Section 5: Mitigation Strategy

Requirement $\S$201.6(c)(3)(i):

[The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

5.1 Updates to the 2010 Plan Mitigation Goals and Actions

This section of the plan focuses on the mitigation strategies developed by each participating jurisdiction to reduce or avoid long-term vulnerabilities to the 18 identified hazards. For continuing participants from the 2010 Plan, each of the jurisdictions’ mitigation goals and actions identified in the 2010 Plan were reviewed for relevance and updated with current status. Continuing and new participants are noted within the mitigation strategies section (Attachment 5.2).

These mitigation actions were activities that stakeholders in the hazard mitigation process, especially local governments, could implement over a five-year period. Many of the actions were intended to be implemented in a relatively short period of time, generally less than two years, using existing organizations and resources in each county or across the region. Other actions required a longer implementation timeframe, perhaps two to five years or longer, as well as additional resources, particularly funding.

For the 2010 Plan, an online database was created to allow jurisdictions to evaluate hazards and corresponding mitigation goals and actions for their community. School districts,colleges/universities were not required to complete the online database, see Section 5.1.2 below. These goals and actions were derived from a comprehensive list of goals and actions developed in the original 2004 Plan and continued for the 2010 Plan (see Attachment 5.1: 2010 Goals and Actions). Jurisdictions needed only to complete information on goals and actions for hazards that were identified threats to their community. For each mitigation action, jurisdictions were asked to designate a project’s status as completed, deleted, deferred or ongoing. If the action was completed, jurisdictions were asked to provide a date of completion. For those deleted or deferred, jurisdictions were asked to provide a narrative explanation. If a project was marked as ongoing, further information was requested including:

1) Priority
2) If the action applies to new or existing community assets
3) Existing local planning mechanism through which the action was/will be implemented
4) Primary agency responsible for implementation/administration
5) Date for completion
6) Estimated cost
7) Funding source

In 2010, the planning team determined that “priority” should be ranked on a qualitative scale of high, medium and low, and jurisdictions were instructed to consider a generic cost/benefit analysis when ranking mitigation actions.
High-priority actions were those for which resources, manpower, political capital, etc., are readily available to accomplish the actions and should generally be accomplished within two years. Medium-priority actions were those that are desirable, but due to various planning limitations, weren’t expected to be implemented for two to five years. Low-priority actions were those that weren’t scheduled to be implemented in the near future (greater than five years). Actions deleted or deferred were either no longer applicable or regarded as “failing” the cost/benefit analysis.

5.1.1 Changes to 2010 Mitigation Goals and Actions Database for 2015 Plan Update
For this 2015 Plan update, continuing participants (excluding school districts/colleges/universities – see Section 5.1.2 below for additional discussion) again used the database created in 2010 to update their goals and actions. The database was modified slightly to collect additional information within three fields to give greater detail to mitigation actions. Two of the added fields were optional and one was required. The new fields were:

- **Type of Mitigation Activity** – *optional* field to describe if the action related to Natural Systems protection, Structure and Infrastructure Projects, Local Plans and Regulations or Education and Awareness Programs
- **Cost / Benefit Review** – *required* field to discuss a benefit-cost review of each action as part of the evaluation and prioritization process to determine if costs are reasonable compared to probable benefits. Jurisdictions could use cost estimates based on experience and judgment and discuss benefits as losses avoided (such as the number and value of structures and infrastructure protected by the action and the population protected from injury and loss of life). Qualitative benefits, such as quality of life and natural and beneficial functions of ecosystems could also be used for the review.
- **Target Capacity** – *optional* field to project the extent of population or infrastructure the action is intended to serve/protect/mitigate.

5.1.1a Prioritization of Mitigation Actions
The chronological ranking method\(^{\text{ciii}}\) of prioritizing mitigation goals and actions (based on implementation timeframes) used for the 2010 Plan was again used for this update and defined as:

- **Low-Priority Actions** -- those not scheduled to be implemented in the near future (greater than five years).
- **Medium-Priority Actions** – those that are desirable but due to various planning limitations, are not expected to be implemented for two to five years.
- **High-Priority Actions:** -- those for which resources, manpower, political, capital etc. are readily available to accomplish the action within the next one to two years.

Jurisdictions considered the results of the cost/benefit review when prioritizing mitigation actions.

5.1.1b Cost Estimates for Mitigation Actions
A frequent difficulty for jurisdictions during the 2010 Plan update mitigation strategy process was estimating the cost of mitigation actions. This lead to several action costs being identified as “Unknown” or “To be determined (TBD)”. To improve the cost estimation process where specific costs weren’t known, jurisdictions were encouraged to use a cost estimation range qualifier in accordance with the scale below:

- **Low** – the action is estimated to cost between $0 and $10,000
• **Medium** – the action is estimated to cost between $10,001 and $100,000
• **High** -- the action is estimated to cost more than $100,000

5.1.1c Status of Jurisdictional 2010 Goals and Actions
As noted above, continuing jurisdictions were required to update the status of their goals and actions and make changes as appropriate. Attachment 2 is the consolidated listing of all participating jurisdictions’ mitigation goals and actions and reflects the most current status of their goals and actions. Where a jurisdiction marked an action as “completed” or “deleted” in the 2010 Plan, these actions have been removed from the listing. To avoid confusion and for ease of reference to the 2010 Plan and Attachment 5.1, remaining goals and actions were not re-numbered or re-lettered.

