# MISSISSIPPI COASTAL IMPROVEMENTS PROGRAM (MsCIP) NEAR TERM IMPROVEMENTS INTERIM PREPORT

# **PUBLIC INVOLVEMENT APPENDIX**

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#### MsCIP COMMUNICATIONS PLAN

# Mississippi Coastal Improvements Project





Hurricanes Katrina made landfall in Mississippi on August 29 2005 causing catastrophic damage to lives, property and natural resources throughout Coastal Mississippi. In response, the U.S. Congress has directed the Secretary of the Army through the Corps of Engineers to develop preliminary and final technical reports on the design and analysis for comprehensive improvements in the area of Coastal Mississippi in the interest of:

- ➤ Hurricane and Storm Damage Reduction
- > Salt Water Intrusion
- ➤ Shoreline Erosion
- ➤ Fish and Wildlife Preservation
- ➤ Other Related Water Resource Purposes.

The Congress directed that The Analysis and Design be at **full Federal expense**. Recommendations shall be **cost-effective** but an incremental benefit-to-cost analysis to identify recommended projects or recommendations based upon **maximizing the national economic development benefits are not required.** 

The Analysis and Design is required to provide recommendations for near-term improvements and comprehensive or final recommendations. The authorization provides \$10 million in emergency supplemental appropriations.

#### MsCIP Reports and Schedule

- ➤ Interim Report (6 month Report)
  - 0 30 Jun 06 Initial Report Submission to Congress
  - O Recommend Near-Term Improvements
  - O Analysis Framework for Comprehensive Improvements
- > Final Report (24 month Report)
  - o 30 Dec 07 Final Report Submission to Congress
  - o Plan for Comprehensive Improvements
- ➤ Reports must be submitted thru Headquarters, US Army Corps of Engineers to Assistant Secretary of the Army to Congress

The Corps of Engineers has formed a multi-agency and cross-institutional project delivery team, the Mississippi Coastal Improvements Project (MsCIP) Team to undertake the planning, analysis, and design tasks necessary to develop recommendations and the Reports to Congress. A key component of the team will be employment of a communications plan to outline the approach for transmitting information from the team to the public, media outlets, local governments, state partners, and other important decision makers. This document outlines the Communications Plan for the team.

#### **Goals for Public Outreach and Involvement**

The impacts of Hurricane Katrina on Coastal Mississippi were massive. Any effective planning to address these impacts requires a fully collaborative effort among the public, all levels of group of state, municipal, county, and Federal government officials, and other groups such as NGO's.

Public participation in the planning and NEPA process promotes open communication between the public and the Corps and, consequently, better analysis and decision making. Public and Agency Involvement is a critical, early, and continuing part of the MsCIP project. Persons and organizations having a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, need to be urged to provide input in the analysis process. The following goals for public outreach and involvement for the MsCIP have been identified:

- ➤ Increase awareness and understanding for the MsCIP at a local, regional, and national level. Provide timely information to the public regarding the MsCIP Team's efforts
- ➤ Provide and promote effective intra- and interagency communication. Facilitate collaboration for the MsCIP.
- ➤ Provide extensive opportunities to involve the public participation in the MsCIP

throughout the decision-making process.

- ➤ Identify and engage public sectors including public officials, and academia to develop information and relationships critical to successful execution of the analysis, design, and report preparation phases of the work.
- ➤ Provide opportunities for all persons and organizations having a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, to provide input in the analysis. Provide opportunities for persons displaced from their homes by Hurricane Katrina to provide input into the analysis process.
- Establish and maintain effective public and agency involvement as a MsCIP Team goal.

The residents of coastal Mississippi have been through a terrific ordeal. In some cases, their lives have returned to normal while in others the recovery process is just beginning. These conditions will make acquiring public input difficult. Also from the government or agency perspectives, Others conducting information gathering have commented that people were generally "tired of the storm and tired of meetings about the storm." In spite of that, needs and opportunities for specific areas were gathered from the public.

#### Tools to Implement the Public Outreach and Involvement Strategy

<u>NEPA Compliance</u> – The National Environmental Policy Act (NEPA) of 1969 subjects all government projects to a public process that discloses environmental impacts and benefits. Depending upon the complexity and scope of a project, it produces one of two possible outputs: an Environmental Assessment (EA) or an Environment Impact Statement (EIS). In producing either of the documents, the goal is to fully disclose all of the impacts of various alternative plans and to enable plan selection in light of impacts and in compliance with environmental laws.

For the Interim Report, an Environmental Assessment will be prepared. This document will be provided for a 30-day public review and comment period before the Interim Report is provided to Congress. For the Comprehensive Recommendations and Final Technical Report, an Environmental Impact Statement (EIS) will be prepared to address the recommendations contained in the Final Technical Report. A Draft EIS will be prepared and provided to the public for a 45-day review and comment period before the Final EIS is prepared and the Final Report provided to Congress.

Routine or Professional Coordination by Mobile District Team. The Mobile District has long effective working relationships established during the normal water resources activities conducted by Mobile District and the state and local governments. These personal and professional relationships are very important in maintaining an effective public and agency involvement status. This high level of professional trust must be

maintained and strengthened in all MsCIP actions. First hand contact with local constituents will be pursued as a necessary and productive means for identifying needs and opportunities in Coastal Mississippi.

<u>Multi-Step Public and Agency Facilitated Workshops.</u> Due to the public's high level of interest in hurricane and storm damage reduction and coastal restoration, involving public and agency groups in decisions will be especially important. A facilitated multi-step public involvement process will be used to gather guiding principles and specific ideas. The process is illustrated in Figure 1 and described in the following paragraphs. A professional facilitation services company will help the MsCIP Team seek public and agency input in a non-confrontational manner and blend public input into guiding measures for consensus-based planning.

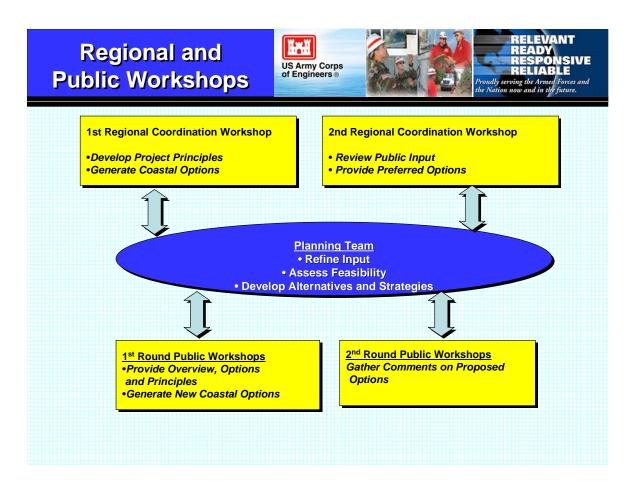


FIGURE 1. Multi-Step Public and Agency Facilitated Workshops.

#### Round One – Developing Guiding Principles and Generating Options

Participants will be asked to provide the Corps guiding principles for MsCIP direction and specific projects that should be included within the recommendations to Congress. This is the brainstorming or listening to the agencies and public.

Round Two – Review Planning Options that Emerged From Round One.

Participants will be asked to review the planning options that emerged from the Round One workshops. This is telling the public and agencies what the MsCIP Team heard and the planning and design analyses conducted on those ideas.

Two types of workshops are planned.

<u>Regional Coordination Workshop.</u> An interactive Regional Coordination Workshop will be held for a group of interested state, municipal, county, NGOs, and agency officials.

<u>Public Workshops</u>. Public workshops will be held at locations throughout the coastal Mississippi study area. The workshops will be interactive and non-confrontational. Multiple input opportunities will be provided for those uncomfortable or unable to respond via workshops or meetings. The MsCIP team will identify stakeholder groups to focus efforts.

<u>Web-site and Webcast.</u> A web-site <u>www.MsCIP.usace.army.mil</u> has been established and will be maintained as a repository of MsCIP information. The web-site will be a vehicle for communication. The web-site will allow interested public and agencies to provide comments and ideas. The interactive webcasts will provide online workshop and communication opportunities for those who were displaced from there homes or may not be able to attend the other workshops an opportunity to participate in MsCIP planning.

<u>Targeted Workshops</u> – Opportunities will be developed for the public to obtain information from venues other than public meetings. Civic associations, neighborhood associations, universities, environmental groups, coastal zone advisory committees, and non-governmental organizations (NGOs) can provide avenues for public information dissemination while enhancing community awareness and understanding. These meetings are more informal than traditional public meetings in that they allow the project delivery team to move beyond a large meeting hall to smaller, more personal and interactive settings. The public outreach and involvement team will develop presentation materials tailored to each specific audience.

<u>Outreach to public officials and governmental agencies</u> – MsCIP Team members will provide briefings as necessary to elected and appointed officials at all levels of government. In addition, report-specific information will be provided to officials and governmental agencies in order to keep them informed and involved. Tours of project areas will be provided as needed and the MsCIP Team will prepare and deliver materials and briefing packets.

<u>Inter-Agency Project Delivery Team</u> - To facilitate interagency communication and collaboration an MsCIP interagency Project Delivery Team (PDT) will be established. Stakeholder agencies have been invited to participate in interagency team meetings and planning sessions, to help identify needs and opportunities for potential improvements, to expedite technical input and review related to your agency's area of expertise, and to generally facilitate interagency teamwork for the MsCIP.

<u>Coordination with Other Katrina Recovery Groups</u> – Several existing groups and committees, such as the Governor's Commission on Recovery, Rebuilding, and Renewal will be utilized to expand opportunities for the public to guide and influence the MsCIP. Coordination with other groups will occur as needed or requested.

<u>Publications and Presentation Materials</u> – Throughout the report preparations, a variety of means will be employed to provide information to and solicit comment from the public. Examples include the following:

<u>Publications</u> – Materials will be developed throughout the course of the MsCIP reports preparation phases and will include public notices that identify the purposes and locations of workshops and/or meetings, fact sheets, and newsletters.

<u>PowerPoint Presentations</u> – A Mississippi Coastal Improvements presentation will be developed for public speaking engagements. Specific MsCIP issue modules may be inserted into this presentation for targeted audiences. Duplicate copies of the presentation along with suggested text will be distributed to all team members and other interested parties.

<u>Press Kits</u> – A set of informational materials will be developed to provide to interested media outlets. Materials will consist of project background information, descriptions of project goals, maps, quotes from leadership about the project and its importance, and maps and other visual reference materials.

<u>News Releases</u> – News releases will be issued throughout the report preparation efforts, especially prior to the public workshops and/or meetings, to provide an opportunity to keep the media apprised of activities and issues.

<u>Exhibits and Displays</u> – A number of visual tools are needed for public engagements. Large displays for events and small portable displays for speaking engagements will be developed as necessary for use at fairs, conferences, seminars, and other events. Existing displays will be updated as needed.

#### Responsibilities

Implementing the public outreach and involvement plan for the MsCIP will require a team effort on multiple levels. The MsCIP Organizational Structure is shown in Figure 3. Effective communication among partner Federal, state and local agencies will be necessary to accomplish the outreach and involvement required to achieve the desired

recovery and improvements for Coastal Mississippi.

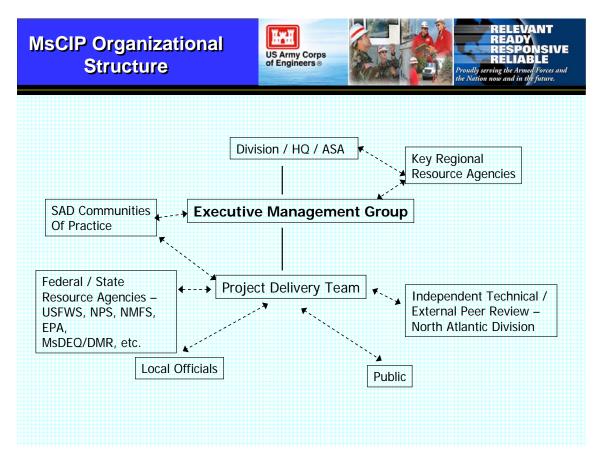


FIGURE 3. MsCIP Organizational Structure.

#### **Outreach Team Members**

Name	Affiliation	Contact Number
Tom Smith	Mobile District PM	251-690-3120
Susan Rees	Mobile District	251-691-4141
Marilyn Phipps	Mobile District PAO	251-690-2505
Todd Boatman	Mobile District PM	251-690-3143
Jan Boyd	State of Mississippi	228-347-5000

#### **Schedule for Outreach and Involvement Activities**

Particular outreach and involvement activities will be closely coordinated with the MsCIP project managers and will be based on project schedules, budgets, and milestones. Outreach and involvement activities will be conducted early on in the MsCIP process. .



# **MSCIP Public Involvement Process Summary**

This document summarizes the public input process designed and facilitated by Group Solutions, Inc. as well as outlining several recommended next steps.

The process was initiated with approximately 70 potential project alternatives the U.S. Army Corps of Engineers had emerged through prior meetings, outreach, mail and legwork.

More than 75 state and local government representatives and Federal Agency partners attended the first Regional Coordination meeting on April 7<sup>h</sup> in Biloxi. To the starting list of project candidates, participants added new recommendations to large-scale aerial maps of Jackson, Harrison and Hancock counties. Approximately 70 more projects were added to the original project list. The meeting was well-attended and characterized by observing, collegial dialogue. Significant 2-way learning was observed by both meeting attendees and Corps subject matter experts.

The combined list of project alternatives was presented at 3 Public Input Meetings in Jackson, Harrison and Hancock County between April 10-13th. Approximately 60 additional project candidates were added to the county maps.

Wireless keypads were used to enable public workshop attendees to respond a series of process questions. A small, but motivated and involved group of citizenry participated in these meetings. The preferences expressed should not be interpreted as a quantitative, statistically-significant public poll, but rather as qualitative directional guidance.

#### In round 1 of public input meetings there was general consensus on:

- Linking Corps planning to the Governor's plan and other agencies
- Recycling clean concrete debris for breakwaters & oyster reefs
- Balancing natural and engineered solutions
- Projects should focus on long-range solutions
- Expectations for moderate to much more protection from future storms
- Dunes were the preferred beach restoration alternative
- Business return and homebuilding are perceived to be the biggest indicators of Katrina recovery
- The need for continuing public input in the comprehensive planning process

#### There was incomplete consensus on:

- Near-term criteria were understood and appropriate
- The selected projects will be beneficial
- Projects have been distributed fairly across Counties
- The selected projects meet the near-term criteria
- A balance of natural and engineered solutions has been selected

#### Widely differing assumptions and perceptions were evident on:

- Buyout of private or flood-prone lands
- The desirability of a reduced footprint or restricting coastal rebuilding

A round 1 web cast confirmed the practicality of involving a broader group of stakeholders unable to attend public meetings due to time or distance.



The list of project alternatives was screened using three stringent criteria.

- The problem had to be related to, or caused, by the hurricanes of 2005 and included in the December 2005 Authorization from Congress
- The solution can be implemented in the near-term. It needs to be pre-engineered, easily done and accomplished with little to no opposition and no unresolved issues
- The action compliments the effective work of others and supports the objectives of State and/or local plans for recovery of Coastal Mississippi.

12 short-term project candidates emerged from this process. These were reviewed in a second Regional Coordination meeting and a second round of public input meetings. Several additional recommendations were offered and evaluated. Perhaps most significantly, no objections were raised to any of the near-term recommendations.

Public workshops were held May 1-3 in Jackson, Harrison and Hancock counties. These workshops confirmed that there is strong consensus that continuing public input is expected in the comprehensive planning process

There is general, but not complete consensus on:

- Near-term criteria were understood and appropriate
- The selected projects will be beneficial
- Projects have been distributed fairly across Counties
- The selected projects meet the near-term criteria
- A balance of natural and engineered solutions has been selected

There are differing assumptions and perceptions that the projects selected will make a difference in future flooding and tidal surge events

A second-round web casts attracted a larger audience and was highlighted by energetic, technical questioning of the subject matter experts. This session has been posted to the web and may be viewed at <a href="http://www.mscip.org/workshop.htm">http://www.mscip.org/workshop.htm</a>

# We recommend the following next steps:

- 1. Review the draft documents, edit as necessary and get them posted to the MISC website. Use the archive of the 5/3 web cast to show how the process worked and how public input/comment will be used in shaping the 12/07 comprehensive plan.
- 2. Send a thank you note (letter AND email) to process participants
  Offer them an opportunity to download or request a copy of the near term action items, an idea of what the next steps in the process will be and how they can participate. Let them know that another round of comment is planned for late summer/early fall and take advantage of the email addresses that have been collected in this process. Encourage them to share this with friends and associates.



#### 3. Issue a press release summarizing the process

Stress how public input was used to determine the near-term project alternatives and let the public know how they can participate in future input on the comprehensive plan. Repeat and underscore this message in a series of future releases to let the public know what's happening.

#### 4. Start vetting the list of long-term projects with Federal partners

A great place to start narrowing the list of comprehensive project alternatives would be convening a meeting of Federal agencies. Identifying common opportunities, priorities, gaps and potential duplication of effort/jurisdiction could help present a more uniform approach to long-term planning. There appear to be many unresolved questions on the part of the public that such a meeting could help resolve.

#### 5. Conduct a follow-up survey with process stakeholders

Use this as an opportunity to continue the dialogue going with registered and establish new contacts that will participate in future events.



# Mississippi Coastal Improvement Project (MSCIP) Public Comment Transcripts May 9, 2006



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# **MSCIP Public Input Comments**

This segment captures web-based comments, comment cards and those submitted to the court reporter at two rounds of public workshops. Commenters had the option of categorizing their ideas in approximately 50 topic areas as well as submitting contact information to remain involved in the process. Not all comment areas generated responses.

In several cases, specific documents were offered for inclusion in the document. These are reproduced as submitted in the Appendix section of this document.

# 1. Hurricane Storm Damage Reduction

We don't need to manufacture projects that give people false sense of security that they live in a safe place. We can never manufacture or engineer manmade projects that can prevent storm damage from happening. I think it's senseless to give people that false hope and invest their life savings based on a project that's not going to stop 30-foot waves. On all projects, the cumulative and secondary impacts, both plus and minuses, should be considered. Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

Preserve wetlands. Purchase wetlands for preservation. Encourage wise development such as retaining areas with permeable surfaces. Restore grassbeds in the Mississippi Sound.

Howard Page 224 Walston Avenue Gulfport, Mississippi 39507

Should CSXT abandon its Gulf Coast route, replacement of the bridge would not be necessary. The existing bridge could be demolished, thereby removing it as an obstacle.

Mike Turner P.O. Box 2267 Bay St. Louis, MS 39521

No short-term projects should be considered. Only projects that have long-term goals and long-term sustainability should be considered because of the tightness of taxpayers' dollars.

Only projects that use ecosystems to manage watersheds should be considered.

Paula Vassy 3125 Graveline Road Gautier, MS 39553

Anything that can be done to protect the coastlines from future storm erosion is imperative. What has happened to Beach Blvd. in Bay St. Louis has caused great economic distress.



# 2. Preventing Saltwater Intrusion

The creating of new coastal tidal marshes replace some of the ones lost by industry or storm damage would be of utmost importance as secondary protection from saltwater intrusion. Thank you.

Paula Vassey
3125 Graveline Road
Gautier. MS

#### 3. Preservation Of Fish & Wildlife

Although I don't have a project, I think any projects that would enhance the environment, such as tree reforestation with native trees or stormwater retention ponds that use plants as part of the filtration process, creating marsh lands which protect us from stormwater or surges or it allows rainwater to disperse stormwater in a much more manageable, less polluting way is better. It also provides habitat for our fishery resources.

Paula Vassey 3125 Graveline Road Gautier, MS

This is vital to life in our area. Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

#### 4. Prevention Of Erosion

Repair bridge washout on Bay Avenue, Moss Point.
Repair bridge washout on Elderferry Rd, Moss Point (next to recycling Plant).
Repair bridge washout on Dutch Bayou East, Moss Point
Repair bridge washout on Dutch Bayou West, Moss Point.
Repair bridge washout on Orange Grove Rd, Moss Point (West side of school).
Daphne Viverette
4412 Dernny Street
Moss Point, MS 39563

# 5. Other Related Water Resource Purposes

One thing I would like is for the Corps to receive more money for regulatory enforcement and for enforcement of wetland fill activities, actually go out and enforce the law, to have plenty of resources to enforce that.

Also, wetland purchase and riparian buffer, purchase along all of the main waterways to include the Wolf River, Turkey Creek, the Biloxi, the chute can but, and the Pascagoula, Red Creek and Black Creek, to buy land along those water bodies and preserve it. That's it for now. Howard Page

224 Walston Avenue Gulfport, MS

1) Dradae Rayou Rottompacks to a deeper depth than the sline (Graveline Rayou & Simmos Rayou)



2) Corps needs to clear navigable water of debris but it also needs to pick up material that homeowners clear from their canals W/o CoE picking up h debris hat people bring to he roadsides then people will leave it for the Corps o Pick up.... Thus slowing the process.

Spencer Garrett
3507 San Marus Circle
Gautier, MS 39553

We had some work done previously by Corps of Engineers - more than pleased and very grateful. Dredge Bayou Bottlenecks to a deeper depth than the slips at Graveline Bayou and Simmons

The Corps need to clear navigable waters of debris, but it also needs to pick up material that homeowners clear from their canals. Without Corps picking up the debris that people bring to the roadsides then people will leave it for the Corps to pick up...thus slowing the process. Spencer Garrett 3507 San Marcus Circle Gautier, MS 39553

The Army Corps of Engineers has a history of cost-benefit planning on programs that doesn't work, especially in this situation. If we're going to have the money to do anything with, why should it have to be a cost benefit? Any savings, if we can save somebody from dying, drowning or losing their house, then that is a cost benefit. The Corps may not see it because it's free money that they're not responsible for. They are just being told to do the projects. The cost benefit for the Corps are an old, antiquated way of doing work.

You cannot manufacture a project to protect people from living in an inadequate location, such as building your house in known flood zones. It either shouldn't be allowed or it should be bought out or not allowed to be built, not build a 20-foot wall in front of it that will wash out in the next hurricane. Thank you.

In the Turkey Creek area in North Gulfport I understand that since cost-benefit ratio is not a necessity of these particular funds that there may be some relocation issues rather than buyouts that would be of benefit to the Turkey Creek residents. If it means by relocation they would put them in a different house in the same community on a road that doesn't flood and that their toilets flush, then I believe that would be a very good use of restoration funds.

Dredge projects that needed dredging, as documented through the county request of 14 projects, recently that they took off the table, should not be included as part of the restoration project. The restoration money could much better be served, the natural resources, by doing restoration and recreation of marsh through beneficial dredge, the use of the bridge as a barrier to wind and water surges, and maybe the Corps of Engineers will actually do some good projects this time.



All restoration projects need to be for the long-term rather than the short-term. They need to be done in the most feasible, sustainable way. So if natural is better than man-made and there's data to back it up, then most restoration projects or barriers, such as sand dunes versus a seawall, the cost benefit may be considered, but what we need to do is what needs the least maintenance, the longest-term effectiveness and the stability of the project.

When considering restoration projects we need to have better data to protect Mississippi coastal marshes, habitats and wetlands from commercial and industrial projects where we – which may would cause subsidence, sinking or flooding rather than using the wetlands as a natural resource to prevent those things. We do not want to end up sinking, such as Louisiana is sinking and has lost most of – a big portion of their marsh lands due to oil and gas industry channelization and other commercial projects, such as L&G, such as Chevron and Gulf Energy projects. They are down there wanting to do a lot of digging and dredging in areas that are considered essential fish habitat and protected areas for gulf sturgeon. We need to be able to mitigate for those projects, but we don't need to be continuing to allow projects to develop on a coastal line that disrupt our natural resources. Thank You. *Paula Vassev* 

Paula Vassey 3125 Graveline Gautier, MS

In reference to 8125 Meadowdale Drive, Hickory Hills, Gautier, I have monitored this canal since 1979 and it has slowly filled with silt from runoff, stormwater runoff. In January of '05 the City of Gautier cleaned out the ditches in our area and we had a tremendous rain in April of '05 which brought tremendous silt into the canal. If we don't do something about it to stop the stormwater runoff silt, we're not going to have a canal left. So hopefully the Corps of Engineers can help us to get this canal dredged out and also discuss the prevention of stormwater runoff with the local and county officials.

Douglas Phillips 8125 Meadowdale Drive Gautier, MS

We have often had many meetings with the Corps of Engineers and a discussion where we have gone to Mobile to give input and information that I would hope would be included where we have talked to several Colonels there and that we have had the Turkey Creek study that was done by the Mobile Corps of Engineers to the tune of a million dollars that was paid by the Harrison County Board of Supervisors.

There we addressed several problems that is in the area of which I represent, that area is the Turkey Creek Basin. The Turkey Creek Basin has afforded itself to be constantly within threat of trying to accommodate water that it was never designed, by the nature of its existence, to accommodate.

We had hoped in getting this Corps of Engineers' study that we could look at several aspects of trying to address it in the natural preservative sense. We have now trees that are down in the basin. This needs to get done by best management practices.

With the Corps of Engineers' study they had spoke about channelization, as well as trying to speak of levies, which, of course, at this point many of the citizens are very concerned with the Corps and any levies due to the Katrina problems with New Orleans.



We are concerned too that there should be alternative measures that should take place in the Turkey Creek Basin with restoration and with preservation. We should also look at land trusts and trying to look at what we can do with trying to get the western most part of the Turkey Creek Basin to have some form of outlet.

We have many areas that is under consideration. Right now we have an area that's called Rio Grande, Amazon as it is truly called because it's an Amazon area that has had repetitive lost, Magnolia, that we have stated to the Corps of Engineers many times that because of its location to the Turkey Creek Basin would be ideal, as well as the citizens think it is ideal, because of the repetitive loss of over five to six flood areas.

In the Turkey Creek community, prior to Katrina they have never had water in their homes. Of course, Turkey Creek not being the benchmark of the previous storms decided that they would take on the entire coastal cities where water has never gone before and now water has attained itself into homes.

We are concerned tonight that we have very limited opportunity to go forward. We understand the constraints of the money that has been given by Washington, but the importance of long-range goals here is going to be essential to helping our city, especially the area that I represent. Thank you. *Ella Holmes-Hines, Councilwoman P.O. Box 10183 Gulfport, MS, MS 39505* 

What I told him was that we have Lake Yazoo, which is in a state of deterioration from the fact that the natural inflow and outflow of water from the Pascagoula River was blocked off because the natural channel was blocked off to provide real estate for building of the shipyard in the World War II.

The mitigation was a narrow canal at the south end of Lake Yazoo that opens out into Pascagoula Bay right next to the mouth of the Pascagoula River. The result of the impact of that has been a silting over of the lake itself extending all the way up into the upper Yazoo Bayou, extending down into the Pascagoula.

The recommendation or request is that the studies be made to lead into restoring something somewhere near the natural depth of the lake so that it can accommodate some boat traffic and clean out the pollution that has resulted from the natural runoff from the shipyard. That's one project.

He says the other -- another project he said would be the recommendation that somewhere in Lake Yazoo or in Yazoo Bayou low level weirs be installed to permit high-tide water to come in but to maintain the water level of a foot, foot and a half over the level of the bottom so that the mudflats don't show and this provides for the -- for the -- provide for habitat for mosquito eating, mosquito larvae eating fish, like bull minnows, and also to provide -- provide for reduction of the erosion along the banks so that the banks can be contoured and developed into attractive areas rather than unmaintainable weed banks. It can't be maintained running right into the middle of Pascagoula. That's the two projects.

The same thing that applies on that weir thing, the same thing that I was talking about on the weirs would also apply to Communy, C-o-m-m-u-n-y, Bayou, that is also silted over and provides mosquito breeding puddles when the tides are low and the presence of weirs would maintain a water level covering the mud and providing habitat for larvae eating fish.



It would also beautify the whole thing. It sure is ugly, both of those are ugly. That's what I want to see happen. Actually, those are things that are uppermost in my mind.

There are at least two other estuaries that open out onto the beachfront and at least one other estuary that opens out onto the river above Highway 90 that -- that could and should be studied for this same concept of ecological enhancement with the use of weirs, low level dams, and I know that when you say dams, the Corps of Engineers says, oh, yeah, that's what we like. It's w-e-i-r-s, by the way.

Ovide Davis
1321 Garfield Street
Pascagoula. MS

#### 7. Barrier Islands

Restore the barrier islands

I am a life-long resident of Gautier or Jackson County, Jackson County or Gautier. I have been going to Horn Island every since I was a small kid, also Dauphin Island. I think Dauphin Island's dunes has really saved Dauphin Island.

I think the cheapest and best thing that could ever be done for our islands, Petit Bois and Horn Island, is put a major dune at the south end of the island parallel with the island and as wind blows the sand would create -- when I was a kid there was more dunes on Horn Island then there are now. Horn Island and Petis Bois was closer together. I think by dredging the channels so deep has caused a lot of erosion and disappearing of the island because the digging out is for ships to come in to pass there, it involved the pass, and they have enlarged the pass.

The cheapest thing that you could ever do is to put a dredge boat outside of Horn Island or Petit Bois and come right down the island and throw a 20-foot berm up high. The wind would blow the sand and I think the palmettos and the pine trees behind it would come back, and I think the island, that would be the quickest way to restore that island would be to let mother nature to do it with a sand dune on the south side of it.

If anybody had any thoughts to go to Dauphin Island and look what Dauphin Island looks like behind the sand dune, if Horn Island and Petit Bois looked like Dauphin Island, our island would be enhanced more than any one thing they could possibly do and it would be the cheapest process.

Hurley Guillotte
3004 Ladiner Road
Gautier, MS



Unless we close the Mississippi River Gulf outlet, anything we do on this coast is not going to help, you know, as far as worrying about sand dunes and all of that, it's not going to help.

The east end of the Louisiana marsh, the tip of the boot of the Louisiana marsh of Louisiana is due south of us. Years ago all the fresh water from Lake Pontchartrain, all the rivers coming in there, the Bogue Falaya, Bogue Chitto, Tangipahoa, all of these rivers, and the Old River of Baton Rouge, all of these fresh water rivers came into Lake Pontchartrain and used to drain into Lake Boren.

As they went into Lake Boren they went into the marshes all below the east end of the marsh through the bayous and the lagoons and everything. The sediment went over that way. When it couldn't go through the marsh, it curved around south of the tip of the boot and it went to our barrier islands. It gave fresh water for grasses to grow and stuff along the islands. They had grass on them islands maybe, I imagine, two and a half to three feet high on the bottom, you know, years ago when I was fishing there.

And I grew up in the marsh, east end of the Louisiana marsh. If they would block off the Mississippi Gulf outlet, if they would block it off, all of that pressure of the fresh water would filter back through the marsh and help create a brackish marsh, but when that water goes down through -- that fresh water goes out the Mississippi River Gulf outlet and hits the saltwater, it's gone forever, the sediment and everything is gone forever once that saltwater hits it.

It's a simple thing, they need to close it. They need to get rid of that Mississippi River Gulf Outlet. I have seen a deterioration just when they dug it. When they dug it I seen the east end of the Louisiana marsh start deteriorating.

And too, they need to close some of that marsh to boats, all boats, you know. In other words, people are digging up the bottom sediment and moving it, you know, close it. Just have certain places where boats can go in at, you know, or just small outboard motors, something small, nothing big, you know, just certain areas, you know, for that, you know. I guess that's basically it, you know.

Unless they close that Mississippi River Gulf outlet nothing we do on this coast is going to make any difference, and it would have to be a long-term thing to rebuild that east end of the Louisiana marsh. I have seen islands disappear all over the place. I have seen shorelines completely change, you know, and unless they do something about that saltwater incursion that's there, it's over with. That's basically it. Ronald "Poss" Tanguis 2106 Arnold Waveland, MS

Restore the barrier islands and reefs Roadways are needed Build storm-proof public safety buildings Will Platts Box 6271 Gulfport, MS 39506



# 8. Bays/Rivers/Sounds

Coleman Avenue Marina, Waveland, MS Suzanne Cotter 335 Coleman Avenue Waveland, MS 39576

#### 11. Coastal Restoration

Restore the Barrier Islands and reefs. Will Platts P.O. Box 6271 Gulfport, MS 39506

#### 13. Communities

Is there any reason that you don't include communities in Jackson County on your slide of affected communities? Pascagoula and South Gautier have been devastated by this storm!

Spencer Garrett

3507 San Marcus Circle

Gautier, MS 39553

Cities should continue to enforce current codes rather than grant indiscriminate variances that are detrimental to current neighborhoods. Our Hickory HIlls area was fortunate to not sustain devastation as in other areas. However the variances that have been granted by the city since have wreaked more havoc than Katrina ever could. Over 100 FEMA trailers sit empty in Wonderland Park yet Habitat is being allowed to erect homes in our area that do assimilate with our area. This housing is not needed. A moratorium should be placed on building in the Hickory Hills area of Gautier until the infrastructure is capable of handling it. Our drinking water is brown (most buy water), drains were trenched deeper than culverts allowing a veritable mosquito paradise in stagnant water at the roadsides. Bayous are filling with runoff silt from building sites where the minimum silt fencing is not enforced. As per the Sun Herald editorial of Sunday 9, "communities must devise - and implement - RESPONSIBLE as well as visionary plans for the future as quickly as possible."

# 16. Ecosystem Restoration

Special funding or tax incentives should be available to landowners who desire to preserve, enhance and protect native ecosystems. Included in this would be the protection of threatened and endangered plant and animal species.

Joe Pettigrew p. o. box 592 Kiln, MS 39556

The coast is probably the most sensitive ecosystem in all of Mississippi. It needs all the help possible to maintain its integrity.

Ron Forsythe 129 Moss Lane Madison, MS 39110



Refurbishment Project: Jackson Marsh from Idlewood blvd. to Beach Blvd. Waveland, MS Suzanne cotter
335 Coleman avenue
Waveland, ms 39576

#### 18. Estuaries

Hurricane Katrina has dramatically pointed to the importance of preserving our the wetlands we have left adjacent to the Mississippi Gulf Coast. With the inevitable push to develop more and more coastal property, the Corps of Engineers must double and triple it's vigilance as the custodian of our wetlands. Whenever filling of wetlands becomes essential for some overriding public good, the Corps must insure that ample mitigation is extracted AND that it be the creation of equal or better wetlands IN THE COASTAL AREA, not at some obscure location near Starkdale (for example). Thank you. *Robert Davis* 127 Felicity St.

Bay St. Louis, MS 39520

# 19. Evacuation Planning & Routes

Please devise a route from the MS Coast to Houston so we can get there when Louisiana's contraflow goes into effect.

Roadways are needed. Build storm-proof public safety buildings Will Platts Box 6271 Gulfport, MS 39506

South Street behind Buccaneer State Park has to be built up for its use as an evacuation route. Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

Evacuation routes should be clearly marked and access to areas outside the flood zones should be clearly defined. We need to establish shelters for those who cannot afford to evacuate. Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

Raise South Street behind Buccaneer State Park (evacuation route) Waveland, MS Suzanne Cotter 335 Coleman Avenue Waveland, ms 39576

Work needs to be done on evacuation of the people along the MS Gulf Coast and more work needs to be done to help the water not come over Highway 90 Bettie Bishop

202 Vernon Rigney Rd. State Line, Mississippi 39362



# 20. Fishing

Removal of storm debris from fishing channels, especially shrimping is a big concern. Who is in charge of this? We understand MS DMR has \$30,000,000 devoted to this. What are the priorities being established?

#### 21. Flood Control

Outflow culvert on Beach Blvd. and Jackson Marsh. Culvert needs to be enlarged. Suzanne Cotter
335 Coleman Avenue
Waveland, ms 39576

I went to the meeting held in Gautier on May 4. One of the projects for Jackson County was for the improvement of drainage for Gautier. That list of improvements did not list Bayou Pierre which provides most of the drainage for east Gautier. Bayou Pierre has filled in from the storm and has debris blocking water flow. I provided pictures at the meeting. When we have heavy rains or high southern winds the roads overflow in three places Two on Spanish Trails Road [old highway 90] and one place on Graveline road. The city puts up barriers on those occasions. Bayou Pierre has four branches that provide drainage into one bayou. When I came home the next day, there was still water running across highway 90 trying to get out via Bayou Pierre. We had to wade thru water on Graveline to check for damage. Please add Bayou Pierre to the list of Bayous for dredging and debris removal.

Jim Thorp 505 Bayou Pierre Gautier, Ms 39553

Riverfront Bulk Head

# 23. Growth And Development

If casinos, condos, etc take over the coast, it will completely change the coast from what is was prior to Katrina. there will be no need for environmental restoration and preservation, the coast will be nothing but concrete.

I think a Marina at the foot of Coleman Avenue in Waveland could enhance the economic growth of our old downtown that was destroyed by Katrina. I know many people who are in favor of this happening, but usually when it was brought up just a few of the residents close to the site would show up to register their objections. More people want it than don't want it.

Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

Coleman Avenue Marina, Waveland Suzanne cotter 335 Coleman avenue Waveland, ms 39576



Is a marina considered a way of protecting the shoreline? I would love to see a marina at the end of Coleman Avenue in Waveland.

Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

# 24. Invasive & Exotic Species

I would like to see resources placed towards controlling the spread of cogon grass, an invasive grass, within the 6 MS coastal counties. Cogon grass is already present in MS and will only get worse with dramatically increased ground disturbing rebuilding activities. Added emphasis and funding for MDOT and county roadway departments to spray cogon grass infestations along roadways would go a long way towards controlling the spread of this aggressive invasive plant.

David Felder 6578 Dogwood View Parkway Jackson , MS 39213

# 26. Local Drainage Improvement

The Point Clear area of Gautier is a network of canals/bayous that receive the runoff from a large section of Gautier. Much of that runoff does not flow thru storm drains/culverts, but rather thru surface drainage ditches. Thus there is a great deal of erosion and silting. Reduction of the erosion would produce a corresponding reduction in silting. We need a systematic plan to improve drainage/reduce erosion, and dredging of all the canals/bayous to their original depth.

Improve inlets of tributaries which restrict natural flow, cause excessive silting and reduce navigability. Example are tributaries off of Graveline Bayou North of Point Clear Riviera in Jackson County. Currently, bait fish enter this waterway, but seldom any other species. They tend to stay in the deeper water where flow is not restricted. I would like to add a name of the tributary I am specifically referring to at a later date when I find it. By road it is the waterway adjacent to Seacrest Drive in Gautier, MS. Dredging of canals is a priority.

Larry Brewster 2323 Starfish Road Gautier, MS 39553

Most of the Gulf Coast area is river delta, which would be natural wetlands but we make it buildable by digging drainage ditches to lower the water table, but it can't go below sea level. With more development there's more immediate runoff and the drainage can't accommodate.

Commercial developments are required to provide catchment basins with capacity for runoff from roofs and paved areas . Residential developers sometimes use an otherwise unbuildable area by dredging a pond and using that for fill dirt to raise the building sites, and the pond becomes an amenity for the residents.

We have many unused, or underused, areas along the drainage canals. How about building a public park system with ponds and canals that also serve as catchment basins?

Glen Sandberg 2514 19th Avenue Gulfport, MS 39501



Dredge Bayou Bottlenecks to a deeper depth than the slips at Graveline Bayou and Simmons

The Corps need to clear navicable waters of debris, but it also needs to pick up material that homeowners clear from their canals. Without Corps picking up the debris that people bring to the roadsides then people will leave it for the Corps to pick up...thus slowing the process.

Spencer Garrett 3507 San Marcus Circle Gautier, MS 39553

Dredging of canals is a priority Larry Brewster 2323 Starfish Road Gautier, MS 39553

Help! We need our waterways cleaned and cities need to keep silt runoff out! Douglas R. Phillips 8125 Meadowdale Drive Gautier, MS 39553

In reference to 8125 Meadowdale Drive, Hickory Hills, Gautier, I have monitored this canal since 1979 and it has slowly filled with silt from runoff, stormwater runoff. In January of '05 the City of Gautier cleaned out the ditches in our area and we had a tremendous rain in April of '05 which brought tremendous silt into the canal. If we don't do something about it to stop the stormwater runoff silt, we're not going to have a canal left. So hopefully the Corps of Engineers can help us to get this canal dredged out and also discuss the prevention of stormwater runoff with the local and county officials.

Douglas Phillips 8125 Meadowdale Drive Gautier, MS

My community is the members of Turkey Creek, North Gulfport, Forest Heights, Villa Del Ray, Rolling Meadows, and so forth, which is the lower Turkey Creek watershed, 95 percent African-American and low or moderate income, we do not want the Corps to employ engineering solutions, so-called solutions, to drainage or any other issues on Turkey Creek, with the exception of restoring the damaged levy encircling the Forest Heights subdivision.

What we want is for the Corps, or anyone else who is so inclined, including the DMR, the NRCS, DEQ, EPA, to support our community-based plan for an urban greenway in the Turkey Creek watershed, including lots of wetland and other habitat restoration.

For example, if the Corps wants to buy some filled-in land near the creek or abutting the creek and restore it to its original wetland function, that would be fine, but as far as anything non-natural, we don't want it.

The creek -- my mother almost died during Katrina, and her husband did die after, because the flood water in their home reached her chest level on August 29. One of the reasons the flood water was so high in her home was the cumulative loss over the years of floodplain and wetland habitat to the south of her home and upstream from her home.



Just last week on Polk, south of the creek and southwest of the airport, there were four wetland destroying or impacting projects underway on the same day involving dozens of acres of land, some of which were not permitted, some of which had Corps' permits but were being improperly done, all of which spell a worsening of the situation that confronted my mother on August 29.

Our solution has been for over two years to promote restoration, conservation, and public usefulness through a Turkey Creek watershed greenway that includes a canoeable, hikeable, naturally pristine Turkey Creek waterway and not additional impervious surfaces or wetland destruction.

