

Chapter 5: Mitigation Strategy

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Chapter 5: Mitigation Strategy

Requirement *[The hazard mitigation strategy **shall** include a] description of*
§201.6(c)(3)(i): *mitigation goals to reduce or avoid long-term vulnerabilities to the*
 identified hazards.

5.1 Updates to the 2020 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 five identified natural hazards (severe thunderstorms, severe winter weather, severe heat/drought, high winds/tornadoes and flooding). For continuing participants from the 2020 Plan, each of the jurisdictions' mitigation goals and actions identified in the 2020 Plan were reviewed for relevance and updated with current status. New participants provided goals and mitigation actions beginning in 2025. Continuing and new participants are noted within the mitigation strategies section (**Attachment 1**).

These mitigation actions were activities that stakeholders in the hazard mitigation planning 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. Most actions require new resources that local jurisdictions may need to secure before implementation is possible.

For the Hazard Mitigation Plans beginning with the 2015 one, an online database was created to allow jurisdictions to evaluate hazards and corresponding mitigation goals and actions for their community. Jurisdictions were instructed 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 to document the current status and expected future effort.

The Hazard Mitigation Plan steering committee 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.

The mitigation goals and actions were prepared considering the increasing concern over changing climate conditions and the cost of repairing damage and losses from disasters. Many of the cities and counties have updated building codes, adopted infrastructure standards and invested in capital

improvements to reduce risks from natural hazards. Many of the school districts in the region have taken steps in their plans, policies and capital improvements to reduce risks from active shooters, improved sheltering of students and employees, and warning systems.

5.1.1. Changes to 2020 Mitigation Goals and Actions Database for 2025 Plan Update

For this 2025 Plan update, continuing participants used their 2020 goals and mitigation actions as a starting point. The database for mitigation actions includes:

- 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 methodⁱ of prioritizing mitigation goals and actions (based on implementation timeframes) used for the past two Plans (2015 and 2020) were 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). Many jurisdictions removed some of these actions from prior plans given low expectations that resources or other support might be available to implement.
- 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. With the exception of larger jurisdictions with more resources (including ability to seek and secure FEMA or other grant funds), some high priority actions in previous years are seen as difficult for smaller cities and school districts.

Jurisdictions considered the results of the hazard profiles and their current capabilities to protect and mitigate natural hazards. They also looked at actions taken previously, 2020 goals and strategies, and projects that could be supported with FEMA pre-disaster or hazard mitigation grants. Local jurisdictions also considered the increase in risks due to changing climate conditions. The increased concern over severe weather events due to climate change became an increased consideration for mitigation goals and actions.

5.1.1b Cost Estimates for Mitigation Action

Unless a proposed mitigation action is included in a jurisdiction's comprehensive, strategic or capital improvements plan, it was difficult to estimate costs. Some education actions could be implemented at a low cost. Although policies could be developed and adopted at low cost, the impact of certain policies could be of greater cost to either the jurisdiction or public or private organizations in the community. (e.g., the cost of building codes to increase resistance to high winds or strengthened energy conservation codes could result in more expensive building costs). The jurisdictions were asked to consider low, medium or high costs, recognizing that such terms are relative based on the budgets and other resources for each jurisdiction. Additionally, jurisdictions were asked to consider whether the costs were one-time or recurring.

5.1.1c Status of Jurisdictional 2015 and 2020 Goals and Actions

As noted above, continuing jurisdictions were required to review the status of their goals and actions and make changes, as appropriate. Attachments 1 and 2 is the consolidated listing of all participating jurisdictions' mitigation goals and actions and reflects the most current status of their goals and actions. Each action is designated as Completed (from previous plans), New for 2025 or Ongoing. A few actions are Undetermined indicating that the local jurisdiction is still considering the appropriateness of the action for the 2025 plan.

