

APPENDIX C

LOCAL MITIGATION PLAN REVIEW TOOL

LOCAL MITIGATION PLAN REVIEW TOOL

The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA’s evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan’s strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

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| Jurisdiction: MEMA District 9 (George, Hancock, Harrison, Jackson, Pearl River, and Stone Counties) | Title of Plan: MEMA District 9 Regional Hazard Mitigation Plan | Date of Plan: February 2017 |
| Local Point of Contact: Ryan Wiedenman | | Address: 1616 E. Millbrook Rd., Ste 160 Raleigh, NC 27609 |
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| State Reviewer: Loretta Robinson | Title: Hazard Mitigation Planner | Date: April 20, 2017 |
| | lrobinson@mema.ms.gov | |

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| FEMA Reviewer: Jessica Gibson Edwardine S. Marrone | Title: Program Analyst HM Program Analyst | Date: 06-27-17 07-21-17 |
| Date Received in FEMA Region IV | 06-27-17 | |
| Plan Not Approved | 07-21-17 | |
| Plan Approvable Pending Adoption | | |
| Plan Approved | | |

✓ Denotes FEMA Reviewer concurs with State Reviewers notations.

**SECTION 1:
REGULATION CHECKLIST**

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the Plan by Element/sub-element and to determine if each requirement has been ‘Met’ or ‘Not Met.’ The ‘Required Revisions’ summary at the bottom of each Element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is ‘Not Met.’ Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in this *Plan Review Guide* in Section 4, Regulation Checklist.

| 1. REGULATION CHECKLIST | Location in Plan (section and/or page number) | Met | Not Met |
|---|--|------------|--------------------|
| Regulation (44 CFR 201.6 Local Mitigation Plans) | | | |
| ELEMENT A. PLANNING PROCESS | | | |
| A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1)) | 1:4 & 2:5-2:14 | X | |
| A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2)) | Section 2.4-2.7 App. B; App. D pp.2:7-2:7-2:16 ✓ | X | |
| A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1)) | | | X |
| A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3)) | Table 4.3 (Pg 4:8) | X | |
| A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii)) | Section 10.4 pp. 10:10-10:11 ✓ | X | |
| A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i)) | Section 10.3 pp.10:8-10:10 ✓ | X | |

| 1. REGULATION CHECKLIST | | Location in Plan (section and/or page number) | Met | Not Met |
|---|---|---|-----|------------|
| Regulation (44 CFR 201.6 Local Mitigation Plans) | | | | |
| <u>ELEMENT A: REQUIRED REVISIONS</u> | | | | |
| A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1)) | | | | |
| The final opportunity for the public to comment on the plan to approval has not been held. The public must be given an opportunity to be involved in both the drafting stage and prior to plan approval/adoption. | | | | |
| <u>REQUIRED REVISION:</u> | | | | |
| <ul style="list-style-type: none"> Document that the public was provided an opportunity to comment on the Plan prior to the approval. <p>Local Comments: Participating jurisdictions will hold public meetings before the final plan is officially adopted by the local governing bodies once FEMA has granted conditional approval of the plan.</p> <p><i>For additional information, please see Element A, Planning Process in the Local Mitigation Plan Review Guide, October 1, 2011, Pages 15-17 and Tasks 2 & 3 of the Local Mitigation Planning Handbook, March 2013.</i></p> | | | | |
| ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT | | | | |
| B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i)) | | | | X |
| B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i)) | Section 5 pp.5:1-5:87 Jurisdiction-specific annexes (Section X.2) ✓ | | X | |
| B3. Is there a description of each identified hazard’s impact on the community as well as an overall summary of the community’s vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii)) | | | | X |
| B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii)) | | | | X |

ELEMENT B: REQUIRED REVISIONS

B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))

The plan is missing extent for several hazards. The list below is organized by hazard:

Flood: Gauge height and peak discharge are listed in table 5-33, but this does not indicate what the severity or magnitude of the hazard and does not meet the extent requirement. Peak discharge and gauge height need to be provided in context in order to determine how severe the flood is. Additionally, the highest gauge height is not necessarily the greatest flood. The depth of the gauge is frequently, but not always, from the streambed. A peak gauge reading of 50 feet may not indicate a flood if the river is generally at 48 feet and not in flood. Context can be provided by descriptions of impact at each height. This information is available at the USS stream gauge website and is located on the site for each gauge. (The website can be found at <https://waterdata.usgs.gov/nwis/rt>). Flood extent can also be met with a description of the flood damage and height in the jurisdiction or information on the flood stage. For example:

Pascagoula River at Merrill:

- 32 A portion of the railroad tracks will become flooded as the level rises to 32 feet and higher.
- 26 Flooding of residences will subside as the level drops below 25 feet.
- 25 Flooding of some residences will occur as the level rises above 25 feet.
- 24 Streets and portions of the old business section of Merrill will become flooded. At 24 feet the bridge becomes inaccessible by vehicles.
- 24 Flooding of streets and the old business section of Merrill will subside as the river level drops below 23 feet.
- 23.5 Water is under homes in Plum Bluff Estates
- 20 Water covers the main road at Plum Bluff in southern George County.
- 19 Some flooding of lowlands in the area will continue until the river level drops below 18 feet.
- 18.5 Water covers roads at Smith's Fish Camp in Southern George County.
- 18 Some roads west of the river become flooded.
- 15 Water is under homes in Cedar Creek Estates.
- 14 Roads to Cedar Creek Estates are impassable.
- 13 Water covers the roads in Cedar Creek Estates in northern Jackson County.

OR

Flood Categories (in feet)

- Major Flood Stage: 32
- Moderate Flood Stage: 25
- Flood Stage: 22
- Action Stage: 12.5

Wildfire: In table 5-33 the greatest number of acres burned and greatest number of fires per year is listed. This does not meet the requirements for extent which should be "...described in terms of the specific measurement of an occurrence ..." (Local Mitigation Plan Review Guide Pg. 19). Extent can be met by pulling out information on the most severe fires in each jurisdiction. If this information is not available, extent can be met by the data provided and a statement that information on specific occurrences is not available.

| 1. REGULATION CHECKLIST | Location in Plan (section and/or page number) | Met | Not Met |
|--|--|-----|------------|
| Regulation (44 CFR 201.6 Local Mitigation Plans) | | | |
| <u>Required Revision:</u> | | | |
| <ul style="list-style-type: none"> Provide extent for flood for all jurisdictions. | <p>Local Comments: Provided the maximum historic crest and flood categories (action stage, flood stage, moderate flood stage, and major flood stage) for each of the available USGS gages in the region in Section 5 Table 5.33 (pp. 5:77-5:78) as well as each of the county annexes.</p> | | |
| <ul style="list-style-type: none"> Provide extent for wildfire for all jurisdictions | <p>Local Comments: Included a statement indicating information on specific occurrences of wildfire and the most severe fires in each jurisdiction is not available in Section 5 Table 5.33 (p. 5:78) as well as each of the county annexes.</p> | | |
| <p><i>B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))</i></p> | | | |
| <p>The plan does not include an overall summary of the community's vulnerability for each jurisdiction. The plan does an impressive job of providing vulnerability data in a rigorous and appropriate manner. The overall summary of vulnerability identifies structures, systems, populations or other community assets and is more than a list of the total exposure of population, structures, and critical facilities in the planning area. An example of an overall summary is a list of key issues or problem statements that clearly describes the community's greatest vulnerabilities and that will be addressed in the mitigation strategy. This is often unique to each jurisdiction rather than the hazard as it takes into account the hazard, the exposure, and distinctive community attributes. For example, low lying neighborhoods and streets in Biloxi (or other coastal jurisdictions) are susceptible to coastal flooding from storm surge. Vulnerable and at risk populations including low-income, minorities, elderly, or disabled persons disproportionately live in flood prone areas. Additionally, many major employers like casinos and hotels are located in these vulnerable locations. Disruption or loss of these employers and facilities can result in significant local unemployment, economic loss, and migration from the cities. Another example is that agriculture-based jurisdictions may be more vulnerable to drought which can directly damage crop yields or depressed stock and crop prices due to low production or stock being sold because of high feed and maintenance costs. Vulnerability can depend on location, construction, or contents. For instance, this may involve a location within a floodplain, construction that is not elevated or susceptible contents like vital records. In developing the summary, describe the possible types of local damage, while also explaining the population and facilities at risk.</p> | | | |
| <u>Required Revision:</u> | | | |
| <ul style="list-style-type: none"> Provide an overall summary of each jurisdiction's vulnerabilities. | <p>Local Comments: Added a table with key problem statements summarizing each jurisdiction's vulnerabilities in Section 6 Table 6.16 (pp. 6:42-6:43) as well as each of the county annexes.</p> | | |
| <p><i>B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))</i></p> | | | |
| <p>The plan does not indicate structure type for repetitively damaged properties for the City of D'Iberville (Pg. C:13).</p> | | | |