Over 250 people attended a community planning workshop at the Good Deed Community Center in North Gulfport on January 7th, 2006, and expressed unanimous support for this greenway, which includes habitat restoration, wetlands restoration, reforestation, and so forth, to improve drainage, water quality, public safety with respect to the proliferation of Cogon grass which burns very hot, 850 degrees and doesn't like shade.

So, you know, the community does have a plan and a preference. It includes a number of sites that are currently owned either by the City of Gulfport, the airport, Mt. Pleasant United Methodist Church, the Forest Heights Missionary Baptist Church, the North Gulfport seventh and eighth grade school, the canals in Long Beach, and some private properties have all had project sites -- projects identified. Some of them have already been funded. Some of them will soon be funded.

If the Corps of Engineers would like to be a partner and contribute to this approach to improving the quality of life and the public safety and other benefits to the public on Turkey Creek and in the Turkey Creek watershed, we support them. Otherwise, the Corps should stay home or focus itself on projects outside of the Turkey Creek watershed.

Derrick Evans 14439 Rippy Road Gulfport, MS

The outflow culvert on Beach Blvd. and Jackson Marsh in Waveland has to enlarged. Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

Please fund the requested projects for the City of Waveland, Ms. Ron Calcagno 401 Favre St. Waveland, MS 39576



I went to the meeting held in Gautier on May 4. One of the projects for Jackson County was for the improvement of drainage for Gautier. That list of improvements did not list Bayou Pierre which provides most of the drainage for east Gautier. Bayou Pierre has filled in from the storm and has debris blocking water flow. I provided pictures at the meeting. When we have heavy rains or high southern winds the roads overflow in three places Two on Spanish Trails Road [old highway 90] and one place on Graveline road. The city puts up barriers on those occasions. Bayou Pierre has four branches that provide drainage into one bayou. When I came home the next day, there was still water running across highway 90 trying to get out via Bayou Pierre. We had to wade thru water on Graveline to check for damage. Please add Bayou Pierre to the list of Bayous for dredging and debris removal.

Jim Thorp 505 Bayou Pierre Gautier, Ms 39553

Outflow culvert on Beach Blvd. and Jackson Marsh. Culvert needs to be enlarged. Waveland, MS Suzanne cotter 335 Coleman avenue Waveland, ms 39576

Now, the drainage back there, just from the rainwater, drains to the east end of Graveline Road or Orrell Drive. It comes back and forth south from Orrell and east and west off of Graveline Road. It drains back in there behind my house, comes through over and has really got a -- they cut several years ago through the bulkhead and it drains in that bayou right there and all of that silt just comes on down in there and fills it up.

Then on down a couple hundred yards, Mr. Tharp had the pictures, a couple hundred yards around that bend before you get to Bayou Perrier, that bend, that's where everything is plugged up.

Now, if you go north along the railroad track in Bayou Perrier, this marsh, the bigger part of it, that has got a lot of silt and buildup in it that goes in back behind Sandlewood Subdivision just west of Orrell Drive, and all of that needs to be -- the silt and stuff removed from it.

One leg of that Bayou Perrier there from my house to Bayou Perrier bridge, you can't float a toothpick in it. Now, we'd just like for us to be put on the list and something be done about it. We feel like whoever made the list up forgot Gautier and didn't know anything about it.

Ralph Hootey and about 22 or 23 people that came down there, EPA, the Department of Rain Resources, the Coast Guard, and I can't tell you all of that, man, there was all kinds of organizations down there with Ralph Hootey that day, they seen it. We'd just like to be put on the list and taken care of. *Richard Brown*508 Graveline Road
Gautier, MS



# 31. Oysters / Oyster Reefs / Shellfish

Removal of storm debris from fishing channels, especially shrimping is a big concern. Who is in charge of this? We understand MS DMR has \$30,000,000 devoted to this. What are the priorities being established?

Establishing oyster beds without preventing pollution or runoff should not be allowed. It's senseless to spend thousands of dollars to pile oysters up for re-creation of a reef to filter water when the water quality going into the water is so bad that the oysters can't live.

I don't know if the Jackson County area is one of the places where they are talking about establishing oyster reefs. I don't know if we will ever get back to a harvestable state. The stormwater runoff is so bad, it would prevent us from harvesting. Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

Oyster beds, to add oyster beds and grass beds for oyster and grass beds to create oyster beds and grass beds and natural dunes along the coast and the barrier islands.

Howard Page

224 Walston Avenue Gulfport, MS

#### 32. Pollution / Contaminants

I am once again concerned about pollution, particularly at the port of Gulfport. In the stormwater runoff there was some radioactive material that had been there on-site, and I want to know if there would be projects ongoing that could compensate for finding out where some of that pollution went to.

I think all stormwater drains need sedimentation or dropout ponds before they are pumped in or allowed to run off into any bays, bayous or the Gulf of Mexico. Only projects that consider the entire watershed approach should be allowed.

We don't need to manufacture projects that give people false sense of security that they live in a safe place. We can never manufacture or engineer manmade projects that can prevent storm damage from happening. I think it's senseless to give people that false hope and invest their life savings based on a project that's not going to stop 30-foot waves. On all projects, the cumulative and secondary impacts, both plus and minuses, should be considered.

Although I don't have a project, I think any projects that would enhance the environment, such as tree reforestation with native trees or stormwater retention ponds that use plants as part of the filtration process, creating marsh lands which protect us from stormwater or surges or it allows rainwater to disperse stormwater in a much more manageable, less polluting way is better. It also provides habitat for our fishery resources. Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS



#### 34. Railroads

I am strongly opposed to the proposed CSX buyout and relocation of their existing railroad line through northern portions of Hancock County. At a fraction of the 700 million dollar costs, a public service program could be offered to remind people simply to STOP, LOOK, AND LISTEN! Keep the railroad line in its current location.

Joe Pettigrew p. o. box 592 Kiln, MS 39556

The CSX railroad should be moved north to increase commerce for our area. The abandoned tracks could be used to solve local transportation problems. It could even provide a transportation source to reach New Orleans from the coast and vice versa.

Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

# 40. Surge Control

Reclaim erosion from bayous tributary veins and return to personal property for the losses. This in turn would build up property value safer from storm serge n the future of flooding. A while back, someone submitted a letter to the Editor in the Sun Herald Newspaper that brought out the fact that Hurricane Camille had taken away part of each of the Barrier Islands south of the Mississippi Gulf Coast. That brought to mind a thought that should be taken into consideration.

That is to say, since there is so much destruction along the Gulf Coast, it would be a great idea to load all that broken concrete, asphalt, destroyed bridge sections, bridge spans and the tremendous amount of rip rap on barges. Then take it out beyond the twelve miles to the horizon and strategically dump it all to create a new set of three twenty foot above Mean Tide Barrier Islands, one behind the other.

The dumped material could be covered with concrete to make it as solid as possible and shaped to a blunt point at the top. With three synthetic Barrier Islands spaced about two hundred yards apart, any Tidal Surge would be broken up and reduced just large white caps.

The future of the Mississippi Gulf Coast and all along the rest of Gulf Coast will depend on what we do now to protect it from future Tidal Surges resulting from Giant Hurricanes like Katrina.

Anthony J. Gagliano, Sr. 300 Holcomb Blvd

Ocean Springs, MS 39564-5038

# 44. Vector Control (Mosquitoes)

Construction of low level weirs at the outfall of estuarine streams will maintain water levels on the inland side. Many benefits can be derived including mosquito control, erosion control, enhancement of growth of natural fish species, and beautification.

Ovide J Davis 1321 Garfield St.

Pascagoula, Mississippi 39567



# 45. Visual Resources (Scenic Beauty)

Keep green spaces and water views for the public.

# 47. Water Quality

Water Quality: With wastewater disposal and retention areas, anything that could be included in the project to cover the expenses of generators or other mechanical items that may would aide in the disposal of wastewater in the aftermath of a hurricane would be better than allowing raw sewage to flow down our bayous, on the ground, then into the Gulf of Mexico, it would be appreciated. Paula Vassey.

#### 50. Wetland Restoration & Protection

I agree with the people that said those questions need considerable refinement in the categories they have used. I think they are okay to start off with as far as just getting a very general idea of what people want on the first night, but several of them need refining. I would have to look at the list again to see what they were.

One of the problems is that when we talk about restoration, you know, what point in time do we go back to for the restoration, and that's a subjective thing. Everybody thinks his own time is more important. You know, you might even get people who want pre-Camille.

You might even get people who want to go back further to 1930 who can remember the Isle of Capri being there who would like to see it restored. I have no objection to seeing it restored. There may be some good reason for it that I am unaware of.

I don't think you're going to get anyone who wants to go -- who thinks that Petty Boy Island should be restored to Alabama as it was in 1798, nobody is going to go back that far.

So when we talk about restoration, we need to get a common ground here and try to find an average or a thing that is acceptable to most people of the level of restoration we want.

Maybe there are reasons for going back further, maybe they're not. Maybe we're better off letting nature take its course, but restoration needs to be defined. The question about restoration needs to be defined and refined, I would say.

Of course, when you talk about doing it for future generations, you know, this kind of disaster can occur next year, which will make the whole question moot.

I was just amazed at the lack of information and my own ignorance on the subject. Even though I had been here 33 years, I had all the old-timers who had been here longer than I had telling me that Camille was the worst disaster and nothing could ever be as bad as Camille.

So I left all my things on the first floor of my house when I went away up north for the summer thinking that -- thinking they were probably right. Now I can't believe I was such a chump to believe that. I should have had more sophistication. I should have realized that, you know, 200 years of hurricane reporting is very little time really in the overall geological history.



If you went back to 950A.D. or sometime like that you'd probably find one that's ten times worse than this was. I think greater information needs to be disseminated, people need to be aware of this fact, particularly millionaires who are rebuilding their mansions from scratch right on the shore.

I think you have to consider what's environmentally friendly, what components of the environment have permanence and which ones don't.

My particular field of expertise is trees, and I can tell you, for example, that there are only three species of trees here on the coast that have great longevity, which are the Live Oak, the Southern Red Oak and the Bald Cypress.

If you compare them to trees on the west coast, such as Red Woods, Sequoyah, or even in the north where you have the White Pine, the White Pine may live five or 600 years. These pines around here are geared to live only about 100 years or so. They grow very, very prolific. They grow very fast and then they die at the age of 100, which is due in part to the fact that they have a relationship with hurricanes. They know they live in a hurricane zone and they become adapted to this over a long period of time.

So you think, well, which things are expendable in the environmental restoration and which aren't?

The only one that can really stand up to the hurricanes, and therefore, have long lives are the Live Oak and, you know, the three species I mentioned. So you have to make these kinds of divisions and distinctions when you're talking about restoring the environment.

That's all I wanted to say really. Thank you. Christopher Verdery 6912 Shore Drive Ocean Springs, MS

Preservation of wetlands in a watershed is essential to reduce flooding. Howard Page 224 Walston Ave Gulfport, MS 39507

Only projects that use ecosystem to manage watersheds should be considered. Paula Vassy 3125 Graveline Road Gautier, MS 39553

Preservation of wetlands in the watershed is essential to reduce flooding. Howard Page 224 Walston Ave Gulfport, MS 39507

Jackson Marsh in Waveland is an area that deserves much attention. We need to preserve this area and restore the wildlife there.

Katherine Pinn

Ratnerine Pinn 7629 Fairway Drive Diamondhead, MS 39525



Please restore Jackson Marsh in Waveland. Katherine Pinn 7629 Fairway Drive Diamondhead, MS 39525

Refurbishment: Jackson Marsh from Idlewood to Beach Blvd. Waveland, MS Suzanne Cotter 335 Coleman Avenue Waveland, ms 39576

As the COE knows, one of the most important ways to slow the storm surges is to maintain the existing and valuable wetlands along the coast. However, the compliance/enforcement areas of the COE are ridiculously understaffed and illegal wetlands filling as well as violations of permitted projects is rampant along the coast. The cradle to grave mentality of assigning one COE employee to a site from start to finish including compliance and enforcement is not working. Even when the community members call with legitimate complaints there are not enough employees to appropriately follow up. The COE desperately needs to hire several people whose sole job responsibility is to perform routine compliance inspections, to respond to complaints of violations and to monitor for illegal wetlands filling.

Thank you for considering this very important issue.

Holly Gordon Stanford Environmental Law Clinic 559 Nathan Abbott Way Stanford, CA 94305

#### 51. Communication

Problems with the website, a lot of the people here, although they don't have electricity or phones, may have some access to some computers somewhere, but computers down here right now aren't always the best way to stay in touch with people. Written documentation provided to people would be a much better way to contact people. Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

This appears to be a very effective communication tool Jacklyn Turner Box 686 Pascagoula, MS 39568

Keep it up! Warren Gautier 2810 Washington Avenue Gautier, MS 39567

I saw the newspaper article with a dateline of Mobile, AL. THAT totally threw me. I would NEVER have read that. Your press release in a MS press. There is NO WAY the average person would read this. Joahan & Jim McDole

2201 Callie Road

Gautier MS 39553



The average person would not have read your press release in MS Press. Joahan and Jim McDole 2201 Callie Road Gautier, MS 3153

Poor location
Poor notification of the public
Lack of handouts explaining the meeting's purpose
Lack of citizens attending the meeting
Paula Yassey
3125 Grapevine Road
Gautier, MS 39553

More public information about these meetings is needed. I learned about this by accident! Office number is 228-868-5848

Barbara Nalley
Box 3113

Gulfport, MS 39505

First, I am concerned there's no written documentation discussing the projects. Second, I am concerned about the notification method of the meeting. We have nothing to go on. So we're in a meeting blind. I don't think that we will have the opportunity to actually offer comments on a project when we didn't know what the situation was. The changing of the meeting from one building to the next is extremely confusing.

I'd just like to say that I am unhappy with the meeting itself. I am unhappy with the way it was put together and the way we were notified. I was notified by Ella Holmes-Hines through the Sierra Club, I think, from Jackson County. I live here in Gulfport and the meeting is in Gulfport and I knew nothing about it.

Once I got to the meeting, I didn't even know what the meeting was about. I just knew there was a meeting. So then I was asked to vote on some things that I have absolutely no information on.

So a lot of the questions I didn't answer because they were multiple choice and they were phrased in a way that I did not want to answer. So that's about all I have to say, that I am very unhappy with it.

In the future you should notify the people in the community so they can show up and participate and give their input, but the notice has to be great enough and far enough in advance that we know what the meeting is, what it's about, where it is, the time, everything, and the right people are contacted so they can get the word out to the community.

I know they say they put it in the paper and they sent letters, but none of it us got it. We live in the Turkey Creek community. I know Reverend Jackson, they definitely have his address, but he didn't get a letter of invitation either. Thank you. I said I live in the Turkey Creek Community, I am with the Turkey Creek Homeowner's Association.

Martha Snelling 14336 Rippy Road Gulfport, MS



#### 52. Other Comments

No short-term projects should be considered. Only projects that have long-term goals and long-term sustainability should be considered because of the tightness of taxpayers' dollars.

We don't need to manufacture projects that give people false sense of security that they live in a safe place. We can never manufacture or engineer manmade projects that can prevent storm damage from happening. I think it's senseless to give people that false hope and invest their life savings based on a project that's not going to stop 30-foot waves. On all projects, the cumulative and secondary impacts, both plus and minuses, should be considered. Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

- \*Bayou Casotte
- \*Dutch Bayou
- \*Brickyard Bayou
- \*Four Mile Creek
- \*McInnis Bayou
- \*Gurlie Bayou
- \*Rhondes Bayou
- \*Bennett Bayou
- \*Robinson Bayou
- \*Bearsdslee Lake(SE)
- \*O'Leary Lake
- \*McInnis Lake
- \*Black Creek
- \*Escatawpa River
- \*Pascagoula River

I came here to talk to the Corps of engineers. I need some questions answered. For instance, right there where 603 crosses Bayou LaCrosse, the waterway, they went in that marsh there and they are clearing it all out there and they have been in there for months and months.

What are they doing in that marsh? I trapped that marsh. They had no reason to go in there. If they were looking for bodies, they could have chopped a hole in the roof, let the dog go in there and let the dog smell and go on, you know, but they went in there and stayed in there and put platforms and are digging up tree stumps and everything else. I don't know what that was all about. I would like some questions answered.

What were they doing in there? And they spent a lot of money because they had these swamp buggies and they don't come cheap. Then when you started laying platforms to go in there to get stuff and put heavy equipment in there, they destroyed more than any good they might have wanted to do. They destroyed more habitat than what they did any good.

I would like to know the reasoning why they did it. I want those answers. Ronald "Poss" Tanguis 2106 Arnold

Waveland, MS



#### **Appendix**

#### Hancock County, Mississippi Long-Term Economic Development Recovery Projects

The economic development authority for Hancock County, Mississippi, is the Port & Harbor Commission.

Established under state statute in 1962, one of the first projects of the Commission was the development of a 1,200-acre industrial park known as the Port Bienville Industrial Park. Today the Park contains over five miles of man-made canals, a short line railroad connecting to CSX, and extensive infrastructure that supports some 16 industries that directly and indirectly support several thousand families in Mississippi and Louisiana.

Following Hurricane Katrina, the Commission assembled a list of capital projects vital to the recovery and long-term growth of the County's employment and tax bases. Its two top priorities--both of which are affected by Corps jurisdiction--are listed below.

#### 1. North/South Rail Link

This project would construct a north/south rail link connecting the Port Bienville Industrial Park to the Norfolk Southern Railroad through the NASA Stennis Space Center (SSC) buffer zone, and includes a rail extension to the Stennis International Airport.

#### **Rationale**

This project will establish a rail connection for Port Bienville Industrial Park manufacturers and other potential rail users in Hancock and Pearl River counties, and provide rail access to future development within the Stennis Space Center.

CSXT is the only existing connection to the national rail network for Port Bienville Industrial Park industries, and Norfolk Southern is the only Class I rail provider for Pearl River County. CSXT is prone to service interruptions from natural disasters, and recent announcements indicate that CXST may relocate or abandon its rail route across the Mississippi Gulf Coast. The tenants at Port Bienville Industrial Park have suffered numerous such interruptions over the years, costing them significant revenues, and loss of a rail connection would endanger thousands of jobs in Mississippi and Louisiana that are based in the Port Bienville Industrial Park. As an example, CSXT rail outages following Hurricane Katrina cost rail-dependent industries in Port Bienville in excess of \$20,000/day for some 100 days.

Other benefits of this project include reducing the likelihood of train/car accidents that regularly cause fatalities and injuries across the Gulf Coast CSXT rail corridor, and reducing rail-sourced air emissions. This project will also create a multi-modal capability at the Stennis Airport.

Estimated Cost: \$45,000,000

#### 2. East Pearl River Train Bridge and Channel

This project would construct a new train bridge\* over the east Pearl River and provide for the dredging of the river to a minimum of 12'



#### Rationale

Currently, all marine traffic that utilizes the Port Bienville Industrial Park and the Stennis Space Center must access these facilities via the Pearl River and Little Lake and the Rigolets in Louisiana in order to access the Intracoastal Waterway. This routing is due to the fact that the channel at the mouth of the east Pearl River hasn't been maintained by the U.S. Army Corps of Engineers for decades, despite that fact that it is on the list of channels that the Corps is authorized to maintain. In addition, the CSXT train bridge near the mouth of the river has a center support structure and narrow opening width, and is located just below a severe curve in the River, making it virtually impossible to accommodate barge traffic.

Following each major hurricane in the region, Little Lake silts in, requiring expensive and time-consuming dredging and inhibiting marine traffic. Following Hurricane George, the permitting and dredging processes took over 5 years to complete, and Hurricane Katrina again silted in the Little Lake passage.

The Port Bienville Industrial Park is currently home to eight (8) water-dependent industries directly employing over 550. Each time this passage is impaired with silt, marine commerce is adversely affected.

The construction of a modern train bridge over the east Pearl River and dredging the channel back to a 12' depth would negate Mississippi marine traffic from having to be subject to the siltation of Little Lake following hurricanes, and the cumbersome and expensive process of permitting this activity through the State of Louisiana.

Even if the current CSX rail line is relocated or abandoned, the necessity still exists to open the east Pearl River to Mississippi marine traffic.

The resumption of the maintenance dredging of the Pearl River by the Corps of Engineers would lift the burden of this activity from local government. The last two dredging projects in Little Lake cost in excess of \$2,000,000.

Estimated Cost: \$35,000,000



#### Restoration of Lake Yazoo in Pascagoula, Mississippi

#### Prepared by Ovide Davis for Corps Of Engineers meeting, Gautier, MS, 2006

Please include silt removal from Lake Yazoo in the projects under consideration for restoration and enhancement of the Katrina damaged areas on the Mississippi coast. The Lakes in the Yazoo estuary have been separated from the original source of fresh water (except rainfall) since before WWII.

The original natural connection to the Pascagoula River was filled to provide riverfront real estate for shipbuilding. The natural connection was approximately 1/2 mile upstream from the mouth of the river and was deep enough to provide for docking of ships over 150 feet long along the west bank of Lake Yazoo.

For mitigation, far from adequate, a narrow outfall canal was dug. This canal opens to the Bay of Pascagoula near the mouth of the East Pascagoula river. For over 65 years washdown from land fills and the shipyard have produced siltation along the entire length of the estuary.

It may or may not be feasible to restore a navigable opening of Lake Yazoo to the river, but, at the least consideration should be given to reconnection of the Lake to its original fresh water supply, the Pascagoula River. This could be done with a canal near the original connection, a subsurface aqueduct, or other mechanisms.

Restoration of this lake to an approximation of its natural depth would provide the necessary start for longer term recreational, aesthetic, biological, and other ecological enhancement projects with benefits to the entire region.



#### WEIRS FOR ECOLOGICAL ENHANCEMENT IN PASCAGOULA

Submitted by Ovide J Davis to the Pascagoula Renaissance Committee, March 2006

The natural streams and ponds in Pascagoula, Mississippi appear to provide an ideal opportunity for the use of weirs for very low cost mosquito control, erosion control and beautification. A weir is a small overflow type dam used to control the water level in small rivers and streams. Several locations in Pascagoula may to be ideally suited to the use of weirs for all of the above benefits as well as for recreational activities.

Weirs installed across the outflow of the estuaries, such as those formed by Lake Yazoo, Communy Bayou and Bayou Chicot would allow establishment and maintenance of water levels upstream which would provide year round habitat for small endemic fish such as gambusia (often called "mosquito fish"), Cocahoe minnows and other native species, all of which are aggressive predators of mosquito larvae. Research in Louisiana and other places has shown that mosquitos are better controlled in larval stages in breeding waters where the larvae are constrained, than when they are winged and not spatially limited.

Small fish predators of mosquitos are native to the area and stocks may be supplemented, if needed, at no or low cost from state fisheries. The fish populations increase in accordance with food supply and maintain balance with their environment.

Survivable water Temperatures and pH levels (33F to 104F and pH 6.5 to 8.0) and salinity can be expected to prevail naturally.

Weirs can be designed to direct and control the outflow current toward the center of the stream to increase water velocity and to maintain depth and prevent erosion along the banks. Embankment contours may then be chosen for ease of maintenance and to provide for selected trees, shrubs, grass and even walking paths. Use of natural rocks may also be added to enhance appearance and stabilize the banks. Rocks may also be used to provide the small fish with shelter from predators such as wading birds and larger fish. Pan fish, such as bream and shell crackers for recreational fishing would also flourish in this environment.

Research and reduction to practice in use of weirs in South Louisiana (esp. the Cameron-Creole Project)<sup>1</sup>, and other locations has been performed in large scale to stop intrusion of excessive saltwater into fresh water to reverse land erosion with mosquito control as an added benefit. Favorable results have been achieved. Use of weirs would convert the unsightly areas of upper Yazoo bayou, Communy Bayou, Bayou Chicot and other streams from dead grass, mudflats and mosquito breeding ponds to attractive, self sustaining, multipurpose ecosystems.

Consultation with scientists at the Gulf Coast Research laboratory in Ocean Springs, US Corps of Engineers in Vicksburg, and universities in Mississippi and Louisiana should be undertaken to confirm feasibility and applicability of weirs for benefits such as described above for Pascagoula, Mississippi.

1 – Louisiana's Cameron-Creole Project: An Ecosystem-Based Watershed Project (a cooperative project sponsored by the Gulf Coast Soil and Water Conservation district, Cameron Parish Police Jury and Cameron Parish Drainage Districts 3 and 4) http://wmc.ar.nrcs.usda.gov/news/ccproject.html



### Public Meeting Participants and Registered Commenters

Date	Name	Address	City	State	Zip	Phone	EMail	How Learned
2410	Ashton B	1812 Seacrest				1 110110		
4/10/06	Canon III	Drive	Gautier	MS	39553	228-217-4876		wife
4/10/06	Bill Walker	1141 Bayview Ave	Biloxi	MS	39530	228-374-5010		
4/10/06	Cammie Trigg	2304 Lesisgate	Gautier	MS	39553	228-249-1957		Friend
4/10/06	Conrad Mallett	13209 Old Fort Bayou Road	Vancleve	MS	39565			Rep. Pat Harrison, Water District
4/10/06	Darren Brick	1904 Tradewinds Drive	Gautier	MS	39553		brickdc@yahoo.com	neighbor
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4/10/06	Gail Bishop	6105 Ridge Road			39564	228-875-1343		Agency
4/10/06	Garry ?Matthews	6500 Humphrey Road	Vancleve	MS	39565			
4/10/06	Gary Holland	1412 Woodharvest	Pascagoula	MS	39581	228-767-4433	gahollands@i-55.com	Sun Herald
4/10/06	Hurley Bay	3004 Ladineu	Gautier			2280-499- 1354	·	
4/10/06	James C. Page	Box 1293	Gautier	MS	39553	228-497-0082		Mayor of Gautier
4/10/06	Jeff Wilkinson	Gautier City Councilman	Gautier	MS	39553		wilksail@datasync.co m	
4/10/06	Kathy Toler	1816 Seacrest Drive	Gautier	MS	39553	228-522-2009	win689surf25@yahoo .com	neighbor
4/10/06	Kay Kell	1623 Gallery	Pascagoula	MS			kjohnson@cityofpasc agoula.com	
4/10/06	Lee Colledge	2225 Bayou View Circle	Gautier	MS	39553	228-497-6163	leecol999@caldeone. net	Friend
4/10/06	Lisa Clark Cannon Melinda	1812 Seacrest Drive	Gautier	MS	39553	220 737-0103	lisacannon@cableone .net	Email from a Jackson County Chamber member
4/10/06	Bramlett							
4/10/06	Michael W. Mangum	2309 Rosewood Street	Pascagoula	MS	39567			newspaper
4/10/06	Paul Bradley	Box 2288	Mobile	AL	36628	251-694-4101	kenneth.p.bradley@s am.usace.army.mil	
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4/11/06	Bruce Roberts	Box 492	Gulfport	MS			bruceor@aol.com	TCCI



	•						Оото 1	10110
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4/11/06	Calvin H. Jackson	14269 Rippy Road	Gulfport	MS	39503			I read it in the paper
4/11/06	Carland Baker	Box 882	Long Beach	MS	35560	228-326-1798		
4/11/06	Clyde Anne Davis	1321 Garfield Streed	Pascagoula	MS	39567	228-762-4536		newspaper
4/11/06	Derrick Evans	14439 Rippy Road	Gulfport	MS	39503	220 102 4000		ПСМЗРАРСІ
	Ella Holmes-							
4/11/06	Hines	Box 2425	Gulfport	MS	39505	228-868-5847		
4/11/06	Gayle Tart	1916 33rd Ave	Gulfport	MS	39501	228-326-1798		Newspaper
4/11/06	Glen Sandberg	2514 19th Ave	Gulfport	MS	39501	228-697-5195	glens@ieee.org	Sierra Club Mailing List
4/11/06	Howard Danley	9365 Timberland Blvd.	Daphne	AL	36527			
4/11/06	Jessie Fitzgerald	4628 Goldfinch Drive	Gulfport	MS	39501	228-868-5733		I was called for in order for the group to use my building
4/11/06	John Baer	Box 2288	Mobile	AL	36628			
4/11/06	Martha Snelling Mike	14336 Rippy Road	Gulfport	MS	39503	228-863-0049		Holems- Hines Meeting on
4/11/06	Buchanan	906 West RR	Long Beach	MS	39560		=	4/7 at the IP
4/11/06	Ovide Davis	1321 Garfield Street	Pascagoula	MS	39567	228-752-4536	oviddavis@yahoo.co m	Newspaper
4/11/06	Pat Kulick	6912 Shore Drive	Ocean Springs	MS		228-875-5261		
4/11/06	Tom Smith	3650 Wenloock Court	Mobile	AL	36693			Corps of Engineers
4/11/06	Verdery Christopher	6912 Shore Drive	Gulfport	MS	39564	228-875-5261		
4/13/06	Ali Leggett	1026 Daniel Street	Waveland	MS	39576			notice to Dept of Marine Resources
4/13/06	Buz Olsen	619 Williams Drive	Bay St. Louis	MS	39520	228-467-2382	s90FBAYSTLOUIS@ bellsouth.net	
4/13/06	Chris Lagarde	237 St. Charles St.	Bay St. Louis	MS	39520	228-216-0978		FAX
4/13/06	Dorothy Bloom Foley	1300 Bloom Place	Waveland	MS	39520	228-466-3134		Paper.
4/13/06	Eddie Favre	Box 2550	Bay St. Louis	MS	39521	228-466-8951	hizzonna@bellsouth.n et	
4/13/06	Jeffrey Reed	637 Keller Street	Bay St. Louis	MS	39520	228-518-7859	phdministries7@aol.c om	secretary



							20mmon2			
Date	Name	Address	City	State	Zip	Phone	EMail	How Learned		
4/13/06	Jim Bonser	1300 Bloom Place	Waveland	MS	39576	228-466-3134		paper		
4/13/06	Kendall Ladner	29010 J.C. OLadner Road	Parkinston	MS	39573	220 100 0101	kendall ladner@coastepa.co m	Supervisor/ EPA		
4/13/06	Lisa Cowand	1000 North Beach Blvd	Bay St. Louis	MS		228-216-0506		Board of Supervisors		
4/13/06	Robert Davis	127 Felicity Street	Bay St. Louis	MS	39520	228-466-4528	rld0176@aol.com	email from Sam. This is a good idea!		
4/13/06	Ronald Tanquis	2106 Arnold Street	Waveland	MS	39576			TV		
4/13/06	Ronnie Vanney	Box 2550	Bay St. Louis	MS	39520	228-467-5505				
4/13/06	Stuart Williamson	807 Third Street	Bay St. Louis	MS	39526	228-493-8980	williamsons@cdem.c om	newspaper		
4/11/06	Josephine Donald	143 S 19 1/2 Street	Gulfport	MS	39501	228-313-7605		Rad and saw in the paper <b>How</b>		
Date	Name	Address	City	State	Zip	Phone	EMail	Learned		
	Anthony J. Gagliano, Sr.	300 Holcomb Blvd	Ocean Springs	MS	39564- 5038		gagliant@bellsouth.n et	Web		
	Barbara Nalley	Box 3113	Gulfport	MS	39505		BAN11208@aol.com	Comment Card		
	Bettie Bishop	202 Vernon Rigney Rd.	State Line	Missis sippi	39362		oldtymequilter@yaho o.com	Web		
	Christopher Verdery	6912 Shore Drive	Ocean Springs	MS				Court Report Transcript		
	Daphne Viverette	4412 Dernny Street	Moss Point	MS	39563		cdbg@cityofmosspoin t.com	Web		
	David Felder	6578 Dogwood View Parkway	Jackson	MS	39213			Web		
	Derrick Evans	14439 Rippy Road	Gulfport	MS				Court Report Transcript		
	Douglas R. Phillips	8125 Meadowdale Drive	Gautier	MS	39553		phillidr@bp.com	Comment Card		
	Ella Holmes- Hines	P.O. Box 10183	Gulfport, MS	MS	39505	Councilwoma n		Court Report Transcript		
	Glen Sandberg	2514 19th Avenue	Gulfport	MS	39501		glens@ieee.org			
_	Holly Gordon	559 Nathan Abbott Way	Stanford	CA	94305	Stanford Environmental Law Clinic	hgordon@law.stanfor d.edu	Web		
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	Hurley Guillotte	3004 Ladiner Road	Gautier	MS				Court Report Transcript		



							20ro Hon?		
Date	Name	Address	City	State	Zip	Phone	EMail	How Learned	
	Jacklyn						jterner@comptonengi	Comment	
	Turner	Boxc 686	Pascagoula	MS	39568		neering.com	Card	
	Jim Thorp	505 Bayou Pierre	Gautier	Ms	39553		jvthorp@prodigy.net	Web	
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	Joe Pettigrew	p. o. box 592	Kiln	MS	39556		petigru@aol.com	Web	
	Katherine	7629 Fairway	Diamondhe				' '		
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	Larry Brewster	2323 Starfish Road	Gautier	MS	39553		razzhuck@yahoo.co m		
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	Ron Forsythe	129 Moss Lane	Madison	MS	39110		rjf031245@aol.com	Web	
	Ronald "Poss" Tanguis	2106 Arnold	Waveland	MS				Court Report Transcript	
	Spencer Garrett	3507 San Marcus Circle		MS	39553		2001111@201.00m	Comment	
	Suzanne	335 coleman	Gautier				esg111@aol.com	Card	
	Cotter	Avenue	Waveland	ms	39576		mscotters5@aol.com	Web	
	Warren Gautier	2810 Washington Avenue	Gautier	MS	39567			Comment Card	
	Will Platts	P.O. Box 6271	Gulfport	MS	39506		dawgjammer@aol.co m		



#### MSCIP Follow-Up Survey, 5/12/206

1. In our most recent survey you indicated that you were interested in the rebuilding plans for the Mississippi shoreline. You also indicated interest in a follow-up workshop that the Army Corps of Engineers was going to hold on May 3 to report back on how they have incorporated public input into their plans. Since relatively few people again showed up for the workshop, we want to understand why so we can do a better job for the state in garnering input. Which of the following are reasons why you were unable to attend the session Wednesday evening?

	Response Total	Response Percent
Sorry, I forgot	3	43%
A family emergency came up	0	0%
I had to work late	1	14%
I decided I wasn't really interested that interested	0	0%
I got distracted by what was on TV	0	0%
I couldn't connect to the workshop	1	14%
I had other technical issues that prevented me from participa	ting 1	14%
Total Respondents 7	•	
Other, please specify	1	14%
Did not plan on attending. When through registration as part		

- 2. Do you have any suggestions for what we can do for future meetings of this type to get more participation? More reminders, fewer reminders, streaming video previews, different time of the day, different day of the week, multiple sessions, easier connections, anything that we could do at our end to encourage greater participation?
- 1. No, technical glitch is why I couldn't participate.
- 2. I think any time after 6pm would be good. Some of us can't get home from work before than. Although I forget what time the first meeting was.
- 3. Let us know if it will work with a dialup connection
- 4. Since I couldn't connect to the workshop, I would suggest that maybe you all could send emails referencing highlights of the meeting. Also, a place where we could respond to the meeting.
- 5. Easier connections MSN is not very accommodating to their email customers. It is very difficult to get past their built-in firewalls. I could not connect the test site MSN said they did not allow that type of connection.
- 3. A streaming video of Wednesday nights meeting can be viewed online. Would you like us to send you a link to this meeting so you can view it online at your convenience?

	Response Total	Response Percent
Yes	5	62%
No	3	38%

4. Regardless of your interest in the online meetings, would you like to continue to be emailed progress reports on the rebuilding plans?

	Response Total	Response Percent
Yes	6	75%
No	2	25%

5. If you would like to be emailed progress reports, please confirm your email address in the box below.



June.E.Mirecki@erdc.usace.army.mil lacombes@sbcglobal.net rojaz@digiscape.com ronald.fletcher@us.army.mil baystlouisstjo@yahoo.com jpreno4548@msn.com

- 6. Is there anything else that the Army Corps of Engineers or the State of Mississippi can do to better keep you informed about rebuilding efforts along the Mississippi shoreline? Please explain below.
- 1. Please let homeowners who are living out of town who to call for utilities. How about a list of Electricians that are able to go and set up a pole for electricity service on their properties. You guys are doing a great job. I can't wait to get back to Pass Christian. Thank you.
- 2. Let us know specifically those things that we can have an input about before they are actually implemented. MDOT seems to have a particular problem with that, although, it may not be a part of the State of Mississippi.
- 3. I answered that in number 2....
- 4. Try to advise, by posting on their website, or by calling, whether our ROE's have been received and/or when the property was cleared. I live in Birmingham and it is not easy to get to Bay St. Louis to check on our property. I mailed my ROE to the State on November 10, 2005. The Army Corps of Engineers' phone number, 601-631-5065, says that they will call back to verify they have the ROE, but no return call yet. The last time I was in Bay St. Louis was on Easter, so far, the lot has not been cleared. The last time I tried to call was March 15, 2006. Terry Meggett

# Regional Coordination Meeting Mississippi Coastal Improvement Project Workshop Transcripts April 7, 2006



Facilitated and Prepared by
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#### **Executive Summary**

"The spirit of Coastal Mississippians has remained strong. Mississippians are not about sitting around feeling sorry for themselves and waiting for someone to come to their rescue. Mississippians are about hitching up their britches and getting to work to help themselves and help their neighbors.

- Governor Haley Barbour

Over 70 representatives from Federal, State and local governments met in Biloxi, MS on April 7, 2006 for a Regional Coordination Workshop. The workshop had 3 objectives: 1. Developing a set of guiding planning principals for the planning process, 2. Creating a comprehensive list of potential improvements for coastal Mississippi and 3. Attaching these recommendations to specific locations on maps of Jackson, Harrison and Hancock Counties.

The process focused on identifying a wide range of possible alternatives, not evaluating any of them. Feasibility, urgency, cost and other criteria will be applied in succeeding process steps. This workshop's objective was to solicit the input of local and State government partners to develop a comprehensive list of possible planning options to assure Corps planners have heard from as many perspectives as possible.

The group was welcomed by Colonel Peter Taylor, U.S. Army Corps of Engineers Commander for the Mobile District. Although Congressionally-mandated timelines are extremely tight (a preliminary report by 6/30/2006 and final recommendations due by 12/07) the Colonel believes the MSCIP process represents a unique opportunity for two reasons. First, public input on the process will be actively encouraged. While Corps planners are gathering a slate of potential planning options, the process is open to good ideas from all sources. Secondly, streamlined cost-effective criteria will guide decision making for planning recommendations. Normal Corps requirements for rigorous cost-benefit analysis and national economic development have been waived for this process.

The MSCIP is the number one priority in the Mobile District.

Dr. Billy Walker of the Mississippi Department of Marine Resources provided a State perspective on planning efforts. He presented the following financial highlights:

- Prior to Katrina, Congress appropriated \$2.5 million to the Corps through Wetlands Restoration and Development Act for continued restoration of Deer Island.
- In the December 2006 supplemental, Congress appropriated an additional \$12.5 million to the Corps for restoration of Deer Island and other coastal systems.
- Also in December, Congress appropriated \$199 million to USDA, some \$20 million of which is designated for oyster reef restoration in Mississippi.
- Congress has directed Corps to conduct a six-month study to determine what Coastal Mississippi
  needs to do to restore ecosystem function and mitigate against future storm damage identifying how
  this can best be done and how much it will cost.
- The State will continue to work with Congress to fund the Governor's Restoration Initiative.

Coleman Long of the U.S. Army Corps of Engineers, Mobile District outlined Mississippi Coastal Improvement Project. His presentation described the MSCIP major impacted areas:

- Transportation: Highway 90 and Bridges at Biloxi and Bay St. Louis
- Residential Areas: Pass Christian, Waveland, Bay St. Louis, Gulfport, Biloxi



- Commercial and Industrial Areas: Port of Gulfport, Casino Industry, Pascagoula Chevron Refinery and shipbuilding facilities
- Environmental Resources: Deer Island, Barrier Islands, Forested Wetlands (coast wide), Oyster Reefs (coast wide)

Mr. Long described the key areas of the State's strategy for rebuilding coastal resources and MSCIP comprehensive improvements. While a variety of improvements are being considered, multiple measures providing multiple benefits will be preferred. Mr. Long presented examples of structures for hurricane storm surge, barrier islands, surge barriers, water control gates, levees and offshore breakwaters to trigger creative thinking.

Brett Boston of Group Solutions, Inc. described the public involvement segment of the planning process:

**4/7 Regional Coordination Workshop** of State and local government agencies recommended guiding principles for process, generated an initial list of county and coastwide projects alternatives and posted these recommendations to County maps. This step focused on idea-generation, not evaluation. These options will be refined and presented for public comment at a series of workshops for additional brainstorming. The goal of this process step is to assure a complete list of alternatives has been generated, not an evaluation of the process.

**3 Public Workshops** will be held at Mississippi Gulf Coast Community College on 4/10, 19<sup>th</sup> Street Community Center in Gulfport 4/11 and at Waveland Middle School on 4/13. Running from 6:00 to 8:00 p.m., each workshop will overview the MSCIP, capture reactions to initial options, principles & alternatives and submit additional concepts and concerns.

Participate will have the opportunity to offer comments and ideas in whatever format is most comfortable for them: via PCs, written comments or to a court reporter. Additionally, comments may be submitted via a project website at <a href="http://mscip.usace.army.mil">http://mscip.usace.army.mil</a>.

**An internet-based webcast** is scheduled for April 18 to enable those unable to attend the public workshops and displaced coastal residents an option for participating in the process. This event will follow closely the format of the public workshops.

A 2<sup>nd</sup> Regional Coordination Meeting will be held April 24 and 25 for government agencies. Consolidated recommendations from the public input process will be reviewed. Participants will begin rating the perceived strengths and weaknesses of each option and begin the evaluation process.

