Discovery Report

Mississippi Coastal, 03170009

Hancock, Harrison, Jackson, Lamar, Pearl River, Stone Counties

Mississippi

Report Number 01

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FEMA

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II. General Information

i. Background and Statistics:

The Mississippi Coastal watershed is located in south Mississippi and includes portions of six Mississippi counties (Hancock, Harrison, Jackson, Lamar, Pearl River and Stone) and all or part of twelve cities (Bay St. Louis, Biloxi, D'Iberville, Gautier, Gulfport, Long Beach, Moss Point, Ocean Springs, Pascagoula, Pass Christian, Poplarville, Waveland). The watershed also includes some area in western Alabama (Mobile County). A map of the watershed is found in Figure 1.

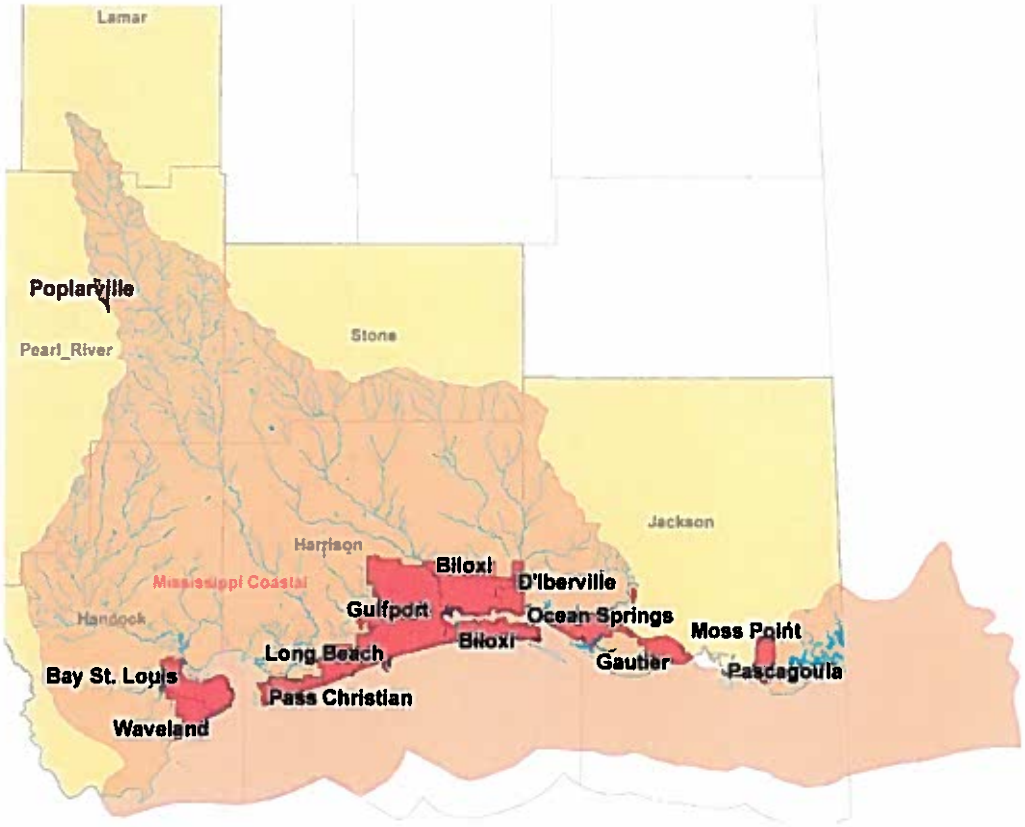

FIGURE 1: Mississippi Coastal Watershed

The watershed area is 2,439 square miles. The watershed drains into the Gulf of Mexico. Some of the major drainages include the Biloxi, Little Biloxi, Tchoutacabouffa and Wolf rivers, Old Fort Bayou, Catahoula, Hickory, and Tuxachanie creeks. The estimated 2010 population for the watershed is 322, 101 (Mississippi only). The Discovery Meeting was held on June 14, 2012 at the Lyman Community Center in Gulfport with fourteen of the nineteen communities being represented. Specific requests were only received by representatives of Harrison and Jackson counties. At this time only particular portions of the watershed are planned to be studied. It is important to note that NO studies will be performed in any area designated as being affected by coastal flooding. Thirty two stream reaches were classified as invalid in the CNMS Phase 3

assessment. A total of 31.1 miles are proposed to be studied. Streams were chosen based on community requests and areas with a high number of repetitive losses. All six counties have modernized, digital flood insurance rate maps, however there are no proposed studies that will affect Lamar or Stone counties. The FIRM status and estimated number of panels requiring update are given in Table 1.

TABLE 1: FIRM Status

County	Status	Effective Date	Estimated # of updated panels
Hancock	Effective	10/16/2009	1
Harrison	Effective	6/16/2009	9
Jackson	Effective	3/16/2009	9
Pearl River	Effective	6/3/2008	1

Community statistical data as related to the National Flood Insurance Program is provided in Table 2: Statistical Information. Most of these data were captured from Community Assistance Visits (CAV) conducted by Mississippi Emergency Management Agency staff. The CAV were completed between 2006 and 2010. The CAV reports are included as Appendix I.

TABLE 2: Statistical Information

Name of Community	CID	Area (square miles)	Pop Growth (2000)	Mitigation Plan current?	NFIP (Y/N)	Policies	Coverage	Claims	Losses
St. Louis	285251	15.7		Y	Y	2,409	$635,528,500	1,186	$141,411,490
Biloxi	285252	39.6		Y	Y	6,068	$1,484,307,200	2,242	$248,667,037
Diamondhead	280244	•	•	Y	Y	•	•	0	$0.00
D'Iberville	280336	7.4		Y	Y	412	$92,213,800	19	$1,669,476
Gautier	280332	8.2		Y	Y	1,933	$474,326,100	651	$57,874,185
Gulfport	285253	57.3		Y	Y	6,299	$1,561,941,200	2,756	$273,159,951
Hancock County	285254	415.3		Y	Y	5,000	$1,191,803,900	5,363	$372,782,136
Harrison County	285255	577.8		Y	Y	3,429	$850,666,000	3,059	$242,274,147
Jackson County	285256	194.1		Y	Y	7,087	$1,648,886,700	3,467	$284,097,926
Lamar County		12.0		Y					
Long Beach	285257	10.0		Y	Y	2,086	$517,472,200	1,409	$140,268,040
Moss Point	285258	0.8		Y	Y	1,555	$281,698,100	536	$20,572,609
Ocean Springs	285259	11.7		Y	Y	3,026	$809,917,200	787	$84,750,626
Pearl River County	280129	242.4		Y	Y	778	$156,381,900	252	$4,233,153
Pascagoula	285260	6.5		Y	Y	5,429	$1,135,592,500	2,505	$207,776,485
Pass Christian	285261	8.5		Y	Y	2,046	$507,754,300	2,432	$307,719,888
Poplarville	280365	2.4		Y	Y	0	$0.00	0	$0.00
Stone County	280300	153.3		Y	Y	55	$10,160,500	7	$55,112
veland	285262	8.7		Y	Y	1,905	$466,186,300	1,322	$172,626,160

Meetings and 44 CFR Part 66 Compliance:

No pre-Discovery meetings were held with communities. Rather, a letter signed by MDEQ and MEMA, along with Risk MAP program information, was mailed directly to primary stakeholders (Community Floodplain Administrators and County Emergency Management Agency Directors), personally inviting them to the Discovery meeting. A copy of this mailing is provided in Appendix G—Community Correspondence. Secondary stakeholders received a general memorandum with much of the same information and meeting invitation.