| 1. REGULATION CHECKLIST | | Location in Plan (section and/or page number) | Met | Not Met |
|--|---|---|-----|------------|
| <p>Regulation (44 CFR 201.6 Local Mitigation Plans)</p> <p><u>Required Revision:</u></p> <ul style="list-style-type: none"> The plan must describe the types (residential, commercial, institutional, etc.) of repetitive loss properties in identified flood hazard areas for all jurisdictions. Provide this information for the City of D'Iberville. <p>Local Comments: Added the number of each building type for the repetitive loss properties in D'Iberville in Annex C Table C.9 (p. C:13).</p> <p><i>For additional information, please see Element B, Hazard Identification and Risk Assessment, in the "Local Mitigation Plan Review Guide", October 1, 2011, Pages 18-21 and Task 5 of the Local Mitigation Planning Handbook, March 2013.</i></p> | | | | |
| ELEMENT C. MITIGATION STRATEGY | | | | |
| C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3)) | Section 7; pp. 7:1-7:17 Jurisdiction-specific annexes (Section X.4) ✓ | X | | |
| C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii)) | Section 5.5.4 (Table 5.7) pp. 5:16-17 Section 7.3.4 (Table 7.2); pp. 7:9-7:10 Jurisdiction-specific annexes (Section X.2.3 and X.4.1; Table X.8 and Table X.53) ✓ | X | | |
| C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i)) | Section 8.2 pp. 8:3-8:6 Jurisdiction-specific annexes (Section X.5.1) ✓ | X | | |
| C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii)) | Section 8.3-8.4 pp. 8:4-8:6 Section 9.2; pp. 9:3-9:240 Jurisdiction-specific annexes (Section X.5.2) ✓ | X | | |

| 1. REGULATION CHECKLIST | | Location in Plan (section and/or page number) | Met | Not Met |
|---|--|--|------------|--------------------|
| Regulation (44 CFR 201.6 Local Mitigation Plans) | | | | |
| C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii)) | Section 8.1.1; p. 8:2 Section 9.2; pp 9:2-9:240 Jurisdiction-specific annexes (Section X.5.2) ✓ | X | | |
| C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii)) | Section 7.3.1 pp. 7:2 (Table 7.1); Section 10.1-10.2; pp. 10:1-10:7 Jurisdiction-specific annexes (Section X.4.1; Table X.52) ✓ | X | | |
| <u>ELEMENT C: REQUIRED REVISIONS</u> | | | | |
| ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only) | | | | |
| D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3)) | Section 6.4.3; pp. 6:12-614 Jurisdiction-specific annexes (Section X.3.3) ✓ | X | | |
| D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3)) | Section 9.2; pp. 9:2-9:240 Jurisdiction-specific annexes (Section X.5.2) ✓ | X | | |
| D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3)) | | | | X |