A 2<sup>nd</sup> Round of Public Workshops will be scheduled in Gautier, Gulfport and Waveland May 1, 2 and 3 to provide the general public with an opportunity to express preferences and additional comment on the set of plan alternatives emerging from Regional Coordination Meeting II. A second webcast is scheduled for May 4.

#### Results

25 planning principles and over 60 specific structural alternatives are being carried forward to Corps planners. These will be reviewed by the planning team, merged and clarified and presented at public workshops April 10, 11 and 13<sup>th</sup>.



#### Planning Principals

Workshop participants used a unique methodology to create this list of alternatives. Using networked PCs, team members were able to simultaneously and anonymously add ideas to common list, visible to all. Additionally, participants had the option of attaching comments to any idea contributed by other team members.

What follows is merged list where similar ideas have been grouped under a common banner. All bulleted comments were entered by workshop participants. Discussion themes that were added by the workshop facilitators are indicated in italics.

The list of planning principles appears in the order workshop participants entered them, not in any order of priority.

### 1. Consider mitigation already in process as result of the Governor's Commission on rebuilding: I.e. new building codes, setbacks, higher elevations.

 Include repair standards in building codes (e.g. replacement old electrical wiring flooded by salt water).

#### 2. Try to use solutions that mimic natural systems that have worked in the past rather than overengineering systems.

- In all cases, consider natural system restoration and solutions over engineering solutions.
- Minimize environmental impacts.
- Maximize environmental benefits.
- Maintain natural processes to the maximum extent possible.
- Consider natural restoration over artificial restoration.
- Minimize impervious surfaces
- Consider impervious surfaces EVERYWHERE not just in wetland areas on the overall hydrology systems.
- Create green spaces. Do not build Hwy 90.

#### 3. Leverage these projects with other regional initiatives/opportunities.

- DEQ's 6-county stormwater management authority needs to be coordinated with Corps efforts.
- For example, use water management to stop the silt problems in the bayou. Don't treat as isolated events
- Increase internal communication within federal agencies to improve flow of information while minimizing the time demand on local agencies.
- Think beyond jurisdictional borders.
- Operate through partnership as much as possible. Be inclusive, involving all stakeholders.
- Utilize and maybe formalize informal working groups already in place.
   The Nature Conservancy has been working on a "Mississippi Sound Working Group" that has been talking about natural resource management, sediment and habitat for this area. This group includes Alabama, MS and LA.
- Plan coastwide; try and link individual projects together to achieve regional successes.
- Share GIS data regarding environmentally sensitive areas with all local and regional agencies for application into their planning processes.
- Consider options that will have benefits outside the defined scope as valuable



For instance, increased water transportation and community benefits.

### 4. In all engineered solutions, carefully consider secondary, cumulative impacts and unintended consequences.

- In the process of flood control projects, don't exacerbate storm surge ranges.
- First, do no harm.
- Consider long term impact of manipulation to natural processes.
- Don't repeat the same mistakes of the past.
- We need to understand the long-term consequences of a short term fix.
- Review past protection or restoration projects over the last 100 years to see what really worked, what failed and why.
- Develop a parallel assessment tool to evaluate quantitatively the impacts or not of the changes we
  make in terms of engineering or restoration. That is did it work?

  More or less, the idea is to do all the in a hurry but we have no idea what the results will be in 20
  years. Don't neglect long-term assessments. We need to be able to evaluate in 20 years if the
  recommendations were actually good ideas.
- Manipulation of ecosystems can be ineffective or damaging without strong scientific or technical justification.

#### 5. Keep in mind the economic impact and benefit of projects

- Structural solutions must be sustainable at relatively low cost.
- Consider long-term economic impact and benefits from projects.
- Consider not using low bids as only selection tool for implementation. Use quality.
- Smaller, quicker projects should not be the only fund-only alternatives.
- Consider project ideas as funding-only where it would be more time-effective to implement projects through local entities than through federal levels.
- Cost/benefit and nationally developed economic plans are mandates
- We don't have to follow National Economic Directives; simple cost-effectiveness will be an adequate justification.

#### 6. In all cases consider CONSISTENCY with existing Clean Water and Clean Air Acts.

#### 7. Consider endangered species.

#### 8. Minimize red tape; facilitate rapid government processes that move projects to fruition.

Let cities be able to contract projects without a lot of red tape.
 Counties were getting work completed then had to stop because governmental red tape.

#### 10. Be realistic.

We can not protect all of the public's chosen exposure (location near shoreline) to storm events. Camille was a 100-year storm, Katrina was a 400-year storm. There is a 1000-year storm out there with our name on it.

Assume that Katrina will happen again.
 Take advantage of the "lessons learned" during the recent disaster. What kind of information/communication systems would be useful in early warning/evacuation efforts? What data would be useful during the storm to understand severity and begin planning post-storm response?



 Katrina consisted of a major surge event, but don't lose sight of flooding associated with torrential rain events.

#### 11. Assure connectivity of natural systems.

- Avoid adverse effects to natural sediment transport pathways, i.e., don't cut them off through engineering.
- Big natural sites are important, but not the only solutions. Habitats needs to be connected that allow fish and wildlife populations to move between them.
- Consider contiguous nonfragmented natural area for wildlife and providing easier fire management in coastal systems.
- Increase the connectivity between natural areas for wildlife and hydrology movements
- Include connectivity of natural areas for hydrology, fires.
- When designing natural restoration sites coastwide we need to make sure to integrate tidal creeks (increased marsh edge) which will lead to a more productive site.
- Do not allow open-water projects (breakwaters, beach or island expansion, etc.) to impact valuable habitats (SAV's, oyster reefs, EFH) or to impede species movement.

#### 12. Expand beaches to provide surge protection.

#### 13. Apply restoration or protection that is science based and guided by adaptive management.

#### 14. Protect significant archaeological sites.

- Minimize impacts to cultural resources such as shell middens in marshes, and other archaeological sites such as mound and village sites.
- Consider designated uses of waters for historical uses.
   Determine areas of high probability for archaeological resources and incorporate these areas into planning.
- Before planning is completed, sufficient consideration needs to be given to the protection of cultural resources, especially archaeological resources that may be better protected in the long term through the restoration of marsh areas and erosion control.

#### 15. Consider tourism and recreation.

### 16. Consider projects to protect public infrastructure such as water, sewer, drainage, and transportation systems from storm surge and sedimentation damages

 Consider effects of sea level rise on existing land and infrastructure AS WELL AS effects of planned solutions.

### 17. Concrete materials should be utilized where possible for beneficial use such as cultch material for oyster reefs or essential fish habitat

Does this include recycled material? Yes

#### 18. Minimize new footprint

#### 19. Buy out areas that tend toward flooding.

• Brutal as it is, shouldn't we consider whether homes should rebuilt where ENTIRE developments (built in fragile areas) were destroyed?



- 20. Ensure proper funding for stewardship with mitigation.
- 21. Severely limit rebuilding along the coast
  - Restrict new casinos to inland/upland low-quality sites.
- 22. If utilizing offshore breakwaters, consider more natural or beneficial structures, e.g., fish pyramids, oyster racks, etc.
- 23. More emphasis on Beneficial Use of Dredged Material to provide for more marsh restoration opportunities.
- 24. For all industrial ports throughout the coast, keep only the truly water dependent functions at the port.

Stage and store cargo, stores, supplies, trucks/trailers away from the threat of storm surge.

25. Minimize occurrence and proliferation of invasive species at project sites and maximize eradication of invasive species

#### **Additional Comments & Questions**

- Who is looking over FEMA's shoulder as they set new Base Flood Elevations?
- Considering hardening any waterway is absolutely the wrong short term thing to do. Look at LA and the MS River relatively to loss of wetlands and reduced sediments and nutrients to the downstream marsh.
- Amour seawalls, water control gates, offshore breakwaters are terrible ideas! Are we armoring instead of zoning land use?
- Don't leave the Programmatic EIS on the shelf!



#### Structural Alternatives

#### Coastwide Ideas & Comments

Following is a merged list where similar ideas have been grouped under a common banner. All bulleted comments were entered by workshop participants. Discussion themes that were added by the workshop facilitators are indicated in italics.

The list of planning principles appears in the order workshop participants entered them, not in any order of priority.

#### 1. Aggressively pursue the restoration of the barrier islands.

- Include the Chandeleurs
- Define barrier island restoration within context of plan.
- Protect barrier islands through public education, i.e. boater education to protect grassbeds.
- Include carefully designed recreation and educational facilities (minimal structures) on the barrier islands to raise public awareness and public support for restoration and maintenance efforts.
- Is it too late or not "visible enough" to concentrate efforts on barrier islands wetland restoration? In other words, these barrier islands are considered the first line of defense, without them, damage is facilitated. Mississippi has barrier island opportunities. How can we enhance these islands from a fish and wildlife standpoint, while at the same time strengthen their ability to protect. Would this be considered a short or long term project?

#### 2. Use selected levels of rip rap instead of a bulkhead if erosion protection is the problem.

This should reduce the negative impact to the marsh edge habitat and allow some limited development.

#### 3. Build new marshes in low-use beach areas coast-wide.

- Remove, not rebuild, structures along the coast and replace with marshes.
- Protect all existing and created wetlands, in perpetuity
- Limit construction along beachfronts replace with marsh and natural areas.
- Consider changing our policy on wetlands mitigation the way that a county in south Florida did.
  The county itself required that if wetlands were impacted in its county they were mitigated for with
  wetlands in its county as opposed to further inland. Currently, the trend is to impact wetlands along
  the coast and mitigate with wetlands in counties to the north where land is cheap. The end result is
  that we are having a tremendous net loss of wetlands where they most significantly serve as flood
  water retention (along the coast).

#### 4. Create staging areas to stockpile concrete debris for reef development.

- Concrete Staging areas should be water accessible near industrial canal.
- Utilize concrete from highway90 bridges for reef development.

#### 5. 100 acres of oyster reef restoration in different places around Mississippi Sound.

The Nature Conservancy has demonstration sites working with DMR and others. These sites would or could be spread across different bays along the MS coast which would help mitigate or storm surge, wave energy and provide habitat for fish and other biodiversity.

All along the Intercoastal waterway, provide live barriers to wave energy using oyster reefs and
marshland creation behind them to ensure these natural (man-made natural structures) will be a line
of defense against storm surge and wave energy therefore providing mitigation and abatement
against shoreline erosion.



- The Nature Conservancy is working on demonstration sites in the sound together with DMR. These
  projects would be spread across the entire sound to help mitigate storm surge, reduce coastal
  erosion and provide natural habitat for both shellfish as well as fish (recreational, commercial and
  otherwise).
- 6. Along coastal Harrison County, buy out all land between the railroad and the beach and turn it into marsh.
- 7. Voluntary buy-out of previously undeveloped areas but are prone to flood (prevent future development in wetland areas).
- 8. Work with state of MS to authorize transfer of development rights in state statutes.
- Include repair standards in building codes.
   (e.g. replacement of electrical wiring flooded by salt water).
- (e.g. replacement of electrical willing hooded by sait water)
- 10. Provide access to existing public marine industry.
- 11. Continue land acquisition strategies to establish inland

(flooded forests, coastal forests and coastal marshlands) natural protection without having development be put at risk by large storms because they are in flood designated lands as well as provide habitat for land and coastal biodiversity.

- 12. Dredging, drainage way clearing, sandbeach restoration at Bell Fountaine Beach, Ocean Springs Front and East Beach, Pascagoula Beach, bulk heading at these locations to prevent erosion, marsh restoration and development, seawalls increased in height---Jackson County
- 13. Rebuild sand dunes along Highway 90.
- 14. Help plan traffic for next evacuations for whole region.

The Hwy 49 & 59 intersection is ANOTHER train wreck waiting to happen.

- 15. As beaches and roads along beaches are restored, consider alternatives for storm water treatment and possible reduction of direct pipe discharges.
- 16. If temporary ferry service is developed, consideration should be given for permanent are (sea wall, parking, dock) on each shore for multiple protection/recreational uses.
- 17. Utilize casinos as offshore, deepwater breakwater structures
- 18. Water quality improvement projects such as marina pump out stations and barrier island comfort stations to improve sanitary conditions
- 19. Dredge access channels to existing public marine industry and recreational boating.
- 20. Pipeline canal should be restored to marsh.
- 21. MDOT needs to reconsider larger bridges in horizontal alignment with storm surges (i.e. Biloxi Ocean springs bridge).
- 22. Form a monitoring team among the federal agencies (COE, NOAA, USGS, etc.) to design a storm hardened network of sites that will survive and function throughout a major storm to provide data that is critical to emergency managers (surge elevation, wind speed, rainfall, etc.).



#### Study Recommendations

- Study the causes of dune blowouts on barrier islands.
- Study infrastructure impacts from ABFE effects, i.e. fire protection pressures for taller buildings, exposed sewer service and gas lines to residential structures, public facilities and ADA accessibility, vehicle-accesses buildings, etc.
- Long term sediment dynamics study for the entire MS sound
   Understand how the sediment moves around and therefore provide a long-term comprehensive
   understanding of barrier island dynamics (erosion and accretion) as well as marsh restoration and
   heath along the shoreline.

#### Additional Comments & Ideas

• We need a definitive report of what happened, where and why in Katrina. What Category storm hit and where? What was surge and where? What were tides and where? What were wind speeds and where? How much rainfall? How accurate were predictions? Why the disconnect between category rating and obvious impact/risks to humans? And what is being done about it?

Establish the time sequence of wind and surge.

- Channelizing and hardening waterways only adds to flooding, not reduces it. Deepening channels allows more water to move inland faster than prior to channelization.
- An early reaction to an approaching storm can save lives and property. Evaluate the science needs
  for storm severity estimation and storm surge modeling and adequately fund the efforts to improve
  the science that will improve our readiness for future events.
- Creating reservoirs is wrong. Part of what makes our systems productive is freshwater input and flooding. In the long term we will severely impact our wonderful coastal system by believing these modifications are good for the environment. It probably is also not good for humans as well.
- Currently, flooding along some rivers consistently exceeds the 100 year flood elevations. This
  happens during typical spring rain events. Reservoirs or detention ponds will not eliminate flooding,
  only reduce that flooding to levels prior to recent development.
- Existing Hurricane categories (Cat. 1-5) are not good indicators of storm severity and were the cause of a lot of decisions to ride out Katrina ("We were OK during Camille and it was a Cat 5. This is only a 4 so we'll be fine.") Develop a method to define the strength of a storm that the public can understand and base decisions on. Life and property loss will be reduced significantly.



#### Jackson County Ideas and Comments

1. Work on barrier island restoration to provide the first line of defense.

A great opportunity to work with a broad partnership to restore tidal marsh at Bennett Bayou - lower Pascagoula River - provide wetland function in a highly visible project area for public education and promote the Gov's Restoration Initiative. Property owned by Land Trust for MS coastal plain site of proposed Audubon nature center and adjacent to MS coastal preserves

- 2. Develop additional offshore breakwaters or sand dunes where determined most beneficial through modeling.
- 3. Review historical erosion and capacity issues at main drainage systems to determine where improvements are most necessary and will decrease future erosion and/or failure issues.
- 4. Improve comprehensive retention/detention systems in each entity to reduce rainfall-related flooding.
- 5. Implement a barrier or check valve system to isolate freshwater detention from saltwater inundation during surge events.
- 6. Consider addition of wetlands along main drainage systems in each location to increase capacity of the systems during rainfall and surge flooding events.
- 7. Complete snagging/clearing, etc. to restore the capacity of existing drainage.
- 8. Repair existing bulkheads or other structural drainage components that were damaged during the storm to reduce future failures during similar events.
- 9. Improve the seawall system along the County, through additional seawall construction, boardwalks, beach construction, marsh construction, or a combination of these elements.
- 10. Consider brown water system to minimize demand on ground and surface waters and limit saltwater intrusion.
- 11. Re-establish benchmark information County-wide to use in planning and implementation of any ideas. Many were destroyed in the storm.
- 12. Relocate wastewater treatment facilities out of the surge-prone areas.
- 13. Perform inspection and rehabilitation of wastewater and storm water piping systems to determine unseen effects of the surge and minimize cave-is in the future due to surge or rainfall flooding.
- 14. Gautier Improve natural drainage ways (siltation removal, etc.) in the Fishhawk, Meadowdale, Longwood and Bayou Castelle area draining into Bayou Castelle.
- 15. Provide an incentive for replacing failing septic systems in rural areas to improve water quality along bayous and bays.
- 16. Gautier -- Improve natural drainage ways (siltation removal, etc.) in the Laville Subdivision and Westgate Subdivision draining into Sioux Bayou.
- 17. City of Gautier Storm Damage Reduction Projects.

Action Projects (near term application) include citywide storm drainage system - outlet siltation.



The effectiveness of outlet channels has been adversely impacted by siltation and immediate enhancement of the drainage system is necessary.

<u>Identified Bayou Outlets</u> on the Mississippi Sound that require immediate actions to remove deposited siltation:

- Unnamed Bayou (located at the southern end of Ladnier Road)
- Seacliffe Bayou (immediately east of Seacliffe Drive)
- Unnamed Bayou (south of Hiram Drive)
- Graveline Bayou (western end of Graveline Road)
- Citywide Storm Drainage System inland checkpoints
- MS 57 at C Byrd Road
- Old Spanish Trail at the CSX Railroad Overpass
- Bayou St. Pierre at US 90 (vicinity of Sutter Road)
- MS 57 in the area between US 90 and Brown Road
- US 90 approximately 0.8 mile east of MS 57
- Bayou Lamotte at US 90 (between Shamrock Court and Lanier Road)

#### Study Projects (Future Application)

- Citywide storm drainage system
- Wetland ecosystem restoration or creation
- West Pascagoula River siltation mitigation
- Mississippi Sound siltation mitigation
- Storm surge/wave action damage mitigation

#### 18. Snagging drainages is also a fallacy.

Ask anyone in northern MS about the frequency of floods after snags have been removed. We just never learn from real-world experiences!

- 19. Gautier -- Improve natural drainage ways (siltation removal, etc.) in Northwood Hills, Rolling Meadows and Bayou Oaks subdivisions draining into Mary Walker Bayou.
- 20. Dredge Davis & Simmions Bayous to include all connecting bayous to help prevent flooding.
- 21. Rebuild Marsh Island and enlarge it.
- 22. Divert water from Escatawpa River into Bayou Cumbest to restore freshwater flow to the bayou and improve water quality.



#### Harrison County Ideas & Comments

- 1. Provide protection of public infrastructure from flooding, surges and sedimentation.
- 2. Deer Island beach renourishment on southern side of the Island.
- 3. Beach restoration and the creation of green spaces. Go through the buy-out program to allow for regeneration of the natural ecosystems. Enhance protection of existing ecosystem around Turkey Creek and other natural areas.
- 4. Deer island Cap exposed shell middens on the western end of the island.
- 5. Possibly add height to the existing beach elevation and redevelop lost dune vegetation.
- 6. Rebuild the Harrison County boardwalk with concrete to accommodate pedestrians, BICYCLES, and possibly street vendors.
- 7. Provide inland marine vessel storm shelter location with adequate moorings.
- 8. Flood-proof low lying sewer treatment plants. Lift stations and wells and their electrical and electronic controls.
- 9. Construct reservoir or detention system to provide storage for rain events to reduce or prevent flooding along coastal rivers.

#### Hancock County Ideas & Comments

- 1. Open the east Pearl River channel so it can be used by commercial marine traffic from Port Bienville, thereby avoiding traversing the Little Lake and Rigolets route.
- 2. Pursue the development of additional breakwater structures in low-use areas.
- 3. Stop the Shoreline Park extensions into Juncus madness!
  - I strongly concur with comment above regarding development into marshes. The County and City needs stronger zoning ordinances that will prohibit development in the marsh areas of the County.
- 4. Marsh restoration where feasible. This can be done in conjunction with private and government dredging projects. It will provide for enhanced fish and wildlife habitat.
- 5. Partnership efforts with Louisiana to restore enhance LA. Marsh island areas that would mitigate surge.
- 6. Government buy private lands in areas adjacent to marsh habitats, where homes/structures were destroyed. This would be great, particularly in cases where the land was previously marsh/wetlands and was developed, the development was destroyed and the private land owners do not want to rebuild. This would prevent future development in these areas, as well as provide for an opportunity to restore the land to marsh/wetlands.
- 7. The pipeline canal in Hancock Co. should be restored to marsh to improve water quality and act as a buffer.



#### **Discussion Notes**

#### Can we get minutes from these proceedings?

Yes, they'll be posted on the COE website, as well as group inputs and power points as quickly as possible. We will email copies to registered attendees Monday.

We should consider smaller projects as 'fund only' option" Let's just do it and give someone the money and do it on projects that have been in the works for a period of time already. (Gautier City Council)

#### Are you going to do any liaisons with media to inform public of workshops?

YES. It's too little for the first meeting next week but much more for the more important, more refined, later meetings. We will go to the preeminent websites to notify general audience through their newsletters and broadcasts. We will try to get buttons installed on their sites linking them to meeting information. Newspapers are not ideal.

The other thing that would be helpful, is if cities and counties have places of worship or community centers. Please, everybody, communicate with members of these organizations so they can share the word with their other members. Every one of us should try to push stuff out to get as many people as possible to attend our public comment sessions.

There has already been one newspaper release on this. Otherwise we must contact TV and papers to inform their audiences. Citizens are far more likely to respond to local recommendations than the Corps. .

Please continue to post your comments and contact the COE team! This is a unique opportunity for the Corps and for coastal Mississippi.



#### Mississippi Coastal Improvement Project

Potential Projects List (as of April 7, 2006) Workshop Generated Coastal-wide Project List

The numbers on each potential project list correspond to those on the reference maps used at the Workshop.

Buy-out and restore areas which were wetlands or existing wetlands

**Maximize Beneficial Use of Dredge Materials** 

Study, plan, and combat invasive species on barrier islands

#### Consider all archaeological sites in planning process

Many significant coastal sites are eroding and need to be preserved. Once they're gone, they're gone. These are nonrenewable resources which are very important to our state's history. (Contact MDAH)

#### **Maintain Sensitivity to Barrier Islands**

Be aware that most barrier islands off of the MS coastline are protected through their inclusion as a national park. Some are also designated as wilderness areas. As such, any proposed projects need to be sensitive to these special, congressionally approved designations.

#### **Remove Hazardous Materials around Barrier Islands**

Survey amount of underwater debris and remove around barrier islands; remove large and hazardous debris over next 6-24 months from shoreline on barrier islands

#### **Develop Baseline Flora Fauna Studies for Barrier Islands**

Scientific survey the natural resources (biological) to have a baseline of flora and fauna on barrier islands

#### **Protect Barrier Islands from Spills**

Protect the island resources from potential diesel/oil spills that could be caused during a large storm event – provide alternative energy sources – (solar) for government/concession facilities

#### **Ensure Sand Mining does not Impact Barrier Islands**

Study sediment transport pathways <u>before</u> any sand mining occurs. Avoid sand mining from within the littoral zone of all barrier islands. Avoid any projects/sand mining that would disrupt or otherwise alter natural processes/dynamics associated with known sediment transport pathways.

#### Indicate Barrier Islands as Protected on All Project Maps

On all maps/figures/imagery developed for the project involving the barrier islands, indicate their designation/boundaries as NPS and wilderness areas, as applicable.

# Coastal-wide Project List submitted to COE before the Regional Coordination Workshops

- Coastal Mississippi Artificial Reef Project for Remediation of 2005 Hurricane Damage HSD, Sub-surface Erosion, F&W Habitat Degradation; Measures: Artificial Reef construction, repair of damaged existing reefs, fill emplacement for protection of reefs.
- 38 Coastal Mississippi Hurricane Evacuation Plan



Problem: Lack of adequate roadway capacity, lack of south-to-north evacuation routes, lack of signage, lack of hurricane effects and response training and education; Measures: Implementation of existing evacuation plan, installation of signage, educational outreach, construction of south-to-north routes.

# Hancock County Project List submitted at Regional Coordination Workshops

#### B Ecosystem restoration for magnolia branch

Use conservation easements to restore magnolia branch.

#### C Jordan River Shores

Buy out landowners, return hydrology, begin mitigation, prohibit new/more development.

#### D Pearlington

Buy-out homeowners and return hydrology.

#### E Shoreline buyout

See shoreline park buyout plan.

#### F Biloxi Marshes Comprehensive Ecosystem Restoration

Restore marsh for pipeline canal. Will help clean out water and serve as storm buffer. (See Previously Submitted Project 46)



# Hancock County Project List submitted to COE before the Regional Coordination Workshops

#### 63 White's Road Evacuation Route Protection

#### 63 A White's Road Evacuation Route Protection

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection

#### 63 B White's Road Evacuation Route Protection

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 19 Jackson Wetland Restoration

HSD, Erosion, flood inundation, and saltwater intrusion; Measures: may require watershed approach toward solution of HSD, flooding, saltwater intrusion, ecosystem damage.

#### 42 Lakeshore Beach Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation; Measures: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marsh, plantings

#### 15 Clermont Harbor Seawall HSDR and Erosion Control

HSD, Erosion to shoreline, utilities and highway evac route; 3 alternatives already developed, include relocation of highway, replacement of seawall, erosion protection, *current Sec 14.* 

#### 15A Cowand Point Seawall Erosion Control

HSD to seawall; *currently certified project*, Measures: approx 550' of seawall installation for erosion and HSD protection, plus *additional measures further south TBD as #15AA*; *current Sec 14.* 

#### 15G Hancock County Beach Ecosystem Restoration and HSDR

HSD, Erosion to shoreline, utilities and highway evac route; 3 alternatives already developed, include relocation of highway, replacement of seawall, erosion protection, *current Sec 14.* 

#### 15H Clermont Harbor Seawall HSDR and Erosion Control

HSD, Erosion to shoreline, utilities and highway evac route; 3 alternatives already developed, include relocation of highway, replacement of seawall, erosion protection, *current Sec 14.* 

#### 18 Hancock County Comprehensive

HSD and Erosion of beach, seawall, and road raising and/or repair; sand placement,

#### 39 Bayou Caddy Shore Protection and Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation; Measures: Fill and protective measures emplacement, emplacement of suitable marsh substrate, topographic contouring and plantings; *potential Section 204 project; permit in place for placement of rubble.* 

#### 40 St. Louis Bay Comprehensive Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion and/or contamination; Measures: Beach fill emplacement, removal of damaged canal works, removal of destroyed road and roadbed, sediment removal from marshes, plantings, incidental flood control by improvement of storage opportunities, freshwater mgmt strategies for enhanced saltwater control in these estuarine environments (elements: Bayou St. Croix, Jourdan River Marsh, Mulatto Bayou, Discovery Bay, Henderson Road).



#### 61 Clermont Lake Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion and/or contamination; Measures: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, flood damage reduction by natural storage within marshes, freshwater mgmt strategies for enhanced saltwater control in estuarine environments

#### 62 Hancock County Communities Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction



## Jackson County Project List Submitted at Regional Coordination Workshops

#### A C. Byrd Rd Drainage

Fix undersize culverts.

(See Previously Submitted Projects 64A&B.)

- B Restore natural drainage ways upper Bayou Castelle (vic Fishhawk Rd, Meadow Dale Dr., Longwod Dr, and Bayou Castelle Dr)
- C Restore natural drainage ways upper Sioux Bayou (vic Laville Subdivision and Westgate Subdivision)
- D Restore natural drainage ways upper Mary Walker Bayou (vic Northwood Hills, Rolling Meadows, and Bayou Oaks subdivisions)

#### E Robert Hiram Bridge (Gautier)

Hurricane evacuation route. Wet lands restoration drainage

#### F Graveline Rd Bridge at Shepard St Park (County)

Hurricane evacuation route. Wetlands restoration drainage

#### **G** W River Delta restoration (County)

Bulkhead western channel. Beneficial use. Wave protection for subdivisions.

#### J W Land Lake Pascagoula

Dredge to recover retention qualities and install new drainage pipes to north.

#### K New Drainage Channel West Side of Martin Rd Bridge

#### L 11<sup>th</sup> St Bridge and Drainage Canal

Bridge is failing and canal walls are caving in.

#### M Old Mobile Hwy Bridge Failing

Part of MAIN drainage from hospital to open water.

#### N Bartlett St Bridge

Bridge has collapsed and is closed (located below Old Mobile Hwy Bridge and on same canal).

#### O Bates St Drainage to Open Water

#### P Inspection & Rehabilitation of Sewer and Storm Piping

Particularly where ground was saturated and possibly compromised.

- Q Relocate Waste Water Treatment Plant Out of Surge Inundation Area
- R Reestablish Benchmarks City-wide
- S Brown Water system study City-wide)

#### T Seawall/Bulkhead

Boardwalk, beach, and marsh addition along Pascagoula front beach

#### U 11<sup>th</sup> St. Bulkhead Rehabilitation

Mississippi Coastal Improvement Project Regional Coordination Workshop Transcripts, April 7, 2006, Biloxi, MS



#### V Bayon Chico Bulkhead Rehabilitation

(See Previously Submitted Project 11B)

#### W Snag/dredge main Drainage Systems

Increase flooding capacity (flow capacity during rainfall events)

- X Main drainage system erosion rehabilitation & capacity
- Y Main drainage side storage wetland construction

#### Z City-wide retention/detention pond addition

Main drain barrier valve system addition.

#### AA Offshore breakwater/dunes/reefs/marshes to dissipate wave energy

#### BB Round Island Lighthouse Relocation

(See Previously Submitted Project 57)

#### HH Bennett Bayou tidal marsh restoration

#### II Beach Restoration

Dunes, grasses, trees, with intermittent pockets of sand beach

#### JJ Ladnir Rd

(See Previously Submitted Project 66B)

#### KK Study

(See Previously Submitted Project 58)

#### LL Drainage

Undersized culvert. (See Previously Submitted Project 65)

#### MM Franklin Creek – pecan hydrology project

(See Previously Submitted Project 22)



# Jackson County Project List submitted to COE before the Regional Coordination Workshops

#### 49A No description on list

#### 49 Biloxi Back Bay Watershed

No description on list.

#### 2 West End Landing Coastal Erosion

HSD, Erosion; Seawall damaged; **Measures**: Seawall repair; fill placement; protection of bridge abutment(s).

#### 3 Front Beach Blvd. Ecosystem Restoration and Erosion Control

HSD, Erosion (Hwy 90 Bridge to Harbor - eroded beach) interior drainage outfalls damaged; **Measures**: Restoration of beach shoreline; raising of seawall?; other erosion control.

#### 4 Front Beach Road Wetlands

HSD, F&W Habitat Degradation; **Measures**: Wetland restoration; excavate and remove deposited sediment, clean out culvert(s), address interior drainage issues, plantings, incidental flood control benefits.

#### 5 Shearwater Bridge Erosion Control

HSD, Erosion, Bridge abutment damage; **Measures**: Erosion control; abutment protection; potential HSDR for evac route; **potential Sec 14**; less than 500K est. cost; other than bridge, there may be little other damageable property.

#### 5B Jackson County Marsh Outlet Ecosystem Restoration

HSD to outlet of marsh; **Measures**: Removal of fill, debris and fill removal, removal of bulkhead (may require land purchase), saltwater wetland restoration plantings.

#### 6 East Beach Road Ecosystem Restoration

HSD, Beach erosion and outfall damage, interior flooding; **Measures**: Beach fill placement; outfall repair; potential offshore submerged breakwaters TBD.

#### 54 Davis Bayou Ecosystem Restoration

HSD, F&W Habitat Degradation, silt deposition; Measures: Silt removal from marsh, filling of now-useless ditches, topographic re-contouring, plantings.

#### 34 Monster Ditch/Ocean Springs Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 7 Belle Fontaine Marsh

HSD, Storm damage to marsh; **Measures**: Sediment removal, topographic modification, plantings, potential for offshore submerged breakwater.

#### 64 Upper Old Fort Bayou Comprehensive Flood Damage

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 64A Upper Old Fort Bayou Comprehensive Flood Damage Reduction



HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 64B Upper Old Fort Bayou Comprehensive Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 65B Old Spanish Trail Comprehensive Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 65A Old Spanish Trail Comprehensive Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 65 Old Spanish Trail Comprehensive Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route

#### 66 Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration

HSD and sediment infilling of existing drainageways and bayou outlet; Measures: potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 66A Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration

HSD and sediment infilling of existing drainageways and bayou outlet; Measures: potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 66B Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration

HSD and sediment infilling of existing drainageways and bayou outlet; Measures: potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 58 West Pascagoula Delta Flood Damage Reduction and Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion and/or contamination; Measures: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, flood damage reduction by natural storage within marshes, freshwater mgmt strategies for enhanced saltwater control in estuarine environments.

#### 9 Pascagoula Beach Blvd. Restoration

Beach Park Storm Damage Reduction, Bayou Chico Beach HSDR, Pascagoula Breakwater HSDR. HSD, Erosion, Seawall and road damage, seawall failure, damage to town; Seawall repair, potential dune restoration, beach fill to original profile. Beach fill emplacement to original profile, potential burial of seawall for additional protection. HSD, Erosion, Storm damage to shoreline and offshore resources; Measures: potential offshore submerged breakwater installation, coastal erosion control measures;

#### 11 Beach Boulevard Erosion Control

HSD, Erosion, Storm-caused failure of bulkhead, road damage, severance of evacuation route, threats to bridge; **Measures**: bulkhead replacement, bridge abutment repair; **potential Sec 14.** 

#### 56 Greenwood Island Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation; Measures: Temporary containment for fill, emplaced fill, repair of damaged habitat caused by 2005 events, plantings.



#### 32 Chicot Road Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 37 Upper Bayou Cassotte Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction; *Combination of* 31, 33, and 35.

#### 36 West Bayou/Rhodes Bayou Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 22 Franklin Creek Floodplain Restoration

HSD, Erosion, flood inundation, and saltwater intrusion; Measures: may require watershed approach toward solution of HSD, flooding, saltwater intrusion, ecosystem damage.

#### 55 Grand Batture Island Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion; Measures: Temporary containment for fill, emplaced fill, repair of damaged habitat caused by 2005 events, plantings. Elements: Grand Bay, Port aux Chens



# Harrison County Project List submitted to COE at the Regional Coordination Workshops

#### A West Ship Island

Continue to nourish the north shore of the island east and in front of Fort Massachusetts, a national historic site. We've been doing this for years, dredging to re-nourish.

#### B Evaluate Dredging and Channelization

Look at the channeling/dredging when preparing flood controls from rain events to consider impact for storm surge in costal zone.

#### C Extend South Side of Deer Island

Extend 200 yards to repair breach in island and restore original footprint of island. The restoration of the beach would help contain a breach on the southern side of the island that is right now connected to grand bayou and the danger is that the island may be split into with the occurrence of a new storm.

#### D Deer Island Enhancements

Cap shell middens on western side of the island and restore top soil in maritime live oak forest

#### E New Sewage Treatment Plant in Woolmarket Lagoon Area

Move the Woolmarket Lagoon to north of I10 north of the area and would protect the citizens by moving the sewage from the flood prone areas: new sewage treatment plant.

#### F Flood-proof Existing Infrastructure

Flood proof existing infrastructure, prevent damage from flooding storm surge or retrofitting existing stations with bypass pumps so the stations could be linked by existing pumps in the event of another catastrophe. Improvements to all the public infrastructure systems (water, power, drainage, roads) to prevent damages due to flooding, storm surge, and sedimentation.

#### G Enhance Lee and Bayview Docks for Commercial Shrimpers

Lighthouse fishing docks are important to shrimp industry. Make commercial fishing dock at Lee and Bayview more usable. Core of eng cannot give help legally help because city of Biloxi owns them. They put silt into canals. We need it dredged out to keep afloat the industry in Biloxi. Large processors were wiped out by storms. Need docks to put in fuel pumps.

#### H Enhance Maine Street Docks for Commercial Shrimpers

Make the commercial fishing dock on Maine street and MS 90 more usable. A small shrimping fleet is docked here and then sell shrimp off dock. These shrimpers didn't get to work since hurricane. They are depending on it for their livelihood. We need to make a place for them to sell. They have debris and dredging and that needs to be taken care of. This area is good for tourism (people come from all over to buy shrimp here). We need to have a place for these people to work or they will not be able to stay here to work another season.

#### I Acquire Wildlife Corridors in Lands that Repeatedly Flood

Acquire and set aside green corridors in areas that have flooded often, such as Turkey Creek in Harrison, Bay Side Park). The Land Trust would hold land in perpetuity.

#### J Develop Concrete Staging Center in Industrial Canal

Develop Harrison county industrial canal artificial reef staging area to stockpile concrete debris for oyster reef and other useful projects.

#### K Restore or Enhance Mississippi Oyster Reefs



90-95% of the reefs were destroyed by Katrina. MS had around 12,000 areas of productive reefs prior to Katrina.

#### L Open the bridge Quickly to Enhance Tourism.

Commercial business feels strongly that the casinos are driving coastal tourism. Get bridge open to make easier casino access.

#### M Rebuild the Biloxi to Ocean Springs Bridge

Transportation is a major concern. Need to make East access to commercial business easier.

- N Utilizing Highway 90 Bridge as Artificial Reef Material
- O Provide Compensation for Persons in Flood-prone Areas to Relocate

Areas prone to flooding, such as Eagle Point, should be offered buy-outs.

#### P Economic Development of Downtowns

Orderly expansion of municipal harbors along with revitalization of downtowns would provide green space; non-water dependent retail, and a manageable beach blvd. (NOT HW 90).

- Q Turkey Creek: Mt. Pleasant UME Audubon site 41, Tidal Creek restoration of flood plain.
- R Complete the purchase of "optional" Cat Island for inclusion into Gulf Islands Nationals Seashore



# Harrison County Project List submitted to COE before the Regional Coordination Workshops

#### 16 Pass Christian Harbor HSDR

HSD, Erosion to coffer cell walls in harbor wall; *potential FEMA fix*; removal of failed coffer cell, replacementy.

#### 14 Long Beach Harbor HSDR

HSD to rubble breakwater; *may be FEMA project*; may not have public link; Measures: replacement of missing fill and grout.

#### 26 Turkey Creek Watershed Improvements

(May be combination of 26A and B)

#### 26A Turkey Creek Flood Damage Reduction

HSD exacerbation to existing drainage systems; Measures: road repair, evacuation plan, signage, structure modification, flood proofing, zoning modifications, clearing and snagging, potential installation of 3-sided ring levee concept around damage centers

#### 26B North Gulfport Interior Drainage

HSD exacerbation to existing drainage systems; Measures: road repair, evacuation plan, signage, structure modification, flood proofing, zoning modifications, clearing and snagging, potential installation of 3-sided ring levee concept around damage centers

#### 27 Long Beach Interior Drainage HSDR (includes "Canals 2 & 3)

HSD exacerbation to existing drainage systems; Measures: road repair, evacuation plan, signage, structure modification, flood proofing, zoning modifications, clearing and snagging, potential installation of 3-sided ring levee concept around damage centers

#### 25 Gulfport Commercial Harbor(renumbered as #25 from 15B)

HSD to Federally-authorized port project, industrial and port damage; Measures: seawall repair and/or replacement, road repair, evacuation plan, signage, structure modification, flood proofing, zoning modifications, *full scope of damages and potential measures TBD*.

#### 20 Mississippi Coastal Urban Communities HSDR

HSD, Erosion to structures, roads, utilities, infrastructure, due to storm surge, freshwater retention by backwater effects, etc.; Measures might incorporate urban center protection by breakwaters, ring levees, offshore reefs, additional marsh restoration, barriers and gates on major waterways that enter back bays and other avenues of surge entry, seawall replacement and/or upgrading, road repair, evacuation plan, signage, structure modification, flood proofing, zoning modifications, full scope of problems and alternatives TBD.

#### 28 Harrison County Industrial Seaway Harbor of Refuge

(Renumbered as #28 from 15C)

HSD to commercial and pleasure craft due to storm surge; measure would provide for mooring for craft during events.

#### 50 Courthouse Road Wetlands Ecosystem Restoration and Preservation

HSD, Erosion, F&W Habitat Degradation; Measures: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marsh, plantings

#### 15F Mississippi Coastal Pump Station Inundation Protection



HSD to pump stations throughout counties due to saltwater inundation; Measures: replacement, raising, other, of pump station equipment; potential HUD funding through Miss Dev Auth and utility authority?

#### 13 Harrison County Beach Ecosystem Restoration and Erosion Control

HSD, Erosion, Beach damage due to storms; Existing FCCE Project; Measures: potential project would add dunes as ecosystem restoration and hurricane storm damage reduction measures, plantings; potential to raise wall

#### 30 Tchoutacabuffa River Flood Damage and Watershed Improvement

HSD to existing development, marsh damage due to surge; Measures: need to examine long-term watershed measures to ensure flood damage reduction, marsh restoration and preservation, fish and wildlife preservation

#### 24 Cedar Lake Road Flood Damage Reduction

No description found.

#### 49 Biloxi Back Bay Watershed Management and Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion and/or contamination; Measures: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, incidental flood control, freshwater mgmt strategies for enhanced saltwater control in estuarine environments; Elements: Auguste Bayou, Goat Island Marsh.

#### 52 D'Iberville Wetlands Ecosystem Restoration (combined into #49)

HSD, Erosion, F&W Habitat Degradation; Measures: Beach fill emplacement, outfall replacement and/or repair, removal of now-useless road and roadbed, silt removal from outfalls, sediment removal from marsh, plantings

#### 15E Highway 90 – Rodeburg to St. Charles St. HSDR and Flood Control

HSD and damage to roads, flooding of evac route; Measures: potential road raising and erosion and HSD protection TBD.