Part 66 compliance:

The CTP has begun and has on record its Case file and docket?	X YES	____ NO
The CTP has written record of its initial contact made to the local communities affected by this map modernization project?	X YES	____ NO
The CTP has written record of its request for additional flood study data and base information from the local communities?	X YES	____ NO

*The above certification indicates that the CTP has begun the Part 66 communication with any local communities affected by this mapping project. This data is stored and available to be supplied to FEMA on request.

NFIP Compliance:

Of the 19 communities, several were identified as having numerous property violations pertaining to venting issues and non-permitted fill or moveable structures in the SFHA. The City of Moss Point had a staggering 416 structures identified as being in violation. All communities have been acknowledged by MEMA as having rectified these issues and are now compliant. Hancock County, has a compliant ordinance, but appears to be experiencing problems with enforcement. According to Mississippi State Law, upon issuance of the Letter of Final Determination, affected communities will require a paper map product for their formal ordinance update and adoption proceedings. The Cities of Bay St. Louis, Diamondhead, Gautier, Long Beach, Ocean Springs and Pass Christian were the only communities who had either emergency management staff or a floodplain administrator attend the meeting. The CIS database was reviewed and does appear to be updated.

Risk MAP Program Measures:

Several participating communities' efforts to reduce flood risk through hazard mitigation were noted during the Discovery meeting. There was general acknowledgement among the attendees that flood risk reduction is an important goal, and there was a high level of interest in the Risk MAP program and the materials presented. Risk MAP Commitment Capture Forms have not been made available to the CTP at this time . With agreement from FEMA Region 4, Project Charters were not distributed at the Discovery Meeting, but will be distributed as the scope of work is being finalized. Only one CNMS Capture Form was returned by a community. It was completed by the Port Bienville Industrial Park (Hancock County) and is included as Appendix G—Community Correspondence. Rather than a study request, the form is requesting a flood

barrier be built to protect the 20 or so existing industries from tropical cyclone induced storm surge. There is an impression that the FIRM designation (Zone X) is incorrect, since the area flooding flooded during Hurricane Katrina, however the surge heights from that storm were much greater than 1% annual chance elevation at this location.

ii. Project Summary:

The following section provides a more detailed description of the eight communities in the Mississippi Coastal watershed and some of the flood hazard/flood risk data and information that were researched and compiled for each. The Mississippi Coastal watershed covers small portions of both Lamar and Stone counties, however they will not be represented in this section because there are no proposed studies in those areas, there is minimal population located there and no concerns were raised at the Discovery meeting.

Pearl River County

Pearl River County is located along the western portion of the Mississippi Coastal watershed. The principle river flowing through the county is the Wolf River. Poplarville is the only community in Pearl River County that falls inside the Mississippi Coastal watershed. The estimated 2010 population in the county (residing in the watershed) is 9,657. According to FEMA records, there are approximately 3 repetitive loss properties within this portion of Pearl River County. There are no previously issued letters of map change in the portion of the county that falls within the watershed.

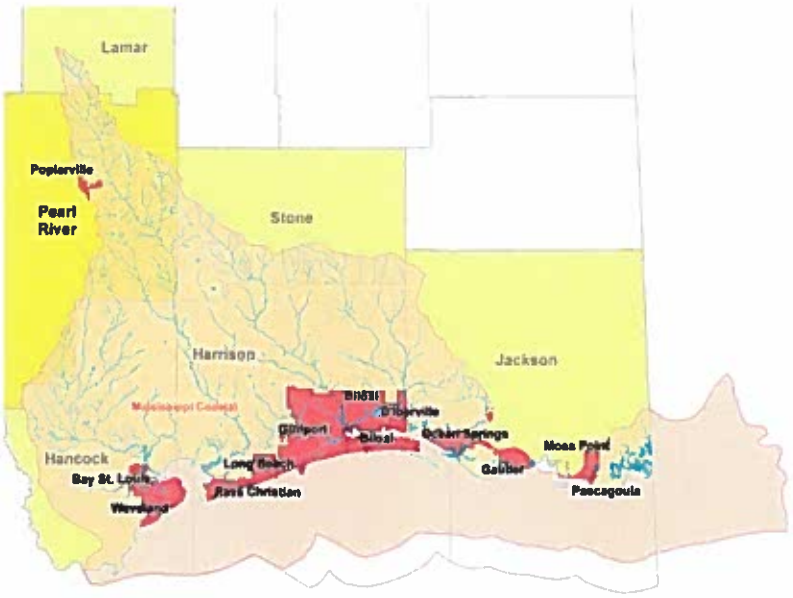

FIGURE 2: Pearl River County

The greatest flood threat to this portion of Pearl River County is periods of heavy rainfall along small streams and low lying areas.

The CNMS database revealed no invalid streams in AE zones. However, all but 2 streams in this portion of the County are in A zones and all of those were classified as having an unknown validation in the CNMS.

City of Poplarville

The City of Poplarville is cut in half by the Lower Pearl and Mississippi Coastal watersheds. The estimated 2010 population of the portion of the City in the Mississippi Coastal watershed is 1,431. Poplar Springs Branch is the only stream of note flowing through the community. There are no previously issued letters of map change or repetitive loss properties in this portion of the City.

FIGURE 3: City of Poplarville

The CNMS database revealed an A Zone of unknown validation on Poplar Springs Branch.

Hancock County

Hancock County is located in the southwestern portion of the Mississippi Coastal watershed. The principle streams/rivers flowing through the county are the Catahoula Creek, Dead Tiger Creek, Hickory Creek and Wolf River. All of the municipalities in Hancock County, and hence most of the population, are inside the Mississippi Coastal watershed. The estimated 2010 population in the county is 43,929. According to FEMA records, there are approximately 807 repetitive loss properties within this portion of Hancock County, nearly all of which are located within the coastal flooding area. There are 18 previously issued letters of map change in the area and all but 1 are in the coastal flooding area.

FIGURE 4: Hancock County

The greatest flood threat to Hancock County is from storm surge and wave action from tropical storms and hurricanes. Small streams and low lying areas are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The County is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage county-wide. Many of these have been demolished.

The CNMS database revealed 6 invalid streams in AE zones. There are several zone mismatches along the border with Pearl River County.

Potential areas of mitigation interest are flood control improvements for the Port of Bienville. Much of the industrial facilities in this area are shown outside the Special Flood Hazard Area, however flood damage did occur during Katrina due to the magnitude of the storm surge. Numerous property acquisition projects have been initiated or completed in southern Hancock County.

City of Bay St. Louis

The City of Bay St. Louis is located in southern Hancock County along the Gulf Of Mexico. The principal water bodies are the Jourdan River and St. Louis Bay as well as the Gulf Of Mexico. The 2010 estimated population was 9,260. According to FEMA records there are approximately 4 letters of map change for Bay St. Louis.