5.1.2 Updates to School District/College/University 2010 Mitigation Goals and Actions
Since school districts/colleges/universities were not participants in the 2004 Plan, they were not required to complete the mitigation goals and actions database. Rather, they developed individual narratives for their goals and actions. For this 2015 Plan update, all continuing school districts reviewed and updated their strategies from 2010. These have been consolidated in Attachment 2 in a table format and include the same information elements discussed above that cities and counties were required to complete.

5.2 New Mitigation Goals and Actions for 2015 Plan
Several new participating jurisdictions have been added to this Plan update. These new jurisdictions were not required to complete the mitigation goals and actions database, but could do so if they chose to use it to develop their mitigation strategy. As an alternative, new jurisdictions could develop their own, unique goals and actions. To gather this information, MARC staff developed an Excel worksheet that contained all required fields, mirroring those in the online database. This worksheet was the same for both schools and cities/counties.

Continuing participants were likewise encouraged to develop new goals and actions using the worksheet, especially for hazards that weren’t previously addressed. Some jurisdictions chose to add new goals and actions, others elected to continue focusing on previously identified strategies. Both the old (2010) and new (2015) mitigation goals and actions were consolidated into Attachment 5.2. The column labeled “Plan year” indicates if the goal or action is from the 2010 plan or newly added as part of the 2015 update. New (2015) goals are continued to be numbered from the list of 2010 goals and actions (see Attachment 5.1), but new actions are unnumbered, both to avoid confusion and denote them as new actions.

Figure 5.1 is an excerpt from Attachment 5.2 as an illustrative example of a jurisdiction incorporating both 2010 and 2015 goals and actions into their mitigation strategy.
<table>
<thead>
<tr>
<th>Jackson County 2015 Mitigation Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mitigation Goals and Action Steps</strong></td>
</tr>
<tr>
<td><strong>Plan Year</strong></td>
</tr>
<tr>
<td>1. Increase public awareness and understanding the benefits of &quot;safe rooms.&quot;</td>
</tr>
<tr>
<td>2. Develop, distribute informational materials on &quot;safe rooms.&quot;</td>
</tr>
<tr>
<td>3. Increase capability to provide mass notification to the public.</td>
</tr>
</tbody>
</table>

Figure 5.1: Jurisdiction Sample, Incorporation of 2010 and 2015 Goals and Actions
5.3 Implementation of the National Flood Insurance Program (NFIP)

Requirement §201.6(c)(3)(ii): [The hazard mitigation strategy] must also address the jurisdiction’s participation in the NFIP, and continued compliance with NFIP requirement, as appropriate.

In accordance with regulatory requirements, all hazard mitigation plans must describe each jurisdiction’s participation in the NFIP by identifying, analyzing and prioritizing actions related to continued compliance with the NFIP. These three basic components include:

1) Adoption and enforcement of floodplain management requirements, including regulating new construction in Special Flood Hazard Areas (SFHAs);
2) Floodplain identification and mapping, including any local requests for map updates; or
3) Description of community assistance and monitoring activities

Three sections of this 2015 updated plan were developed to show compliance with the above requirements: 1) and 3) the Capabilities Assessment Section 3 (table 3.7) show which jurisdictions have floodplain management plans or ordinances in effect, and describe community assistance and monitoring activities where applicable; 2) Floodplains were identified and mapped for all participating jurisdictions as part of the Flood risk assessment (Section 4.9.4).

Additionally, several goals and actions were identified in the 2010 Plan that jurisdictions could adopt in order to meet the deliverables of NFIP compliance and are listed below. These have been grouped below according to NFIP component and are notated by a double asterisks (**) within each jurisdiction’s mitigation strategy (Attachment 5.2). New strategies developed for the 2015 Plan which fall into these categories are likewise identified by a double asterisk:

5.3.1 Floodplain Management (from 2010 Plan):

4. Discourage new development in floodplains and flood-prone areas.
   a.) Adopt ordinances prohibiting residential and commercial development in flood plains or flood-prone areas.
   b.) Develop or amend comprehensive and/or land use plans to specifically address development in flood-prone areas and recommend strategies for decreasing the jurisdiction’s vulnerability to flooding.
   c.) Levy fees on new residential, commercial and infrastructure development in floodplains or flood-prone areas to finance flood mitigation, preparedness, response and recovery actions.

7. Participate in, and ensure compliance with, flood mitigation and floodplain management programs.
   a.) Participate in the National Flood Insurance Program (NFIP) and Community Rating System (CRS).