#### 60 Mississippi Coastal Improvement and Hurricane Storm Damage Reduction Program

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion and/or contamination; Measures: Establish Multiple Line of Defense Strategy for Hurricane Surge and Wave Damage Reduction, including Barrier Islands, Beachfront, Hwy-90, Railroad, and I-10 alignments. Also may include Bay Gate construction to protect ports and infrastructure. Measures also may include: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, flood damage reduction by natural storage within marshes, freshwater mgmt strategies for enhanced saltwater control in estuarine environments.

#### 21 Mississippi Coastal Barrier Island Restoration

HSD, Erosion to all barrier islands due to HS surge overflow, erosion and damage to associated terrestrial and aquatic resources associated with each; Measures: may include temporary containment for sand fill, fill placement, erosion control measures saltwater intrusion prevention

#### 51 Deer Island Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation; Measures: Temporary containment for fill, emplaced fill, repair of damaged habitat caused by 2005 events, plantings, scope TBD.

#### 23 Biloxi Point Flood Damage Reduction

HSD, Erosion, Flooding of low areas in Biloxi by storm inundation and backwatering of interior drainage facilities; May be being dealt with by Deer Island Restoration? Full scope of problems and alternatives TBD.



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#### **Preliminary Screening Criteria for Evaluating Short-term Projects**

- 1. Is the problem related to or caused by the hurricanes of 2005 and the December 2005 Authorization from Congress for this planning authority?
  - a. Hurricane storm damage reduction or remediation
  - b. Prevention or remediation of saltwater intrusion
  - c. Preservation of fish & wildlife and restoration of their habitats
  - d. Prevention or remediation of erosion
  - e. Other related water resource purposes
- 2. Does there appear to be a solution that can be implemented in the near-term and be included in the June 30<sup>th,</sup> 2006 Report to Congress (pre-engineered, easily done, little to no opposition), or should this be deferred for further study as a final report recommendation in the December 31<sup>st</sup>, 2007 Report to Congress (requires more study, support, issue resolution)?
- 3. Does this effort duplicate or compliment the effective work of others (awareness of other's efforts assessed)?
- 4. Does the problem (or would lack of a solution to the problem) directly impact protection of life and property?
- 5. Does the proposed project have a feasible solution?
  - a. Technically viable
  - b. Cost-effective
  - c. Efficiently implemented
  - d. Completely solves the problem
  - e. Sustainable after implementation
  - f. Considers environmental justice (EJ)
  - g. Comparatively high levels of reduction in storm damage
  - h. Comparatively high levels of reduction in coastal erosion
  - i. Comparatively high levels of addressing saltwater intrusion
  - j. Comparatively high levels of providing preservation of fish and wildlife and their habitats
- 6. Is the cost reasonable in the light of the risk and consequences of not implementing the project?
- 7. Are there unresolved issues (with other groups or organizations) regarding this problem or proposed solution that may lead to longer implementation times?

- 8. Is the proposed project acceptable to regulatory and environmental agencies?
- 9. Does the proposed project fit in with complement or support the objectives of the State and/or local plans and desires for this area?
- 10. Would the implementation of the proposed project preclude other future options that may have a higher level of contribution?
- 11. Does the proposed project contribute to the longer-term recovery of coastal Mississippi?

# Mississippi Coastal Improvements Project

# Potential Projects List

(as of April 26, 2006)

Note: The numbering system originally referred to potential projects on the maps with aerial photography used by the Corps during the Round One workshops. The original numbers have been retained as much as possible to avoid confusion. However, during the workshops additional items were suggested and additional numbers or letters were added where needed to capture those ideas.

This list is divided by into sections by county and coast-wide. It also indicates where the potential project idea originated.

# <u>CWI.</u> Coastal-wide Project List – Mobile District staff site visit and coordination with local communities

# MSCW-36: (53) Coastal Mississippi Artificial Reef Project for Remediation of 2005 Hurricane Damage

Artificial Reef construction, repair of damaged existing reefs, fill emplacement for protection of reefs.

#### MSCW-37: (38) Coastal Mississippi Hurricane Evacuation Plan

Implementation of existing evacuation plan, installation of signage, educational outreach, construction of south-to-north routes.

CW II. Coastal-wide Project List – from Regional Coordination Workshop

#### MSCW-01: Buy-out and restore areas which were wetlands or existing wetlands

Buy private lands in areas adjacent to marsh habitats, where homes/structures were destroyed. This would be great, particularly in cases where the land was previously marsh/wetlands and was developed, the development was destroyed and the private landowners do not want to rebuild. This would prevent future development in these areas, as well as provide for an opportunity to restore the land to marsh/wetlands.

MSCW -02: Aggressively pursue the restoration of the barrier islands.

# MSCW-03: Use selected levels of rip-rap instead of a bulkhead if erosion protection is the problem.

This should reduce the negative impact to the marsh edge habitat and allow some limited development.

#### MSCW-04: Build new marshes in low-use beach areas coast-wide.

Remove, not rebuild, structures along the coast and replace with marshes. Protect all existing and created wetlands, in perpetuity. Limit construction along beachfronts - replace with marsh and natural areas.

# <u>MSCW-05</u>: Provide 100 acres of oyster reef restoration in different places around Mississippi Sound.

The Nature Conservancy has demonstration sites working with DMR and others. These sites would or could be spread across different bays along the MS coast which would help mitigate or storm surge, wave energy and provide habitat for fish and other biodiversity.

MSCW-06: Work with state of MS to authorize transfer of development rights in state statutes.

#### MSCW-07: Include repair standards in building codes.

(e.g. replacement of electrical wiring flooded by salt water).

MSCW-08: Dredge access channels to existing public marine industry and recreational boating.

MSCW-09: Review drainage systems to determine historical erosion and capacity issues

Review main drainage systems to determine where improvements are most necessary and will decrease future erosion and/or failure issues.

<u>MSCW-10</u>: Improve comprehensive retention/detention systems in each entity to reduce rainfall-related flooding.

#### MSCW-11: Form a monitoring team among the federal agencies

COE, NOAA, USGS, etc. should design a storm hardened network of sites that will survive and function throughout a major storm to provide data that is critical to emergency managers (surge elevation, wind speed, rainfall, etc.).

<u>MSCW-12</u>: Provide an incentive for replacing failing septic systems in rural areas to improve water quality along bayous and bays.

<u>MSCW-13</u>: Implement a barrier or check valve system to isolate freshwater detention from saltwater inundation during surge events.

MSCW-14: Add wetlands along main drainage systems in each location to increase capacity of the systems during rainfall and surge flooding events.

MSCW-15: Complete snagging/clearing, etc. to restore the capacity of existing drainage.

<u>MSCW-16</u>: Repair existing bulkheads or other structural drainage components that were damaged during the storm to reduce future failures during similar events.

MSCW-17: Maximize Beneficial Use of Dredge Materials

<u>MSCW-18</u>: Consider brown water system to minimize demand on ground and surface waters and limit saltwater intrusion.

#### MSCW-19: Re-establish Benchmark Information Coastal-wide

Use in planning and implementation of any ideas. Many points were destroyed in the storm.

MSCW-20: Relocate wastewater treatment facilities out of the surge-prone areas.

#### MSCW-21: Inspect and Rehabilitate Wastewater and Piping Systems

Perform inspection and rehabilitation of wastewater and storm water piping systems to determine unseen effects of the surge and minimize cave-is in the future due to surge or rainfall flooding.

<u>MSCW-22</u>: Develop additional Offshore Breakwaters or Sand Dunes where determined most Beneficial through Modeling

MSCW-23: Study, plan, and combat invasive species on barrier islands

MSCW-24: Consider all archaeological sites in planning process

Many significant coastal sites are eroding and need to be preserved. Once they're gone, they're gone. These are nonrenewable resources which are very important to our state's history. (Contact MDAH)

# <u>MSCW-25</u>: Work on Barrier Island restoration to provide the first line of defense. Maintain sensitivity to Barrier Islands.

Be aware that most barrier islands off of the MS coastline are protected through their inclusion as a national park. Some are also designated as wilderness areas. As such, any proposed projects need to be sensitive to these special, congressionally approved designations.

#### MSCW-26: Remove Hazardous Materials around Barrier Islands

Survey amount of underwater debris and remove around barrier islands; remove large and hazardous debris over next 6-24 months from shoreline on barrier islands.

#### MSCW-27: Develop Baseline Flora Fauna Studies for Barrier Islands

Scientific survey the natural resources (biological) to have a baseline of flora and fauna on barrier islands

#### MSCW-28: Protect Barrier Islands from Spills

Protect the island resources from potential diesel/oil spills that could be caused during a large storm event – provide alternative energy sources – (solar) for government/ concession facilities

#### MSCW-29: Ensure Sand Mining does not Impact Barrier Islands

Study sediment transport pathways before any sand mining occurs. Avoid sand mining from within the littoral zone of all barrier islands. Avoid any projects/sand mining that would disrupt or otherwise alter natural processes/dynamics associated with known sediment transport pathways.

#### MSCW-30: Indicate Barrier Islands as Protected on All Project Maps

On all maps/figures/imagery developed for the project involving the barrier islands, indicate their designation/boundaries as NPS and wilderness areas, as applicable.

#### **MSCW-31**: Marsh Restoration where Feasible

This can be done in conjunction with private and government dredging projects. It will provide for enhanced fish and wildlife habitat.

#### MSCW-32: Partnership Efforts with Louisiana to Marsh Island Areas

This would mitigate surge.

#### CWIII. Coastal-wide Project List – from Public Workshops

MSCW-33: Bring barrier islands back to natural setting

MSCW-34: Allow nature to dictate wetlands vs. beach to a greater degree.

MSCW-35: Coordinate with ongoing planning efforts. Provide protection for public facility (i.e., WW treatment plants).

# Hancock County Projects HAN I. Hancock County Projects - Mobile District staff site visits and coordination with local communities

#### 63 White's Road Evacuation Route Protection

#### 63 A White's Road Evacuation Route Protection

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection

#### 63 B White's Road Evacuation Route Protection

Sediment and debris removal, drainage-way improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 19 Jackson Wetland Restoration

Watershed approach toward solution of HSD, flooding, saltwater intrusion, ecosystem damage.

#### 42 Lakeshore Beach Ecosystem Restoration

Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marsh, plantings Hancock County Projects - Mobile District staff site visits and coordination with local communities

#### 15 Bay St. Louis Downtown

Seawall replacement, road repair, evacuation plan, signage, structure modification, floodproofing, zoning modifications, city has prelim design and cost estimates; FHA involvement expected; additional alternatives need to be examined; both short-term and long-term componentsRelocation of highway, replacement of seawall, erosion protection, current Sec 14.

#### 15A Cowand Point Seawall Erosion Control

Currently certified project; Measures: approx 550' of seawall installation for erosion and HSD protection, plus additional measures further south TBD as #15AA; current Sec 14.

#### 15G Hancock County Beach Ecosystem Restoration and HSDR

Relocation of highway, replacement of seawall, erosion protection, current Sec 14.

#### 15H Clermont Harbor Seawall Hurricane Storm Damage Reduction and Erosion Control

Relocation of highway, replacement of seawall, erosion protection, current Sec 14.

#### 18 Hancock County Comprehensive

Seawall, and road raising and/or repair; sand placement,

#### 39 Bayou Caddy - Shore Protection and Ecosystem Restoration

Fill and protective measures emplacement, emplacement of suitable marsh substrate, topographic contouring and plantings; potential Section 204 project; permit in place for placement of rubble.

#### 40 St. Louis Bay Comprehensive Ecosystem Restoration

Beach fill emplacement, removal of damaged canal works, removal of destroyed road and roadbed, sediment removal from marshes, plantings, incidental flood control by improvement of storage opportunities, freshwater management strategies for enhanced saltwater control in these estuarine environments (elements: Bayou St. Croix, Jourdan River Marsh, Mulatto Bayou, Discovery Bay, Henderson Road).

#### 61 Clermont Lake Ecosystem Restoration

Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, flood damage reduction by natural storage within marshes, freshwater mgmt strategies for enhanced saltwater control in estuarine environments

#### 62 Hancock County Communities Flood Damage Reduction

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction

HAN II. Hancock County Projects - from Regional Coordination Workshop

#### **HN-B** Ecosystem restoration for Magnolia Branch

Use conservation easements to restore magnolia branch.

#### **HN-C** Jordan River Shores

Buy out landowners, return hydrology, begin mitigation, prohibit new/more development.

#### **HN-D** Pearlington

Buy-out homeowners and return hydrology.

#### **HN-E** Shoreline Park buyout

See Shoreline Park buyout plan. The County and City need stronger zoning ordinances that will prohibit development in the marsh areas of the County.

#### **HN-F** Biloxi Marshes Comprehensive Ecosystem Restoration

Restore marsh for pipeline canal. Will help clean out water and serve as storm buffer.

(See Previously Submitted Project 46)

HAN III. Hancock County Projects - from Public Workshop

#### HNP1-01: Ferries to Temporarily Replace Bridges.

In the absence of bridges between Biloxi and Gulfport we need ferries to connect between Biloxi and Gulfport and Bay St. Louis and Pass Christian.

HNP1-02: Include all marshes in general in item 19.

HNP1-03: Would like to see the beaches restored as they were before the hurricane.

HNP1-04: Jump-start dunes. Widen beach.

#### HNP1-05: Bayou Caddy Area

The relentless push for intensive, high-rise condo development is on a collision course with preserving wetlands/marshes and preservation of fish and wildlife. This is a major management challenge.

<u>HNP1-06</u>: Filling of wetlands- Filling in the remaining marsh area in Hancock County's coast should not be allowed, particularly to enable intensive, high rise condo development.

<u>HNP1-07</u> Construct a N/S rail link connecting Port Beinville Industrial Park to the Norfolk and Southern Railroad through Stennis Buffer. Hurricanes cause CSXT rail outages which cost > \$20,000/day.

**HNP1-08** Restore natural freshwater flows by closing the MRGO.

<u>HNP1-09</u> Remove storm debris (i.e., demolition debris carried in by surge retreat) from aquatic environments. Restore traditional shrimping and fishing areas rendered un-trawlable by storm debris.

# HAN IV. Hancock County Projects - Additional Ideas from Regional Coordination Workshop

<u>HRR1-01</u>: Open the east Pearl River channel so it can be used by commercial marine traffic from Port Bienville, thereby avoiding traversing the Little Lake and Rigolets route.

HRR1-02: Pursue the development of additional breakwater structures in low-use areas.

#### **Jackson County Project List**

# JAC I. Jackson County Projects – submitted before Regional Coordination Workshop

#### 49A Merged into Project 49.

#### 49 Biloxi Back Bay Watershed Management and Ecosystem Restoration

HSD, Erosion, F&W Habitat Degradation, Saltwater Intrusion and/or contamination; Measures: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, incidental flood control, freshwater mgmt strategies for enhanced saltwater control in estuarine environments; Elements: Auguste Bayou, Goat Island Marsh. (Same as Harrison County 49.)

#### 2 West End Landing Coastal Erosion

HSD, Erosion; Seawall damaged; Measures: Seawall repair; fill placement; protection of bridge abutment(s).

#### **3** Front Beach Blvd. Ecosystem Restoration and Erosion Control

HSD, Erosion (Hwy 90 Bridge to Harbor - eroded beach) interior drainage outfalls damaged; Measures: Restoration of beach shoreline; raising of seawall?; other erosion control.

#### 4 Front Beach Road Wetlands

HSD, F&W Habitat Degradation; Measures: Wetland restoration; excavate and remove deposited sediment, clean out culvert(s), address interior drainage issues, plantings, incidental flood control benefits.

#### 5 Shearwater Bridge Erosion Control

Erosion control; abutment protection; potential HSDR for evac route; potential Sec 14; cost; other than bridge, there may be little other damageable property.

#### **5B** Jackson County Marsh Outlet Ecosystem Restoration

HSD to outlet of marsh; Measures: Removal of fill, debris and fill removal, removal of bulkhead (may require land purchase), saltwater wetland restoration plantings.

#### 6 East Beach Road Ecosystem Restoration

HSD, Beach erosion and outfall damage, interior flooding; Measures: Beach fill placement; outfall repair; potential offshore submerged breakwaters TBD.

#### 54 Davis Bayou Ecosystem Restoration

HSD, F&W Habitat Degradation, silt deposition; Measures: Silt removal from marsh, filling of now-useless ditches, topographic re-contouring, plantings.

#### 34 Monster Ditch/Ocean Springs Flood Damage Reduction

HSD and sediment infilling of existing drainageways and drains; potential sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 7 Belle Fontaine Marsh

HSD, Storm damage to marsh; Measures: Sediment removal, topgraphic modification, plantings, potential for offshore submerged breakwater.

#### 64 Upper Old Fort Bayou Comprehensive Flood Damage

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route.

#### 65 Old Spanish Trail Comprehensive Flood Damage Reduction

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction, protection of evacuation route

#### 66 Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### **58** West Pascagoula Delta Flood Damage Reduction and Ecosystem Restoration

Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, flood damage reduction by natural storage within marshes, freshwater mgmt strategies for enhanced saltwater control in estuarine environments.

#### 9 Pascagoula Beach Blvd. Restoration

Beach Park, Bayou Chico Beach, Pascagoula Breakwater, Seawall and road, damage to town. Seawall repair, potential dune restoration, beach fill to original profile. Beach fill emplacement to original profile, potential burial of seawall for additional protection. Potential offshore submerged breakwater installation, coastal erosion control measures.

#### 11 Beach Boulevard Erosion Control

Storm-caused failure of bulkhead, road damage, severance of evacuation route, threats to bridge; Measures: bulkhead replacement, bridge abutment repair; potential Sec 14.

#### 56 Greenwood Island Ecosystem Restoration

Temporary containment for fill, emplaced fill, repair of damaged habitat caused by 2005 events, plantings.

#### 32 Chicot Road Flood Damage Reduction

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### 37 Upper Bayou Cassotte Flood Damage Reduction

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction; Combination of 31, 33, and 35.

#### 36 West Bayou/Rhodes Bayou Flood Damage Reduction

Sediment and debris removal, drainageway improvement, for improvement of flood conveyance and damage reduction.

#### **22** Franklin Creek Floodplain Restoration

Watershed approach toward solution of HSD, flooding, saltwater intrusion, ecosystem damage.

#### 55 Grand Batture Island Ecosystem Restoration

Temporary containment for fill, emplaced fill, repair of damaged habitat caused by 2005 events, plantings. Elements: Grand Bay, Port aux Chens

#### JAC II. Jackson County Projects - from Regional Coordination Workshop

#### J-A C. Byrd Rd Drainage

Fix undersize culverts.

(See Previously Submitted Projects 64A&B.)

- <u>J-B</u> Restore natural drainage ways upper Bayou Castelle (vic Fishhawk Rd, Meadow Dale Dr., Longwod Dr, and Bayou Castelle Dr)
- <u>J-C</u> Restore natural drainage ways upper Sioux Bayou (vic Laville Subdivision and Westgate Subdivision)
- <u>J-D</u> Restore natural drainage ways upper Mary Walker Bayou (vic Northwood Hills, Rolling Meadows, and Bayou Oaks subdivisions)

#### J-E Robert Hiram Bridge (Gautier)

Hurricane evacuation route. Wetlands restoration drainage

#### J-F Graveline Rd Bridge at Shepard St Park (County)

Hurricane evacuation route. Wetlands restoration drainage

#### J-G W River Delta restoration (County)

Bulkhead western channel. Beneficial use. Wave protection for subdivisions.

#### J-J W Land Lake Pascagoula

Dredge to recover retention qualities and install new drainage pipes to north.

#### J-K New Drainage Channel West Side of Martin Rd Bridge

#### J-L 11<sup>th</sup> St Bridge and Drainage Canal

Bridge is failing and canal walls are caving in.

#### J-M Old Mobile Hwy Bridge Failing

Part of MAIN drainage from hospital to open water.

#### J-N Bartlett St Bridge

Bridge has collapsed and is closed (located below Old Mobile Hwy Bridge and on same canal).

#### J-O Bates St Drainage to Open Water

#### J-P Inspection & Rehabilitation of Sewer and Storm Piping

Particularly where ground was saturated and possibly compromised.

#### J-Q Relocate Waste Water Treatment Plant Out of Surge Inundation Area

#### J-R Reestablish Benchmarks City-wide

#### J-S Brown Water system study City-wide)

#### <u>J-T</u> Pascagoula Beach Blvd. Restoration (boardwalk, beach, and marsh.

Boardwalk, beach, and marsh addition along Pascagoula front beach

#### J-U 11<sup>th</sup> St. Bulkhead Rehabilitation

#### J-V Bayon Chico Bulkhead Rehabilitation

(See Previously Submitted Project 11B)

#### J-W Snag/dredge main Drainage Systems

Increase flooding capacity (flow capacity during rainfall events)

#### J-X Main drainage system erosion rehabilitation & capacity

#### <u>J-Y</u> Main drainage side storage wetland construction

#### J-Z City-wide retention/detention pond addition

Main drain barrier valve system addition.

#### J-AA Offshore breakwater/dunes/reefs/marshes to dissipate wave energy

#### J-BB Round Island Lighthouse Relocation

(See Previously Submitted Project 57)

#### J-HH Bennett Bayou tidal marsh restoration

A great opportunity to work with a broad partnership to restore tidal marsh at Bennett Bayou - lower Pascagoula River - provide wetland function in a highly visible project area for public education and promote the Gov's Restoration Initiative. Property owned by Land Trust for MS coastal plain site of proposed Audubon nature center and adjacent to MS coastal preserves

#### J-II Pascagoula Beach Restoration

Dunes, grasses, trees, with intermittent pockets of sand beach

#### J-JJ Ladnir Rd

(See Previously Submitted Project 66B)

#### J-KK West Pascagoula Delta Flood Damage Reduction and Ecosystem Restoration Study

(See Previously Submitted Project 58)

#### J-LL Drainage Improvements

Undersized culvert.

(See Previously Submitted Project 65)

#### J-MM Franklin Creek – Pecan hydrology project

(See Previously Submitted Project 22)

JAC III. Jackson County Projects – from Public Workshop

<u>JP1-01</u>: Ebb and flow of Intracoastal veins from the MS Sound to rebuild property with the erosion in the bayous near #66

<u>JP1-02:</u> Use jetties to prevent sediment flow clogging channel
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<u>JP1-03</u>: Cedar Point/West River-Restore beaches, sand, work, sediment management in this area

JP1-04: Ecosystem restoration along Hwy 90

<u>JP1-05</u>: Dredge/clear area in front of beachfront outfalls

<u>JP1-06</u>: Hydraulic lifting boardwalk/sidewalk as component of seawall/boardwalk improvements.

# JAC IV. Jackson County Projects – additional ideas from Regional Coordination Workshop (via-email)

#### JR1-01: Improve the Seawall System

Provide additional county-wide seawall construction, boardwalks, beach construction, marsh construction, or a combination of these elements.

JR1-02: Gautier – Improve natural drainage ways (siltation removal, etc.) in the Fishhawk, Meadowdale, Longwood and Bayou Castelle area draining into Bayou Castelle.

<u>JR1-03:</u> Gautier -- Improve natural drainage ways (siltation removal, etc.) in the Laville Subdivision and Westgate Subdivision draining into Sioux Bayou.

#### JR1-04: City of Gautier Storm Damage Reduction Projects.

Action Projects (near term application) include citywide storm drainage system - outlet siltation. The effectiveness of outlet channels has been adversely impacted by siltation and immediate enhancement of the drainage system is necessary.

# <u>JR1-05:</u> Identified Bayou Outlets on the Mississippi Sound that require immediate actions to remove deposited siltation:

- Unnamed Bayou (located at the southern end of Ladnier Road)
- Seacliffe Bayou (immediately east of Seacliffe Drive)
- Unnamed Bayou (south of Hiram Drive)
- Graveline Bayou (western end of Graveline Road)
- Citywide Storm Drainage System inland checkpoints
- MS 57 at C Byrd Road
- Old Spanish Trail at the CSX Railroad Overpass
- Bayou St. Pierre at US 90 (vicinity of Sutter Road)
- MS 57 in the area between US 90 and Brown Road
- US 90 approximately 0.8 mile east of MS 57
- Bayou Lamotte at US 90 (between Shamrock Court and Lanier Road)

#### Study Projects (Future Application)

- Citywide storm drainage system
- Wetland ecosystem restoration or creation
- West Pascagoula River siltation mitigation
- Mississippi Sound siltation mitigation
- Storm surge/wave action damage mitigation

JR1-06: Gautier -- Improve natural drainage ways (siltation removal, etc.) in Northwood Hills, Rolling Meadows and Bayou Oaks subdivisions draining into Mary Walker Bayou.

<u>JR1-07:</u> Dredge Davis & Simmons Bayous to include all connecting bayous to help prevent flooding.

JR1-08: Rebuild Marsh Island and enlarge it.

JR1-09: Divert water from Escatawpa River into Bayou Cumbest to restore freshwater flow to the bayou and improve water quality.

#### **Harrison County Project Lists**

# <u>HAR I. Harrison County Projects – Mobile District staff site vists and coordination</u> with local communities

#### 16 Pass Christian Harbor Hurricane Storm Damage Reduction

Erosion to coffer cell walls in harbor wall; potential FEMA fix; removal of failed coffer cell, replacement.

#### 14 Long Beach Harbor HSDR

HSD to rubble breakwater; may be FEMA project; may not have public link; Measures: replacement of missing fill and grout.

#### 26 Turkey Creek Watershed Improvements

(May be combination of 26A and B)

#### 26A Turkey Creek Flood Damage Reduction

Road repair, evacuation plan, signage, structure modification, floodproofing, zoning modifications, clearing and snagging, potential installation of 3-sided ring levee concept around damage centers

#### **<u>26B</u>** North Gulfport Interior Drainage

Road repair, evacuation plan, signage, structure modification, floodproofing, zoning modifications, clearing and snagging, potential installation of 3-sided ring levee concept around damage centers

#### 27 Long Beach Interior Drainage HSDR (includes "Canals 2 & 3)

Road repair, evacuation plan, signage, structure modification, floodproofing, zoning modifications, clearing and snagging, potential installation of 3-sided ring levee concept around damage centers

#### 25 Gulfport Commercial Harbor(renumbered as #25 from 15B)

Seawall repair and/or replacement, road repair, evacuation plan, signage, structure modification, flood proofing, zoning modifications, full scope of damages and potential measures TBD.

#### **20** Mississippi Coastal Urban Communities HSDR

May incorporate urban center protection by breakwaters, ring levees, offshore reefs, additional marsh restoration, barriers and gates on major waterways that enter back bays and other avenues of surge entry, seawall replacement and/or upgrading, road repair, evacuation plan, signage, structure modification, floodproofing, zoning modifications, full scope of problems and alternatives TBD.

#### 28 Harrison County Industrial Seaway Harbor of Refuge

#### (Renumbered as #28 from 15C)

HSD to commercial and pleasure craft due to storm surge; measure would provide for mooring for craft during events.

#### 50 Courthouse Road Wetlands Ecosystem Restoration and Preservation

Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marsh, plantings

#### 15F Mississippi Coastal Pump Station Inundation Protection

HSD to pump stations throughout counties due to saltwater inundation - replacement, raising, other, of pump station equipment; potential HUD funding through Miss Dev Auth and utility authority?

#### 13 Harrison County Beach Ecosystem Restoration and Erosion Control

Existing FCCE Project. Potential project would add dunes as ecosystem restoration and hurricane storm damage reduction measures, plantings; potential to raise wall

#### 30 Tchoutacabuffa River Flood Damage and Watershed Improvement

Examine long-term watershed measures to ensure flood damage reduction, marsh restoration and preservation, fish and wildlife preservation

#### 24 Cedar Lake Road Flood Damage Reduction

No description found.

#### 49 Biloxi Back Bay Watershed Management and Ecosystem Restoration

Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, incidental flood control, freshwater mgmt strategies for enhanced saltwater control in estuarine environments; Elements: Auguste Bayou, Goat Island Marsh.

#### 52 D'Iberville Wetlands Ecosystem Restoration (combined into #49)

Beach fill emplacement, outfall replacement and/or repair, removal of now-useless road and roadbed, silt removal from outfalls, sediment removal from marsh, plantings

#### 15E Highway 90 – Rodeburg to St. Charles St. HSDR and Flood Control

Potential road raising and erosion and HSD protection TBD.

#### 60 Mississippi Coastal Improvement and Hurricane Storm Damage Reduction Program

Establish Multiple Line of Defense Strategy for Hurricane Surge and Wave Damage Reduction, including Barrier Islands, Beachfront, Hwy-90, Railroad, and I-10 alignments. Also may include Bay Gate construction to protect ports and infrastructure. Measures also may include: Beach fill emplacement, outfall replacement and/or repair, silt removal from outfalls, sediment removal from marshes, plantings, flood damage reduction by natural storage within marshes, freshwater mgmt strategies for enhanced saltwater control in estuarine environments.

#### 21 Mississippi Coastal Barrier Island Restoration

HSD, Erosion to all barrier islands due to HS surge overflow, erosion and damage to associated terrestrial and aquatic resources associated with each. Temporary containment for sand fill, fill placement, erosion control measures saltwater intrusion prevention

#### 51 Deer Island Ecosystem Restoration

Temporary containment for fill, emplaced fill, repair of damaged habitat caused by 2005 events, plantings, scope TBD.

#### **23** Biloxi Point Flood Damage Reduction

HSD, Erosion, Flooding of low areas in Biloxi by storm inundation and backwatering of interior drainage facilities; May be being dealt with by Deer Island Restoration? Full scope of problems and alternatives TBD.

#### HAR II. Harrison County Projects - from Regional Coordination Workshop

#### HR-A West Ship Island

Continue to nourish the north shore of the island east and in front of Fort Massachusetts, a national historic site. We've been doing this for years, dredging to re-nourish.

#### HR-B Evaluate Dredging and Channelization

Look at the channeling/dredging when preparing flood controls from rain events to consider impact for storm surge in costal zone.

#### HR-C Extend South Side of Deer Island

Extend 200 yards to repair breach in island and restore original footprint of island. The restoration of the beach would help contain a breach on the southern side of the island that is right now connected to grand bayou and the danger is that the island may be split into with the occurrence of a new storm.

#### **HR-D** Deer Island Enhancements

Cap shell middens on western side of the island and restore top soil in maritime live oak forest

#### HR-E New Sewage Treatment Plant in Woolmarket Lagoon Area

Move the Woolmarket Lagoon to north of I10 north of the area and would protect the citizens by moving the sewage from the flood prone areas: new sewage treatment plant.

#### HR-F Flood-proof Existing Infrastructure

Flood proof existing infrastructure, prevent damage from flooding storm surge or retrofitting existing stations with bypass pumps so the stations could be linked by existing pumps in the event of another catastrophe. Improvements to all the public infrastructure systems (water, power, drainage, roads) to prevent damages due to flooding, storm surge, and sedimentation.

#### HR-G Enhance Lee and Bayview Docks for Commercial Shrimpers

Lighthouse fishing docks are important to shrimp industry. Make commercial fishing dock at Lee and Bayview more usable. Core of eng cannot give help legally help because city of Biloxi owns them. They put silt into canals. We need it dredged out to keep afloat the industry in Biloxi. Large processors were wiped out by storms. Need docks to put in fuel pumps.

#### **HR-H** Enhance Maine Street Docks for Commercial Shrimpers

Make the commercial fishing dock on Maine Street and MS 90 more usable. A small, shrimping-fleet is docked here and then sell shrimp off dock. These shrimpers haven't been able to work since hurricane. They are depending on it for their livelihood. We need to make a place for them to sell. They have debris and dredging and that needs to be taken care of. We need to have a place for these people to work.

#### HR-I Acquire Wildlife Corridors in Lands that Repeatedly Flood

Acquire and set aside green corridors in areas that have flooded often, such as Turkey Creek in Harrison, Bay Side Park). The Land Trust would hold land in perpetuity.

#### HR-J Develop Concrete Staging Center in Industrial Canal

Develop Harrison county industrial canal artificial reef staging area to stockpile concrete debris for oyster reef and other useful projects.

#### **HR-K** Restore or Enhance Mississippi Oyster Reefs

90-95% of the reefs were destroyed by Katrina. MS had around 12,000 areas of productive reefs prior to Katrina.

#### HR-L Open the bridge Quickly to Enhance Tourism.

Commercial business feels strongly that the casinos are driving coastal tourism. Get bridge open to make easier casino access.

#### HR-M Rebuild the Biloxi to Ocean Springs Bridge

Transportation is a major concern. Need to make East access to commercial business easier.

#### HR-N Utilize Highway 90 Bridge as Artificial Reef Material

#### HR-O Provide Compensation for Persons in Flood-prone Areas to Relocate

Areas prone to flooding, such as Eagle Point, should be offered buy-outs.

#### **HR-P** Economic Development of Downtowns

Orderly expansion of municipal harbors along with revitalization of downtowns would provide green space; non-water dependent retail, and a manageable beach blvd. (NOT HW 90).

HR-Q Turkey Creek: Mt. Pleasant UME Audubon site 41, Tidal Creek restoration of flood plain.

HR-R Complete the purchase of "optional" Cat Island for inclusion into Gulf Islands Nationals Seashore

#### HAR III. Harrison County Projects – from Public Workshop

<u>HRP1-01</u>: Retention/Detention basin to hold runoff while waiting for surge to go down from Brickyard Bayou.

HRP1-02: Surge gates along Biloxi Bay to help ease drainage areas during storm events

#### HRP1-03: Wiers (low level dams) within estuaries to control water flow

- 1. Keep water in middle of channel
- 2. Self cleaning and fast moving and keep mud flats covered.
- 3. Shore line for maintenance and walking paths

HRP1-04: Purchase riparian buffers. Purchase wetlands. Manage barrier islands.

#### HRP1-05: Reconsider dioxin cleanup on navy base post Katrina.

HRP1-06: Consider Long Beach interior drainage HSDR (includes canal 2-3).

<u>HRP1-07</u>: Reduce toxic exposure which exacerbates storm damage – Dioxin, Creosote, Titanium Dioxide, Gypsum.

HRP1-08: Turkey Creek watershed greenway.

#### HRP1-09: Forrest Height Levee

- Restore
- Vegetate with native species
- Footbridges
- Nature trail atop

HRP1-10: Dredge shoaled channels hindering storm evacuation

HRP1-11: Dredge shoaled marinas.

# HAR IV. Harrison County Projects – additional projects from Regional Coordination Workshop (via email)

HRR1-01: Provide protection of public infrastructure from flooding, surges and sedimentation.

HRR1-02: Deer Island - beach renourishment on southern side of the Island.

HRR1-03: Beach restoration and the creation of green spaces. Go through the buy-out program to allow for regeneration of the natural ecosystems. Enhance protection of existing ecosystem around Turkey Creek and other natural areas.

HRR1-04: Possibly add height to the existing beach elevation and redevelop lost dune vegetation.

HRR1-05: Rebuild the Harrison County boardwalk with concrete to accommodate pedestrians, BICYCLES, and possibly street vendors.

HRR1-06: Provide inland marine vessel storm shelter location with adequate moorings.

HRR1-07: Flood-proof low-lying sewer treatment plants. Lift stations and wells and their electrical and electronic controls.

<u>HRR1-08</u>: Construct reservoir or detention system to provide storage for rain events to reduce or prevent flooding along coastal rivers.



#### **Regional Coordination Meeting II**

April 26, 2006

#### **Overview**

Colonel Taylor welcomed the group and asked two questions:

- What could we have missed or overlooked in the planning process?
- What else could or should be incorporated into the comprehensive report?

He explained the screening criteria were used to select the near-term projects:

- 1. Was the problem related to or caused by the hurricanes of 2005 and included in the December 2005 Authorization from Congress?
- 2. Can the solution be implemented in the near-term? (Report to Congress 30 June 2006)
  - Is it pre-engineered?
  - Can it be easily done?
  - Does the project have little to no opposition and no unresolved issues?
- 3. Does the action compliment the effective work of others and supports the objectives of State and/or local plans for recovery of Coastal Mississippi?

Projects not recommended for the June 30th 2006 Report to Congress will be reviewed further for potential inclusion in the December 31st 2007 Comprehensive (Long-Term) Report.

Further opportunity for Public and Agency review will occur during the Comprehensive Analyses.

He explained that the projects identified in the near-term study are strictly for the first round report due June 30, 2006 and that further study will be taking place for the long-range comprehensive study. He also explained that a videoconference update and Federal briefing with General Walsh is scheduled for April 27.

Subject matter experts from the Corps presented an overview of the following near-term projects that had been selected by County:

#### Jackson County Projects

- Shearwater Bridge Erosion Control
- Pascagoula Beach Boulevard Restoration
- Franklin Creek Floodplain Restoration/Franklin Creek Pecan Hydrology Project
- Upper Bayou Cassotte Flood Damage Reduction
- Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration

#### Harrison County Projects

- Harrison County Beach Ecosystem Restoration and Erosion Control
- Long Beach Interior Drainage Hurricane Storm Damage Reduction (includes canals 2 & 3)
- Courthouse Road Wetlands Ecosystem Restoration and Preservation



#### Hancock County Projects

- Bay St. Louis Downtown Hurricane Storm Damage Reduction (HSDR)
- Cowand Point Seawall Erosion Control
- Clermont Harbor Seawall HSDR and Erosion Control
- Bayou Caddy Shore Protection and Ecosystem Restoration
- Hancock County Communities Flood Damage Reduction
- Jackson Wetland Restoration

Four additional proposals and a study question were offered as additions to the near-term project list. These are currently being evaluated.

#### 1. Pascagoula Drainage.

The City has a list of modeling and actions for a series of scenarios. Has this been included/considered?

Doug Otto: We've included what we had, but **if additional data is available, please share and follow up with Tom Smith.** Specific project modeling data is available for Bate Street and every main drainage system for the City. Jackie will have this to Doug tomorrow.\_There will be follow-up to see if the plans meet criteria.

# 2. Create an inter-jurisdictional inter-agency group to meet regularly to discuss the implications of development in the context of post-Katrina planning efforts.

This will help prevent degradation of the environment based on decisions that are being made at the State/Local level, This is intended to link decisions made by State/Local building permits to Corp permitting and bigger picture planning across Federal Agencies, Prevent degradation of the environment based on decisions that are being made at the State/Local level

#### 3. Add 2 foot dunes from Washington street south to the existing Hancock CO project.

Todd Boatman: It's a small enough cost that integrating the 2 may be practical. From Washington Street south there is enough beach that this makes sense.

# 4. Upper reaches of Davis bayou near hwy 90 (north side) that drains to Davis Bayou. Can any help be expected there?

Tom Smith: it's in the long-term study. Additional study and modeling is taking place. If you have additional studies and data that we can include, we'll expedite. County data on Davis Bayou is available and will be shared with the Corps planning team.

#### 5. A question was raised about comments entered from the first meeting.

Several study recommendations were made that may not have made the long-term list. They may be in scope or out of scope for the comprehensive study plan. **Most important was**Marilyn's question from MS Dept of State:

- We need a definitive report of what happened, where and why in Katrina. What Category storm hit and where? What was surge and where? What were tides and where? What were wind speeds and where? How much rainfall? How accurate were predictions? Why the disconnect between category rating and obvious impact/risks to humans? And what is being done about it?
- Establish the time sequence of wind and surge.
- Marilyn was referred to Ivor van Heeden's study from LSU. This may be adequate, but we need to address to be able to define if studies like this are in, or out of bounds for the proposed project list.



A statement on how study recommendations made at the first Regional Coordination Meeting are being handled would resolve this question. There were three additional suggestions raised at this session:

- Study the causes of dune blowouts on barrier islands.
- Study infrastructure impacts from ABFE effects, i.e. fire protection pressures for taller buildings, exposed sewer service and gas lines to residential structures, public facilities and ADA accessibility, vehicle-accesses buildings, etc.
- Long term sediment dynamics study for the entire MS sound. Understand how the sediment moves around and therefore provide a long-term comprehensive understanding of barrier island dynamics (erosion and accretion) as well as marsh restoration and heath along the shoreline.

Finally, participants from each session were asked to review the list of potential comprehensive, long term projects that had been developed by Corps planers and first-round meeting participants using a 1-10 scale. A score of 10 meant highest priority – 1 lower priority. This poll should be interpreted strictly as an expression of preferences of workshop attendees, not in any way a complete measure of public sentiment or a final decision. It is simply the preferences of workshop attendees, whomever and how many they were. A preliminary ranking of the highest rated comprehensive planning preferences included the following projects:

#### Jackson County

- 1. Greenwood Island Ecosystem Restoration
- 2. Robert Hiram Bridge (Gautier)
- Restore natural drainage ways upper Mary Walker Bayou (vic Northwood Hills, Rolling Meadows, and Bayou Oaks subdivisions)
- 4. Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration
- 5. Front Beach Road Wetlands
- 6. Davis Bayou Ecosystem Restoration
- 7. Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration
- 8. Rebuild and enlarge Marsh Island
- 9. Franklin Creek Floodplain Restoration/Franklin Creek Pecan Hydrology Project
- 10. Grand Batture Island Ecosystem Restoration

#### **Harrison County**

- 1. Deer Island re-nourishment of south side.
- 2. Turkey Creek: Mt. Pleasant UME Audubon site 41, Tidal Creek restoration of flood plain.
- 3. Acquire wildlife corridors in lands that repeatedly flood
- 4. Possibly add height to the existing beach elevation and redevelop lost dune vegetation.
- 5. Turkey Creek watershed Greenway
- 6. Reconsider dioxin cleanup on navy base post Katrina.
- Develop Concrete Staging Center in Industrial Canal. Develop Harrison county industrial
  canal artificial reef staging area to stockpile concrete debris for oyster reef and other useful
  projects.
- 8. Harrison County Beach Ecosystem Restoration and Erosion Control
- 9. Deer Island Ecosystem Restoration
- 10. D'Iberville Wetlands Ecosystem Restoration



#### Hancock County

- 1. Jordan River Shores Ecosystem Restoration. . Buy out landowners, return hydrology, begin mitigation, prohibit new/more development
- 2. St. Louis Bay Comprehensive Ecosystem Restoration
- 3. Bay St. Louis Downtown HSDR
- 4. Bayou Caddy Shore Protection and Ecosystem Restoration
- 5. Shoreline Park buyout
- 6. Hancock County Communities Flood Damage Reduction
- 7. Hancock County Beach Ecosystem Restoration and HSDR
- 8. Protect Hancock County wetlands from filling for development
- 9. 2ft dune from Washington St. South where appropriate
- 10. Pearlington Ecosystem Restoration Buy-out homeowners and return hydrology

#### Coastwide

- 1. Inspect and Rehabilitate Wastewater and Piping Systems
- 2. Repair existing bulkheads or other structural drainage components that were damaged during the storm to reduce future failures during similar events.
- 3. Form a monitoring network that will survive and function throughout a major storm to provide data that is critical to emergency managers
- 4. Develop additional Offshore Breakwaters or Sand Dunes where determined most Beneficial through Modeling
- 5. Include repair standards in building codes
- 6. Marsh Restoration where Feasible
- 7. Maximize Beneficial Use of Dredge Materials
- 8. Partnership Efforts with Louisiana to Marsh Island Areas
- 9. Wetland area buy-outs
- 10. Add wetlands along main drainage systems in each location to increase capacity of the systems during rainfall and surge flooding events.