FIGURE 5: City of Bay St. Louis

The entire community is located within the coastal flooding area and therefore there is currently no CNMS assessment. After Hurricane Katrina, a new coastal study was conducted and those mapping results are reflected in the current effective FIS. No studies will be conducted during RiskMAP for Bay St. Louis due to the fact that its entire land area falls within the coastal flooding area.

Diamond Head

Diamondhead is a newly formed city and thus there is currently not any data available. The entire community is located within the coastal flooding area and therefore there is currently no CNMS assessment. After Hurricane Katrina, a new coastal study was conducted and those mapping results are reflected in the current effective FIS. No studies will be conducted during RiskMAP for Diamondhead due to the fact that its entire land area falls within the coastal flooding area.

City of Waveland

The City of Waveland is located in southern Hancock County along the Gulf Of Mexico. The principal water body is the Gulf of Mexico. The 2010 estimated population was 6,435. According to FEMA records there are approximately 2 letters of map change within the City of Waveland.

The entire community is located within the coastal flooding area and therefore there is currently no CNMS assessment. After Hurricane Katrina, a new coastal study was conducted and those mapping results are reflected in the current effective FIS. No studies will be conducted during RiskMAP for Waveland due to the fact that its entire land area falls within the coastal flooding area.

FIGURE 6: City of Waveland

Harrison County

Harrison County is located in the central portion of the Mississippi Coastal watershed. The principle streams/rivers flowing through the county are the Tuxachanie Creek and Biloxi, Little Biloxi, Tchoutacabouffa and Wolf Rivers. The entire county and its population is inside the Mississippi Coastal watershed. The estimated 2010 population in the county is 187,059. According to FEMA records, there are approximately 1,210 repetitive loss properties within Harrison County, nearly all of which are located within the coastal flooding area. One other major hotspot of repetitive loss properties lies along the Tuxachanie River just north of D'Iberville. There are 11 previously issued letters of map change in the County.

FIGURE 7: Harrison County

The greatest flood threat to Harrison County is from storm surge and wave action from tropical storms and hurricanes. Small streams and low lying areas are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The County is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage county-wide. Many of these have been demolished.

The CNMS database revealed 16 invalid streams in AE zones. There are several zone mismatches along the border with Stone County.

Potential areas of mitigation interest are in the vicinity of Bernard Bayou Tributaries 3-6. The community representatives indicated at the meeting that there are homes on Orange Grove Road that flood. The effective study was a detailed study completed using post-Katrina LiDAR, which would indicate that the study is accurate as is. Numerous property acquisition projects have been initiated or completed in southern Harrison County.

City of Biloxi

The City of Biloxi is located on the Gulf Of Mexico in eastern Harrison County. The major water bodies are Biloxi and Tchoutacabouffa rivers and the Back Bay of Biloxi. The 2010 estimated population was 44,054. According to FEMA records there are approximately 7 letters of map change in Biloxi, and all but 2 fall in the coastal flooding area.

FIGURE 8: City of Biloxi

The greatest flood threat to the City of Biloxi is from storm surge and wave action from tropical storms and hurricanes. Streams and low lying areas are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage to structures city-wide. Many of these have been demolished.

The CNMS reports Parker Creek and Biloxi River as being invalid AE zones that are not located within the coastal flooding area. According to FEMA records there are 437 repetitive loss properties in Biloxi, the vast majority of them are within the coastal flooding however. There is one notable cluster of repetitive loss properties within the floodway of the Biloxi River.

City of D'Iberville

The City of D'Iberville is located eastern Harrison County along the border with Jackson County. The principle river flowing through the City is the Tchoutacabouffa River. The estimated 2010 population of the City is 9,486. According to FEMA records, there are approximately 47 repetitive loss properties within the City of D'Iberville, nearly all of which are located within the coastal flooding area. One other major hotspot of repetitive loss properties lies within the floodway of the Tchoutacabouffa River. There are 4 previously issued letters of map change in the City.

FIGURE 9: City of D'Iberville

The greatest flood threat to the City of D'Iberville is from storm surge and wave action from tropical storms and hurricanes. Small streams and low lying areas are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

The CNMS database revealed the Tuxachanie River as being an invalid AE Zone, a portion of this invalid study lies within the City of D'Iberville.

Potential areas of mitigation interest are along the Tchoutacabouffa and Tuxachanie Rivers.

City of Gulfport

The City of Gulfport is located on the Gulf of Mexico in central Harrison County. The principle rivers flowing through the City are Bernard Bayou and the Biloxi River. The estimated 2010 population of the City is 67,623. According to FEMA records, there are approximately 458 repetitive loss properties within the City of Gulfport, nearly all of which are located within the coastal flooding area. Other major hotspots of repetitive loss properties are along Brickyard Bayou, Flat Branch, Biloxi River and 2 unnamed tributaries off Bernard Bayou. There are 20 previously issued letters of map change in the City.

The greatest flood threat to the City of Gulfport is from storm surge and wave action from tropical storms and hurricanes. Small streams and low lying areas are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

FIGURE 10: City of Gulfport

The CNMS database revealed
4 streams as having invalid AE Zones.

Potential areas of mitigation interest are along the Fritz Creek Tributary 1, 2 sections of Flat Branch and Fritz Creek all for having invalid Zone AE studies in CNMS. Also, Brickyard Bayou, Flat Branch, Biloxi River and the 2 unnamed tributaries off Bernard Bayou for having repetitive loss hotspots. The community representative has indicated that a large portion of repetitive loss properties have been bought out along Brickyard Bayou. It is recommended that the remaining properties be bought out and that the database be updated to reflect this current mitigation activity.

City of Long Beach

The City of Long Beach is located on the Gulf of Mexico between the City of Gulfport and the City of Pass Christian in central Harrison County. The principle rivers flowing through the City are Canals No. 1 and 3. The estimated 2010 population of the City is 14,792. According to FEMA records, there are approximately 140 repetitive loss properties within the City of Long Beach, nearly half of which are located within the coastal flooding area. Other major hotspots of repetitive loss

FIGURE 11: City of Long Beach

properties are along Canals No. 1 and 3. There are 7 previously issued letters of map change in the City.

The greatest flood threat to the City of Long Beach is from storm surge and wave action from tropical storms and hurricanes. The canals are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

The CNMS database revealed 1 stream as having invalid AE Zones, Canal No. 3.

Potential areas of mitigation interest are along Canals No. 1 and 3.

City of Pass Christian

The City of Pass Christian is located on the Gulf of Mexico in western Harrison County. The entire City lies within the coastal flooding area. The estimated 2010 population of the City is 4,613. According to FEMA records, there are approximately 321 repetitive loss properties within the City of Pass Christian, all of which are located within the coastal flooding area. There are 9 previously issued letters of map change in the City.

FIGURE 12: City of Pass Christian

The greatest flood threat to the City of Pass Christian is from storm surge and wave action from tropical storms and hurricanes.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

There are no potential areas of mitigation interest in the City of Pass Christian being identified during this study because the entire City lies within the coastal flooding area.

Jackson County

Jackson County is located on the eastern edge of the Mississippi Coastal watershed. The principle streams/rivers flowing through this portion of the county are the Cypress Creek and Old Fort Bayou. The estimated 2010 population of the portion of the county inside the Mississippi

Coastal watershed is 75,632. According to FEMA records, there are approximately 693 repetitive loss properties within this portion of Jackson County, nearly all of which are located within the coastal flooding area. Other major hotspots of repetitive loss properties lie along the Old Fort Bayou and Cypress Creek. There are 25 previously issued letters of map change in the County.