| 1. REGULATION CHECKLIST | Location in Plan (section and/or page number) | Met | Not Met |
|--|---|-----|------------|
| Regulation (44 CFR 201.6 Local Mitigation Plans) | | | |
| <u>ELEMENT D: REQUIRED REVISIONS</u> | | | |
| <p><i>D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))</i></p> <p>The plan does not describe if and how any priorities changed. The plan does lay out the current priorities (Table 5.35 and Table 5.36), but needs to describe any changes in priorities. If no change has occurred, this element can be met by making a statement to that effect. If specific jurisdictions have changed their priorities that can be described on a jurisdictional basis. If all of the priorities have changed due to the merging of multiple plans, this element can be met by clearly making a statement to that effect.</p> <p><u>REQUIRED REVISIONS:</u></p> <ul style="list-style-type: none"> • Include a description reflecting if and how any priorities changed. <p>Local Comments: Included a statement indicating some priorities have changed since the previous plans were adopted due to the merging of multiple local plans to form this regional plan; however, most priorities remain the same in Section 5 (p. 5.84) as well as each of the county annexes.</p> <p><i>For additional information, please see Element D, Plan Review, Evaluation, and Implementation, in the Local Mitigation Plan Review_Guide, October 1, 2011, Pages 26-27.</i></p> | | | |
| ELEMENT E. PLAN ADOPTION | | | |
| E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5)) | | | X |
| E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5)) | | | X |

| 1. REGULATION CHECKLIST | Location in Plan (section and/or page number) | Met | Not Met |
|---|---|-----|------------|
| Regulation (44 CFR 201.6 Local Mitigation Plans) | | | |
| ELEMENT E: REQUIRED REVISIONS | | | |
| E2. The District 9 Regional Hazard Mitigation Plan has not been adopted at this time. This is a draft review. | | | |
| <i>E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))</i> | | | |
| <i>E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))</i> | | | |
| The plan has not been formally adopted by the local governing body requesting approval. In addition, no supporting documentation has been submitted by each participating jurisdiction adopting the plan. The adopting resolutions will be added upon FEMA’s approval pending adoption. | | | |
| <u>REQUIRED REVISIONS:</u> | | | |
| <ul style="list-style-type: none"> If adopted after FEMA review, adoption must take place within one calendar year of receipt of FEMA’s “Approval Pending Adoption”. | | | |
| Local Comments: The plan will be formally adopted by each of the participating jurisdictions within one year of receipt of FEMA’s “Approval Pending Adoption” and adoption resolutions will be added to Appendix A. | | | |
| <ul style="list-style-type: none"> Each jurisdiction that is included in the plan must have its governing body adopt the plan prior to FEMA approval. | | | |
| Local Comments: The plan will be formally adopted by each of the participating jurisdictions within one year of receipt of FEMA’s “Approval Pending Adoption” and adoption resolutions will be added to Appendix A. | | | |
| <i>(For additional information, please see the “Local Mitigation Plan Review Guide”, Element E, Plan Adoption, dated October 1, 2011, Pages 28 - 29). Also see Task 8 of the Local Mitigation Handbook dated March 2013</i> | | | |
| ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY; NOT TO BE COMPLETED BY FEMA) | | | |
| F1. | | | |
| F2. | | | |
| <u>ELEMENT F: REQUIRED REVISIONS</u> | | | |
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SECTION 2: PLAN ASSESSMENT

INSTRUCTIONS: The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

Plan Strengths and Opportunities for Improvement is organized according to the plan Elements listed in the Regulation Checklist. Each Element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item, and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each Element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature, and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the Plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

Resources for Implementing Your Approved Plan provides a place for FEMA to offer information, data sources and general suggestions on the overall plan implementation and maintenance process. Information on other possible sources of assistance including, but not limited to, existing publications, grant funding or training opportunities, can be provided. States may add state and local resources, if available.

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

Plan Strengths:

It is a good practice to include such a diverse group of individuals in the mitigation process. Looking at the whole community allows for a stronger mitigation plan and increases the willingness of the community to engage in mitigation actions.

The meetings are well documented and provide a comprehensive record of what occurred.

Each community is different and requires a different approach. Continue to work both as a collective group that can exchange ideas and practices that are successful, but also continues to respect local autonomy. Many hazards cross jurisdictional boundaries and require cooperative efforts. It is a good practice that each community distributed survey in way that would best reach their citizens. This exemplifies the group's commitment to the whole community and respect for local autonomy.

The plan stated a plan amendment process which was clearly communicated and will allow for a smoother amendment process should the need arise.

Opportunities for Improvement:

Consider bringing in stakeholders even earlier into the planning process. This can allow for an earlier inclusion of different ideas and encourage stakeholders to take more ownership over mitigation actions.

To assist in planning the major plan update in five years, consider providing a table listing the dates and the major stages of the mitigation planning process. Additionally, listing the specific groups or individuals that were approached as stakeholders would simplify reaching out to them again.