#### Discussion Notes: Jackson County

- On item 66A: approach quickly, then study drainage of the floodplain to ensure we can
  mitigate future sedimentation & ensure waterways remain clear in the future
- On 66: is the circle definitive or an approximation? It doesn't appear to include everything to the east Tom: an approximation

#### Proposed Additions to Comprehensive Planning:

#### Raising the road at Ocean Springs.

The road here needs to be raised. We put this into the longer term plan to raise the road or build walls that would offer some level of long-term protection. Don't have enough data to make the near-term list. This proposal has not been tabled, needs to be examined more thoroughly

#### Davis Bayou/Bellfountain Beach

Todd: both had environmental issues we didn't have time to work though before the report is due to congress

#### Front Beach/East Beach.

Is it safe to assume this will be on future lists?

Tom Smith: This is only the near-term list (6/30 deadline) includes report and doc review by several agencies.

#### **Bates Road Drainage Project**

Gautier concerns on 2 bridges: evacuation route (1 way in/out). An alternate way out is needed. Ecological/beneficial use applied. Wetland/marsh restoration discussed. If this piece of property is lost everyone loses out.

Shepard's State Park (bridges) Concerned that these 2 bridges are on the long-term plan as it appears they meet all of the necessary criteria. Bates Street Drainage north of 90. Drains 1/3 the city of Pascagoula.

Doug Otto: Many problems are rainfall runoff, not storm surge. Excessive runoff situations are modeled for the resulting outputs. Time was the factor limiting modeling...deferred to long-term planning. Flow diversion, enlarging, retention.

# Facilitator: we have a tremendous amount of these. Is modeling underway for the near-term hydrology?

Doug Otto: part of what's being examined for long-term. Interior drainage pathways that aren't working the way they should. Appears to be a simple problem, but the analysis is complex.

Facilitator: Modeling is included in the comprehensive planning.

#### Raising Robert Hiram/Graveline Road at Shepard's State Park Bridges

Tom Smith: One of the bridges has had water backup for years. Before we raise the bridge, the water must be evaluated with respect to the environment. We were not confident this could be completed short term. The evaluation team felt this needed to be analyzed more completely long-term



#### St. Andrews Pinehurst Community flooding

The big ditch that drains this water away didn't make the list.

Doug Otto: This is similar to the Pascagoula question. We want to model the different hydrolics that are possible and select the <u>best</u> solution for solving this. Not time to complete analysis in the short term.

Facilitator: Why not clean out what's there short-term?

Doug Otto: wasn't this filled in as a result of the storm?

No. It was just cleaned out prior to Katrina

Facilitator: This is not the long-term hydrology. What about getting this debris out to restore the flow generically?

#### **Bellfountain Beach Breakwater Project?**

Tom Smith: This was a project we've talked about for a long time. We looked at what we could evaluate and have decent assurance we could begin construction on them. We concluded further analysis was needed. It's in the 18-month period.

#### Facilitator: What are the loose ends?

Doug Otto: This included critical sturgeon habitat and a series of segmented offshore breakwaters. It's a good, but complex project. This one will take a bit longer to get an answer.

Concerns on near-term focus were expressed. Are we losing focus on the longer term benefits of coastal restoration? Also impact on water quality...seems to be missing from some of these projects. I would like to see increased emphasis on natural solutions and restoration. More wetlands are needed. Thinking long-term, we must consider the impact of climate change and it's potential implications.

# Facilitator: Leveraging the Governor's plan for coastal restoration as our baseline. What's being presented is the near-term planning.

Todd: Marsh creation on Deer Island and Bayou Caddy are part of the near-term.

Doug Otto: We're very concerned about sea levels and subsidence. The near term plan recognizes this and is attempting to quantify it.

# Facilitator: one of the coastwide projects named reestablishing index points across the coast.

Doug Otto: That's correct. It's a little scary to project the implications of what 2-3 feet of sea level rise might mean.

#### Gautier submitted a drainage project for C Byrd Road. Same analysis?

Tom Smith: Sticking point on increasing the culvert size was where the water goes after Simplex. From that point we felt this needed to be looked at more globally 64.

#### Area off Magnolia street in Moss Point that had extensive flood damage.

Cleaning/dredging may be needed. Tom: connects with West Bayou? Probably interconnects. Make sure this is part of our list.

Tom Smith: We'll add Magnolia to West Bayou in this review.

Facilitator: Is there anything else we've missed?

<u>Upper reaches of Davis bayou near Highway 90 (north side)</u> that drains to Davis Bayou. Can any help be expected there?



Tom: it's in the long-term study. Additional study and modeling is taking place. If you have additional studies and data that we can include, we'll expedite. County data on Davis Bayou is available and will be shared with the Corps planning team.

#### What is causing subsidence on the Mississippi Coast?

Doug Otto: coastal sediments are still being deposited. LA is subsiding at 1-4 feet over the next 100 years. MS is inches to a foot over 100 years. Unconsolidated coastal sediments are still being compressed. Coupled with a rising sea level, we have a serious factor that has to be considered for the future.

# The proposal for sediment removal from marshes is unclear. Why remove sediment? It seems we should be adding it.

Todd Boatman: These are drainage ways to improve saltwater exchange. We don't want to do any damage to existing marshes. One was added in Hancock CO to improve tidal exchange; it was included on the near-term list for marsh survival.

# Is anyone from MS DEQ present? Drinking water/Wastewater/Stormwater plans should all be consistent. Are these efforts being coordinated?

Todd Boatman: Our last meeting with DEQ was Friday

Corps: Our mandate requires close liaison with all State agencies. I believe we are delivering on this.

Todd Boatman: Some of these long-term projects wound up there.

#### How realistic is it that any of our wish list projects will be accomplished?

Corps: short-term recommendations and a comp report are being developed. It will go through HQ and ultimately on to Congress. It's impossible to predict what Congress will appropriate.

We appreciate all the Corps' efforts!

# As we examine the big picture along the coast, will the "big-uns" eat the "little uns?" Is this going to be business as usual? Will smaller entities be given fair consideration here?

Corps: we'll provide recommendations, you provide the lobbying. This is based on our best science and recommendations for the projects. The Corps usually works with cost share partners. Many unique situations need to be worked thorough.

Coleman: What is critical to document will be the benefits under various conditions (economic/environmental/social) of each projects. Our team will be examining all of these. Anything you can share is helpful.

Todd Boatman: The Assistant Secretary of the Army was clear that we establish the screening criteria and follow strictly on all projects. This is where the near-term list originated. It was not political in any way. Believe this was a fair representation irrespective of political clout Corps will provide facts. You provide lobbying

## Gordon: website shows 37 projects coastwide. Is that where we stand? Yes: broad sweep.

Corps: Coastwide is dune system on top of Harrison CO beach. Authorized to go in and repair. The only coastwide near-term project is dune restoration. The rest of the projects are long-range.

Facilitator: The next time you see this list it'll be renumbered with an improved numbering system. Nothing has been deleted from this list. These are strictly recommendations, not necessarily within the Corp's mission. Some of these Federal assignments may have to be worked out between FEMA/Corps and Coast Guard.



#### Discussion Notes: Harrison County

Recommended Near-term Project Overview

Todd Boatman: 13 Restoration of 26 miles of CO beach is being done under flood control & emergency supplemental. Beach restoration of dune system is covered under this project.

Tom Smith: Drainage project at Long Beach 27. Immediate/spot fixes to relieve short-term problems. Additionally these will be reviewed for flow of water throughout the watershed. Watershed flow and additional needs to improve drainage are being examined. Spot dredging/sediment removal to improve flow in the area

Todd Boatman: These 3 are the ones that met screening criteria. (50) has 14 braces across the drain were damaged or destroyed. Additionally, a small marsh will be created (7500 sq ft).

#### **Additional Projects/Comments**

Oyster Bayou restoration at Beauvoir This may be on the list under another name

<u>Deer Island restoration</u> Flood control and coastal restoration act is underway too. Tidal creeks and sealing the western breach are 2 priorities. Flood control coastal emergencies project 12/05 to restore the island to it's pre-1900 footprint. Not being considered as part of this because it's already been authorized.

<u>Comment:</u> Concerns on the pre-1900 footprint. Are we sure what a pre-1900 footprint is? May be unrealistic. These islands historically have shifted a lot. Todd Boatman: Corps will be coordinating with FWS and MS.

Unprecedented opportunity to preserve land that <u>doesn't have houses</u> and transform to dunes/barriers. This may be a bigger notion that we can do with/without the Governor's office. Todd Boatman: Lot of discussion/interest on this issue. Our screening criteria include little or no opposition to the plan. This took it off our short-term list. It will be explored in the comprehensive plan.

**Facilitator:** Despite a lot of discomfort from attendees we asked this at our public workshops. This question was asked. We did see a lot of opposition. Some of this was EJ/fairness based, some of this was from natives. A very contentious issue that will be essential to address. Will officials be willing to step up on this.

Will this be in the plan? It will be included in the long-term comprehensive plan.

Questions



<u>Downtown Seawall in BSL?</u> 75 ft. From hwy 90 to about Washington Street. Tom Smith: 75 out occurs only in the downtown district. Area to the north will be replaced in place

#### **Coastwide Projects**

23 Big concern about Complete snagging/clearing to restore the capacity of existing drainage? Corps will not be targeting complete removal...not a slash & burn operation

Doug Otto: Sand (37) movement has to be modeled for effects on salinity/turbidity. This is why these were moved to the comprehensive plan.

#### Additional Questions/Comments/MIAs on the Project List?

- Concerns that in the rush to restore/rebuild the tax base we'll lose more in water
  quality loss than we'll achieve in wetlands restoration. These decisions will be
  made by the state and those who grant building permits. Perhaps these processes
  should be linked. Hard to keep all the plans straight. Everyone's planning.
  Decisions are being made now (sometimes ahead of the plans). This stuff is great,
  but we might be restoring wetlands where inappropriate fills are taking place
- Happening in certain cities.
- We've got to try to link these decisions so they all work together
- Keep a strong eye on preventing degredadation of the environment based on decisions that are being made at the State/Local level
- Let's try to make this as comprehensive We've got to try to link these decisions so they all work together
- I hear this a lot, but I can't change policies and procedures at the local level.
- Cities/Counties issuing building permits are not linked to Federal Authority and CWA.
- Local decisions are being made that are not consistent with Corps planning and guidance
- Wetland permitting are often being ignored and not enforced. Corps does examine those
- Can city building permitting process be linked to things that are illegal without a wetland permit?
- ColT: we know there is likely to be a significant amount of coastal rebuilding.
   Trying to get the regulatory decision makers linked

A question was raised about comments entered from the first meeting. Several study recommendations were made that may not have made the long-term list. They may be in scope or out of scope for the comprehensive study plan. For Example - Marilyn's plan from MS Dept of State:



 We need a definitive report of what happened, where and why in Katrina. What Category storm hit and where? What was surge and where? What were tides and where? What were wind speeds and where? How much rainfall? How accurate were predictions? Why the disconnect between category rating and obvious impact/risks to humans? And what is being done about it?

Establish the time sequence of wind and surge.

Is this being covered by someone else? If not, it should be carried forward to the comprehensive study list.

Additional study recommendations from meeting 1 include the following:

# Study Recommendations

- Study the causes of dune blowouts on barrier islands.
- Study infrastructure impacts from ABFE effects, i.e. fire protection pressures for taller buildings, exposed sewer service and gas lines to residential structures, public facilities and ADA accessibility, vehicle-accesses buildings, etc.
- Long term sediment dynamics study for the entire MS sound Understand how the sediment moves around and therefore provide a long-term comprehensive understanding of barrier island dynamics (erosion and accretion) as well as marsh restoration and heath along the shoreline.



# Discussion Notes: Hancock County

How many acres: Bayou Caddy?

18 acres. A relatively small area, but the highest erosion rate.

# Comment: Are you aware a previous mitigation site to the north of this is being filled for building condos?

Is anyone ever going to weigh in on this issue (Facilitator)? How do you coordinate this? Todd: we're aware of this process

Jubilee Casino wetlands violation/EPA

Hancock CO communities Flood damage: Somehow we have to get cities to step up. What the Col. Is saying is right. Cities are not looking at local flood events, but they should be. Seems we have a perfect opportunity to increase riparian corridors along drainage ways, sloping them more gently.

Tom: 2-step process. Storm surge brought sediment as well as water (2-4 ft). We plan on removing this from several communities in the area. Navigation and commercial issues are being addressed.

2. Do a watershed evaluation to determine how water is comprehensively draining and the best ways to get it from inland to the sea. This will account for canals and manmade structures, future maintenance and keeping them clear with as little effort as possible.

Hope somebody understands that digging the ditch deeper doesn't really help with drainage! Tom: we get it. You can dig to China, you'll have the same amount of water!

Myth busters might be an approach

Jackson Marsh?

#### Did we miss anything on the short-term?

### What about the dunes on the beach from Washington St. South? Should be on the list.

Todd: this should be on the long-term list.

Doug Otto: the road is so low, it appears more protection is needed. Raising the road

#### Can you widen the beach?

The land is so low, we struggled with figuring out how to provide any significant protection in this area

# Is there an interim solutions like at least getting sea oats going to hold on to what we've got?

Todd Boatman: Integration is what we're really after. If a seawall is the solutions maybe 2 foot dunes are not the way to go

### Why can't you do both?

2 foot dunes project from Washington street south

Oates can capture some of the wind-driven sand

Todd Boatman: It's a small enough cost that integrating the 2 may be practical. From Washington Street south there is enough beach that this makes sense



### Land based surface runoff -erosion of beach. Add this to long-term planning

Landside drains that cross the street/walking tracks create a beach erosion problems after a rain. Grading the beach isn't the long-term solution. County's answer.

### What is the intent on moving the seawall out 75 feet?

Tom Smith: not just in one spot. Starting at HWY 90 it will be filled Margaret: I'd like to see that plan...To Do: send this plan out for comment (Tom)

### Agency comment/peer review is built into these suggestions

No funding authorized to do this yet. Comment will be built into any of this that gets authorized.

Utilities shouldn't be buried under the road Additional parking along the street

Big question: what's the minimum push necessary to accommodate the utilities?

Concerns from USFWS and others raised We've been working with city/county Corps didn't make this number up We're listening to you on where to place it

Coordinating with all groups on where to locate it. The 75 ft is not a Corps criteria

Fat sleeper fish in the ditch

Investigate units that wouldn't load. Random #1, #3, then #6. Logged off. Relogged. Then they worked. Interference? Distance? Found one with a card that was not well seated and corrected.



# Comprehensive Planning Project Poll Results

Participants from each session were asked to review the list of potential comprehensive, long term projects that had been developed by Corps planers and first-round meeting participants using a 1-10 scale. A score of 10 meant highest priority – 1 lower priority.

This poll should be interpreted strictly as an expression of preferences of workshop attendees, and not in any way a complete measure of public sentiment or a final decision. It is simply the preferences of workshop attendees, whomever and how many they were.

# Jackson County Comprehensive Planning Project Poll 1

Alternative		Nun	nber	of V	otes	in I	Each	Ra	ting					
	Average Ranking	10	9	8	7	6	5	4	3	2	1	Total	STD	Number of votersN
Greenwood Island Ecosystem     Restoration	8.17	3	0	2	0	0	0	0	1	0	0	49	2.71	6
2. Robert Hiram Bridge (Gautier)	7.86	4	0	1	0	0	0	1	1	0	0	55	3.08	7
Restore natural drainage ways upper Mary Walker Bayou (vic Northwood Hills, Rolling Meadows, and Bayou Oaks subdivisions)	7.83	2	0	3	0	0	0	0	1	0	0	47	2.56	6
Gautier Hurricane Storm Damage     Reduction and Ecosystem Restoration	7.75	2	1	0	0	0	0	0	0	1	0	31	3.86	4
5. Front Beach Road Wetlands	7.71	1	2	3	0	0	0	0	0	1	0	54	2.63	7
6. Davis Bayou Ecosystem Restoration	7.71	4	0	1	0	0	0	1	0	1	0	54	3.35	7
7. Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration	7.50	2	1	0	0	0	0	0	0	0	1	30	4.36	4
8. Rebuild and enlarge Marsh Island	7.40	0	1	2	1	0	1	0	0	0	0	37	1.52	5
9. Franklin Creek Floodplain Restoration/Franklin Creek Pecan Hydrology Project	7.25	3	1	1	0	1	0	0	1	1	0	58	3.24	8
10. Grand Batture Island Ecosystem Restoration	7.00	1	1	1	0	1	0	0	0	1	0	35	3.16	5
11. Belle Fontaine Marsh	6.83	2	0	1	1	0	0	1	0	1	0	41	3.25	6
12. Ecosystem restoration along Hwy 90, Jackson County	6.75	1	1	1	0	3	1	1	0	0	0	54	2.05	8
13. Old Spanish Trail Comprehensive Flood Damage Reduction	6.75	2	0	0	0	1	0	0	0	0	1	27	4.27	4
14. Old Spanish Trail Comprehensive Flood Damage Reduction	6.67	1	0	0	0	1	0	1	0	0	0	20	3.06	3
15. Shearwater Bridge Erosion Control	6.50	2	0	0	0	1	1	2	0	0	0	39	2.81	6
16. Bayou Outlets on the Mississippi Sound that require actions to remove deposited siltation	6.50	3	0	0	0	0	0	0	3	0	0	39	3.83	6



### Alternative

	Average Ranking	10	9	8	7	6	5	4	3	2	1	Total	STD	Number of votersN
17. Pascagoula beaches, offshore breakwater/dunes/reefs/marshes to dissipate wave energy	6.40	1	2	0	0	0	0	0	1	0	1	32	4.1	5
18. West Pascagoula Delta Flood Damage Reduction and Ecosystem Restoration/Study	6.33	0	1	2	0	1	0	1	1	0	0	38	2.42	6
19. Jackson County Marsh Outlet Ecosystem Restoration	6.33	0	2	0	0	3	0	0	0	1	0	38	2.58	6
20. Restore natural drainage ways upper Bayou Castelle (vic Fishhawk Rd, Meadow Dale Dr., Longwod Dr, and Bayou Castelle Dr)	6.33	1	0	3	0	0	0	0	1	0	1	38	3.5	6
21. Bennett Bayou tidal marsh restoration	6.25	1	1	0	0	0	0	1	0	1	0	25	3.86	4
22. Cedar Point/West River-Restore beaches, sand, work, sediment management in this area	6.25	2	0	0	0	0	0	0	1	1	0	25	4.35	4
23. Gautier Hurricane Storm Damage Reduction and Ecosystem Restoration/Ladnir Rd	6.20	2	0	0	1	0	0	0	0	2	0	31	4.02	5
24. Upper Old Fort Bayou Comprehensive Flood Damage Reduction/C. Byrd Road Drainage	6.17	1	0	1	1	1	0	0	2	0	0	37	2.79	6
25. East Beach Road Ecosystem Restoration	6.17	1	0	2	0	0	1	1	0	1	0	37	2.99	6
26. Upper Old Fort Bayou Comprehensive Flood Damage Reduction	6.00	1	0	1	1	0	2	1	1	0	0	42	2.45	7
27. Round Island Ecosystem Restoration/Round Island Lighthouse Relocation	6.00	1	2	0	0	0	1	0	0	1	1	36	3.9	6
28. Graveline Rd Bridge at Shepard St Park (County)	6.00	3	0	0	0	0	0	0	1	1	1_	36	4.43	6
29. Relocate Pascagoula WWTP out of surge area	6.00	3	0	0	0	0	0	1	0	0	2	36	4.52	6
30. Pascagoula Beach Restoration.  Dunes, grasses, trees, with intermittent pockets of sand beach	6.00	2	0	1	0	0	0	0	0	0	2	30	4.64	5
31. Drainage improvements – same as 65	6.00	2	0	0	0	0	0	0	1	0	1	24	4.69	4
32. Biloxi Back Bay	6.00	1	0	0	0	0	1	0	1	0	0	18	3.61	3
33. Old Spanish Trail Comprehensive Flood Damage Reduction/Drainage	6.00	1	0	0	0	1	0	0	0	1	0	18	4	3
34. Use jetties to prevent sediment flow clogging channels	5.83	1	1_	1	0	0	0	1	1	0	1_	35	3.66	6
35. Gautier improvements to drainage. Same as B.	5.75	1	0	1	0	0	0	0	1	1	0	23	3.86	4
36. Gautier, drainage improvements. Same as C	5.75	1	0	1	0	0	0	0	1	1	0	23	3.86	4



### **Alternative**

	Average Ranking	10	9	8	7	6	5	4	3	2	1	Total	STD	Number of votersN
37. Gautier improvements to drainage. Same as D.	5.75	1	0	1	0	0	0	0	1	1	0	23	3.86	4
38. Front Beach Blvd. Ecosystem Restoration and Erosion Control	5.71	0	1	2	0	0	2	0	1	1	0	40	2.69	7
39. Dredge/clear area in front of beachfront outfalls.	5.60	2	0	0	0	0	0	1	1	0	1	28	4.16	5
40. Monster Ditch/Ocean Springs Flood Damage Reduction	5.57	2	0	0	0	0	2	0	3	0	0	39	3.15	7
41. Dredge Davis & Simmons Bayous to include all connecting bayous to help prevent flooding.	5.50	2	0	0	0	1	0	0	1	2	0	33	3.78	6
42. Upper Old Fort Bayou Comprehensive Flood Damage Reduction/C. Byrd Road Drainage	5.40	1	0	0	0	2	0	0	1	1	0	27	3.13	5
43. Divert water from Escatawpa River into Bayou Cumbest to restore freshwater flow to the bayou and improve water quality.	5.25	0	_1_	0	1_	0	0	1	0	0	1_	21	3.5	4
44. W River Delta restoration. Bulkhead western channel. Beneficial use. Wave protection for subdivisions.	5.25	0	1	1	0	0	0	0	0	2	0	21	3.77	4
45. West Bayou/Rhodes Bayou Flood Damage Reduction	5.00	1	0	0	0	0	2	0	1	1_	0	25	3.08	5
46. Restore natural drainage ways upper Sioux Bayou (vic Laville Subdivision and Westgate	5.00	0	0	1	1	0	0	0	1	1	0	20	2.94	4
47. Restore Bates St Drainage to Open Water	5.00	1	0	0	0	0	1	0	1	1	0	20	3.56	4
48. Upper Bayou Cassotte Flood Damage Reduction	4.80	0	0	2	0	0	0	1	0	2	0	24	3.03	5
49. Pascagoula brown water system study	4.75	0	1	0	0	0	1	1	0	0	1	19	3.3	4
50. Improve the Jackson-county seawall. Provide additional county-wide seawall construction, boardwalks, beach construction, marsh construction, or a combination of these elements	4.67	2	0	0	0	0	0	1	0	1	2	28	4.27	6
51. West End Landing Coastal Erosion	4.60	0	0	1	0	0	2	0	1	_ '_	0	23	2.3	5
52. Beach Park Storm Damage Reduction	4.60	0	1	0	1	0	0	0	2	0	1	23	3.29	5
53. Hydraulic lifting boardwalk/sidewalk as component of seawall/boardwalk	4.00	U		U	ı	U	U	U	Z	U	1	23	3.29	5
improvements.  54. New Drainage Channel West Side of	4.60	2	0	0	0	0	0	0	0	0	3	23	4.93	5
Martin Rd Bridge	4.50	1	0	0	0	0	0	1	0	2	0	18	3.79	4



### Alternative

	Average Ranking	10	9	8	7	6	5	4	3	2	1	Total	STD	Number of votersN
55. Ebb and flow of Intracoastal veins from the MS Sound to rebuild property with the erosion in the bayous near potential project #66.	4.25	_ 1 _	0	0	0	0	0	1	0	1	1_	17	4.03	4
56. Pascagoula Breakwater HSDR	4.20	_ 1 _	0	0	0	1	0	0	1	0	2	21	3.83	5
57. Pascagoula Beach Blvd. Restoration	4.00	1	0	0	0	0	1	0	0	2	1	20	3.67	5
58. C. Byrd Road Drainage	3.75	1	0	0	0	0	0	0	0	2	1	15	4.19	4
59. Old Mobile Hwy Bridge Failing	3.50	0	0	0	0	1	2	0	0	2	1	21	2.07	6
60. Chicot Road Flood Damage Reduction	3.50	0	0	0	1	0	0	0	2	0	_1_	14	2.52	4
61. 11th St Bridge and Drainage Canal. Bridge is failing and canal walls are caving in.	3.50	_ 1 _	0	0	0	0	0	0	0	1	2	14	4.36	4
62. Pascagoula Beach Blvd. Restoration (Boardwalk, beach, and marsh addition along Pascagoula front beach)	3.50	1	0	0	0	0	0	0	0	1_	2	14	4.36	4
63. Bayou Chico Beach HSDR/Bayou Chico Bulkhead Rehabilitation	3.40	0	0	1	0	0	0	0	2	1	_1_	17	2.7	5
64. Beach Boulevard Erosion Control	3.40	1	0	0	0	0	0	0	1	1	2	17	3.78	5
65. 11th St Bulkhead Rehab	3.20	1	0	0	0	0	0	0	0	2	2	16	3.83	5
66. W Land Lake Pascagoula. Dredge to recover retention qualities and install new drainage pipes to north.	3.00	0	0	0	0	0	1	0	1	2	0	12	1.41	4
67. Re-establish benchmarks Pascagoula city-wide	3.00	0	0	1	0	0	0	0	0	1	2	12	3.37	4
68. Bartlett St Bridge. Bridge has collapsed and is closed	2.50	0	0	0	0	0	1	0	0	2	1	10	1.73	4
69. Inspection & Rehabilitation of Sewer and Storm Piping for Pascagoula	1.67	0	0	0	0	0	0	0	1	0	2	5	1.15	3
70. Study same as 58	1.50	0	0	0	0	0	0	0	0	1	1_	3	0.71	2
71. Pascagoula main drainage system restoration including additional wetland side storage. City-wide retention/detention system. Drain barrier valve system.	1.33	0	0	0	0	0	0	0	0	1	2	4	0.58	3
rano o jotom		ŭ	•	•	•		•		•				0.00	



# Harrison County Comprehensive Planning Project Poll 1

Alternative

Alternative	Average	10	0	0	7	,	_	4	2	2	1	Total	CTD	Number of
Alternative	Ranking	10	9	8	7	6	5	4	3	0		Total	STD	Voters
Deer Island re-nourishment of south side.      Turkey Creek Mt Pleasent LIME Audubes	10.00	3	0	0	0	0	0	0	0	U	0	30	0	3
<ol><li>Turkey Creek: Mt. Pleasant UME Audubon site 41, Tidal Creek restoration of flood plain.</li></ol>	10.00	3	0	0	0	0	0	0	0	0	0	30	0	3
Acquire wildlife corridors in lands that repeatedly flood	10.00	3	0	0	0	0	0	0	0	0	0	30	0	3
Possibly add height to the existing beach elevation and redevelop lost dune vegetation.	10.00	2	0	0	0	0	0	0	0	0	0	20	0	2
5. Turkey Creek watershed Greenway	10.00	2	0	0	0	0	0	0	0	0	0	20	0	2
Reconsider dioxin cleanup on navy base post Katrina.	10.00	2	0	0	0	0	0	0	0	0	0	20	0	2
7. Develop Concrete Staging Center in Industrial Canal. Develop Harrison county industrial canal artificial reef staging area to stockpile concrete debris for oyster reef and other useful projects.	10.00	1	0	0	0	0	0	0	0	0	0	10	0	1
Harrison County Beach Ecosystem     Restoration and Erosion Control	9.75	3	1	0	0	0	0	0	0	0	0	39	0.5	4
Deer Island Ecosystem Restoration	9.75	3	1	0	0	0	0	0	0	0	0	39	0.5	4
10. DÆlberville Wetlands Ecosystem Restoration	9.67	2	_1_	0	0	0	0	0	0	0	0	29	0.58	3
11. West Ship Island. Continue to re-nourish the north shore of the island east and in front of Fort	9.33	2	0	_1_	0	0	0	0	0	0	0	28	1.15	3
12. Biloxi Back Bay Watershed Management and Ecosystem Restoration	9.25	2	_1_	_1_	0	0	0	0	0	0	0	37	0.96	4
13. Forrest Height Levee :- Restore; Vegetate with native species; Footbridges; Nature trail	0.00	2	0	0	1	0	٥	0	0	0	0	27	1 70	3
atop  14. Purchase riparian buffers, wetland areas.	9.00 8.75	3	0	0	0	0	0	0	0	0	0	27 35	1.73 2.5	4
15. Courthouse Road Wetlands Ecosystem Restoration and Preservation	8.33	1	1	0	0	1	0	0	0	0	0	25	2.08	3
Extend South Side of Deer Island. Extend 200 yards to repair breach in island and restore original footprint of island.	8.25	3	0	0	0	0	0	0	1_	0	0	33	3.5	4
17. Restore or enhance Mississippi oyster reefs.	8.00	2	0	0	1	0	1	0	0	0	0	32	2.45	4



18. New Sewage Treatment Plant in Woolmarket Lagoon Area - Move the Woolmarket Lagoon to north of 110 north of the														
area. would protect the citizens by moving the sewage from the flood prone areas:	8.00	1	0	0	0	1	0	0	0	0	0	16	2.83	2
Deer Island enhancements. Cap shell middens on western side of the island and restore top soil in maritime live oak forest	7.25	2	0	0	0	1	0	0	1	0	0	29	3.4	4
restore top son in marttime live oak torest	1.25	Z	U	U	U		U	U		U	U	27	3.4	4
Flood-proof low-lying sewer treatment plants. Lift stations and wells and their electrical and electronic controls.	6.50	0	1	0	0	0	0	_1_	0	0	0	13	3.54	2
21. Provide Compensation for Persons in Flood-prone Areas to Relocate. Areas prone to flooding, such as Eagle Point, should be offered buy-outs.	6.00	1	0	0	0	0	0	0	0	1	0	12	5.66	2
•														
22. Provide protection of public infrastructure from flooding, surges and sedimentation.	5.50	0	1	0	0	0	0	0	0	1	0	11	4.95	2
23. Highway 90 û Rodeburg to St. Charles St. HSDR and Flood Control	5.50	_ 1	0	0	0	0	0	0	0	0	1	11	6.36	2
24. Tchoutacabuffa River Flood Damage and Watershed Improvement	5.00	0	1	0	0	0	1	0	0	0	1	15	4	3
25. Biloxi Point Flood Damage Reduction	5.00	0	0	1	0	0	0	0	0	1	0	10	4.24	2
26. Flood-Proof Existing Infrastructure	5.00	0	1	0	0	0	0	0	0	0	1	10	5.66	2
27. Reduce toxic exposure which exacerbates storm damage – Dioxin, Creosote, Titanium Dioxide, Gypsum.	5.00	0	0	0	0	0	1	0	0	0	0	5	0	1
Dioxide, Gypsum.	5.00	U	U	U	U	U	1	U	U	U	U	3	U	'
28. Rebuild the Harrison County boardwalk with concrete to accommodate pedestrians, BICYCLES, and possibly street vendors.	4.50	0	0	1	0	0	0	0	0	0	1	9	4.95	2
29. Turkey Creek Watershed Improvements	4.50 4.00	1	0	0	0	0	0	0	0	0	2	12	5.2	3
	4.00	. '	U	U	U	U	U	U	U	U	2	12	J.Z	
30. Long Beach Interior Drainage HSDR (includes ôCanals 2 - 3)	4.00	0	0	0	0	1	0	0	0	1	0	8	2.83	2
31. Utilize HW 90 bridge as artificial reef material	4.00	0	0	0	1	0	0	0	0	0	1	8	4.24	2
32. North Gulfport Interior Drainage	3.00	0	0	0	0	0	1	0	0	0	1	6	2.83	2
33. Turkey Creek Flood Damage Reduction	3.00	0	0	0	0	0	1	0	0	0	1	6	2.83	2
34. Cedar Lake Road Flood Damage Reduction	3.00	0	0	0	0	0	1	0	0	0	1	6	2.83	2
35. Enhance Lee and Bayview Docks for commercial shrimpers.	2.50	0	0	0	0	0	0	0	1	1	0	5	0.71	2
36. Enhance Maine Street Docks for commercial shrimpers.	2.50	0	0	0	0	0	0	0	1	1	0	5	0.71	2
37. Surge gates along Biloxi Bay to help ease														
drainage areas during storm events  38. Gulfport Commercial Harbor	2.50 2.00	0	0	0	0	0	0	1 0	0	0	0	5 4	2.12 0	2
	2.00	U	U	U	U	U	U	U	U	Z	U	4	U	2
39. Dredge shoaled channels hinfering storm evacuation	2.00	0	0	0	0	0	0	0	0	1	0	2	0	1
40. Wiers (low level dams) within estuaries to control water flow	1.00	0	0	0	0	0	0	0	0	0	2	2	0	2

GROUP SOLUTIONS.
SOLUTIONS,

													POL	n Hon?
41. Long Beach Harbor HSDR	1.00	0	0	0	0	0	0	0	0	0	2	2	0	2
42. Evaluate Dredging and Channelization when preparing flood controls from rain events to consider impact for storm surge in costal zone.	1.00	0	0	0	0	0	0	0	0	0	_1_	1	0	1
43. Harrison County Industrial Seaway Harbor														
of Refuge	1.00	0	0	0	0	0	0	0	0	0	1	1	0	_ 1 _
44. Open hw 90 Bridges quickly	1.00	0	0	0	0	0	0	0	0	0	1	_ 1 _	0	_ 1 _
45. Long Beach Interior Drainage HSDR (includes Canals 2 - 3)	1.00	0	0	0	0	0	0	0	0	0	1	1	0	1
46. Economic Development of Downtowns. Orderly expansion of municipal harbors along with revitalization of downtowns would provide green space; non-water dependent retail, and a manageable beach blvd. (NOT HW 90).	1.00	0	0	0	0	0	0	0	0	0	1	1	0	1 _
<ol> <li>Retention/Detention basin to hold runoff while waiting for surge to go down from Brickyard Bayou.</li> </ol>	1.00	0	0	0	0	0	0	0	0	0	1	1	0	1
48. Dredge shoaled marinas	1.00	0	0	0	0	0	0	0	0	0	1	1	0	1
49. Pass Christian Harbor HSDR	1.00	0	0	0	0	0	0	0	0	0	1	1	0	1
50. Provide inland marine vessel storm shelter location with adequate moorings.	1.00	0	0	0	0	0	0	0	0	0	_1_	1	0	1
<ol> <li>Construct reservoir or detention system to provide storage for rain events to reduce or prevent flooding along coastal rivers.</li> </ol>	1.00	0	0	0	0	0	0	0	0	0	1	1	0	1



# Hancock Comprehensive Planning Project Poll 1

Alternative	Average	10	9	8	7	6	5	4	3	2	1	Total	STD	Number of voters
1. Jordan River Shores	Ranking	10	7	0	1	U	J	4	J			i Uldi	310	VOIGIS
Ecosystem Restoration. Buy out landowners, return hydrology, begin mitigation, prohibit new/more development	9.60	3	2	0	0	0	0	0	0	0	0	48	0.55	5
St. Louis Bay Comprehensive     Ecosystem Restoration	9.60	3	2	0	0	0	0	0	0	0	0	48	0.55	5
3. Bay St. Louis Downtown HSDR	9.60	4	0	1	0	0	0	0	0	0	0	48	0.89	5
Bayou Caddy Shore Protection and Ecosystem Restoration	9.40	2	3	0	0	0	0	0	0	0	0	47	0.55	5
5. Shoreline Park buyout	9.40	3	1	1	0	0	0	0	0	0	0	47	0.89	5
Hancock County Communities     Flood Damage Reduction     Hancock County Beach     Ecosystem Restoration and	9.33	1	2	0	0	0	0	0	0	0	0	28	0.58	3
HSDR 8. Protect Hancock County wetlands from filling for	9.25	2	1	1	0	0	0	0	0	0	0	37	0.96	4
development	9.20	4	0	0	0	1	0	0	0	0	0	46	1.79	5
2ft dune from Washington St.     South where appropriate	9.20	4	0	0	0	1	0	0	0	0	0	46	1.79	5
10. Pearlington Ecoystem Restoration - Buy-out homeowners and return hydrology	9.00	3	1	0	0	1	0	0	0	0	0	45	1.73	5
11. Cowand Point Seawall Erosion Control	9.00	2	1	0	1	0	0	0	0	0	0	36	1.41	4
12. Preserve Bayou Caddy Area	9.00	3	0	0	0	1	0	0	0	0	0	36	2	4
13. Clermont Harbor Seawall HSDR and Erosion Control	9.00	1	1	1	0	0	0	0	0	0	0	27	1	3
14. Magnolia Branch Ecosystem Restoration	8.75	2	0	1	1_	0	0	0	0	0	0	35	1.5	4
15. Clermont Lake Ecosystem Restoration	8.67	1	1	0	1	0	0	0	0	0	0	26	1.53	3
16. Jackson Wetland Restoration 17. Hancock County Comprehensive HSD - Ecosystem	8.60	2	_ 1	1	0	1	0	0	0	0	0	43	1.67	5
Restoration  18. Restore all Hancock (all	8.33	1	1	0	0	1	0	0	0	0	0	25	2.08	3
cosatal MS) marshes damaged by storm	8.00	2	0	0	_1_	0	1_	0	0	0	0	32	2.45	4
19. Restore Hancock County Beaches to Pre-Katrina conditions 20. Biloxi Marshes Comprehensive Ecosystem	8.00	0	0	3	0	0	0	0	0	0	0	24	0	3
Restoration	8.00	0	1	1	1	0	0	0	0	0	0	24	1	3
21. Ferries to Temporarily Replace Bridges.	8.00	1	1	0	0	0	1	0	0	0	0	24	2.65	3
22. Widen Hancock County Beaches, jump-start dunes	7.25	1	0	1	0	1	1	0	0	0	0	29	2.22	4



														D	_
23. Open the east Pearl River channel so it can be used by commercial marine traffic from															
Port Bienville	6.67	0	1	0	0	1	1	0	0	0	0	20	2.08	3	
24. Lakeshore Beach Ecosystem Restoration	6.33	0	1	0	0	1	0	1	0	0	0	19	2.52	3	
25. Pursue the development of additional breakwater structures in															
low-use areas.  26. Address land-based surface runoff causing erosion on the	6.33	1	0	0	0	1	0	0	1	0	0	19	3.51	3	
beach	6.00	1	0	0	1	0	0	1	1	0	0	24	3.16	4	
27. WhiteÆs Road Evacuation Route Protection	6.00	0	1	1	0	0	0	0	0	0	1	18	4.36	3	
28. WhiteÆs Road Evacuation Route Protection	6.00	0	1	1	0	0	0	0	0	0	1	18	4.36	3	
29. Construct a N/S rail link connecting Port Beinville Industrial Park to the Norfolk and Southern Railroad through Stennis Buffer.  Hurricanes cause CSXT rail	5.75	0	2	0	0	0	0	0	1	1	0	23	3.77	4	
outages which cost > \$20,000/day  30. WhiteÆs Road Evacuation	5.75	U	2	0	U	U	U	0	- 1	'	U	23	3.77	4	
Route Protection	5.33	0	1	0	0	1	0	0	0	0	1	16	4.04	3	