FIGURE 13: Jackson County

The greatest flood threat to this portion of Jackson County is from storm surge and wave action from tropical storms and hurricanes. Small streams and low lying areas are also susceptible to flooding during periods of heavy rainfall from slow moving frontal systems.

The County is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage county-wide. Many of these have been demolished.

The CNMS database revealed 2 invalid streams in AE zones, Old Fort Bayou and Cypress Creek.

Potential areas of mitigation interest are along the Old Fort Bayou and Cypress Creek where there are repetitive loss hotspots and invalid studies.

City of Gautier

The City of Gautier is located on the Gulf of Mexico in eastern Jackson County. The entire City lies within the coastal flooding area. The estimated 2010 population of the City is 7,673. According to FEMA records, there are approximately 37 repetitive loss properties within the City

FIGURE 14: City of Gautier

of Gautier, all of which are located within the coastal flooding area. There are 6 previously issued letters of map change in the City.

The greatest flood threat to the City of Gautier is from storm surge and wave action from tropical storms and hurricanes.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

There are no potential areas of mitigation interest in the City of Gautier being identified during this study because the entire City lies within the coastal flooding area.

City of Moss Point

The City of Moss Point is located in eastern Jackson County, just north of Pascagoula. The entire portion of the City within the Mississippi Coastal watershed lies within the coastal flooding area. The estimated 2010 population of the City is 1,214. According to FEMA records, there are approximately 6 repetitive loss properties within this portion of the City of Moss Point, all of which are located within the coastal flooding area. There are 0 previously issued letters of map change in this portion of the City.

FIGURE 15: City of Moss Point

The greatest flood threat to the City of Moss Point is from storm surge and wave action from tropical storms and hurricanes.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

There are no potential areas of mitigation interest in the City of Moss Point being identified during this study because the entire City lies within the coastal flooding area.

City of Ocean Springs

The City of Ocean Springs is located on the Gulf of Mexico in western Jackson County. The entire City lies within the coastal flooding area. The estimated 2010 population of the City is 17,383. According to FEMA records, there are approximately 55 repetitive loss properties within the City of Ocean Springs, all of which are located within the coastal flooding area. There are 6 previously issued letters of map change in the City.

FIGURE 16: City of Ocean Springs

The greatest flood threat to the City of Ocean Springs is from storm surge and wave action from tropical storms and hurricanes.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of those have been demolished.

There are no potential areas of mitigation interest in the City of Ocean Springs being identified during this study because the entire City lies within the coastal flooding area.

City of Pascagoula

The City of Pascagoula is located on the Gulf of Mexico in eastern Jackson County. The entire portion of the city that is inside the Mississippi Coastal watershed lies within the coastal flooding area. The estimated 2010 population of this portion of the City is 12,551. According to FEMA records, there are approximately 352 repetitive loss properties within this portion of the City of Pascagoula, all of which are located within the coastal

FIGURE 17: City of Pascagoula

flooding area. There are 3 previously issued letters of map change in the City.

The greatest flood threat to the City of Pascagoula is from storm surge and wave action from tropical storms and hurricanes.

The City is in the process of rebuilding and recovery from Hurricane Katrina, which caused substantial damage city-wide. Many of these have been demolished.

There are no potential areas of mitigation interest in the City of Pascagoula being identified during this study because the entire City lies within the coastal flooding area.

Lamar County

Lamar County is located at the very northern tip of the Mississippi Coastal watershed, and north of Pearl River County. The principle stream flowing through this portion of the county is Wolf Creek. The estimated 2010 population of this portion of the county is 120. According to FEMA records, there are no repetitive loss properties within this portion of Lamar County. There are no previously issued letters of map change in this portion of the County.

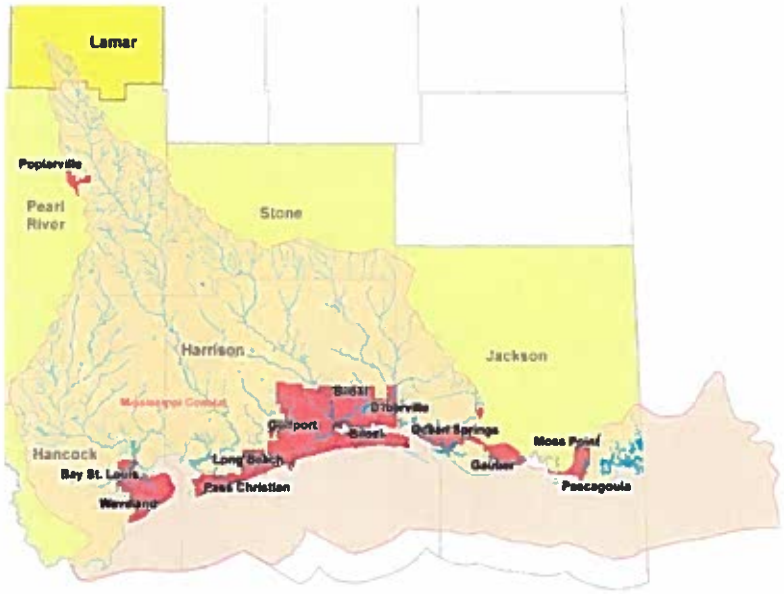

FIGURE 18: Lamar County

The greatest flood threat to this portion of Lamar County is from periods of heavy rainfall from slow moving frontal systems.

The CNMS database revealed no invalid streams in AE zones, all studies in this portion of Lamar County are A Zones.

Because there is so little population, no repetitive loss hotspots and no CNMS rated invalid studies in this portion of Lamar County, there are no potential areas of mitigation interest.

Stone County

Stone County is located north of Harrison County. The principle streams/rivers flowing through this portion of the county are the Tuxachanie Creek and the Biloxi River. The estimated 2010 population of the portion of the county inside the Mississippi Coastal watershed is 4,205. According to FEMA records, there is approximately 1 repetitive loss property within this portion of Stone County. There is 1 previously issued letter of map change in this portion of the County.

The greatest flood threat to this portion of Stone County is from periods of heavy rainfall from slow moving frontal systems.

The CNMS database revealed no invalid streams in AE zones, all studies in this portion of Stone County are A Zones.

Because there is so little population, no repetitive loss hotspots and no CNMS rated invalid studies in this portion of Stone County, there are no potential areas of mitigation interest.

