Primarily, the integration of food waste recovery at public events requires little additional costs. Sustainable purchasing strategies should be developed that emphasis reduced packaging, and reusable utensils or containers that reach a net balance of overall costs. Additional volunteers, particularly from regional businesses or non-profits, could cover the increased need for staff.

Streamline state permitting rules for composting and anaerobic digesters

LEAD IMPLEMENTERS:

Mississippi Department of Environmental Quality (MDEQ), Mississippi Department of Agriculture and Commerce (MDAC), Mississippi Department of Marine Resources (MDMR)

While some organizational costs associated drafting, revising, and approving the regulatory changes exist, these should be paid for as part of normal administrative procedures of the respective departments.

- 1 USDA ERS. Food Security in the United States: Key Statistics
- Food Environment Atlas. Available at: http://maps.ers.usda.gov/FoodAtlas
- NOAA. (September 8, 2010). "Fish Watch -- US Seafood Facts" World Wide Web. http://www.nmfs.noaa.gov/fishwatch/trade_and_aquaculture.htm