# Coastwide Comprehensive Planning Poll

Alternative	Mean	10	9	8	7	6	5	4	3	2	1	Total	STD	n
Inspect and Rehabilitate     Wastewater and Piping Systems	10.00	2	0	0	0	0	0	0	0	0	0	20	0	2
Repair existing bulkheads or other structural drainage components that were damaged during the storm to reduce future failures during similar events.		1	0	0	0	0	0	0	0	0	0	10	0	1
Form a monitoring network network that will survive and function throughout a major storm to provide data that is critical to emergency managers     Develop additional Offshore	10.00	1	0	0	0	0	0	0	0	0	0	10	0	1
Breakwaters or Sand Dunes where determined most Beneficial through Modeling	10.00	1	0	0	0	0	0	0	0	0	0	10	0	1
5. Include repair standards in building codes	10.00	1	0	0	0	0	0	0	0	0	0	10	0	1
6. Marsh Restoration where Feasible	9.40	4	0	0	1	0	0	0	0	0	0	47	1.34	5
7. Maximize Beneficial Use of Dredge Materials	9.33	2	0	1	0	0	0	0	0	0	0	28	1.15	3
8. Partnership Efforts with Louisiana to Marsh Island Areas	9.25	3	0	0	1	0	0	0	0	0	0	37	1.5	4
9. Wetland area buy-outs	9.20	4	0	0	0	1	0	0	0	0	0	46	1.79	5
<ol> <li>Add wetlands along main drainage systems in each location to increase capacity of the systems during rainfall and surge flooding events.</li> </ol>	9.20	4	0	0	0	1	0	0	0	0	0	46	1.79	5
11. Replace structures with marshes.	9.00	3	0	1	1	0	0	0	0	0	0	45	1.41	5
12. Relocate wastewater treatment facilities out of the surge-prone areas	9.00	3	0	1	1	0	0	0	0	0	0	45	1.41	5
13. Restore grassbeds in MS Sound	9.00	3	1	0	0	1	0	0	0	0	0	45	1.73	5
14. Barrier Islands - Develop Baseline Flora-Fauna Studies	9.00	1	1	1	0	0	0	0	0	0	0	27	1	3
15. Barrier Islands - Combat invasive species 16. ++ Create an interjurisdictional inter-agency group to meet regularly to discuss the implications of development in the context of post-Katrina	8.80	1	2	2	0	0	0	0	0	0	0	44	0.84	5
planning efforts 17. Mississippi Coastal Improvement and Hurricane Storm Damage Reduction	8.67	2	0	0	1	1	0	0	0	0	0	52 26	2.31	6
Program	0.07	2	U	U	0	- 1	U	U	U	U	U	20	2.31	J



														- 0
18. Provide 100 acres of oyster														
reef restoration 19. Review main drainage	8.60	2	0	2	1	0	0	0	0	0	0	43	1.34	5
systems to determine where														
improvements are most														
necessary and will decrease future erosion and/or failure														
issues	8.50	0	1	1	0	0	0	0	0	0	0	17	0.71	2
20. USE selected levels of rip-														
rap instead of bulkheads for erosion control	0.50	1	0	0	1	0	0	0	0	0	0	17	2.12	2
21. Allow nature to dictate	8.50	1	U	0	1	U	U	U	U	U	U	17	2.12	2
wetlands vs. beach to a greater														
degree.	8.33	2	0	0	0	0	1	0	0	0	0	25	2.89	3
22. Re-establish Benchmark														
Information Coastal-wide	8.00	1_	1	0	0	0	1	0	0	0	0	24	2.65	3
23. Work with State to authorize transfer of development rights in														
state statutes	8.00	1	0	0	0	1	0	0	0	0	0	16	2.83	2
24. Provide protection for public														
facility (i.e., WW treatment plants).	8.00	0	0	1	0	0	0	0	0	0	0	8	0	1
<b>F</b> 1														
25. Provide an incentive for														
replacing failing septic systems														
in rural areas to improve water quality along bayous and bays.	7.75	1	0	1	1	1	0	0	0	0	0	31	1.71	4
3 3 3	7.70	' -		_''_	_ '_	'						_ 01 _		
26. Barrier Islands - Remove hazardous materials	7.75	1	1	0	0	2	0	0	0	0	0	31	2.06	4
27. Barrier Islands - Evaluate	7.73	' -	_'-	U	0		0						2.00	
Sediment Transport - Ensure														
sand mining does not Impact Islands	7.75	2	0	1	0	0	0	0	1	0	0	31	3.3	4
	7.73	3	0	0	1	0	0	0	0	0	1			5
28. Barrier Islands - Restoration	7.00	3	U	U	-'-	U	U	U	U	U	_''_	38	3.91	Э
29. Mississippi Coastal Barrier Island Restoration	7.40	2	1	0	1	0	0	0	0	0	1	37	3.78	5
ISIANU RESIONATION	7.40	Z	_'_	U	_''_	U	U	U	U	U	''	_ 3/ _	3.70	o o
30. Barrier Island - Indicate NPS	7.22	2	0	_	0	0	0	_	0	1	0	22	4.72	2
boundaries on project maps 31. Complete snagging/clearing,	7.33	2	0	0	0	0	0	0	0	1	0	22	4.62	3
etc. to restore the capacity of														
existing drainage.	7.25	2	0	0	0	1	0	0	1	0	0	29	3.4	4
32. Barrier Islands - Sensitivity														
towards barrier islands	7.25	2	0	0	1	0	0	0	0	1	0	29	3.77	4
33. Barrier Islands - Restoration														
(to a natural setting)	7.20	2	1	0	0	1	0	0	0	0	1	36	3.83	5
34. Remove storm debris (i.e., demolition debris carried in by														
surge retreat) from aquatic														
environments. Restore														
traditional shrimping and fishing areas rendered un-trawlable by														
storm debris.	7.00	1	1	0	0	0	1	1	0	0	0	28	2.94	4
35. Consider all archaeological														
sites in planning process	6.75	1	0	1	1	0	0	0	0	1	0	27	3.4	4
2/ 0														
36. Coastal Mississippi Artificial Reef Project for Remediation of														
2005 Hurricane Damage	6.60	0	2	1	0	0	1	0	0	1	0	33	3.05	5
37. Barrier Islands - Protect	4.22	1	0	0	0	1	0	0	1	0	0	10	2 51	2
From Spills	6.33	1	0	0	0	1	0	0	1	0	0	19	3.51	3



38. Coastal Mississippi Hurricane Evacuation Plan	6.33	0	1	1	0	0	0	0	0	1	0	19	3.79	3
39. Mississippi Coastal Pump Station Inundation Protection	5.50	_1_	0	0	0	0	0	0	0	0	1	11	6.36	2
40. Consider brown water system to minimize demand on ground and surface waters and limit saltwater intrusion.	5.33	0	0	0	0	1	2	0	0	0	0	16	0.58	3
41. Improve comprehensive retention/detention systems in each entity to reduce rainfall-related flooding.	4.00	0	0	0	0	0	0	1	0	0	0	4	0	1
42. Dredge access channels to existing public marine industry and recreational boating	3.50	0	0	0	0	0	1	0	0	1	0	7	2.12	2
43. Implement a barrier or check valve system to isolate freshwater detention from saltwater inundation during														
surge events.	3.00	0	0	0	0	0	0	0	1	0	0	3	0	1
44. Mississippi Coastal Urban Communities HSDR	3.00	0	0	0	0	0	0	0	1	0	0	3	0	1

# **Additions**

Create an inter-jurisdictional inter-agency group to meet regularly to discuss the implications of development in the context of post-Katrina planning efforts

Prevent degradation of the environment based on decisions that are being made at the State/Local level

Link decisions made by State/Local building permits to Corp permitting and bigger picture planning across Federal Agencies



# Workshop Participants

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# 1. Hurricane Storm Damage Reduction

- Preserve wetlands.
- Purchase wetlands for preservation.
- Encourage wise development such as retaining areas with permeable surfaces.
- Restore grassbeds in the Mississippi Sound.

Howard Page

224 Walston Avenue

Gulfport, Mississippi 39507

# Hancock County, Mississippi Long-Term Economic Development Recovery Projects

The economic development authority for Hancock County, Mississippi, is the Port & Harbor Commission.

Established under state statute in 1962, one of the first projects of the Commission was the development of a 1,200-acre industrial park known as the Port Bienville Industrial Park. Today the Park contains over five miles of man-made canals, a short line railroad connecting to CSX, and extensive infrastructure that supports some 16 industries that directly and indirectly support several thousand families in Mississippi and Louisiana.

Following Hurricane Katrina, the Commission assembled a list of capital projects vital to the recovery and long-term growth of the County's employment and tax bases. Its two top priorities--both of which are affected by Corps jurisdiction--are listed below.

### 1. North/South Rail Link

This project would construct a north/south rail link connecting the Port Bienville Industrial Park to the Norfolk Southern Railroad through the NASA Stennis Space Center (SSC) buffer zone, and includes a rail extension to the Stennis International Airport.

#### Rationale

This project will establish a rail connection for Port Bienville Industrial Park manufacturers and other potential rail users in Hancock and Pearl River counties, and provide rail access to future development within the Stennis Space Center.

CSXT is the only existing connection to the national rail network for Port Bienville Industrial Park industries, and Norfolk Southern is the only Class I rail provider for Pearl River County. CSXT is prone to service interruptions from natural disasters, and recent announcements indicate that CXST may relocate or abandon its rail route across the Mississippi Gulf Coast. The tenants at Port Bienville Industrial Park have suffered numerous such interruptions over the years, costing them significant revenues, and loss of a rail connection would endanger thousands of jobs in Mississippi and Louisiana that are based in the Port Bienville Industrial Park. As an example, CSXT rail outages following Hurricane Katrina cost rail-dependent industries in Port Bienville in excess of \$20,000/day for some 100 days.

Other benefits of this project include reducing the likelihood of train/car accidents that regularly cause fatalities and injuries across the Gulf Coast CSXT rail corridor, and reducing rail-sourced air emissions. This project will also create a multi-modal capability at the Stennis Airport.



Estimated Cost: \$45,000,000

### 2. East Pearl River Train Bridge and Channel

This project would construct a new train bridge\* over the east Pearl River and provide for the dredging of the river to a minimum of 12'.

#### Rationale

Currently, all marine traffic that utilizes the Port Bienville Industrial Park and the Stennis Space Center must access these facilities via the Pearl River and Little Lake and the Rigolets in Louisiana in order to access the Intracoastal Waterway. This routing is due to the fact that the channel at the mouth of the east Pearl River hasn't been maintained by the U.S. Army Corps of Engineers for decades, despite that fact that it is on the list of channels that the Corps is authorized to maintain. In addition, the CSXT train bridge near the mouth of the river has a center support structure and narrow opening width, and is located just below a severe curve in the River, making it virtually impossible to accommodate barge traffic.

Following each major hurricane in the region, Little Lake silts in, requiring expensive and time-consuming dredging and inhibiting marine traffic. Following Hurricane George, the permitting and dredging processes took over 5 years to complete, and Hurricane Katrina again silted in the Little Lake passage.

The Port Bienville Industrial Park is currently home to eight (8) water-dependent industries directly employing over 550. Each time this passage is impaired with silt, marine commerce is adversely affected.

The construction of a modern train bridge over the east Pearl River and dredging the channel back to a 12' depth would negate Mississippi marine traffic from having to be subject to the siltation of Little Lake following hurricanes, and the cumbersome and expensive process of permitting this activity through the State of Louisiana.

Even if the current CSX rail line is relocated or abandoned, the necessity still exists to open the east Pearl River to Mississippi marine traffic.

The resumption of the maintenance dredging of the Pearl River by the Corps of Engineers would lift the burden of this activity from local government. The last two dredging projects in Little Lake cost in excess of \$2,000,000.

Estimated Cost: \$35,000,000

\* Should CSXT abandon its Gulf Coast route, replacement of the bridge would not be necessary. The existing bridge could be demolished, thereby removing it as an obstacle.

Mike Turner P.O. Box 2267 Bay St. Louis, MS 39521



You cannot manufacture a project to protect people from living in an inadequate location, such as building your house in known flood zones. It either shouldn't be allowed or it should be bought out or not allowed to be built, not build a 20-foot wall in front of it that will wash out in the next hurricane. Thank you.

Only projects that use ecosystems to manage watersheds should be considered. Paula Vassy 3125 Graveline Road Gautier, MS 39553

MS. VASSEY: No short-term projects should be considered. Only projects that have long-term goals and long-term sustainability should be considered because of the tightness of taxpayers' dollars.

We don't need to manufacture projects that give people false sense of security that they live in a safe place. We can never manufacture or engineer manmade projects that can prevent storm damage from happening. I think it's senseless to give people that false hope and invest their life savings based on a project that's not going to stop 30-foot waves. On all projects, the cumulative and secondary impacts, both plus and minuses, should be considered.

Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

MR. EVANS: My community is the members of Turkey Creek, North Gulfport, Forest Heights, Villa Del Ray, Rolling Meadows, and so forth, which is the lower Turkey Creek watershed, 95 percent African-American and low or moderate income, we do not want the Corps to employ engineering solutions, so-called solutions, to drainage or any other issues on Turkey Creek, with the exception of restoring the damaged levy encircling the Forest Heights subdivision.

What we want is for the Corps, or anyone else who is so inclined, including the DMR, the NRCS, DEQ, EPA, to support our community-based plan for an urban greenway in the Turkey Creek watershed, including lots of wetland and other habitat restoration.

For example, if the Corps wants to buy some filled-in land near the creek or abutting the creek and restore it to its original wetland function, that would be fine, but as far as anything non-natural, we don't want it.

The creek -- my mother almost died during Katrina, and her husband did die after, because the flood water in their home reached her chest level on August 29. One of the reasons the flood water was so high in her home was the cumulative loss over the years of floodplain and wetland habitat to the south of her home and upstream from her home.

Just last week on Polk, south of the creek and southwest of the airport, there were four wetland destroying or impacting projects underway on the same day involving dozens of acres of land, some of which were not permitted, some of which had Corps' permits but were being improperly done, all of which spell a worsening of the situation that confronted my mother on August 29.



Our solution has been for over two years to promote restoration, conservation, and public usefulness through a Turkey Creek watershed greenway that includes a canoeable, hikeable, naturally pristine Turkey Creek waterway and not additional impervious surfaces or wetland destruction.

Over 250 people attended a community planning workshop at the Good Deed Community Center in North Gulfport on January 7th, 2006, and expressed unanimous support for this greenway, which includes habitat restoration, wetlands restoration, reforestation, and so forth, to improve drainage, water quality, public safety with respect to the proliferation of Cogon grass which burns very hot, 850 degrees and doesn't like shade.

So, you know, the community does have a plan and a preference. It includes a number of sites that are currently owned either by the City of Gulfport, the airport, Mt. Pleasant United Methodist Church, the Forest Heights Missionary Baptist Church, the North Gulfport seventh and eighth grade school, the canals in Long Beach, and some private properties have all had project sites -- projects identified. Some of them have already been funded. Some of them will soon be funded.

If the Corps of Engineers would like to be a partner and contribute to this approach to improving the quality of life and the public safety and other benefits to the public on Turkey Creek and in the Turkey Creek watershed, we support them. Otherwise, the Corps should stay home or focus itself on projects outside of the Turkey Creek watershed.

Derrick Evans 14439 Rippy Road Gulfport, MS

# 2. Preventing Saltwater Intrusion

The creating of new coastal tidal marshes replace some of the ones lost by industry or storm damage would be of utmost importance as secondary protection from saltwater intrusion.

Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

### 3. Preservation Of Fish & Wildlife

Although I don't have a project, I think any projects that would enhance the environment, such as tree reforestation with native trees or stormwater retention ponds that use plants as part of the filtration process, creating marsh lands which protect us from stormwater or surges or it allows rainwater to disperse stormwater in a much more manageable, less polluting way is better. It also provides habitat for our fishery resources.

Thank you.

*Paula Vassey* 3125 Graveline Road



Gautier, MS

# 5. Other Related Water Resource Purposes

In the Turkey Creek area in North Gulfport I understand that since cost-benefit ratio is not a necessity of these particular funds that there may be some relocation issues rather than buyouts that would be of benefit to the Turkey Creek residents. If it means by relocation they would put them in a different house in the same community on a road that doesn't flood and that their toilets flush, then I believe that would be a very good use of restoration funds.

Paula Vassey

3125 Graveline Road

Gautier, MS

MS. HOLMES-HINES: I am here at the 19th Street Community Center in reference to a Corps of Engineers' meeting that I was told early this morning by the Jackson County Sierra Club that was to be held in the City of Gulfport.

I called the Mayor's office and spoke to the Mayor's office who had no knowledge of this meeting. I spoke to Bill Powell of engineering who had no knowledge of this meeting. I spoke to Connie Rocco, President of the Board of Supervisors, she was out of town, but her office said they had no knowledge of this meeting.

I am very concerned with the importance of such information that is needed for the Corps of Engineers and that the citizens of Gulfport are not present due to the lack of communication or the timeliness of this communication.

We have often had many meetings with the Corps of Engineers and a discussion where we have gone to Mobile to give input and information that I would hope would be included where we have talked to several Colonels there and that we have had the Turkey Creek study that was done by the Mobile Corps of Engineers to the tune of a million dollars that was paid by the Harrison County Board of Supervisors.

There we addressed several problems that is in the area of which I represent, that area is the Turkey Creek Basin. The Turkey Creek Basin has afforded itself to be constantly within threat of trying to accommodate water that it was never designed, by the nature of its existence, to accommodate.

We had hoped in getting this Corps of Engineers' study that we could look at several aspects of trying to address it in the natural preservative sense. We have now trees that are down in the basin. This needs to get done by best management practices.

With the Corps of Engineers' study they had spoke about channelization, as well as trying to speak of levies, which, of course, at this point many of the citizens are very concerned with the Corps and any levies due to the Katrina problems with New Orleans.

We are concerned too that there should be alternative measures that should take place in the Turkey Creek Basin with restoration and with preservation. We should also look at land trusts and trying to look at what we can do with trying to get the western most part of the Turkey Creek Basin to have some form of outlet.



We have many areas under consideration. Right now we have an area that's called Rio Grande, Amazon as it is truly called because it's an Amazon area that has had repetitive lost, Magnolia, that we have stated to the Corps of Engineers many times that because of its location to the Turkey Creek Basin would be ideal, as well as the citizens think it is ideal, because of the repetitive loss of over five to six flood areas.

In the Turkey Creek community, prior to Katrina they have never had water in their homes. Of course, Turkey Creek not being the benchmark of the previous storms decided that they would take on the entire coastal cities where water has never gone before and now water has attained itself into homes.

We are concerned tonight that we have very limited opportunity to go forward. We understand the constraints of the money that has been given by Washington, but the importance of long-range goals here is going to be essential to helping our city, especially the area that I represent.

Thank you. Ella Holmes-Hines, Councilwoman P.O. Box 10183 Gulfport, MS, MS 39505

### 7. Barrier Islands

### Restore barrier islands

I am a life-long resident of Gautier or Jackson County, Jackson County or Gautier. I have been going to Horn Island every since I was a small kid, also Dauphin Island. I think Dauphin Island's dunes has really saved Dauphin Island.

I think the cheapest and best thing that could ever be done for our islands, Petit Bois and Horn Island, is put a major dune at the south end of the island parallel with the island and as wind blows the sand would create -- when I was a kid there was more dunes on Horn Island then there are now. Horn Island and Petis Bois was closer together. I think by dredging the channels so deep has caused a lot of erosion and disappearing of the island because the digging out is for ships to come in to pass there, it involved the pass, and they have enlarged the pass.

The cheapest thing that you could ever do is to put a dredge boat outside of Horn Island or Petit Bois and come right down the island and throw a 20-foot berm up high. The wind would blow the sand and I think the palmettos and the pine trees behind it would come back, and I think the island, that would be the quickest way to restore that island would be to let mother nature to do it with a sand dune on the south side of it.

If anybody had any thoughts to go to Dauphin Island and look what Dauphin Island looks like behind the sand dune, if Horn Island and Petit Bois looked like Dauphin Island, our island would be enhanced more than any one thing they could possibly do and it would be the cheapest process.

Hurley Guillotte 3004 Ladiner Road

JUU4 Lauinei i

Gautier, MS

MR. TANGUIS: I mean, in other words, unless we **close the Mississippi River Gulf outlet**, anything we do on this coast is not going to help, you know, as far as worrying about sand dunes and all of that, it's



not going to help.

The east end of the Louisiana marsh, the tip of the boot of the Louisiana marsh of Louisiana is due south of us. Years ago all the fresh water from Lake Pontchartrain, all the rivers coming in there, the Bogue Falaya, Bogue Chitto, Tangipahoa, all of these rivers, and the Old River of Baton Rouge, all of these fresh water rivers came into Lake Pontchartrain and used to drain into Lake Boren.

As they went into Lake Boren they went into the marshes all below the east end of the marsh through the bayous and the lagoons and everything. The sediment went over that way. When it couldn't go through the marsh, it curved around south of the tip of the boot and it went to our barrier islands. It gave fresh water for grasses to grow and stuff along the islands. They had grass on them islands maybe, I imagine, two and a half to three feet high on the bottom, you know, years ago when I was fishing there.

And I grew up in the marsh, east end of the Louisiana marsh. If they would block off the Mississippi Gulf outlet, if they would block it off, all of that pressure of the fresh water would filter back through the marsh and help create a brackish marsh, but when that water goes down through -- that fresh water goes out the Mississippi River Gulf outlet and hits the saltwater, it's gone forever, the sediment and everything is gone forever once that saltwater hits it.

It's a simple thing, they need to close it. They need to get rid of that Mississippi River Gulf Outlet. I have seen a deterioration just when they dug it. When they dug it I seen the east end of the Louisiana marsh start deteriorating.

And too, they need to **close some of that marsh to boats**, all boats, you know. In other words, people are digging up the bottom sediment and moving it, you know, close it. Just have certain places where boats can go in at, you know, or just small outboard motors, something small, nothing big, you know, just certain areas, you know, for that, you know. I guess that's basically it, you know.

Unless they close that Mississippi River Gulf outlet nothing we do on this coast is going to make any difference, and it would have to be a long-term thing to rebuild that east end of the Louisiana marsh. I have seen islands disappear all over the place. I have seen shorelines completely change, you know, and unless they do something about that saltwater incursion that's there, it's over with. That's basically it. Ronald "Poss" Tanguis

2106 Arnold

Waveland, MS

Restore the barrier islands and reefs

Will Platts

Box 6271

Gulfport, MS 39506

The second thing we need to provide for the restoration of our natural resources is in a way that will be sustainable. When you shallow up the coastal waters by building jetties or other ways to protect the coastal beach line, actually what you do is allow hurricane waters to come in faster. And that's part of the problem, in the last hurricane our shallow waters funneled everything in. So I am not sure that some projects recommended are good projects.



Better projects would be restoration on the islands. The disposal of the Biloxi Ocean Springs Bridge on the other side of Deer Island is another beneficial project, but what we need is restoration of our wetlands, our marshlands, our tidal marshes, our estuary areas and our fishing habitat in order to keep the seafood industry viable as an economic resource for the Gulf Coast. It's great to be able to do a project that may protect a house, but at this point in time it's not a cost-effective way of protecting the resource. The resources would be our natural resources, which make this such a great place. Paula Yassey

3125 Graveline Road Gautier, MS 39553

## 9. Beach Renourishment

MR. TANGUIS: I mean, in other words, unless we **close the Mississippi River Gulf outlet**, anything we do on this coast is not going to help, you know, as far as worrying about sand dunes and all of that, it's not going to help.

The east end of the Louisiana marsh, the tip of the boot of the Louisiana marsh of Louisiana is due south of us. Years ago all the fresh water from Lake Pontchartrain, all the rivers coming in there, the Bogue Falaya, Bogue Chitto, Tangipahoa, all of these rivers, and the Old River of Baton Rouge, all of these fresh water rivers came into Lake Pontchartrain and used to drain into Lake Boren.

As they went into Lake Boren they went into the marshes all below the east end of the marsh through the bayous and the lagoons and everything. The sediment went over that way. When it couldn't go through the marsh, it curved around south of the tip of the boot and it went to our barrier islands. It gave fresh water for grasses to grow and stuff along the islands. They had grass on them islands maybe, I imagine, two and a half to three feet high on the bottom, you know, years ago when I was fishing there.

And I grew up in the marsh, east end of the Louisiana marsh. If they would block off the Mississippi Gulf outlet, if they would block it off, all of that pressure of the fresh water would filter back through the marsh and help create a brackish marsh, but when that water goes down through -- that fresh water goes out the Mississippi River Gulf outlet and hits the saltwater, it's gone forever, the sediment and everything is gone forever once that saltwater hits it.

It's a simple thing, they need to close it. They need to get rid of that Mississippi River Gulf Outlet. I have seen a deterioration just when they dug it. When they dug it I seen the east end of the Louisiana marsh start deteriorating.

And too, they need to close some of that marsh to boats, all boats, you know. In other words, people are digging up the bottom sediment and moving it, you know, close it. Just have certain places where boats can go in at, you know, or just small outboard motors, something small, nothing big, you know, just certain areas, you know, for that, you know. I guess that's basically it, you know.

Unless they close that Mississippi River Gulf outlet nothing we do on this coast is going to make any difference, and it would have to be a long-term thing to rebuild that east end of the Louisiana marsh. I have seen islands disappear all over the place. I have seen shorelines completely change, you know, and unless they do something about that saltwater incursion that's there, it's over with. That's basically it.



Ronald "Poss" Tanguis 2106 Arnold Waveland, MS

### 11. Coastal Restoration

Restore the Barrier Islands and reefs. Will Platts P.O. Box 6271 Gulfport, MS 39506

### 13. Communities

Is there any reason that you don't include communities in Jackson County on your slide of affected communities? Pascagoula and South Gautier have been devastated by this storm!

Spencer Garrett

3507 San Marcus Circle Gautier, MS 39553

Cities should continue to **enforce current codes rather than grant indiscriminate variances** that are detrimental to current neighborhoods.

Our Hickory HIlls area was fortunate to not sustain devastation as in other areas. However the variances that have been granted by the city since have wreaked more havoc than Katrina ever could. Over 100 FEMA trailers sit empty in Wonderland Park yet Habitat is being allowed to erect homes in our area that do assimilate with our area. This housing is not needed. A moratorium should be placed on building in the Hickory Hills area of Gautier until the infrastructure is capable of handling it.

Our drinking water is brown (most buy water), drains were trenched deeper than culverts allowing a veritable mosquito paradise in stagnant water at the roadsides. Bayous are filling with runoff silt from building sites where the minimum silt fencing is not enforced. As per the Sun Herald editorial of Sunday 9, "communities must devise - and implement - RESPONSIBLE as well as visionary plans for the future as quickly as possible."

# 19. Evacuation Planning & Routes

Please devise a route from the MS Coast to Houston so we can get there when Louisiana's contraflow goes into effect.

Roadways are needed

Build storm-proof public safety buildings Will Platts

Box 6271

Gulfport, MS 39506

Work needs to be done on evacuation of the people along the MS Gulf Coast and more work needs to be done to help the water not come over Highway 90

Bettie Bishop

202 Vernon Rigney Rd.

State Line, Mississippi 39362

### 20. Fishing



Removal of storm debris from fishing channels, especially shrimping is a big concern. Who is in charge of this?

Understand MS DMR has \$30,000,000 devoted to this. What are the priorities being established?

# 23. Growth And Development

If casinos, condos, etc take over the coast, it will completely change the coast from what is was prior to Katrina. there will be no need for environmental restoration and preservation, the coast will be nothing but concrete.

# 24. Invasive & Exotic Species

I would like to see resources placed towards controlling the spread of cogon grass, an invasive grass, within the 6 MS coastal counties. Cogon grass is already present in MS and will only get worse with dramatically increased ground disturbing rebuilding activities.

Added emphasize and funding for MDOT and county roadway departments to spray cogon grass infestations along roadways would go a long way towards controlling the spread of this aggressive invasive plant.

David Felder 6578 Dogwood View Parkway

Jackson , MS 39213

# 26. Local Drainage Improvement

## Dredge Bayou Bottlenecks to a deeper depth than the slips at Graveline Bayou and Simmons

The Corps need to clear navigable waters of debris, but it also needs to pick up material that homeowners clear from their canals. Without Corps picking up the debris that people bring to the roadsides then people will leave it for the Corps to pick up...thus slowing the process. Spencer Garrett

3507 San Marcus Circle Gautier, MS 39553

In reference to 8125 Meadowdale Drive, Hickory Hills, Gautier, I have monitored this canal since 1979 and it has slowly filled with silt from runoff, stormwater runoff. In January of '05 the City of Gautier cleaned out the ditches in our area and we had a tremendous rain in April of '05 which brought tremendous silt into the canal. If we don't do something about it to **stop the stormwater runoff silt**, we're not going to have a canal left. So hopefully the Corps of Engineers can help us to get this canal dredged out and also discuss the prevention of stormwater runoff with the local and county officials.

Most of the Gulf Coast area is river delta, which would be natural wetlands but we make it buildable by digging drainage ditches to lower the water table, but it can't go below sea level. With more development there's more immediate runoff and the drainage can't accommodate.

Commercial developments are required to provide catchment basins with capacity for runoff from roofs and paved areas. Residential developers sometimes use an otherwise unbuildable area by dredging a pond and using that for fill dirt to raise the building sites, and the pond becomes an amenity for the residents.

We have many unused, or underused, areas along the drainage canals. How about building a



## public park system with ponds and canals that also serve as catchment basins?

Glen Sandberg 2514 19th Avenue Gulfport, MS 39501

Dredge projects that needed dredging, as documented through the county request of 14 projects, recently that they took off the table, should not be included as part of the restoration project. The restoration money could much better be served, the natural resources, by doing restoration and recreation of marsh through beneficial dredge, the use of the bridge as a barrier to wind and water surges, and maybe the Corps of Engineers will actually do some good projects this time.

Paula Vassey 3125 Graveline Road

Gautier, MS

Dredge Bayou Bottlenecks to a deeper depth than the slips at Graveline Bayou and Simmons

The Corps need to clear navigable waters of debris, but it also needs to pick up material that homeowners clear from their canals. Without Corps picking up the debris that people bring to the roadsides then people will leave it for the Corps to pick up...thus slowing the process.

Spencer Garrett 3507 San Marcus Circle

Gautier, MS 39553

Dredging of canals is a priority

Larry Brewster

2323 Starfish Road

Gautier, MS 39553

Help! We need our waterways cleaned and cities need to keep silt runoff out!

Douglas R. Phillips

8125 Meadowdale Drive

Gautier, MS 39553

In reference to 8125 Meadowdale Drive, Hickory Hills, Gautier, I have monitored this canal since 1979 and it has slowly filled with silt from runoff, stormwater runoff. In January of '05 the City of Gautier cleaned out the ditches in our area and we had a tremendous rain in April of '05 which brought tremendous silt into the canal. If we don't do something about it to stop the stormwater runoff silt, we're not going to have a canal left. So hopefully the Corps of Engineers can help us to get this canal dredged out and also discuss the prevention of stormwater runoff with the local and county officials.

Douglas Phillips

8125 Meadowdale Drive

Gautier, MS

## 31. Oysters / Oyster Reefs / Shellfish

**Removal of storm debris from fishing channels**, especially shrimping is a big concern. Who is in charge of this?

I understand MS DMR has \$30,000,000 devoted to this. What are the priorities being established?

Establishing oyster beds without preventing pollution or runoff should not be allowed. It's



senseless to spend thousands of dollars to pile oysters up for re-creation of a reef to filter water when the water quality going into the water is so bad that the oysters can't live.

I don't know if the Jackson County area is one of the places where they are talking about establishing oyster reefs. I don't know if we will ever get back to a harvestable state. The stormwater runoff is so bad, it would prevent us from harvesting.

Paula Vassey 3125 Graveline Road Gautier, MS

### 32. Pollution / Contaminants

I am once again concerned about pollution, particularly at the port of Gulfport. In the stormwater runoff there was some radioactive material that had been there on-site, and I want to know if there would be projects ongoing that could compensate for finding out where some of that pollution went to.

I think all stormwater drains need sedimentation or dropout ponds before they are pumped in or allowed to run off into any bays, bayous or the Gulf of Mexico. Only projects that consider the entire watershed approach should be allowed.

Thank you.

Paula Vassey 3125 Graveline Road Gautier, MS

Dredge projects that are looked at as part of the restoration effort should especially be analyzed for sediment toxicity risks. Most of the sedimentation of the bayous and channels in our local area was not caused by Katrina because actually the water moved up the bayous. The rainfall was not heavy enough to produce that much sediment. Most of our sedimentation in the bayous has been lack of proper screening by developers, either individuals or commercial.

One of the projects that needs to be looked at in a strong situation, because of the economic impact it would provide for the Gulf Coast, is restoration of the submerged aquatic vegetation beds, along with the documentation and a cataloguing of all submerged aquatic vegetation as habitat and the estuarian areas and in the coastal marsh areas and up into especially Fort Davis, Old Fort Bayou, Graveline Bayou and over near — on the other side of Bayou Sioux where some of the submerged aquatic vegetation has been coming back.

Paula Vassey 3125 Graveline Road Gautier, MS

If there is – I didn't notice any of the projects on the board that considered the sewage. I think the sewage aftereffects after Hurricane Katrina is a major problem. I know in our small town it has cost us a lot of money to replace some parts and pieces of our sewage system, but we need to be able to **better plan for the disposal of sewage in** – if there's any way in any of the Corps of Engineer projects to enhance wetlands or to make bigger wastewater treatment plants, then we need to be able to use some



of those funds to promote that, too. Thank you.

# 40. Surge Control

RECLAIM ERROSION FROM BAYOUS TRIBUTARY VEINS AND RETURN TO PERSONAL PROPERTY FOR THE LOSSES. THIS IN TURN WOULD BUILD UP PROPERTY VALUE SAFER FROM STORM SERGE N THE FUTURE OF FLOODING.

Awhile back, someone submitted a letter to the Editor in the Sun Herald Newspaper that brought out the fact that Hurricane Camille had taken away part of each of the Barrier Islands south of the Mississippi Gulf Coast. That brought to mind a thought that should be taken into consideration.

That is to say, since there is so much destruction along the Gulf Coast, it would be a great idea to load all that broken concrete, asphalt, destroyed bridge sections, bridge spans and the tremendous amount of rip rap on barges. Then take it out beyond the twelve miles to the horizon and strategically dump it all to create a new set of three twenty foot above Mean Tide Barrier Islands, one behind the other.

The dumped material could be covered with concrete to make it as solid as possible and shaped to a blunt point at the top. With three synthetic Barrier Islands spaced about two hundred yards apart, any Tidal Surge would be broken up and reduced just large white caps.

The future of the Mississippi Gulf Coast and all along the rest of Gulf Coast will depend on what we do now to protect it from future Tidal Surges resulting from Giant Hurricanes like Katrina.

Anthony J. Gagliano, Sr.

300 Holcomb Blvd

Ocean Springs, MS 39564-5038

# 44. Vector Control (Mosquitoes)

Construction of low level weirs at the outfall of estuarine streams will maintain water levels on the inland side. Many benefits can be derived including mosquito control, erosion control, enhancement of growth of natural fish species, and beautification.

Ovide J Davis

1321 Garfield St.

Pascagoula, Mississippi 39567

# 45. Visual Resources (Scenic Beauty)

Keep greenspaces and water views for the public

### 47. Water Quality

Water Quality: With wastewater disposal and retention areas, anything that could be included in the project to cover the expenses of generators or other mechanical items that would aide in the disposal of wastewater in the aftermath of a hurricane would be better than allowing raw sewage to flow down our bayous, on the ground, then into the Gulf of Mexico, it would be appreciated. Paula Vassey.

### 50. Wetland Restoration & Protection

Preservation of wetlands in a watershed is essential to reduce flooding. Howard Page 224 Walston Ave



Gulfport, MS 39507

Only projects that use ecosystem to manage watersheds should be considered. Paula Vassy 3125 Graveline Road Gautier, MS 39553

# 51. Communication/Publicity

MS. SNELLING: I'd just like to say that I am unhappy with the meeting itself. I am unhappy with the way it was put together and the way we were notified.

I was notified by Ella Holmes-Hines through the Sierra Club, I think, from Jackson County. I live here in Gulfport and the meeting is in Gulfport and I knew nothing about it.

Once I got to the meeting, I didn't even know what the meeting was about. I just knew there was a meeting. So then I was asked to vote on some things that I have absolutely no information on.

So a lot of the questions I didn't answer because they were multiple choice and they were phrased in a way that I did not want to answer. So that's about all I have to say, that I am very unhappy with it.

In the future you should notify the people in the community so they can show up and participate and give their input, but the notice has to be great enough and far enough in advance that we know what the meeting is, what it's about, where it is, the time, everything, and the right people are contacted so they can get the word out to the community.

I know they say they put it in the paper and they sent letters, but none of it us got it. We live in the Turkey Creek community. I know Reverend Jackson, they definitely have his address, but he didn't get a letter of invitation either. Thank you. I said I live in the Turkey Creek Community, I am with the Turkey Creek Homeowner's Association.

Martha Snelling 14336 Rippy Road Gulfport, MS

This appears to be a very effective communication tool Jacklyn Turner

Dackiyii idi

Box 686

Pascagoula, MS 39568

The average person would not have read your press release in MS Press.

Joahan and Jim McDole

2201 Callie Road

Gautier, MS 3153

- Poor location
- Poor notification of the public
- Lack of handouts explaining the meeting's purpose
- Lack of citizens attending the meeting

Paula Yassey

3125 Graveline Road



### Gautier, MS 39553

First, I am concerned there's no written documentation discussing the projects. Second, I am concerned about the notification method of the meeting. We have nothing to go on. So we're in a meeting blind. I don't think that we will have the opportunity to actually offer comments on a project when we didn't know what the situation was. The changing of the meeting from one building to the next is extremely confusing.

The Army Corps of Engineers has a history of cost-benefit planning on programs that doesn't work, especially in this situation. If we're going to have the money to do anything with, why should it have to be a cost benefit? Any savings, if we can save somebody from dying, drowning or losing their house, then that is a cost benefit. The Corps may not see it because it's free money that they're not responsible for. They are just being told to do the projects. The cost benefit for the Corps are an old, antiquated way of doing work.

Paula Yassey

3125 Graveline Road

Gautier, MS 39553

I saw the newspaper article with a dateline of Mobile, AL. THAT totally threw me. I would NEVER have read that. Your press release in a MS press. There is NO WAY the average person would read this. Joahan & Jim McDole

2201 Callie Road

Gautier, MS 39553

Problems with the website, a lot of the people here, although they don't have electricity or phones, may have some access to some computers somewhere, but computers down here right now aren't always the best way to stay in touch with people. Written documentation provided to people would be a much better way to contact people.

Thank you. Paula Yassev 3125 Graveline Road Gautier, MS 39553

More public information about these meetings is needed. I learned about this by accident!

Office number is 228-868-5848

Barbara Nallev

Box 3113

Gulfport, MS 39505

### 52. Other

This appears to be a very effective communication tool

Jacklyn Turner

Boxc 686

Pascagoula, MS 39568

Keep it up! Warren Gautier 2810 Washington Avenue Gautier, MS 39567



We had some work done previously by Corps of Engineers - more than pleased and very grateful.

This appears to be a very effective communication tool Jacklyn Turner Box 686 Pascagoula, MS 39568

Keep it up! Warren Gautier 2810 Washington Avenue Gautier, MS 39567

Well, another thing, I came here today, I came here to talk to the Corps of engineers. I need some questions answered.

For instance, right there where 603 crosses Bayou LaCrosse, the waterway, they went in that marsh there and they are clearing it all out there and they have been in there for months and months.

What are they doing in that marsh? I trapped that marsh. They had no reason to go in there. If they were looking for bodies, they could have chopped a hole in the roof, let the dog go in there and let the dog smell and go on, you know, but they went in there and stayed in there and put platforms and are digging up tree stumps and everything else. I don't know what that was all about. I would like some questions answered.

What were they doing in there? And they spent a lot of money because they had these swamp buggies and they don't come cheap. Then when you started laying platforms to go in there to get stuff and put heavy equipment in there, they destroyed more than any good they might have wanted to do. They destroyed more habitat than what they did any good.