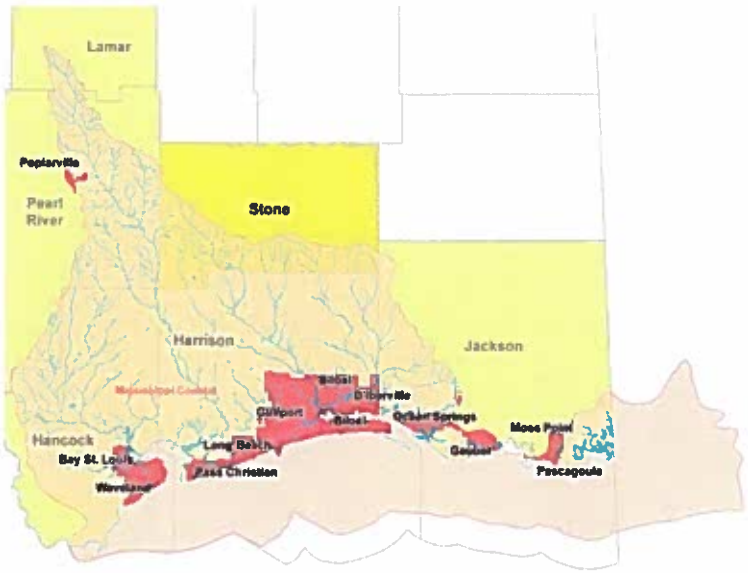

FIGURE 19: Stone County

Project Scope

The need for new or updated flood studies has been identified for a total of 18 stream reaches and a total of 31.1 stream miles in the Mississippi Coastal watershed. Most of the study mileage is composed of new study of detailed studies that were found to be invalid per the CNMS Phase 3 assessment in Hancock and Harrison Counties. Other study reaches are proposed based on community requests and/or clusters of repetitive loss properties. The proposed study reaches are listed in Table 3.

TABLE 3: Proposed Study Reaches

Stream Name	Reach Length (miles)	County (Community)	Study Type	Justification
Baymond Branch	1.3	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties
Beaverdam Branch	1.8	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties
Biloxi River Tributary 1	2.2	City of Biloxi	Approximate	VALID per CNMS Phase 3;Community representative request; indicated there is a new development located here
Boggy Branch South	0.5	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties
Cypress Creek	3.2	Jackson County	Detailed	Invalid per CNMS Phase 3; Community requested new study based on issues with new development in area

- Vertical Accuracy: RMSE per FEMA G&S App-A
- Approx. Planned Posting Spacing: smallest dist. Between points in gridded elevation dataset
- Elevation Data Model: e.g., mass point/breaklines, regular grid, etc...
- Data Collection Method: e.g., cartographic, photogrammatic, LiDAR
- Surface Mapped: usually bare earth
- Use restrictions

National Digital Orthophoto Program (NDOP) Project Tracking System
(https://hazards.fema.gov/metadata/NDOP/)

- Data Collection Status: Complete, In work, Planned, or Proposed.
- Image Resolution:
- Vertical Accuracy: in meters
- Data format
- Image Bands:
- Leaf Condition: on/off
- Grid System:
- UTM Zone:
- Horizontal Datum:
- Use restrictions

For further guidance and information about NDEP and NDOP please contact the RMC.

iii. Project Status

The project schedule is significantly delayed as compared to Table 6.1—Mapping Activities Schedule in the Mapping Activities Statement No. FY10.09. This is due to a couple of reasons. First, the MAS template was based on a traditional MapMod project schedule and did not account for the additional research and analysis that comprise the pre-Discovery phase, as opposed to a standard Scoping phase. Second, between the time the MAS was executed and the commencement of work, the State of Mississippi required some time to internally reassess its role as a Cooperating Technical Partner under Risk MAP, as the specifics of the Risk MAP program began to take shape. With a much greater emphasis on mitigation and planning elements in the overall Risk MAP vision and goals, MEMA and MDEQ needed to examine and clarify their respective roles and ensure that a firm commitment to pursuing these objectives was put forth by all partners, within the context of their own established goals, visions, and functions. An updated MIP Baseline Budget Form is included to provide a project schedule with more realistic project delivery dates, taking into account the delays previously explained.

Project Funding

No changes to project funding are known or anticipated at this time. The Mississippi Coastal watershed received $292,705 in grant funding under the FY 2010 allocation. An additional $75,000 is expected to be transferred from a specific Forrest County map revision that is no longer necessary. Deducting the funds expended for Discovery activities, an engineering and mapping budget of about $292,500 is a reasonable target for the present scope of work.

Stream Name	Reach Length (miles)	County (Community)	Study Type	Justification
Cypress Creek	1.0	Jackson County	Approximate	Community requested new study based on issues with new development in area
Flat Branch	1.6	City of Gulfport	Detailed	Invalid per CNMS Phase 3; Community reports that the stream has been channelized.
Flat Branch	0.6	City of Gulfport	Detailed	Invalid per CNMS Phase 3; Community reports that the stream has been channelized.
Hurricane Creek	1.1	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties
Old Fort Bayou	5.1	Jackson County	Detailed	Invalid per CNMS Phase 3; Community requested new study because of new developments and repetitive loss properties
Old Fort Bayou Tributary	1.1	Jackson County	Detailed	VALID per CNMN Phase 3; Community requested new study due to new development in the area
Poplar Springs Branch	2.6	City of Poplarville/Pearl River County	Approximate	Digital Conversion; Unknown validation per CNMS Phase 3; flows through community
Rattlesnake Branch	1.5	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties
Tuxachanie Creek	1.1	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties
Unnamed Stream	1.4	Hancock County	Unstudied	Gap in studies between Hancock and Pearl River Counties
Unnamed Stream	1.5	Harrison County	Unstudied	No current study, cluster of repetitive loss properties
Unnamed Stream	1.4	Harrison County	Unstudied	No current study, cluster of repetitive loss properties
West Creek	2.1	Harrison County	Unstudied	Gap in studies between Harrison and Stone Counties

In summary , 14.5 detailed and 16.6 approximate miles totaling 31.1 miles.

A compilation of study stream mileages (existing and proposed) is provided in Table 4. Under this plan of work, the total number of Zone AE stream mileage would increase by 2.9 miles and Zone A stream mileage would increase by 10.8 miles.

TABLE 4: Total Stream Mile Counts by Type of Study

	Coastal	Detailed	Limited Detailed	Approximate	Redelineation	Verified Digital Conversion
Effective Flood Insurance Study	0	303.9	102.0	580.4		
Updated Effective Studies	0	11.6	0	5.8	0	0
New Studies Identified	0	2.9	0	10.8		

Table 5 below lists the existing (effective) NVUE compliance mileage for the Mississippi Coastal watershed and the expected NVUE compliance mileage after the study is complete. As part of the Discovery process, all studied stream miles have been categorized as Verified or Unverified. All of the proposed study mileage will meet the Floodplain Boundary Standard in accordance with the Risk Classification for the study area.

TABLE 5: NVUE Compliance for Mississippi Coastal Watershed

	Zone AE			**Zone A**			**Coastal**	
	Verified	**Not Verified**	**Unknown**	**Verified**	**Not Verified**	**Unknown**	**Verified**	**Not Verified**
Effective Stream Mileage	193.3	213.6		403	177.4		0	0
Stream Mileage to Remain Unchanged by This Study	181.7	210.7		397.2	177.4		0	0
Mileage that is Updated by This Study	11.6	0		5.8	0		0	0
Mileage that is Redelineated by This Study*	0	0		0	0		0	0
Mileage That is Added by This Study (New or Leveraged)	0	2.9		10.8	0		0	0
Total Stream Mileage After Current Study	196.2	210.7		413.8	177.4		0	0

Table 6 provides an estimate of how the proposed engineering and mapping work, once completed, would contribute to some of FEMA's national metrics. All new and updated stream studies are presumed to satisfy both the Floodplain Boundary Standard (FBS) for mapping quality and the New, Verified, or Updated Engineering (NVUE) standard for engineering quality. The Area to be mapped under the various County FIS updates is estimated by computing the number of square miles based on the anticipated width of the new Special Flood Hazard Area multiplied by the length of each proposed study stream reach. The mapped population is estimated by summing the population within each community, based on the census blocks that lie mostly within the watershed boundary, then prorating and summing those populations based on ratio of total area to anticipated mapping area for each community.