While many hazard specific resources were used to determine which hazards to include, other plans, studies, reports, and technical information can also be incorporated into the plan and planning process to better understand available mitigation actions and new approaches to hazard mitigation.

Element B: Hazard Identification and Risk Assessment

Plan Strengths:

The hazards listed provide a comprehensive list of hazards that impact the area. Effective mitigation begins with a comprehensive understanding of risk based on vulnerabilities to threats and hazards.

The summary of insured flood losses (Table 5.7) and the summary of repetitive loss properties (Table 5.8) are very well done and provide a clear understanding of the relative exposure for each jurisdiction.

The discussion of climate change / sea level rise is well done and indicates how these hazards will intensify other hazards.

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Including infectious disease is a forward looking approach to understanding hazards. The planning committee should be commended for including this hazard and taking a comprehensive view of risk.

Opportunities for Improvement:

The prioritization risk index takes into account a wide range of concerns (such as impact and duration). This encourages an objective approach. As this approach is refined consider breaking areas like impact into jurisdiction specific areas – this allows a jurisdiction that has successfully completed a range of mitigation actions against a hazard to understand their risk has been reduced. For example, a community that has invested in safe rooms and tornado resistant building codes may have a reduced impact from the same tornado compared to a community that has yet to implement these actions or has a higher number of mobile homes (and hence will suffer higher damage). While it is a good practice to understand risk across the district – some level of jurisdictional differentiation is required. This is also true with many spatial hazards like storm surge which is unlikely to impact the inland jurisdictions as severely as the coastal.

Consider including flood depth grids as another tool for risk communication from flooding.

It is appropriate and a good practice to approach hazards differently depending upon their innate characteristics – like whether they are spatially constrained. Be cautious of getting tied up in the models and place the results into perspective. A variety of individuals will use a hazard mitigation plan for a variety of reasons. Context helps put the numerical data into perspective for those less familiar with the model's nuances and peculiarities. At the same time the data is valuable for more detailed planning and is useful for those who can interpret the model outcomes more directly.

All hazards, but particularly many of the hazards listed in section 6.2.1 can be thought of beyond their impacts to structures. Broaden the analysis to other assets such as places of cultural/historical or environmental value, locations of employment, tourism or recreation, along with populations having special needs because of physical, economic, demographic, cultural, or environmental challenges. For example: the elderly and homeless are often at higher risk from extreme heat and winter weather. Drought can strongly impact crop yield which will impact the rural communities. Consider working with each jurisdiction to understand the impacts of the hazard to the whole community. This also relates to providing overall summaries of vulnerabilities that help the plan user know what the most critical risks are.

When doing your analysis of infectious disease, consider a range of actions to reduce mosquito breeding areas, providing education to residents and visitors, and to developing strong communication plans between all stakeholders (for example: Mississippi State Department of Public Health, physicians and hospitals, local officials, and the public). Cities such as Miami, Florida may be able to provide examples of successful actions and implementation strategies. Keep in mind that many mosquito borne diseases disproportionately impact economically disadvantaged areas and all populations are at increased risk following many natural disasters.

Work with the Mississippi Department of Environmental Quality – Dam Safety Division to gather and include inundation maps for all of the high hazard dams in addition to determining the hazard status of the unclassified dams.

Element C: Mitigation Strategy

Plan Strengths:

The capability assessment provides an exemplary analysis of the capabilities of each jurisdiction. Table 7.1 and the discussion that follows clearly lay out many opportunities for what abilities each jurisdiction has.

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Many jurisdictions had considered a variety of different funding sources for mitigation actions. This allows a greater chance for receiving funding. Continue to work together and share this information to create a stronger regional approach and outcome.

In general, the mitigation actions were comprehensive. These should be shared across all of the jurisdictions to encourage spreading new ideas and merge efforts together to a greater effect. The attention paid to vulnerable populations creates a mitigation plan that works for the whole community.

The comments on the status of the mitigation actions show that MEMA District 9 understands that mitigation is a process that is never entirely finished. Actions must be continued to ensure that new development and residents are protected and that plans are revised and kept current.