I would like to know the reasoning why they did it. I want those answers. Ronald "Poss" Tanguis 2106 Arnold Waveland, MS



# Public Workshop Participants

Date	Name	Address	City		Zip	Phone	EMail	How Learned
4/13/06	Ali Leggett	1026 Daniel Street	Waveland Pensacola	MS	39576			notice to Dept of Marine Resources
4/11/06	Alicia Stehens	305 Ariola Drive	Beach	FL	32561			USACE
					39564-			
	Anthony J. Gagliano, Sr.	300 Holcomb Blvd	Ocean Springs	MS	5038		gagliant@bellsouth.net	Web
4/10/06	Ashton B Canon III	1812 Seacrest Drive	Gautier	MS	39553	228-217-4876		wife
	Barbara Nalley	Box 3113	Gulfport	MS Mis	39505		BAN11208@aol.com	Comment Card
	5 51.1		0	sissi			oldtymequilter@yahoo.co	
	Bettie Bishop	202 Vernon Rigney Rd.	State Line	ppi	39362		m	Web
4/10/06	Bill Walker	1141 Bayview Ave	Biloxi	MS	39530	228-374-5010		
4/11/06	Bruce Roberts	Box 492	Gulfport	MS			bruceor@aol.com	TCCI
4/11/06	Bruce Roberts	Box 492	Gulfport	MS	39502	228-864-2862	brucear@juno.com s90FBAYSTLOUIS@bells	
4/13/06	Buz Olsen	619 Williams Drive	Bay St. Louis	MS	39520	228-467-2382	outh.net	
4/11/06	Calvin H. Jackson	14269 Rippy Road	Gulfport	MS	39503			I read it in the paper
4/10/06	Cammie Trigg	2304 Lesisgate	Gautier	MS	39553	228-249-1957		Friend
4/11/06	Carland Baker	Box 882	Long Beach	MS	35560	228-326-1798		
4/13/06	Chris Lagarde	237 St. Charles St.	Bay St. Louis	MS	39520	228-216-0978		FAX
	Christopher Verdery	6912 Shore Drive	Ocean Springs	MS				Court Report Transcript
4/11/06	Clyde Anne Davis	1321 Garfield Streed 13209 Old Fort Bayou	Pascagoula	MS	39567	228-762-4536		newspaper Rep. Pat Harrison, Water
4/10/06	Conrad Mallett	Road	Vancleve	MS	39565			District
4/10/06	Darren Brick	1904 Tradewinds Drive 6578 Dogwood View	Gautier	MS	39553		brickdc@yahoo.com	neighbor
	David Felder	Parkway	Jackson	MS	39213			Web
4/11/06	Derrick Evans	14439 Rippy Road	Gulfport	MS	39503			



4/13/06	Dorothy Bloom Foley	1300 Bloom Place	Waveland	MS	39520	228-466-3134		Paper.
	Douglas R. Phillips	8125 Meadowdale Drive	Gautier	MS	39553		phillidr@bp.com	Comment Card
4/13/06	Eddie Favre	Box 2550	Bay St. Louis	MS	39521	228-466-8951	hizzonna@bellsouth.net	
4/10/06	Eddy Trigg	2304 Lewisgate	Gautier	MS	39553	228-327-4031	trigg@cabieone.net	Kathy Wilkinson
4/11/06	Ella Holmes-Hines	Box 2425	Gulfport	MS	39505	228-868-5847		
	Ella Holmes-Hines, Councilwoman	P.O. Box 10183	Gulfport, MS	MS	39505			Court Report Transcript
4/10/06	Gail Bishop	6105 Ridge Road			39564	228-875-1343		Agency
4/10/06	<b>Garry Matthews</b>	6500 Humphrey Road	Vancleve	MS	39565			
4/10/06	Gary Holland	1412 Woodharvest	Pascagoula	MS	39581	228-767-4433	gahollands@i-55.com	Sun Herald
4/11/06	Gayle Tart	1916 33rd Ave	Gulfport	MS	39501	228-326-1798		Newspaper
4/11/06	Glen Sandberg	2514 19th Ave	Gulfport	MS	39501	228-697-5195	glens@ieee.org	Sierra Club Mailing List
4/11/06	Howard Danley	9365 Timberland Blvd.	Daphne	AL Mis sissi	36527		page_howard@hotmail.co	
	Howard Page	224 Walston Avenue	Gulfport	ppi	39507		m	
4/10/06	Hurley Bay	3004 Ladineu	Gautier			2280-499-1354		
	Hurley Guillotte	3004 Ladiner Road	Gautier	MS			iturner@comptonengineer	Court Report Transcript
	Jacklyn Turner	Boxc 686	Pascagoula	MS	39568		ing.com	Comment Card
4/10/06	James C. Page	Box 1293	Gautier	MS	39553	228-497-0082		Mayor of Gautier
4/10/06	Jeff Wilkinson	Gautier City Councilman	Gautier	MS	39553		wilksail@datasync.com	
4/13/06	Jeffrey Reed	637 Keller Street	Bay St. Louis	MS	39520	228-518-7859	phdministries7@aol.com	secretary I was called for in order for the
4/11/06	Jessie Fitzgerald	4628 Goldfinch Drive	Gulfport	MS	39501	228-868-5733		group to use my building
4/13/06	Jim Bonser	1300 Bloom Place	Waveland	MS	39576	228-466-3134		paper
	Joahan & Jim McDole	2201 Callie Road	Gautier	MS	39553		Joahan2@bellsouth.net	Comment Card
4/11/06	John Baer	Box 2288	Mobile	AL	36628			
4/11`	Josephine Donald	143 S 19 1/2 Street	Gulfport	MS	39501	228-313-7605		Rad and saw in the paper
4/10/06	Kathy Toler	1816 Seacrest Drive	Gautier	MS	39553	228-522-2009	win689surf25@yahoo.co m kjohnson@cityofpascagou	neighbor
4/10/06	Kay Kell	1623 Gallery	Pascagoula	MS			la.com	



4/40/00	Kandall Ladran	29010 J.C. OLadner Road	Dankinatan	МС	20572		kendall	Companies of FDA
4/13/06	Kendall Ladner		Parkinston	MS	39573		ladner@coastepa.com	Supervisor/EPA
	Larry Brewster	2323 Starfish Road	Gautier	MS	39553		razzhuck@yahoo.com	
	Larry Brewster	2323 Starfish Road	Gautier	MS	39553		raxxhuck@yahoo.com	Comment Card
4/10/06	Lee Colledge	2225 Bayou View Circle	Gautier	MS	39553	228-497-6163	leecol999@caldeone.net	Friend
4/10/06	Lisa Clark Cannon	1812 Seacrest Drive	Gautier	MS	39553		lisacannon@cableone.net	Email from a Jackson County Chamber member
4/13/06	Lisa Cowand	1000 North Beach Blvd	Bay St. Louis	MS		228-216-0506		Board of Supervisors
	Lorraine Sutton Evans	109 St. Joseph St.	Mobile	Al	36602		lorraine.s.evans@us.usac e.army.mil	Web
4/11/06	Martha Snelling	14336 Rippy Road	Gulfport	MS	39503	228-863-0049		Holems-Hines
4/10/06	Melinda Bramlett							
4/10/06	Michael W. Mangum	2309 Rosewood Street	Pascagoula	MS	39567			newspaper
4/11/06	Mike Buchanan	906 West RR	Long Beach	MS	39560			Meeting on 4/7 at the IP
	Miles Tomas	D O D 0007	Day Of Lasta	140	00504		mturner@portandharbor.c	147- L
	Mike Turner	P.O. Box 2267	Bay St. Louis	MS	39521		om	Web
4/11/06	Ovide Davis	1321 Garfield Street	Pascagoula	MS	39567	228-752-4536	oviddavis@yahoo.com	Newspaper
4/11/06	Pat Kulick	6912 Shore Drive	Ocean Springs	MS		228-875-5261	Lancath a bandlar @aaaa	
4/10/06	Paul Bradley	Box 2288	Mobile	AL	36628	251-694-4101	kenneth.p.bradley@sam.u sace.army.mil	
	Paula Vassey	3125 Graveline	Gautier	MS				Court Report Transcript
4/10/06	Pete Pope	2213 Sandalwood	Gautier	MS	39553			
	5.4 . 5 . 4		5 6 1					email from Sam. This is a good
4/13/06	Robert Davis	127 Felicity Street	Bay St. Louis	MS	39520	228-466-4528	rld0176@aol.com	idea!
	Ronald "Poss" Tanguis	2106 Arnold	Waveland	MS	39576			Court Report Transcript
4/13/06	Ronnie Vanney	Box 2550	Bay St. Louis	MS	39520	228-467-5505		
	Spencer Garrett	3507 San Marcus Circle	Gautier	MS	39553		esgiii@aol.com	
	Spencer Garrett	3507 San Marus Circle	Gautier	MS	39553		esgill@aol.com	
	Spencer Garrett	3507 San Marcus Circle	Gautier	MS	39553		esg111@aol.com	Comment Card
4/13/06	Stuart Williamson	807 Third Street	Bay St. Louis	MS	39526	228-493-8980	williamsons@cdem.com	newspaper
4/11/06	Tom Smith	3650 Wenloock Court	Mobile	AL	36693			Corps of Engineers
4/11/06	Verdery Christopher	6912 Shore Drive	Gulfport	MS	39564	228-875-5261		
	Warren Gautier	2810 Washington	Gautier	MS	39567			Comment Card



Avenue

Will Platts P.O. Box 6271 Gulfport MS 39506 dawgjammer@aol.com
4/10/06 William Green 3504 San Marcus Gautier MS 39553 228-497-2909 sgreen@cableone.net brother





### **Round 2 Public Workshop Discussion Notes**

### Hancock County Discussion Notes

May 1, 2006

Post-presentation discussions were 1 on 1 with Corps subject matter experts. No formal, facilitated discussion took place.

### Harrison County Discussion Notes

May 2, 2006

The following session themes were captured from the Public Workshop held at Mississippi State Research and Extension offices on May 2, 2006. While many comments are attributed to those who were speaking, not all of these were captured. Readers should understand that this document is a best effort to capture discussion themes, not a complete transcription.

Is any information available on the height and width of the proposed berms? For example, will they be 3 feet high, 20 feet high or something in between?

Design studies are underway now. Specifications have yet to bee determined.

Will there be assurances 100% of the water will go into the canal, not to Gulfport?

Does the Corps expect that the proposed water diversion will be going to an existing structure?

Yes. This will be directed to canal number 2.

#### Where does this lead?

Canal 2 connects with Canal 3, which links to Bayou Fortage and on into Bay St. Louis.

Is the Corps familiar with the Long Beach Culverting plan? It was put forward, but stopped after cost/benefit analysis. Can this plan be reviewed? The Long Beach Culvert would only flow in the event of excess water.

Doug Otto: Yes. This can be reviewed.

#### Derrick Evans: Of the 3 criteria components, the one that makes the most sense is #1

- Turkey Creek is paying the price for decades of deferred maintenance
- Cleaning the canals may be all that's necessary to significantly restore flow
- · Concerns about the advisability of berms

### Derrick Evans: Is the Corps aware of what goes on outside of basins?

More emphasis needs to be placed on considering the whole picture. Some solutions may be more political than helpful. We're between a rock and a hard place at Turkey Creek. Our land is on a big sponge. Diversions in one place don't always work as expected. Sometimes the water moves in other directions.

### On the Long Beach Alternative

Tom Smith: Water is going to the canal. It does that already. More input will be solicited during our design phase.





**Derrick Evans: Please avoid isolating this measure from other Corps plans on the watershed.** Many past problems have resulted from a piecemeal approach instead of comprehensive solutions to the issues. One other concern is further downstream. It appears there are no restoration goals mentioned. I'd recommend proposing this as a watershed package. *This will have a positive effect on Long Beach.* 

Facilitator: Coastwide modeling is a portion of the comprehensive plan.

Turkey Creek will be part of this 18-month study. This will be a comprehensive view of the Gulf coast, not just 1 water body.





### Derrick Evans: There have been many flood control study problems in the past.

We believe the County asked the Corps the wrong questions in the past. The Turkey Creek watershed is such a complex problem it can't be viewed as a finite piece of land. The best idea is to approach it as a watershed. It's only 13 miles long. We believe it's possible to develop a politically-safe, fundable project in addition to the structural solution proposed. And increase restoration downstream

#### What is the status of the 4-sites levee?

Curtis: This failed to meet several criteria necessary to get on the short-term plan. The City Council was given a report of parts of the Corps study.

Howard Page: The plan is missing specifics on buying wetlands and riparian buffers. It should include more information on available dollars and quantities of targeted purchases for some of the opportunities that exist. I agree fully that more of a watershed approach is necessary.

Howard Page: Is it possible to list permit applications, and what's being proposed by watershed on the Corps website? It's very difficult and time-consuming to monitor what's happening as information is not presented logically. Ideally, it should be GIS-based. There are a finite number of watersheds. This is not a difficult request.

David Hobbie (Chief Mobile Regulatory Division): The Mobile office is installing a new database which is expected to be active by October. Some of the capabilities of this system are still being refined. We are hoping to have <u>certain</u> GIS capabilities available on it, but public availability features have not been determined. As with all database conversions, there will be compatibility issues and challenges.

The current database won't enable this. It's a nationwide system. This may be a request we can make in the future.

Coleman Long: This is a great point. Our comprehensive plan includes a review of large-scale features including wetlands and greenways. You should see this reflected in the comprehensive plan.

Howard Page: Does the plan include additional funding for increased enforcement authority? I'd recommend pushing hard to get more. We were at ground zero when the storm hit.

David Hobbie: No additional discretionary funds have been added to the Regulatory Division as a result of this planning project..

Derrick Evans: Have any of you examined a watershed or stream as small as Turkey Creek with as many ecosystem, political and environmental question marks as we have?

Doug Otto: It's very complex. We had to develop a special unsteady flow model just for this very small system. There is no question it's very complicated.

Derrick Evans: Modeling in isolation leads to conclusions that appear logical, but turn out not to be in a storm event. After Katrina, we were back to the drawing board hydrologically.

Howard Page: There is a great deal of untapped human knowledge at Turkey Creek. It's a real litany of dilemmas. Gulfport has 4 wetland-impacted activities, some that are permitted, some that are not. Gulfport just issued a cease and desist order on <a href="mailto:itself">itself</a> to discontinue unpermitted fill in certain wetlands!





Howard Page: The Corps needs to become <u>instructive</u> using Turkey Creek as a model that provides <u>workable solutions.</u>

Can the Corps tell us where the most flooding occurred and why? The direction of water flow was uncertain and unprecedented. Where did the water come from? Has the Corps analyzed where the water actually came from? We never had floods before Katrina.

Doug Otto: This was not a rainfall/runoff event. It was strictly storm surge from Bernard Bayou

Has the Corps analyzed where water was <u>not</u> allowed to go (i.e. to the south which was historically flood plain)? The crest of the ridge was to the north, which is why residents built there. Constant fill with clay and shopping centers has changed the hydrology of this area.

Colleen: The area has and will continue to see tremendous growth. The population is growing and will continue to do so. Houses are being built where none existed before. We need to let the planners do their jobs.

### Derrick Evans: I'm glad to see restoration is being considered post-Katrina.

We've lost a tremendous amount of storage capacity as a result of development. Even if growth is desirable (and I think it is), lives will be lost in low-lying areas in future storms without this storage capacity.

Doug Otto Area residents have about a 140-year collective memory. Katrina blew away everything that was previously known by 8 feet.

Howard Page: The economic desire to maximize profit leads to many decisions that lead to the loss of life and property. I've heard Corps planners speak confidently about 100, 200 and 500 year storm events. In a geological context these references are really irrelevant. We are not opposed to economic activity, but there is an ethical component that prevent anyone making a profit if results in flooding someone else's home.

Derrick Evans: I'd like say I like the portion of the criteria plan that stresses dovetailing with existing State and other agency planning.

Watershed linkages are critical. There is consensus and ability to work together better than we have before.

Howard Page: Is any information available on creosote and dioxin cleanup? Can the Corps help EPA accelerate work in this area with any additional resources? What toxics authority does the Corps have in this area?

Coleman: Water quality links to aquatic ecosystems offer a potential opportunity here. Doug Otto: Projects involving salinity, saltwater intrusion and oyster bed restoration also offer some opportunities for collaboration and crossover here.

Derrick Evans: On mitigation I want to recommend being cautious and aggressive if there is net loss of wetlands. It does no good to mitigate in another county if losses are occurring in a local watershed. This is just common sense.

David: In certain cases decisions have been made this way because 2, or even 3 for 1 mitigation was possible in other areas.

Derrick Evans: I'm familiar with this. We want to recommend elevating this as a priority.

Facilitator: We're adding this to the report.





### When is the next public meeting scheduled?

We don't know yet. There are 3 hard weeks of report generation and inter-agency review taking place. The first projects are due to the ASA on 5/19 and to Congress on 6/30.

Howard Page: The plan needs more focus on riparian buffers, mitigation banks and conservation easements. The more land that can be taken off the market the better a chance we have to prevent future flooding. This has never been proposed before. Is there community support for it?

Coleman: Our mandate for the comprehensive study focuses on ecosystem restoration and repairing damage caused by the storm. System wide analysis is part of the long-term planning process.

We should be spending resources in the best possible way.

Derrick Evans: \$600,000 is available to Gulfport to acquire wetlands. They are buying now. SEAC exists for lessening adverse coastal impacts. The Corps should acquire lands to get them off the development table and allow them to remain effective at surge protection for future storm events.

Coleman: We have opportunities to restore damaged areas. Jackson Marsh is a prime example. FEMA buyout areas are another.

Derrick Evans: Brickyard Bayou should be added to the list of potential land buyouts. There are several other previously-privately owned parcels that should be considered. Long Beach has the most experience in localities on the coast in this area.

Howard Page: The discussions of the last 5 minutes have been very helpful. We don't disagree on as much as I thought we did.

Derrick Evans: Opportunities for recreational opportunities and public access should be considered when wetlands are being restored.

Curtis. We agree and this is possible under the Section 205 study. Cost sharing details are being defined. This is worth looking into and maximizing how dollars can be leveraged.





### **Jackson County Public Meeting Discussion Notes**

May 4, 2006

I noticed you mentioned that drainage problem in Gautier and you listed several bayous that you're removing the drainage material from. I have got pictures of Bayou Perrier. If you have already got the project, why can't you get Bayou Perrier added to that project? Bayou Perrier clears most of East Gautier. In fact, when I came back from the hurricane, one day after the hurricane, the only place water was still crossing Highway 90 was in the east end of Gautier, and that's because it couldn't get out of Bayou Perrier.

I watched it with my own eyes. I didn't have a camera to take pictures, but that was the only place water could get across 90. That water should be draining out of Bayou Perrier. The culverts is also a problem, which the city needs to take care of, I guess, but the bayous have got to be fixed before the culverts can get the water to it. So I would just like to add the Graveline Bayou and Bayou Perrier. I couldn't find out who prepared it for Gautier.

Tom Smith: We worked with the city on Gautier's issues, the city manager and Department of Public Works, and also the city engineer.

### The city manager is not familiar with the overall grounds.

Tom Smith: We also had the Department of Public Works.

Ralph Hootey came back by there without walking up to my house, which is about from here to the corner of this room up here, and I didn't pay no attention. I didn't know it was him. I looked for two or three minutes and, well, there was still some more. Then I thought I saw Ralph. I walked down there. There were still cars coming. They had to have at least 20, 23 people there, Coast Guard, EPA Environmental, DMRI, the City, Ralph Hootey, all of these people, they seen that stuff.

They went up there right at the little Bayou Perrier Bridge before you get to the railroad tracks and looked at it behind Leon Wedge's house with the pictures right there that Mr. Tharp has got. You cannot float a toothpick. You can see it right there. There's no drainage. It's all filled in.

Right where I am at in the head of that -- a couple 100 yards, I mean, I had 5 foot of water and was knee deep in mud in my house. So you know where it went, right there in that little bayou by Graveline, I mean Graveline Road.

The east end of it comes down Orrell Drive. The drainage in there comes right at the head of it, just a little bit west of where that stuff is now. It can't get out because that's totally blocked.

Where is Bayou Perrier?

South of the old creosote plant. It runs in about south of the railroad track. If you go to Bayou Perrier Bridge, you take a right up around Sandlewood and take a left and it goes right to Bayou Perrier Subdivision. It drains almost all of East Jackson County. It crosses the road in three places. It crosses Graveline Road in one place. If we have a high rain, the water is there. The city goes out there and puts up a sign that says "high water" and they don't add it to the list. I don't understand.

FACILITATOR Are there other questions?





Mr. Smith, you mentioned about drainage through Moss Point going by Bayou Casotte, that has been proposed for several -- well, several times. Are you proposing to go under the Highway 90 and CSX out through Bayou Casotte that way? If so, where will the water finally end up?

Tom Smith: Right. We're going to go a few yards south of CSX where the -- where Bayou Casotte crosses right under the road, and that's kind of the southern end of our work. We're basically going to work our way back up, I think, Temple Street and Ross Drive, all that area, that entire system, kind of head north, and then start heading east and west. So we are basically looking to get into all of those drainage ways.

You're not going to get anything that will relieve that water out from the creosote area, that's where -- maybe they are going to take it out at East Moss Point.

*Tom Smith:* Now, the current project is that I think we're going -- I'm trying to remember where creosote is in regard to Bayou Casotte.

#### It's a little west of the area that you spoke of.

Tom Smith: Little west of -- so east of the -- well, at this point in time that wasn't part of -- or is not part of the drainage-way system that we're looking at, but if you can give us some more specifics to get that in the system, then we can add that to our list as well.

Todd Boatman: These were areas that were brought to our attention.

You're dealing with the corner area and it may also relieve that area some too because they are close in proximity. I would just like to re-emphasize that I believe Coleman mentioned when he first started these short-term projects that we're looking at that we hope to get the work started on them next year, but at the same time, they are looking at all of these basins along this coast for a comprehensive study because there are so many things that are tied together and these isolated problems will not solve isolated projects and will not solve all the problems in the area.

So a long-term piece that he said we should do in the next 18 months is to allow us to sit down with you and to figure out in this whole area what is needed to solve a number of your problems. So I just wanted you to be aware of that, this was not the end, that's what I wanted to re-emphasize that.

Tom Smith: Johnny makes a good point, not only is this not the end, but we're not just shoving these down the street, so to speak, these proposals. We're bringing them to you to kind of feed back to you what we heard from you on the projects and what has been reviewed and looked at as being the projects that we heard from you. We think that we can turn around quickly with a, do you think you know, how do you feel about them, are we heading in the right direction.

I just wanted to make sure I heard it, but in the description of the Beach Boulevard in Pascagoula seawall project, I believe I heard one-half of a mile in Biloxi last week and we were presented 7700 feet of one and a half miles, which I still think is a little bit short. **So has that changed in scale and we don't know about it?** 

Todd Boatman: It should not have. I will go check that.

FACILITATOR: You were not cutting things up intentionally. Like your 18 acres may be a typo in the slide. I think it was presented as 7700 feet initially, so I think that's just a typo. It says half mile. Somebody messed up on it. It was entered -- I think originally when we saw it, it was 7700 feet, is the way it reads in actuality here. We weren't cutting a third that I know of.

Other questions about any of those things or things that we have missed?

We have already followed up on Pascagoula.





FACILITATOR: You had that follow-up at our meeting last Wednesday. There were some items that had been added in other counties that actually fit the criteria. So it's not been closure things have been added.

On some projects last Wednesday the engineers said here is where the modeling is from and you have got a design there and we could add them if it's not there or we need to push to the next one. If there are things that need to be added, they will be.

Other questions about any of those projects that are there?

Thanks Everybody.





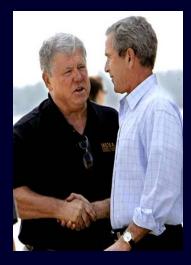


"We got a tall mountain in front of us...

We're not only going to have to rebuild, but we're going to rebuild bigger and better than before."







Recovery

Restore 10,000 acres of Restore barrier islands coastal marshes, to 1950's footprint and beaches and forests function Enhance protection from hurricanes \$7.5 Billion, 15-Year **Coastal Reconstruction** Restore and enhance spotted sea trout population Initiative Provide for freshwater diversions Provide direct relief to Restore historical and Restore and enhance fishing industry cultural resources fisheries infrastructure

### Where are we now?

- Prior to Katrina, Congress appropriated \$2.5 million to CoE through WRDA for continued restoration of Deer Island.
- In the December 2006 supplemental, Congress appropriated an additional \$12.5 million to the CoE for restoration of Deer Island and other coastal systems.
- Also in December, Congress appropriated \$199 million to USDA, some \$20 million of which is designated for oyster reef restoration in Mississippi.
- Congress has directed CoE to conduct a sixth-month study to determine what Coastal Mississippi needs to do to restore ecosystem function and mitigate against future storm damage, how that can best be done and how much it will cost.
- We continue to work with Congress to fund our Governor's Restoration Initiative.

## Mississippi Coastal Improvements Project







Proudly serving the Armed Forces and the Nation now and in the future.





Online Public Workshop
Design Comprehensive
Improvements in Coastal
Mississippi
4/18/06



## **Workshop Overview**





- Welcome Video
- Congressional Mandate Video
- Overview of Project Video
- Polling on project options
- Live chat with the Project Team
- Link to tools to gather your comments and ideas

## **Project Goals**





- The US Army Corps of Engineers was charged by Congress with designing comprehensive improvements for coastal Mississippi for:
  - Hurricane storm damage reduction
  - Prevention of saltwater intrusion
  - Preservation of fish & wildlife
  - Prevention of erosion
  - Other related water resource purposes
- This online workshop will describe the project and gather your input.

## Welcome



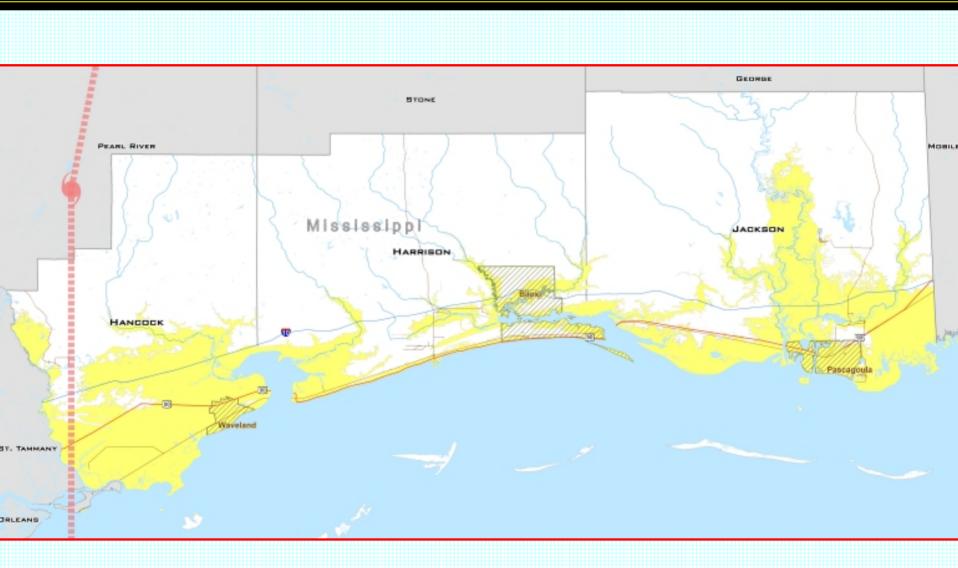


- Thanks for joining us!
- Your input is important.
- This project is the Mobile District's #1 priority.
- We are working closely with your State and local officials gathering options.
- We want <u>all your ideas.</u>
- We will keep you involved.

## **Project Area**







## Congressional Mandate





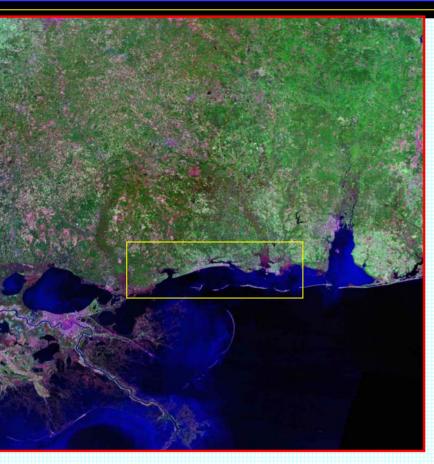
- Analyze, design, and produce recommendations for Mississippi Coastal Improvement Projects.
- The Federal government will pay for the study.
- Improvement projects need to be costeffective.

# Congressional Authority









**Coastal Mississippi** 

- Interim Report (6 month Report)
  - Jun 30, 06 Initial Report Submission to Congress
  - Recommend Near-Term Improvements
  - Analysis Framework for Comprehensive Improvements
- Final Report (24 month Report)
  - Dec 30, 07 Final Report Submission to Congress
  - Plan for Comprehensive Improvements
- Reports submitted through
  Headquarters, US Army Corps of
  Engineers to Assistant Secretary
  of the Army to Congress

## A Collaborative Effort











- Public, Agency & Regional Involvement
  - A multi-step process
  - Regional Coordination:
     Meetings with State and Local Partners
  - Multiple Public Workshops
  - Webcasts & Project Web Site

http://mscip.usace.army.mil

 Independent Technical Review and Peer Review Teams

## Major Impacted Areas





- Transportation
  - Highway 90 and Bridges at Biloxi and Bay St. Louis
- Residential Areas
  - Pass Christian
  - Waveland
  - Bay St. Louis
  - Gulfport
  - Biloxi
- Commercial and Industrial Areas
  - Casino Industry
  - Port of Gulfport
  - Pascagoula Chevron Refinery and shipbuilding facilities
- Environmental Resources
  - Deer Island
  - Barrier Islands
  - Forested Wetlands (coast wide)
  - Oyster Reefs (coast wide)

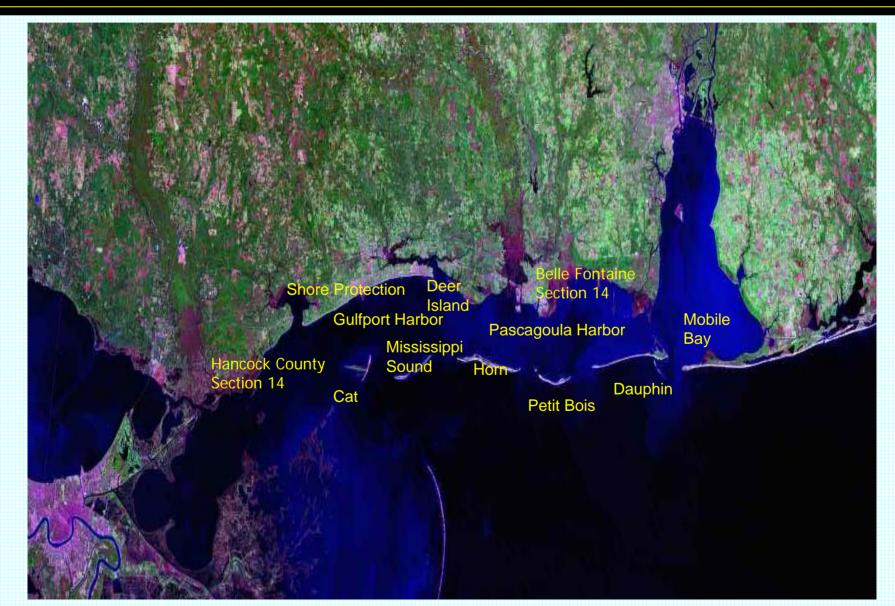
## Ongoing Recovery Actions Post Katrina







Proudly serving the Armed Forces and the Nation now and in the future.



# State's Strategy For Rebuilding





- Implementation of breakwater structures for surge protection.
- Deer Island restoration to pre-1900 footprint.
- Barrier island restoration to pre-Camille conditions.
- Restoration of 10,000 acres of coastal marshes, beaches, and forests.
- Restoration of historical water flow to coastal watersheds, including diverting freshwater from LA.
- Submerged aquatic vegetation restoration.
- Oyster reef restoration and enhancement.

## Interim Report Due June 30, 2006





### Possible near-term recommendations:

- Modification of existing protective structures
- Mainland beach and dune system restoration
- Wetland restoration & beneficial use of dredged material
- Interior flood protection
- Detailed study framework for comprehensive plan next 18 months including a communication strategy.
- Report submittal through HQ to Assistant Secretary of the Army to Congress.

## Comprehensive Improvements





- The Authorization provides for design and analysis of comprehensive improvements.
- A variety of improvements are possible.
- Their scale may be large or small.
- Different measures provide different levels of protection. Multiple measures will be required.
- Measures providing multiple benefits are preferred.

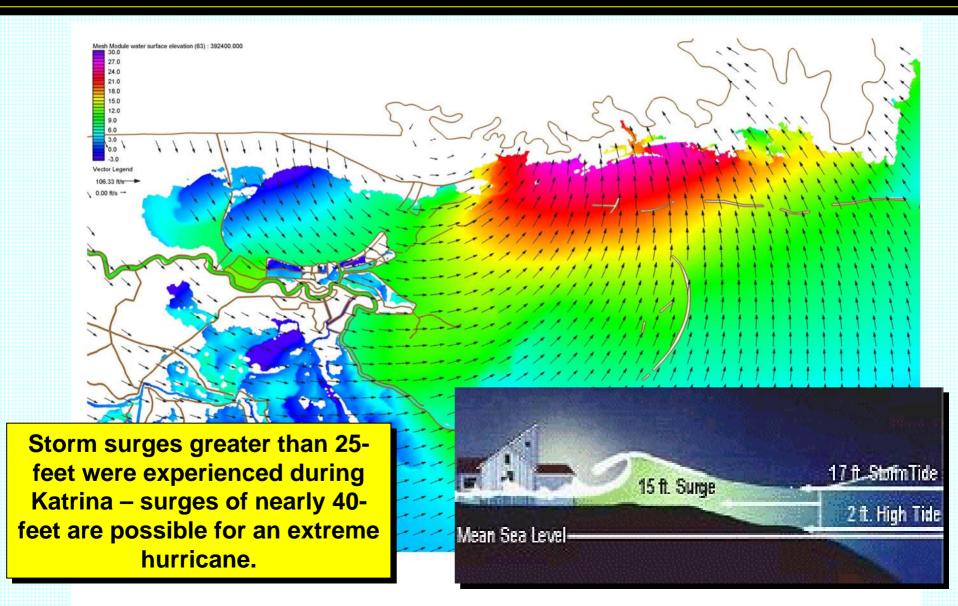
# Hurricane Storm Surge





RELEVANT READY RESPONSIVE RELIABLE

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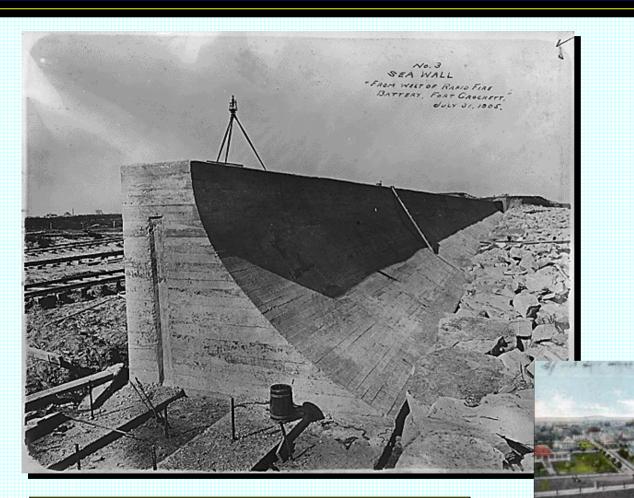
### **Sea Walls**







Proudly serving the Armed Forces and the Nation now and in the future.



High Surge Protection

Protect developed areas from storm surges

# Beach & Dune Systems









Medium
Surge
Protection

Addition of dunes provides higher levels of protection from storm surge and coastal erosion to existing beaches

### Wetlands/Marshes







Proudly serving the Armed Forces and the Nation now and in the future.



Low
Surge
Protection

Environmental benefits as well as coastal erosion protection



## **Barrier Islands**









Low-Medium
Surge
Protection

Protect main coast line from damaging waves



## **Surge Barriers**





RELEVANT
READY
RESPONSIVE
RELIABLE
Proudly serving the Armed Forces and the Nation now and in the future.

Closed during storms to prevent storm surge from entering coastal inlets and bays





High Surge Protection

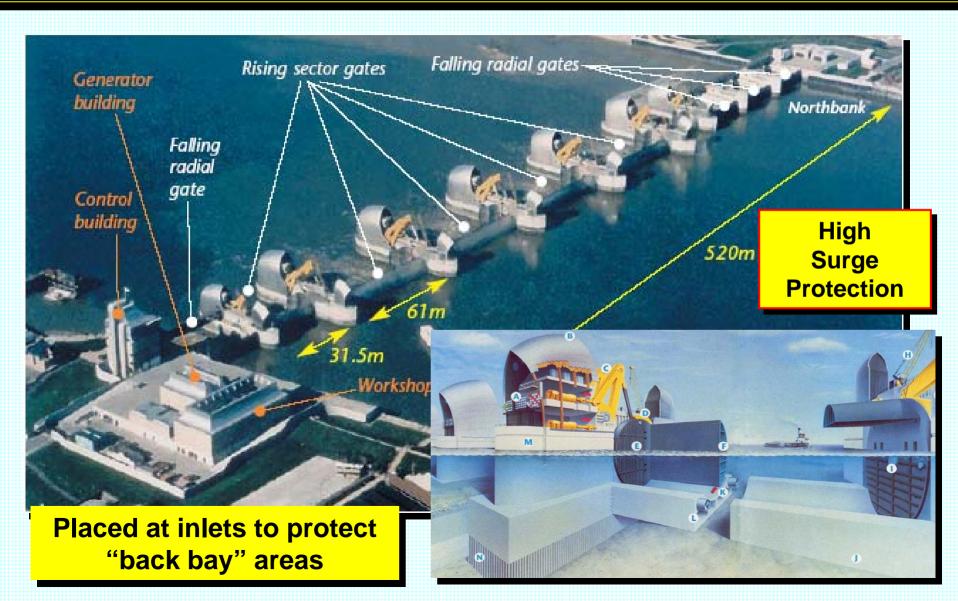
## **Surge Barriers**





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RESPONSIVE
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and the Armed Forces and





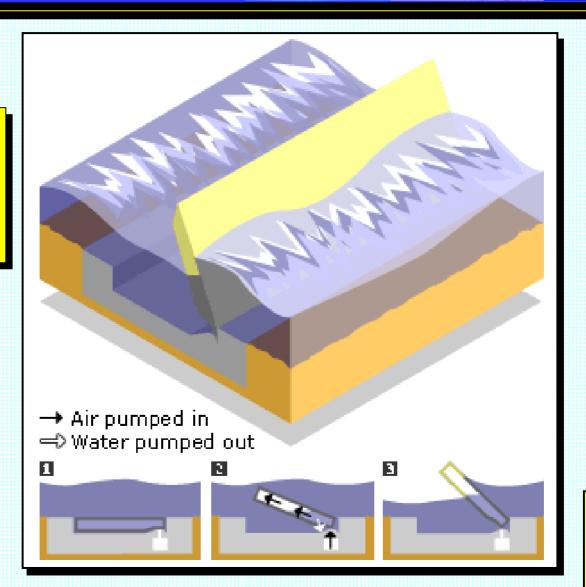
## **Water Control Gates**





RELEVANT
READY
RESPONSIVE
RELIABLE
Proudly serving the Armed Forces and the Nation now and in the future.

Closed during storms to prevent surges from flooding inland areas



High Surge Protection

### Levees









High Surge Protection

**Block storm surges from moving inland** 

### **Offshore Breakwaters**





RELEVANT
READY
RESPONSIVE
RELIABLE
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Low Surge Protection

Reduce waves and coastal erosion



## Round 1 Public Workshops





- (3) Public Input Workshops will be held across the region:
  - April 10, 11, 13
- One online session for displaced persons
  - April 18 7:00 PM CST
- Workshop goals:
  - Provide an overview of the project.
  - Capture reactions to initial options, principles & alternatives.
  - Solicit concepts and concerns.

## Round 2 Public Workshops





- Objective: Gather public comments on a refined list of options.
- Responses will be combined and presented in a final report to the Corps.

#### **1st Regional Coordination Workshop**

- Develop Project Principles
- Generate Coastal Options

#### **2nd Regional Coordination Workshop**

- Review Public Input
- Provide Preferred Options

April 7 April 24, 25 4 half-day Sessions



#### **Planning Team**

- Refine Input
- Assess Feasibility
- Develop Next Meeting



#### 1st Round Public Workshops

- React to Presented Options and Principles
- •Generate New Coastal Options

April 10, 11, 13 (Workshops) April 18 (Online)

#### **2nd Round Public Workshops**

• Gather Additional Public Comment

May 1, 2, 4 May 3 (Online)

## Public Meeting Schedule





(1) Jackson County
April 10, 6 PM
Mississippi Gulf Coast
Community College
Jackson County Campus
Fine Arts Hall
Highway 90
Gautier, MS

(2) Harrison County April 11, 6 PM 19th Street Community Center 3119 19th Street Gulfport, MS (3) Hancock County April 13, 6 PM Bay-Waveland Middle School School Cafeteria 600 Pine Street Bay S1. Louis, MS

(4) Online Meeting April 18, 7 PM





# To Comment Online and

### To Download Reports:

http://mscip.usace.army.mil

## Welcome to Public Workshop Round II





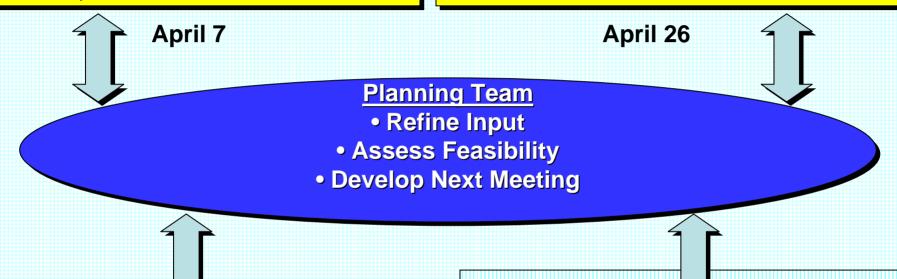
# Welcome to the Mississippi Coastal Improvements Project Public Workshop & Webcast

#### **1st Regional Coordination Meeting**

- Develop Project Principles
- Generate Coastal Options
- •Biloxi, MS

#### **2nd Regional Coordination Meeting**

- Review Public Input
- Provide Preferred Options
- •Biloxi, MS



#### 1st Round Public Workshops

- React to Presented Options and Principles
- •Generate New Coastal Options

April 10, 11, 13 (Workshops)
April 18 (Online Webcast)

#### **2nd Round Public Workshops**

• Gather Additional Public Comment

May 1, 2, 4
May 3 (Online Webcast)

#### Screening Criteria for Interim Report Recommendations





- Problem related to or caused by the hurricanes of 2005 and included in the December 2005 Authorization from Congress?
- Solution can be implemented in the near-term (Report to Congress 30 June 2006)
  - Pre-engineered
  - Easily done
  - Little to no opposition / no unresolved issues
- Action compliments the effective work of others and supports the objectives of State and/or local plans for recovery of Coastal Mississippi.





- Projects not recommended for the June 30<sup>th</sup> 2006 Report to Congress will be reviewed further for potential inclusion in the December 31<sup>st</sup> 2007 Comprehensive (Long-Term) Report.
- Further opportunity for Public and Agency review will occur during the Comprehensive Analyses.