TABLE 6: National Metrics

ITEM	DESCRIPTION	VALUE
Floodplain Boundary Standard –	*Estimated number of stream miles that will meet FBS for the new FIS*	Risk Class A – 5.4
		Risk Class B – 9.1
		Risk Class C – 16.8
Updated Effective Studies, New, Verified, or Updated Engineering (NVUE)	*Estimated number of miles that will meet NVUE requirements for the new FIS*	254.1
Area	*Area in square miles being mapped with new FIS*	5.0
Population	*Population being mapped with new FIS*	7604

Based on the proposed scope of work, a portion of 4 County-wide Flood Insurance Studies would require updating. The magnitude of the revision would vary. Table 7 provides a list of the FIRM panels that would likely be updated for each County as a result of this work, along with the scale of the panels that would be revised. This gives a notion of how extensive the revision would be for a particular County FIS.

TABLE 7: Proposed FIRM Panel Revisions

Countywide FIS	Panels Affected	Scale
Hancock	0110	1:12,000
Harrison	0262, 0276, 0284	1:6,000
	0065, 0070, 0090, 0095, 0255, 0260	1:12,000
Jackson	0301, 0303, 0304	1:6,000
	0260, 0280	1:12,000
	0025	1:24,000
Pearl River	0285, 0305	1:6,000
	0535	1:12,000

Anticipated partner contributions in the form of geospatial data, engineering, outreach, or other potential mapping activities are compiled in Table 8. The Table is formatted based on FEMA's

document entitled "Estimating the Value of Partner Contributions to Flood Mapping Projects 'Blue Book'" version 3.0, September 2011. The unit costs are also taken from this document. Most of the contributions are in the form of enhanced topographic data and base mapping elements.

TABLE 8: Partner Contributions

Project Element	Unit	Unit Cost	Units	Total Cost
Discovery	Community	$4,000	19	$76,000
Risk Communication & Outreach	Community	$2,500	19	$47,500
Topographic Data Development (Flat)	Square miles	$300	2,440	$732,000
Indep. QA/QC of Topo Data (Flat)	Square miles	$50	2,440	$122,000
Base Map Data 1-foot orthophoto	Square miles	$100	854	$85,400
Base Map Data road/street centerlines	Square miles	$10	854	$8,540
Base Map Data building footprints	Square miles	$247	2,440	$602,680

Partner source of topographic data is LiDAR available for Hancock, Harrison, Jackson and Pearl River counties. Value for Base Map data is limited to an estimate of the area covered by the updated FIRM panels with the exception of building footprints. Value for building footprints is calculated based on the entire watershed as it can be used in other analyses and products.

III. Watershed Stakeholder Coordination

Stakeholder coordination for the Mississippi Coastal watershed was conducted by first completing an extensive table of watershed contacts. The table includes a tab for State-wide contacts and one for Watershed-specific contacts. State-wide contacts would largely remain consistent regardless of the location of the Discovery project within Mississippi, while Watershed-specific contacts would vary. The following State and Federal agencies compose the State-wide contacts list:

State: Mississippi Department of Environmental Quality
Mississippi Emergency Management Agency
Mississippi Department of Transportation
Mississippi Insurance Commission
Mississippi Development Authority

Federal: Federal Emergency Management Agency (Region IV)
U. S. Geological Survey
Natural Resource Conservation Service
U. S. Army Corps of Engineers
National Oceanic and Atmospheric Administration
Office of U.S. Senator Cochran
Office of U.S. Senator Wicker
Office of U.S. Representative Harper
Office of U.S. Representative Palazzo

Below is a list of Watershed specific contacts:

Community Chief Executive Officers
Community Floodplain Administrators
County Emergency Management Agency Directors
County/Regional Economic Development District Directors
NRCS District Conservationists

TABLE 9. List of the Mississippi Watershed Stakeholders Contacted

Title	Name	Community/Agency
State NFIP Coordinator	Stacey Ricks	MEMA
Mitigation Office Director	Jana Henderson	MEMA
	Charles Curcio	RSC
	Bill Brown	MEMA
	Bill Patrick	MEMA
Civil Engineer, CTP Project Manager	Kristen Martinenza	FEMA / Mitigation Division
HMA Specialist	Camille Crain	FEMA / Mitigation Division
Director, Dam Safety Division	James McClellan	MDEQ Office of Land Safety
State Insurance Commissioner	Mike Chaney	Mississippi Insurance Department
	Mickey Plunkett	USGS
Director	Melinda McGrath	MDOT
State Conservationalist	Homer L. Wilkes	NRCS
Director, Basin Management	Kay Whittington	MDEQ Office of Pollution Control
	Laura Algeo, PE	DHS - FEMA Region IV
	John LeBrune	FEMA
District Director	Brad Davis (Jackson)	Senator Thad Cochran's office
Office Director	Myrtis Franke	Senator Thad Cochran's office
Office Director	Mindy Maxwell	Senator Thad Cochran's office
District Director	Ryan Annison (Jackson)	Senator Roger Wicker's office
Northern Regional Director	Drew Robertson	Senator Roger Wicker's office

Southern Regional Director	Jennifer Schmidt	Senator Roger Wicker's office
District Director	Hunter Lipscomb (Gulfport)	District 4
Emergency Manager	Brian Adams	Hancock County
FPA	Anthony Cuevas	Hancock County
CFM	Terry Snell	Hancock County
Department Director	William B. Zimmerman	Bay St. Louis
FPA	Charlene Black	Bay St. Louis
Mayor	Les Fillingame	Bay St. Louis
Mayor	Chuck Ingraham	Diamondhead
Mayor	David A. Garcia	Waveland
FPA	Brent Anderson	Waveland
Emergency Manager	Rupert Lacy	Harrison County
FPA	Theresa Hydrick	Harrison County
County Administrator	Pamela Ulrich	Harrison County
Engineer	Danny Boudreaux	Harrison County
IT/GIS Director	Chris Atherton	Harrison County
Mayor	George Scholegel	Gulfport
FPA	Gary Anderson	Gulfport
Director of Engineering	Kris Riemann	Gulfport
Senior Analyst	Mike Miller	Gulfport
FPA	Rick Stickler	Biloxi
Mayor	A. J. Holloway	Biloxi
Director of Community Development	Jerry Creel	Biloxi
Director Public Works	Richard Sullivan	Biloxi
Mayor	Russell Quave	D'Iberville
FPA	Hank Rogers	D'Iberville
Director	Mike Mullins	D'Iberville
Director	Deonne Olier	D'Iberville
Mayor	William Skellie, jr.	Long Beach
FPA	Earl Levens	Long Beach
Mayor	Leo McDermott	Pass Christian
FPA	Gene Peralta	Pass Christian
Emergency Manager	Donald Langham	Jackson County
CEO	John McKay	Jackson County
Floodplain Administrator	Michelle Coats	Jackson County
FPA	Ben Taylor	Jackson County
Director	Robert Sema	Jackson County
Mayor	Tommy Fortenberry	Gautier

FPA	Zake Duke	Gautier
Mayor	Connie Moran	Ocean Springs
FPA	Rob Blackmon	Ocean Springs
Mayor	Robbie Maxwell	Pascagoula
FPA	Steve Mitchell	Pascagoula
Mayor	Aneice Liddell	Moss Point
Emergency Manager	James Smith	Lamar County
FPA	Tara Coggins	Lamar County
Emergency Manager	Danny Manley	Pearl River County
FPA	Ed Pinero	Pearl River County
Emergency Manager	Raven James	Stone County
FPA	Randy Melton	Stone County
Executive Officer	Mike Davis	Pearl River Basin Development District

All of the information for these contacts is also listed in the Appendix of this report.