The plan is clear and straight forward in how it references older actions and indicates how they will be renumbered. It focuses on grouping together like actions to allow for the plan to easily used and approached to determine the range of mitigation actions that each community is interested in.

Many of the jurisdictions already participate in the Community Rating System (CRS) Program. As these jurisdictions know, CRS can reduce the cost of flood insurance premiums while providing enhanced protection for the community at large.

Opportunities for Improvement:

The prioritization and cost/benefit approach could be much stronger. Consider developing a more robust process that allows for flexibility in the jurisdictions and encourages a wide range of inputs to make sure that the priorities are indicative of the community's needs and abilities. Document how communities have input into the design of the prioritization approach in this section.

Several jurisdictions had the same set of mitigation actions. Mitigation approaches and actions need to be tailored to the unique needs and capabilities of the specific community. The plan will be more effective as a whole if you work closely with each jurisdiction to produce mitigation actions specific to their needs as well. Work with each jurisdiction to identify a range of actions that they can implement in addition to the actions best taken in support of MEMA District 9.

Just as mitigation actions need to be continued to be useful, the larger process needs to be continued to determine if overall priorities have shifted or if the hazards have changed. Many of the jurisdictions had no actions. Despite how thorough some jurisdiction's mitigation actions were, new actions should be evaluated and added, where appropriate.

Communities that do not participate in CRS should consider joining. Work with the existing CRS communities to determine strategies for joining the program. There are a variety of actions communities can take to meet CRS goals – many may already be being done in the community. This can be a significant savings for residents and for any public buildings that are insured.

Element D: Plan Update, Evaluation, and Implementation (*Plan Updates Only*)

Plan Strengths:

Continue with the plan's analysis of changes in development and how this has increased or decreased the vulnerability of each jurisdiction. Significant development has occurred in many of the jurisdictions and should be evaluated in the context of vulnerability and impact shifts.

The plan's table for mitigation actions in section nine very clearly expresses the status of hazard mitigation actions. The table indicates the actions that have been completed.

Opportunities for Improvement:

Add additional specifics as to why implementation is delayed or slowed. Many mitigation actions note that there was a problem with implementation, but doesn't explain why. The explanation is necessary to understand how to overcome the problems.

B. Resources for Implementing Your Approved Plan

Mitigation Planning Toolkit:

This is an extensive web based tool to assist States, Local, and Tribal Communities involved in Hazard Mitigation Plan Development and Updates. The content will help guide the direction of plan development and required updates.

<http://www.fema.gov/library/viewRecord.do?id=5580>

Local Mitigation Planning Handbook:

This Handbook provides guidance to local governments on developing or updating hazard mitigation plans to meet the requirements under the Code of Federal Regulations (CFR) Title 44 – Emergency Management and Assistance §201.6.

Use the Local Plan Guide and Handbook in tandem to understand technical requirements

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=7209>

Integrating Mitigation Strategies with Local Planning:

This resource provides practical guidance on how to incorporate risk reduction strategies into existing local plans, policies, codes, and programs that guide community development or redevelopment patterns.

<http://www.fema.gov/library/viewRecord.do?id=7130>

Mitigation Ideas:

Communities can use this resource to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.

<http://www.fema.gov/media-library/assets/documents/30627?id=6938>

Community Rating System:

This guide is an introduction to the Community Rating System and provides basic information, example mitigation ideas, and methods to request more detailed information.

<https://www.fema.gov/national-flood-insurance-program-community-rating-system>

Risk MAP Program:

This resource provides an introduction to Risk MAP and information about the products Risk MAP offers to better understand flood risk. This information can help planning to reduce flood risk and communicate with residents.

<https://www.fema.gov/risk-map-program-information-community-officials>

Mitigation Flood and Drought Conditions under Hazard Mitigation Assistance

Aquifer storage and recovery, floodplain and stream restoration, flood diversion and storage, and green infrastructure methods are eligible under the Hazard Mitigation Assistance programs to support communities in reducing the risks associated with mitigating the impacts of flood and drought conditions

<https://www.fema.gov/media-library/assets/documents/110202>

Dam Safety Resources

An overview on the topic of Dam Safety, as well as the National Dam Safety Program (NDSP). It is intended to serve as a resource for people who live near dams, as well as agencies and local authorities with responsibility for dams and areas impacted by dams.