#### MAY 1, 2, & 4 Public Workshops







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- Hancock (May 1<sup>st</sup> 6:00pm)
  - Bay/Waveland Middle School Bay St. Louis, MS
- Harrison (May 2<sup>nd</sup> 6:00pm)
  - MSU Coastal Res. and Ext. Center Biloxi, MS
- Jackson (May 4<sup>th</sup> 6:00pm)
  - Mississippi Gulf Coast CC Cafeteria, HW90 Gautier, MS







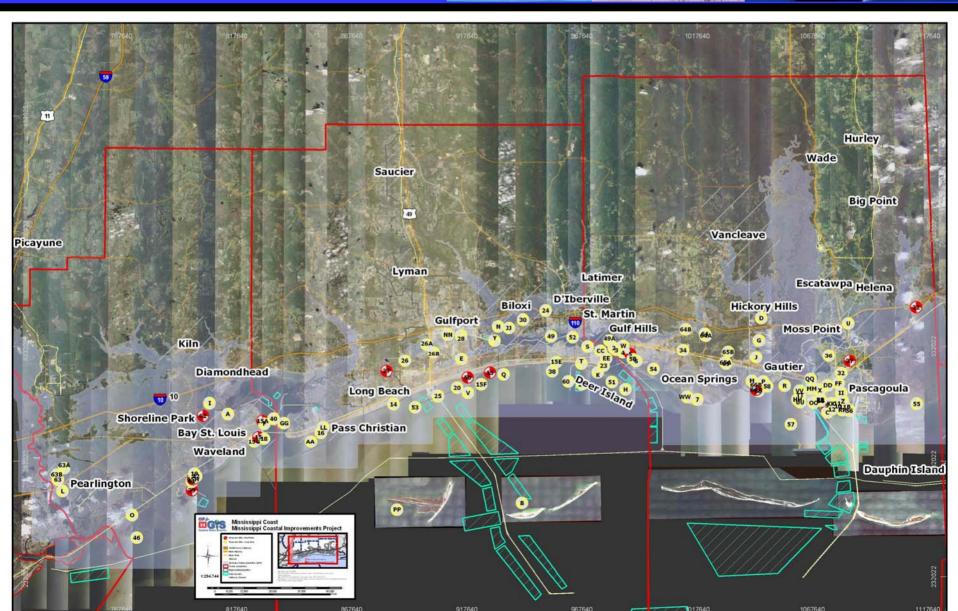
#### **180 Projects Collected**







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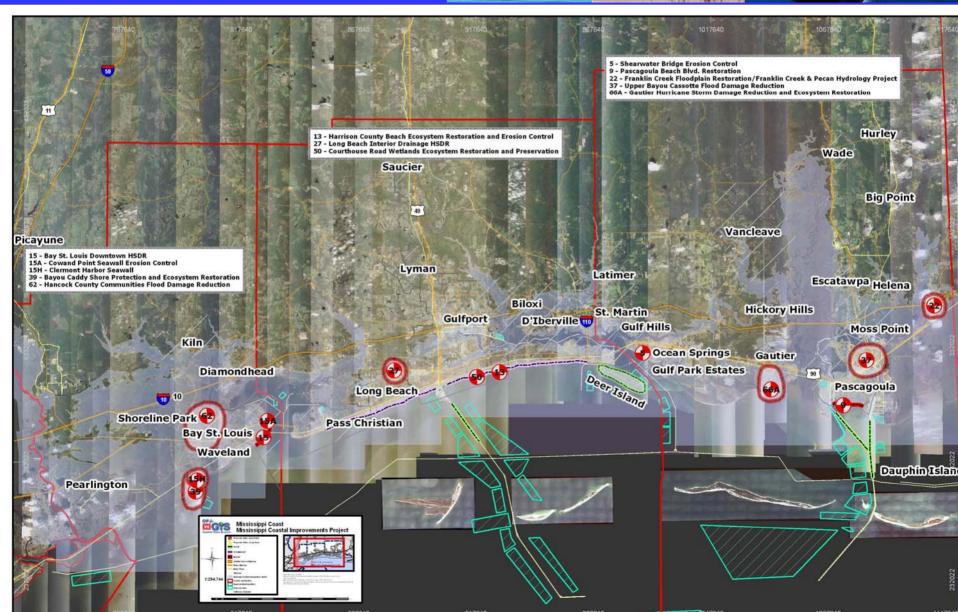
### Consensus Recommendations for Interim Project







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#### The Bayou Caddy Ecosystem Restoration plan

This involves the restoration of about 8 acres of marshlands badly damaged during the hurricane. It would beneficially use concrete bridge rubble from the Highway 90 Bridge to form a protective breakwater, and about 120,000 cubic yards of material dredged from Bayou Caddy to form an 8-acre marsh habitat.





#### **The Jackson Marsh Ecosystem Restoration Plan**

Located in southwestern Hancock county, this plan consists of the removal of sediment from, and the repair of, 12 outfalls along Beach Boulevard. These outfalls not only help drain the land from surrounding communities, but they also provide an important tidal exchange necessary for the survival of the marsh.





#### **The Hancock County Dune System Plan**

The Dune system along Beach Boulevard was once host to a thriving Least Tern population. This plan would involve restoring the dune system to its pre-Katrina condition. Dunes, approximately 2 feet in height, would be placed seaward of the seawall from Washington Street South.





## Hancock County Communities Drainage Hurricane and Storm Damage Reduction Plan

This plan proposes to restore lost capacity within local drainage ways that were impacted by sediment and debris deposited from hurricane Katrina's storm surge. An approximate depth of two feet of Sediment and debirs will be removed from drainage ways in areas near Shoreline Park, Bayou Phillip, Cowan Bayou, Heron Bay and Hancock County Marina





## The Bay St. Louis Downtown Hurricane Storm Damage Seawall Repair Plan

Downtown Bay St. Louis, prior to Hurricane Katrina, a vibrant art and entertainment center on the coast, was heavily damaged by the storm. The proposed plan is to replace an existing, low sea wall, with a higher sea wall, that when constructed will provide the foundation for this community to rebuild and grow.





## The Clermont Harbor Hurricane Storm Damage Seawall Repair Plan

Approximately 2000 feet of existing seawall located along South Beach Boulevard was damaged by Hurricane Katrina. The proposed plan to protect this nearly 80-year old project is to drive a vinyl sheetpile cut-off wall in front of, and deeper than, the existing sea wall, to prevent erosion of material from underneath and behind the wall during future storm events.





## The Cowand Point Hurricane Storm Damage Seawall Repair Plan

Approximately 3 miles of existing seawall located along North Beach Boulevard was damaged by Hurricane Katrina. The proposed plan to protect this nearly 80-year old project is to drive a vinyl sheetpile cut-off wall in front of, and deeper than, the existing sea wall, to prevent erosion of material from underneath and behind the wall during future storm events.

#### **Harrison County**





#### **Long Beach Flood Control**

The Long Beach Flood Control proposal recommends improvement of storm drainage capacity in the north Long Beach area to reduce damage due to flooding during major rain events. The plan includes enlargement of the Canal 2 culvert at 28th Street and Klondike Road and increasing the bottom width of Canal 2 from 28th street northward.

#### **Harrison County**





## The Harrison County Beach and Ecosystem Restoration Plan

Involves the restoration of approximately 26 miles of beach and dune systems destroyed by Katrina. The dune systems had played host to the largest concentration of Least Tern on the entire Mississippi coast. The Restoration would consist of placing approximately 680,000 cubic yards of dune sand, fencing, and the planting of about 125 acres of native vegetation.

#### **Harrison County**





## The Courthouse Road Drainage Channel and Ecosystem Restoration Plan

Consists of the repair of the drainage channel and restoration of the adjacent marsh. It would involve the installation of new concrete channel braces, and the restoration of the adjacent marsh by placement of fill and planting of native vegetation.





## The Shearwater Bridge Erosion Control and Hurricane Storm Damage Reduction

The approaches and abutments to the Shearwater Bridge located at the Ocean Springs small craft harbor were damaged by Hurricane Katrina. The proposed Plan is to protect the bridge approaches with a vinyl sheetpile wall to provide protection during future storms.





## Gautier Drainage Hurricane and Storm Damage Reduction Plan

This plan recommends the restoration of lost capacity within local drainage ways by removing sedimentation deposited from Hurricane Katrina's storm surge. Removal sediment and debris from the mouths of Graveline Bayou, Seacliffe Bayou and bayous at the end of Ladnier Road and Hiram Road are proposed. The effected drainage ways will gain approximately three feet of depth.





#### **The Pascagoula Shoreline Erosion Plan**

Involves the repair of about a half mile of the existing Beach Boulevard seawall and its adjoining drainage outfalls. It also involves placing about 270,000 cubic yards of sand for constructing a beach and dune system.





## Upper Bayou Casotte Drainage Hurricane and Storm Damage Reduction Plan

This plan recommends the restoration of lost capacity in the local drainage way system that flows into upper Bayou Casotte. Included in the plan are drainage ways in Moss Point at General MacArthur Drive, Rose Drive and Temple Street. Through this effort, sediment and debris deposited from Hurricane Katrina's storm surge will be removed.





## Franklin Creek Flood and Hurricane Storm Damage Reduction Plan

This plan relates to the frequently flooded community of Pecan in southeastern Jackson County. Approximately 30 occupy the area and were inundated by over four feet of water during Hurricane Katrina. This extremely low-lying area would be difficult to protect from heavy rains and hurricanes and purchase of these homes is recommended.

#### Questions





# Additional questions for the Army Corps of Engineers panelists?

#### **Thank You!**





## To comment online or download reports go to:

http://mscip.usace.army.mil

#### **Summary Notes**

- A motivated, involved citizenry participated in these meetings
- Results should not be interpreted as a valid measure of public preferences
- Results SHOULD be interpreted as qualitative input to guide decisions

#### Process Constraints

- Public skepticism about The Corp's intentions
- Lack of a reliable contact list & communication/marketing talent
- A difficult timeline from Congress
- Meeting fatigue

#### Opportunities

- Demonstrate that public input matters by showing where preferences have gone into the plan
- Fear of being Katrina being forgotten/bypassed by the next big storm
- Change the tone of discussion with traditional antagonists
- Examine/address perceptions of regulatory ambiguity/overlap
- Continuing the dialogue



# Round 1 Public Input Meeting Summary

The following results summarize responses to the keypad questions posed at round 1 public meetings.

#### Consensus was evident on:

- Linking Corps planning to the Governor's plan and other agencies
- Recycling clean concrete debris for breakwaters & oyster reefs
- Balancing natural and engineered solutions
- Projects should focus on long-range solutions
- Expectations for moderate to much more protection from future storms
- Dunes were the preferred beach restoration alternative
- Business return and homebuilding are perceived to be the biggest indicators of Katrina recovery

#### There are widely differing assumptions and perceptions on:

- Buyout of private or flood-prone lands
- A reduced footprint or restricting coastal rebuilding

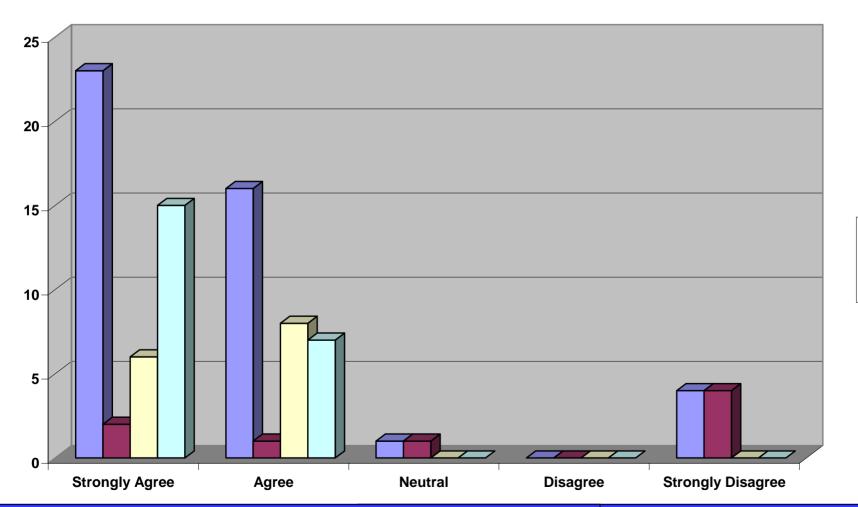


# Round 2 Public Input Meeting Summary

- There was strong consensus that continuing public input is expected in the comprehensive planning process
- There is general, but not complete consensus on:
  - Near-term criteria were understood and appropriate
  - The selected projects will be beneficial
  - Projects have been distributed fairly across Counties
  - The selected projects meet the near-term criteria
  - A balance of natural and engineered solutions has been selected
- There are differing assumptions and perceptions that the projects selected will make a difference in future flooding and tidal surge events



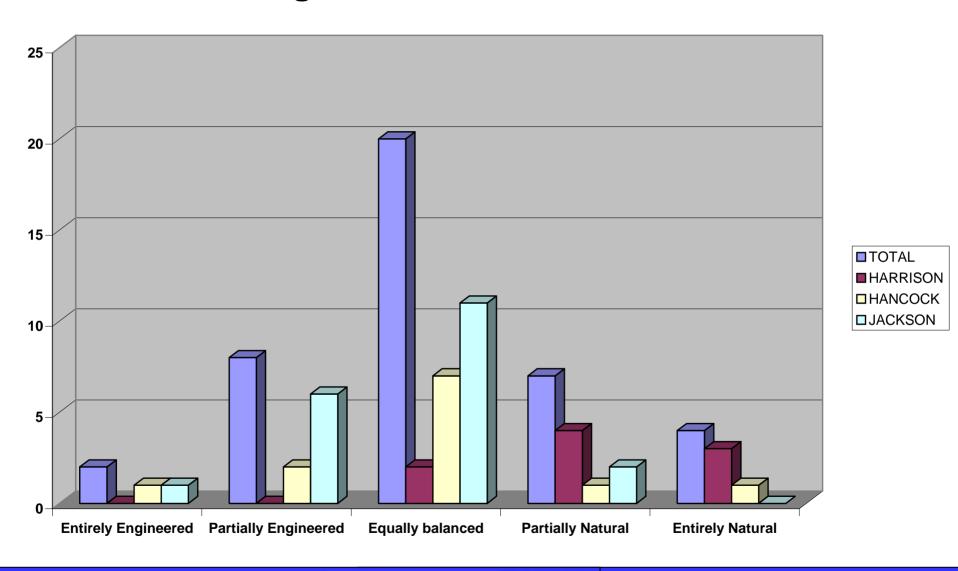
# The Governor's plan should be used by the Corps as a starting point for environmental planning efforts





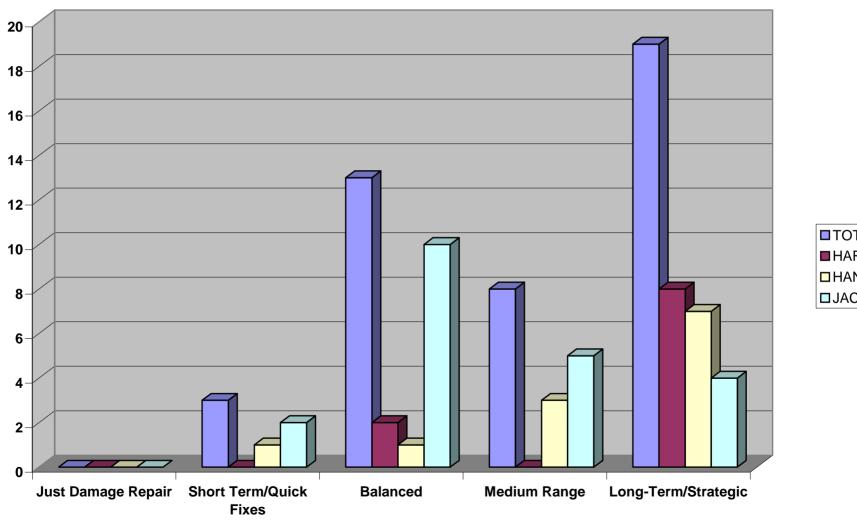


## When looking at solutions to the problems of flood, surge, etc. the solutions should be:





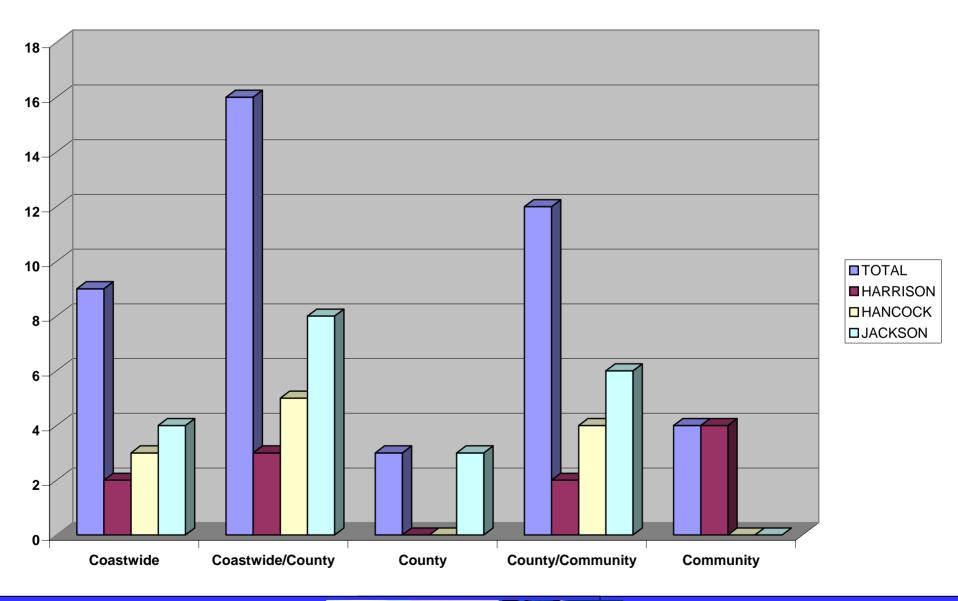
## When looking at workshop solutions, resources should be focused primarily on:





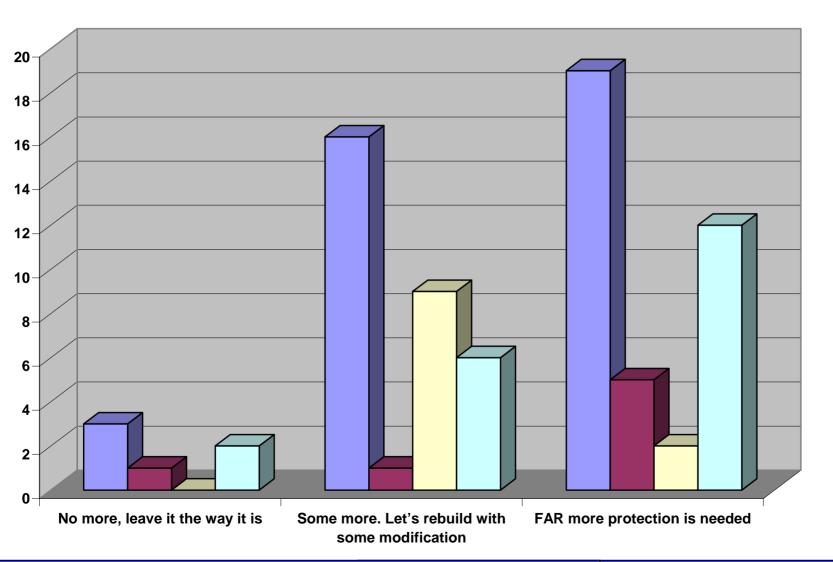


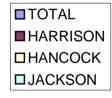
#### **Solutions Should Mainly Focus:**





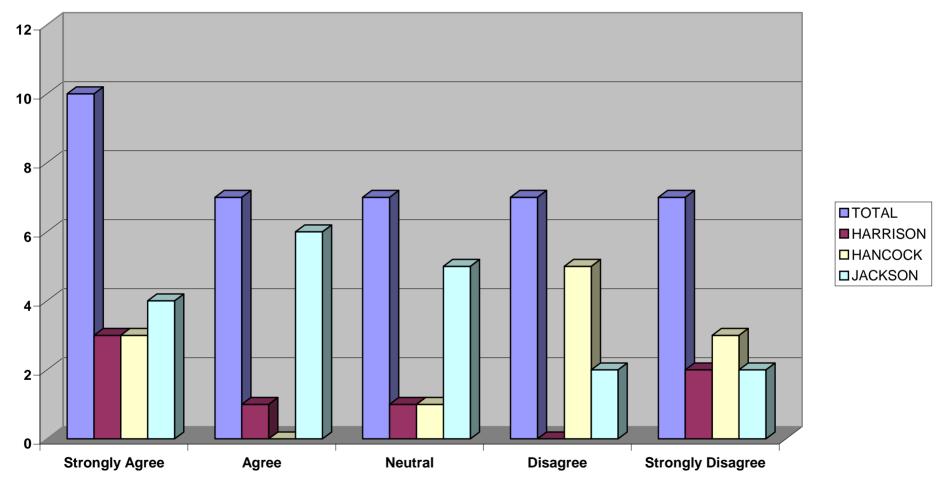
## How Much Protection is Enough to Meet Coastal Goals?





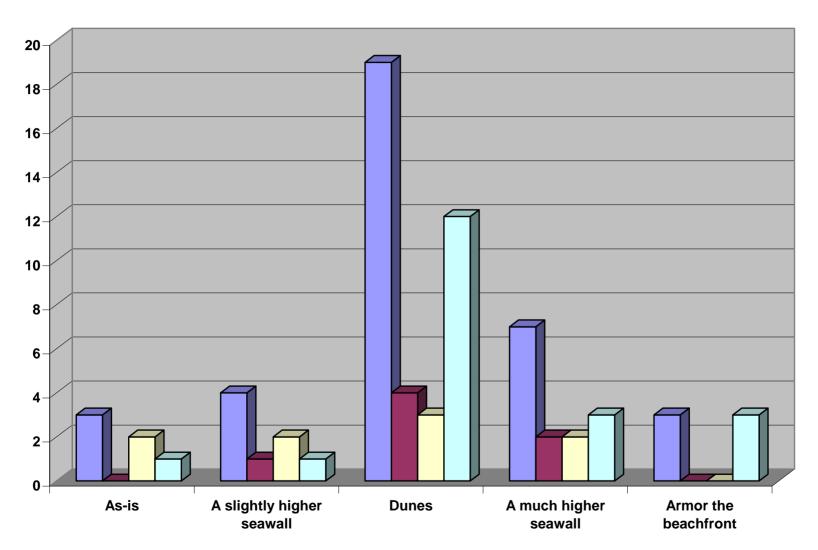


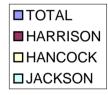
## The plan should leverage opportunities to buy up private lands that were and will continue to be impacted by these events.





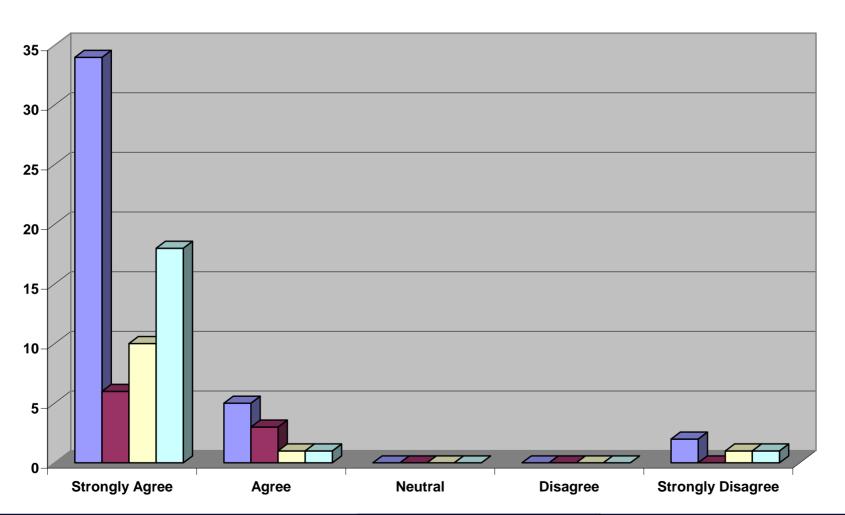
### What kind of protection should be provided at the beachfront?







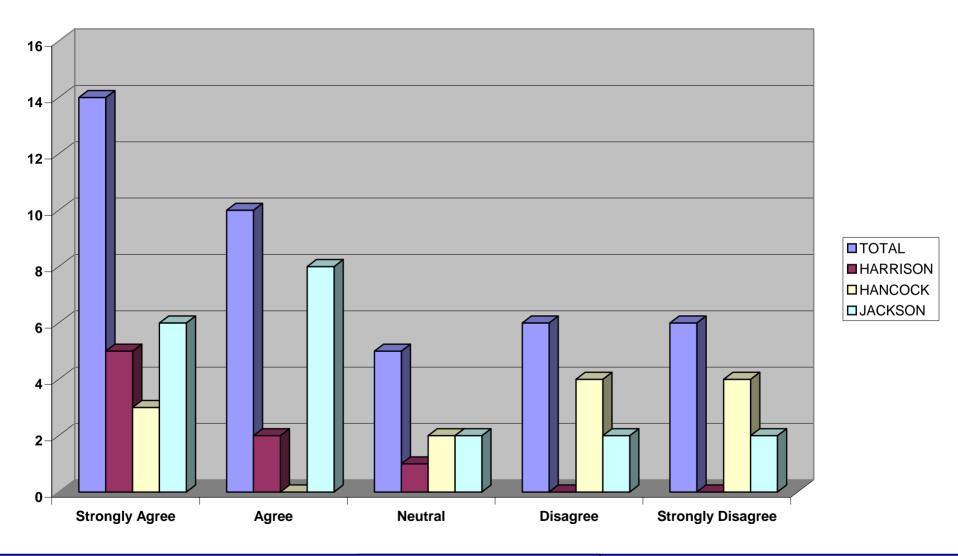
## Clean, concrete debris should be recycled where possible for oyster reefs or essential fish habitat





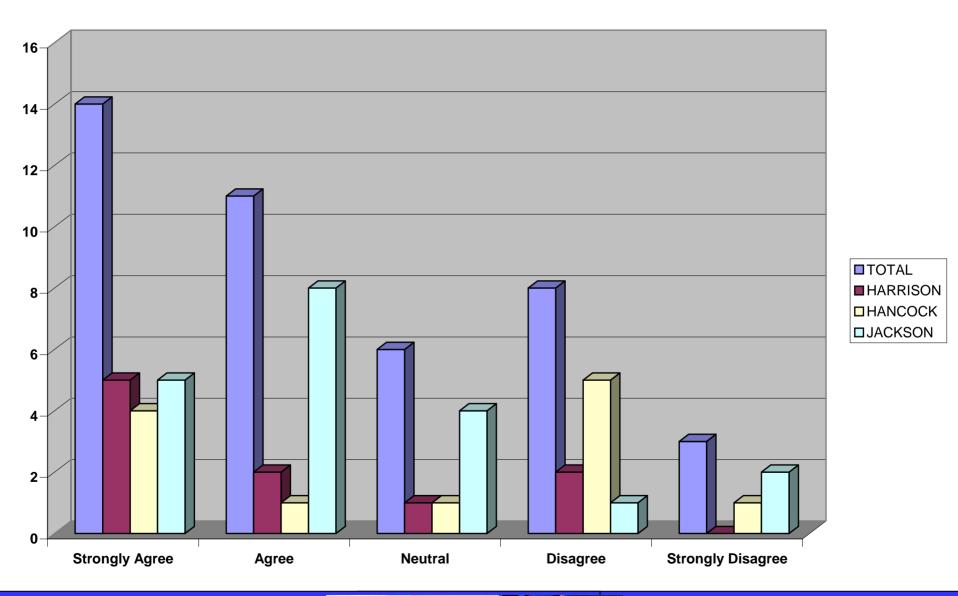


## Reduce the areas where future building will be acceptable



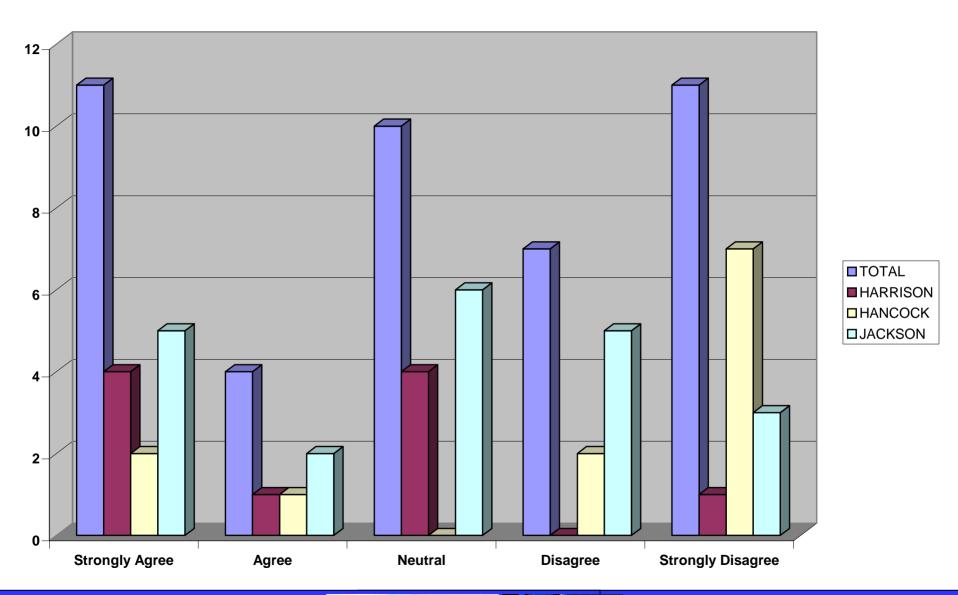


#### Buy out more of the areas that flood



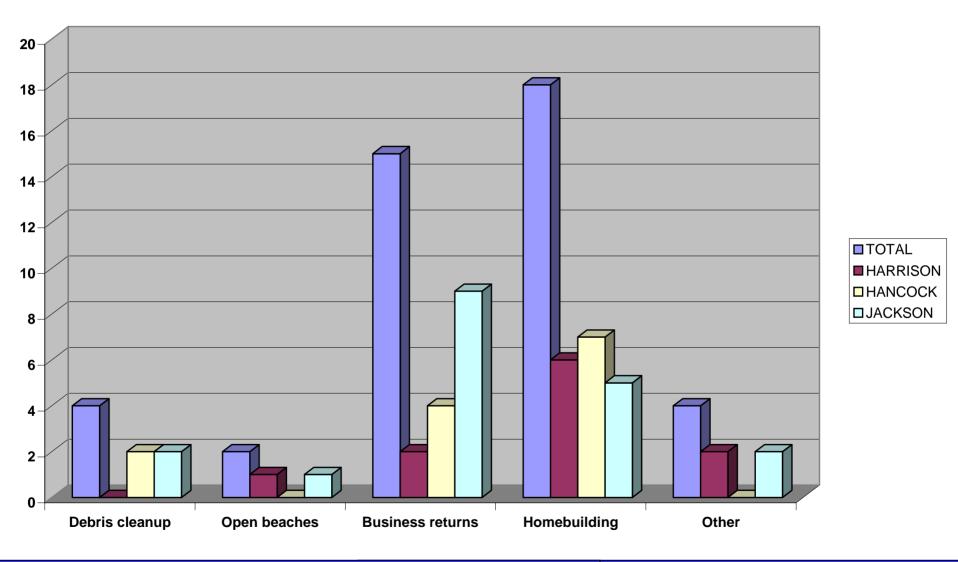


#### Severely limit rebuilding along the coast





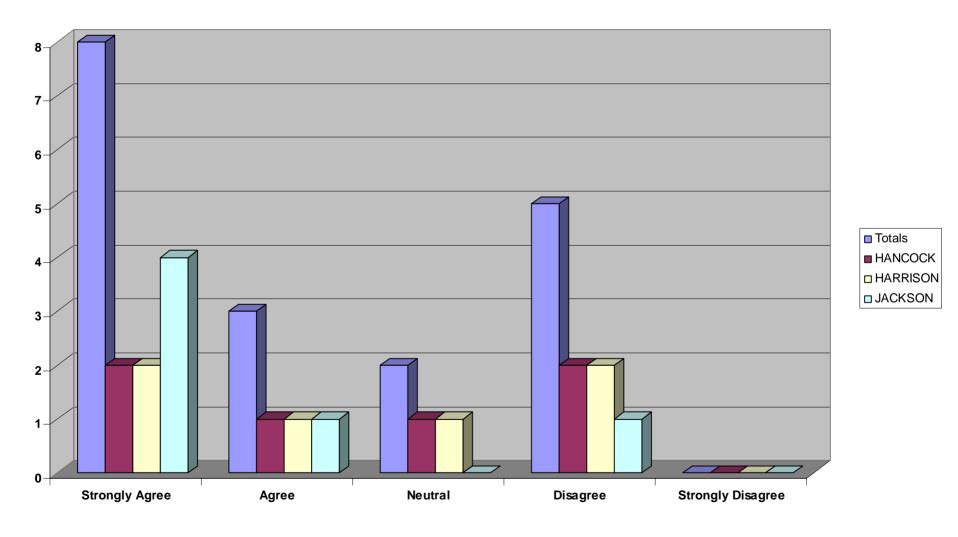
## To me, the single most significant indicator of community recovery will be...



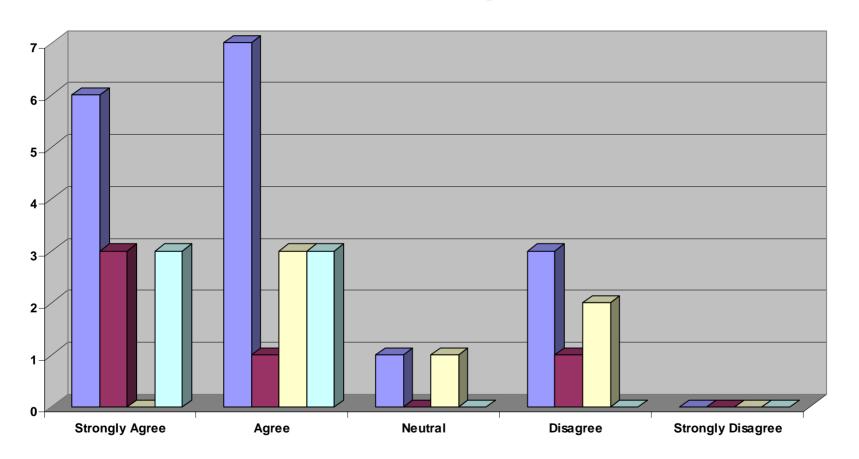


#### **Round 2 Results**

#### The Projects Selected Fit the Short-Term Criteria



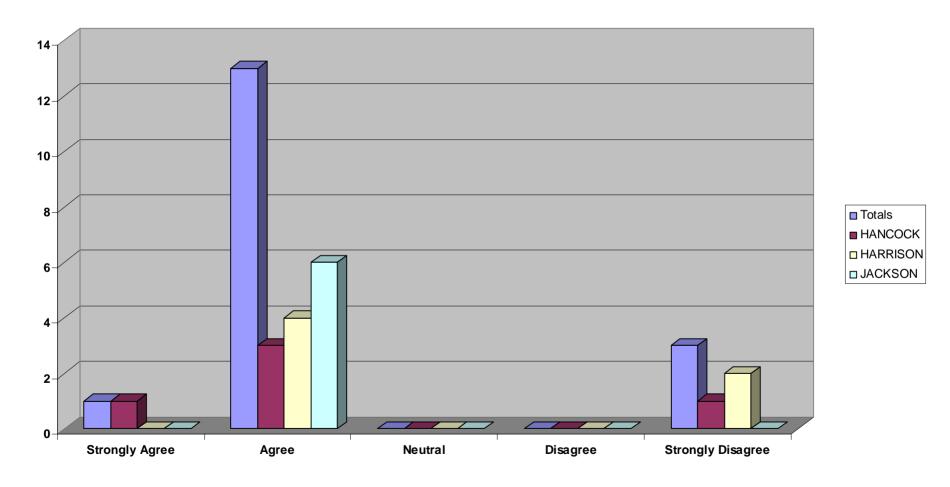
## The Projects Selected For Your County Will Make a Difference in Addressing Future Flooding and Tidal Surge





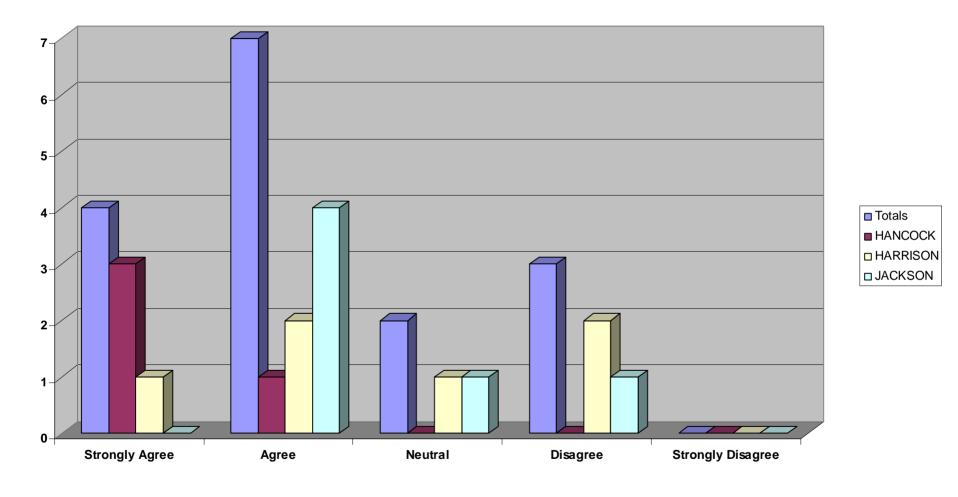


### There is a Balanced Approach Between Natural Solutions and Engineered Solutions



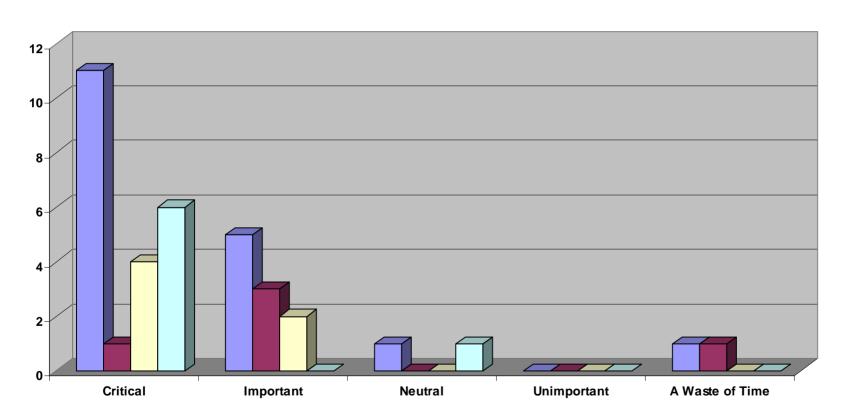


### There Appears to be Project Balance and Fair Distribution Among Coastal Counties





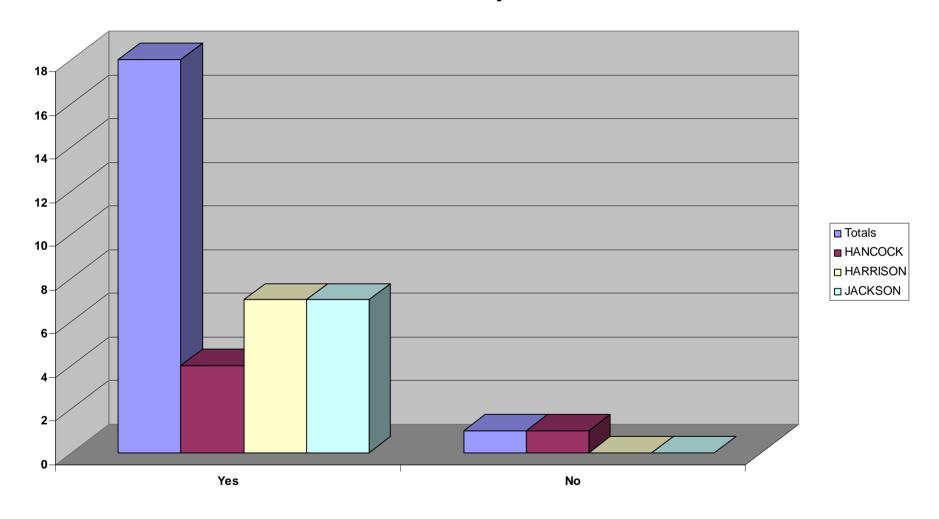
# How Important is Public Input in Selecting the Next Round of Projects That Will be Included in the Final Comprehensive Report Due to Congress December of 2007?



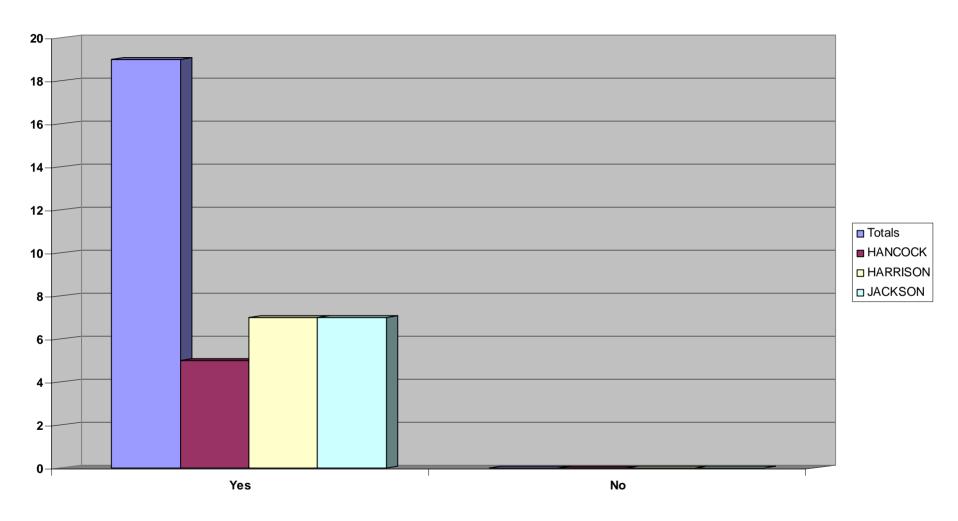




#### **Should Public Workshops Be Continued?**



#### **Should Web Casts be Included in the Future?**



#### Overall, Do You Agree With the Projects Selected?