While the overall list of stakeholders is broad and inclusive, the Regional Study Team identified a "short list" of primary contacts consisting of community Floodplain Administrators and county Emergency Management Agency Directors. The Regional Study Team is comprised of Stephen Champlin of MDEQ, Stacey Ricks of MEMA, the States Contractor, MGI, Kristen Martinenza and Camille Crain of FEMA/Mitigation Division. Initial contact with these primary stakeholders was made via personal letter signed by MEMA and MDEQ with appropriate attachments, including a map of the Mississippi Coastal watershed and its member communities, a FEMA brochure giving background on the Risk MAP Program, and a Coordinated Needs Management Strategy request form. This mailing was sent approximately 5 weeks prior to the Discovery meeting.

About 1 week following this mailing (4 weeks prior to Discovery meeting), a general invitation was extended to all of the remaining stakeholders listed above in the form of a memorandum. These memos were sent via e-mail to all contacts for whom we had a verified e-mail address. For those contacts for whom we did not have e-mail, the memos where sent by regular mail. The body of the memo and supporting attachments were similar to the letter and attachments sent to primary stakeholders.

About 2 weeks prior to the meeting, an e-mail reminder was sent to all stakeholders for whom we had on file a verified e-mail address. All correspondence can be found in Appendix G—Community Correspondence.

IV. Data Analysis

This section outlines the data that has been collected in conjunction with the Discovery process to date. Some datasets are known to exist and are accessible but have not yet been acquired.

Very little, if any, new community-based data has been obtained. Post-Discovery meeting follow up yielded no new data from the communities. Most of the data is from State and Federal government sources.

TABLE 10. Data Collection for the MS Coastal Watershed

Data Types	Deliverable/Product	Source
Demographics	Excel Spreadsheets	U.S. Census Bureau
Insurance Policies	PDF Document	Community Information System (CIS)
Mitigation Plans	PDF Document	State EMA
Claims Data	PDF Document	Community Information System (CIS)
Letter of Map Change (LOMCs)	Excel Spreadsheets, Spatial Files	MSC
Repetitive Loss	Discovery Map Geodatabase	FEMA RIV
Flood Control Structures	Discovery Map Geodatabase	National Inventory of Dams (NID)
Boundaries: Community	Discovery Map Geodatabase	MARIS website/Locally provided by communities
Boundaries: County and State	Discovery Map Geodatabase	MARIS website
Boundaries: Watersheds	Discovery Map Geodatabase	U.S. Geologic Survey
Effective Floodplains: Modernized SFHAs	Discovery Map Geodatabase	FEMA's Regional Flood Hazard Layer
Future or recent highway improvement, bridge, culvert, levee locations	Discovery Map Geodatabase	Community HMA Plans and Community input and digital data
Hydrography	Discovery Map Geodatabase	U.S. Geologic Survey
Mitigation Projects: Recent, ongoing, planned, desired FEMA/OFA/local projects	Excel spreadsheets	HMA
Stream Gages	Discovery Map Geodatabase	U.S. Geologic Survey
Study Needs: FEMA	Discovery Map Geodatabase	Coordinated Needs Management System (CNMS)
Study Needs: Recent, ongoing, planned, desired FEMA/OFA/local studies	Discovery Map Geodatabase	TBD
Topographic Availability	Discovery Map Geodatabase	See Table 10
Transportation: Railroads	Discovery Map Geodatabase	MARIS website
Transportation: Roads	Discovery Map Geodatabase	MARIS website
Community Contacts	Excel Spreadsheets	Local websites, State/FEMA updates

i. Data that can be used for Flood Risk Products

This subsection describes specific data that may be used in the development and support of new Flood Risk Products for the Mississippi Coastal watershed. There exists a variety of topographic data throughout the watershed. These various types and their details are listed in Table 11 below.

TABLE 11: Topographic Data Sources

Topographic Dataset Type	Coverage Area	New/Existing OR Leveraged	Accuracy & Year Acquired	Source/ Data Vendor	Contact Information
LiDAR	Hancock, Harrison, Jackson, Stone Counties	Existing FEMA Post-Katrina LiDAR	RMSE 36.3cm Vertical Accuracy; 1.22m Horizontal Accuracy; 2006.	Public domain, Woolpert, LLC for FEMA	Steve Champlin-MDEQ, Office of Geology
LiDAR	Pearl River County	Existing USACE LiDAR	RMSE 23.5cm Vertical Accuracy; 1.22m Horizontal Accuracy; 2003.	USACE for Pearl River County	Steve Champlin-MDEQ, Office of Geology
Points and Breaklines	Hancock, Harrison, Jackson, Stone, Pearl River counties	Existing MDEM Stereo-compiled topo	DEMs from 6" pixel orthos; support 2' contours. Data captured in 2007.	Public domain, Earth Data for State of MS	Steve Champlin-MDEQ, Office of Geology

There are some areas where more than 1 topographic dataset is available for use. Presently, we intend to use LiDAR and use the 2-ft stereo-compiled points and breaklines data for accuracy checks in Pearl River County.

The Mississippi Digital Earth Model has also collected building footprints in Hancock and Pearl River counties for structures that are at least 100 ft x 100 ft in size. These were digitized from 6" pixel aerial imagery flown in 2007 and will be available for refined HAZUS analyses for these counties.

ii. Other Data and Information

In addition to the topographic data described in the previous section, other GIS data layers have been inventoried and assessed for the project, as given in Table 12. Most of the layers originate from either the Mississippi Digital Earth Model (MDEM) or the Mississippi Automated Resource Information System (MARIS). According to available data, there are no levees in the study area and all dams that are present are low hazard.

Digital parcel data has been provided for all five counties in the Mississippi Coastal Basin. Hydrographic data (waterlines/waterbodies) were produced as part of the MDEM stereo-compiled topographic data outlined in the previous section. County and municipal boundaries were updated in the fall of 2010. The National Agriculture Imagery Program (NAIP) 2012 collection is due to become available in November, 2012. Transportation data is available from MDEM's road centerline project for Hancock, Harrison, Jackson, Stone and Pearl River counties, digitized from 2007 imagery. Additional MDEM roads data may be available for incorporating into final mapping products. No extraterritorial jurisdictions are known for the study area, based on a review of the Community Status Book for Mississippi.