<https://www.fema.gov/dam-safety-publications-resources>

**SECTION 3:
MULTI-JURISDICTION SUMMARY SHEET (OPTIONAL)**

INSTRUCTIONS: For multi-jurisdictional plans, a Multi-jurisdiction Summary Spreadsheet may be completed by listing each participating jurisdiction, which required Elements for each jurisdiction were ‘Met’ or ‘Not Met,’ and when the adoption resolutions were received. This Summary Sheet does not imply that a mini-plan be developed for each jurisdiction; it should be used as an optional worksheet to ensure that each jurisdiction participating in the Plan has been documented and has met the requirements for those Elements (A through E).

| MULTI-JURISDICTION SUMMARY SHEET | | | | | | | | | | | | |
|----------------------------------|-------------------|---|----------------|-------------------------------------|--|--------------|------------------------|--|------------------------|---|------------------|-----------------------|
| # | Jurisdiction Name | Jurisdiction Type (city/borough/township/village, etc.) | Plan POC | Mailing Address | Email | Phone | Requirements Met (Y/N) | | | | | |
| | | | | | | | A. Planning Process | B. Hazard Identification & Risk Assessment | C. Mitigation Strategy | D. Plan Review, Evaluation & Implementation | E. Plan Adoption | F. State Requirements |
| 1 | George County | County | Nancy Smith | 355 Cox St, Lucedale, MS 39452 | emadi rector @geo rgeco untym s.gov | 601-947-7557 | N | N | Y | N | N | |
| 2 | Lucedale | City | Doug Lee | 5126 Main St, Lucedale, MS 39452 | dlee@ cityofl ucedal e.com | 601-947-2082 | N | N | Y | N | N | |
| 3 | Hancock County | County | John Evans | 18333 Hwy 603, Kiln, MS 39556 | hcem a2@a tt.net | 228-255-0942 | N | N | Y | N | N | |
| 4 | Bay St. Louis | City | Les Fillingame | 688 Hwy 90, Bay St. Louis, MS 39520 | bslma yor@ bellso uth.ne t | 228-466-8951 | N | N | Y | N | N | |

| MULTI-JURISDICTION SUMMARY SHEET | | | | | | | | | | | | |
|----------------------------------|-------------------|---|---------------------|---|-------------------------------|------------------------|------------------------|--|------------------------|---|------------------|-----------------------|
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| | | | | | | | A. Planning Process | B. Hazard Identification & Risk Assessment | C. Mitigation Strategy | D. Plan Review, Evaluation & Implementation | E. Plan Adoption | F. State Requirements |
| 5 | Diamondhead | City | Ronald Jones | 5000 Diamondhead Cir, Diamondhead, MS 39525 | rjones@diamondhead.ms.gov | 228-222-4626 | N | N | Y | N | N | |
| 6 | Waveland | City | Christine Gallagher | 301 Coleman Ave, Waveland, MS 39576 | cgallagher@waveland.ms.gov | 228-466-2549 | N | N | Y | N | N | |
| 7 | Harrison County | County | Bruce Wilkerson | 1801 23rd Ave, Gulfport, MS 39501 | bawilkerson@co.harrison.ms.us | 228-865-4002 | N | N | Y | N | N | |
| 8 | Biloxi | City | Richard Stickler | 676 Dr Martin Luther King Jr Blvd, Biloxi, MS 39530 | rstickler@biloxi.ms.us | 228-435-6270 | N | N | Y | N | N | |
| 9 | D'Iberville | City | Hank Rogers | 10383 Auto Mall Pkwy, D'Iberville, MS 39540 | hrogers@diiberville.ms.us | 228-392-7966 Ext. 1024 | N | N | Y | N | N | |

| MULTI-JURISDICTION SUMMARY SHEET | | | | | | | | | | | | |
|----------------------------------|-------------------|---|----------------|--|---------------------------------|--------------|------------------------|--|------------------------|---|------------------|-----------------------|
| # | Jurisdiction Name | Jurisdiction Type (city/borough/township/village, etc.) | Plan POC | Mailing Address | Email | Phone | Requirements Met (Y/N) | | | | | |
| | | | | | | | A. Planning Process | B. Hazard Identification & Risk Assessment | C. Mitigation Strategy | D. Plan Review, Evaluation & Implementation | E. Plan Adoption | F. State Requirements |
| 10 | Gulfport | City | Wayne Miller | 4050 Hewes Ave, Gulfport, MS 39507 | wmiller@gulfport-ms.gov | 228-868-5740 | N | N | Y | N | N | |
| 11 | Long Beach | City | John Eustace | 201 Jeff Davis Ave/ P.O. Box 929, Long Beach, MS 39560 | jeustace@cityoflongbeach.ms.com | 228-863-1554 | N | N | Y | N | N | |
| 12 | Pass Christian | City | Shad Jeanfreau | 200 W. Scenic Dr, Pass Christian, MS 39571 | shad@ci.passchristian.ms.us | 228-452-3316 | N | N | Y | N | N | |
| 13 | Jackson County | County | Donald Langham | 1912 Live Oak Ave, Pascagoula, MS 39568 | donald_langham@co.jackson.ms.us | 228-769-3111 | N | N | Y | N | N | |
| 14 | Gautier | City | Zack Duke | 3305 Gautier Vancleave Rd, Gautier, MS 39553 | zduke@gautier-ms.gov | 228-497-1878 | N | N | Y | N | N | |

| MULTI-JURISDICTION SUMMARY SHEET | | | | | | | | | | | | |
|----------------------------------|--------------------|---|-------------------|---|--------------------------------------|---------------------|------------------------|--|------------------------|---|------------------|-----------------------|
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| | | | | | | | A. Planning Process | B. Hazard Identification & Risk Assessment | C. Mitigation Strategy | D. Plan Review, Evaluation & Implementation | E. Plan Adoption | F. State Requirements |
| 15 | Moss Point | City | Billy Broomfield | 4320 McInnis Ave, Moss Point, MS 39563 | Billy.Broomfield@cityofmosspoint.org | 228-475-0300 Ext. 9 | N | N | Y | N | N | |
| 16 | Ocean Springs | City | Hilliard Fountain | P.O. Box 1800, Ocean Springs, MS 39566 | hfountain@oceansprings.ms.gov | 228-875-6712 | N | N | Y | N | N | |
| 17 | Pascagoula | City | Joseph Huffman | 603 Watts Ave, Pascagoula, MS 39567 | citymanager@cityofpascagoula.com | 228-938-6614 | N | N | Y | N | N | |
| 18 | Pearl River County | County | Danny Manley | 810 Hwy 11 South, Poplarville, MS 39470 | dmanley@pearlrivercounty.net | 601-795-3058 | N | N | Y | N | N | |
| 19 | Picayune | City | Jim Luke | 203 Goodyear Blvd, Picayune, MS 39466 | citymanager@picayune.ms.us | 601-799-0615 | N | N | Y | N | N | |

| MULTI-JURISDICTION SUMMARY SHEET | | | | | | | | | | | | |
|----------------------------------|-------------------|---|--------------|---|----------------------------|--------------|------------------------|--|------------------------|---|------------------|-----------------------|
| # | Jurisdiction Name | Jurisdiction Type (city/borough/township/village, etc.) | Plan POC | Mailing Address | Email | Phone | Requirements Met (Y/N) | | | | | |
| | | | | | | | A. Planning Process | B. Hazard Identification & Risk Assessment | C. Mitigation Strategy | D. Plan Review, Evaluation & Implementation | E. Plan Adoption | F. State Requirements |
| 20 | Poplarville | City | Brad Necaise | 200 Hwy 26 East, Poplarville, MS 39470 | poplarvillemayor@gmail.com | 601-795-8161 | N | N | Y | N | N | |
| 21 | Stone County | County | Raven James | 323 Cavers Ave East, Wiggins, MS 39577 | rjames@stonecountymiss.gov | 601-928-3077 | N | N | Y | N | N | |
| 22 | Wiggins | City | Misha Parker | 117 College Ave East, Wiggins, MS 39577 | mparker@cityofwiggins.com | 601-928-4060 | N | N | Y | N | N | |