TABLE 12: GIS data layers available

GIS data available	Source (i.e., State, Local, Federal)	Acquisition Date	Vertical Datum	Horizontal Datum	Use Restrictions?
Cadastral Data	Local (Pearl River Co.)	2008+/-	n/a	unknown	yes
Hydrography	State	2006-2007	NAVD88	NAD83	no
Flood Hazard Information	Federal	2004-2009	NAVD88	NAD83	no
County Boundary Data	State	2010	n/a	NAD83	no
Municipal Boundary	State	2010	n/a	NAD83	no
Digital Orthophoto	Federal	2012	n/a	NAD83	no
Publicly Owned Lands Data	State	2010	n/a	NAD83	no
Transportation Data	State	2010	n/a	NAD83	no
Elevation Data	See Table 11				
ETJ Data	n/a	n/a	n/a	n/a	n/a

Based on available data, there are no dams of any significance in this watershed nor are there any levees. All information that we have received on Hazard Mitigation Plans have been included as an appendix to this report.

An MDOT bridge widening project has been discovered that could affect two streams within the watershed. However, these are not streams that have been scoped to be restudied .The two locations are along I-59, in Pearl River County, just north of Poplarville, at Beaverdam Creek and Wolf Creek.

National Digital Elevation and Digital Ortho Program Project Tracking System: After the elevation and imagery data is obtained the following project tracking systems should be updated with the following required information.

National Digital Elevation Program (NDEP) Project Tracking System (https://hazards.fema.gov/metadata/NDEP/)

- Data Collection Status: Complete, In work, Planned, or Proposed.
- Vertical Datum: should be NAVD88

Unmet Needs

As noted in the project scope description, only a portion of needs are being addressed. Several community requests were submitted at the Discovery meeting and those needs have been included in this scope of work. Table 13 contains the unmet needs that will not be addressed with this study.

TABLE 13: Unmet Needs

Stream Name	Reach Length (miles)	County (Community)	Study Type	Justification
Bayou Bacon	8.6	Hancock County	Detailed	Invalid per CNMS Phase 3
Bayou La Terre	6.7	Hancock County	Detailed	Invalid per CNMS Phase 3
Bayou LaSalle	4.1	Hancock County	Detailed	Invalid per CNMS Phase 3
Bernard Bayou	7.9	Harrison County	Detailed	Invalid per CNMS Phase 3
Bernard Bayou	1.5	City of Gulfport	Detailed	Invalid per CNMS Phase 3
Big Creek	3.9	Harrison County	Detailed	Invalid per CNMS Phase 3
Biloxi River	25.2	City of Biloxi/Harrison County	Detailed	Hotspot of repetitive loss properties in the floodway inside the City of Biloxi/Invalid per CNMS Phase 3
Blacksnake Branch	2.3	Hancock/Pearl River Counties	Approximate	Floodplain mismatch between Hancock and Pearl River Counties
Canal No. 3	3.7	City of Long Beach	Detailed	Invalid per CNMS Phase 3; Repetitive Loss hotspot
Catahoula Creek	12.7	Hancock County	Detailed	Invalid per CNMS Phase 3
Crow Creek	3.7	Harrison County	Detailed	Invalid per CNMS Phase 3
Dead Tiger Creek	2.9	Hancock/Pearl River Counties	Approximate	Floodplain mismatch between Hancock and Pearl River Counties
Fritz Creek	2.3	City of Gulfport	Detailed	Invalid per CNMS Phase 3
Fritz Creek Tributary 1	2.2	City of Gulfport	Detailed	Invalid per CNMS Phase 3
Hickory Creek	16.1	Hancock County	Detailed	Invalid per CNMS Phase 3
Hickory Creek	4.8	Harrison County	Detailed	Invalid per CNMS Phase 3
Hickory Creek	2.0	Pearl River County	Approximate	Floodplain mismatch between Hancock and Pearl River Counties
Hickory Creek Tributary 9	1.3	Pearl River County	Approximate	Floodplain mismatch between Hancock and Pearl River Counties
Hog Branch	2.4	Harrison County	Detailed	This portion invalid per CNMS Phase 3; community indicates that flood zone is inaccurate
Hog Branch	1.3	Harrison County	Detailed	Community indicates that flood zone is inaccurate, however this portion was newly studied during MAPMOD and VALID per CNMS Phase 3
Hog Branch	1.2	Harrison County	Detailed	Community indicates that flood zone is inaccurate, however this portion was newly studied during MAPMOD and VALID per CNMS Phase 3

Stream Name	Reach Length (miles)	County (Community)	Study Type	Justification
Little Biloxi River	26.7	Harrison County	Detailed	Invalid per CNMS Phase 3
Little Biloxi River	1.8	Harrison County	Approximate	Floodplain mismatch between Harrison and Stone Counties
Mill Creek	2.0	Harrison County	Detailed	Invalid per CNMS Phase 3
Orphan Creek	6.0	Hancock County	Detailed	Invalid per CNMS Phase 3
Palmer Creek	2.5	Harrison Creek	Detailed	Invalid per CNMS Phase 3
Parker Creek	2.3	City of Biloxi	Detailed	Invalid per CNMS Phase 3
Pole Branch	1.6	Harrison County	Detailed	Invalid per CNMS Phase 3
Sandy Creek	4.3	Harrison County	Detailed	Invalid per CNMS Phase 3
Saucier Creek	8.9	Harrison County	Detailed	Invalid per CNMS Phase 3
Tchoutacabouffa River	2.6	City of D'Iberville	Detailed	VALID per CNMS Phase 3; community requested restudy reporting that the floodplain is inaccurate
Turkey Creek	9.5	Harrison County	Detailed	Invalid per CNMS Phase 3
Turkey Creek	2.3	City of Gulfport	Detailed	Invalid per CNMS Phase 3
Tuxachanie Creek	7.0	Harrison County	Detailed	Invalid per CNMS Phase 3
Wolf River	4.9	Pearl River County	Approximate	Eliminate A Zone in between 2 Detailed studies
Wolf River	24.1	Harrison County	Detailed	Invalid per CNMS Phase 3

In summary 208.1 detailed and 15.2 approximate studies.

V. Discovery Meeting

The Mississippi Coastal Discovery meeting was held on June 14, 2012 at the Lyman Community Center in Gulfport. The meeting was attended in person by representatives from Mississippi Department of Environmental Quality, Mississippi Emergency Management Agency, Federal Emergency Management Agency, local government staff, and the CTP's mapping contractor. Additional FEMA staff attended the meeting by remote access. The meeting lasted from 1 PM to approximately 4:30 PM. A copy of the sign-in sheet and meeting minutes is included in Appendix H.

VI. Appendix and Tables

Appendix A: Discovery Flood Hazard Map

Appendix B: Discovery Flood Risk Map

Appendix C: Map of Effective Studied Streams (with Panel Scheme)

Appendix D: Map of Proposed Studied Streams (with Panel Scheme)

Appendix E: Community Contact List

Appendix F: Community LOMC List

Appendix G: Community Correspondence

Appendix H: Discovery Meeting Minutes and Sign-In Sheet

Appendix I: Community Assistance Visit Reports

Appendix J: Community Flood Damage Prevention Ordinances

Appendix K: Excerpts from Community Hazard Mitigation Plans

Appendix L: QA/QC Plan