5.1.2 Updates to School District/College/University 2025 Mitigation Goals and Actions

Those school districts and colleges and universities that participated in the 2020 plan were asked to review their 2020 goals and strategies similarly to cities and counties. For school districts that did not participate in 2020, they were asked to identify goals and strategies for the 2025 plan. 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 Mitigation Goals and Actions for 2025 Plan

Jurisdictions that participated in the 2020 plan were invited to participate in the 2025 plan. In addition, cities and school districts that did not participate in 2020 were invited to be a part of the plan. Continuing participants were encouraged to develop new goals and actions using the online tool (or an excel spreadsheet). Some jurisdictions chose to add new goals and actions, others elected to continue focusing on previously identified strategies. Both the old (2020) and new (2025) mitigation goals and actions were consolidated into **Attachment 2**. The column labeled "Plan year" indicates if the goal or action is from the 2020 plan or newly added as part of the 2025 update. New goals continue to mirror the numbered list from the 2020 goals and actions (see Attachment 1), but new actions are unnumbered, both to avoid confusion and denote them as new actions.

5.3 Implementation of the National Flood Insurance Program (NFIP)

Requirement *[The hazard mitigation strategy] must also address the jurisdiction's participation in the NFIP, and continued compliance with NFIP requirement, as appropriate.*

§201.6(c)(3)(ii):

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 2025 updated plan were developed to show compliance with the above requirements: 1) and 3) The Local Capabilities Section (Section 3, table 3.7) shows 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 and are available as part of the data layers for the online planning tool (Refer to Section 4.5.4).

1) Floodplain management

Discourage new development in floodplains and flood-prone areas.

- a.) Adopt ordinances prohibiting residential and commercial development in flood plains or flood-prone areas. (Almost every incorporated city/town and every county in the 5-county Planning Area have joined the federal flood insurance program and adopted an ordinance prohibiting developing in the 100-year floodplain unless conditions to address risk are met).
- b.) Consider using the 500-year floodplain rather than the 100-year floodplain or consider adopting a stream setback ordinance. A number of communities have adopted stream setback ordinances (Table 3.7) and a number have adopted Stormwater Management Plans (Table 3.1).
- c.) 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.
- d.) Consider fees on new residential, commercial and infrastructure development in floodplains or flood-prone areas to finance flood mitigation, preparedness, response and recovery actions.

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). All cities and counties participating in the 2025 plan participate in the NFIP (Table 3.23). Four jurisdictions – Independence, Kansas City, Blue Springs and Platte County – participate in the Community Rating System. (Table 3.30).

- b.) Obtain the latest copies of flood insurance rate maps (FIRMs), floodplain maps and similar documents. Evaluate current and planned development in areas where risks from flooding have increased due to changes in the FIRMs.
- c.) Designate a Floodplain Manager and support training to become certified.

2) Floodplain identification and mapping

Improve flood hazard assessments and flood mapping.

- a.) Obtain parcel data (assessed valuation and other information) for flood boundary areas and enhance vulnerability assessments for these areas.
- b.) Partner with FEMA in the Cooperating Technical Partners (CTP) Program to increase local involvement in, and ownership of, the flood mapping process.
- c.) Purchase HAZUS-Flood software from FEMA, possibly in conjunction with other local or regional stakeholders.
- d.) Coordinate the collection of demographic, economic, watershed, land use and other data required by the HAZUS-Flood software program and/or GIS systems. Where appropriate work with MARC to support both local and regional mapping and analysis.
- e.) Conduct an in-depth flood risk analysis utilizing HAZUS data and create detailed maps based on GIS technology to identify areas at risk from flooding.

3) Community assistance and monitoring activities

Examine repetitive flood loss properties in each county and determine feasible and practical mitigation options.

- a.) Work with owners of repetitive flood loss properties to identify feasible mitigation strategies and potential opportunities; determine property owners' interest in specific mitigation options.
- b.) Identify potential funding opportunities to implement mitigation options for repetitive flood loss properties.
- c.) As funding allows, repetitive flood loss properties and structures will be targeted for buyout.
- d.) With stakeholders, explore incentive options to encourage property owners to take action to prevent or reduce future flood losses

Reduce flood-related damage to public, residential and commercial property in flood-prone areas through structural and nonstructural retrofits or removal of property.

- a.) Identify incentives to offer property owners to remove or retrofit structures in flood-prone areas.

- b.) Encourage cities and counties to adopt the new APWA Stormwater Management Design Standards expected to be completed in mid-2025.

The Metropolitan Emergency Managers Committee has committed to review the Hazard Mitigation Plan annually and assist local jurisdictions with updated information and guidance to maintain the plan and to consider steps to integrate the HMP into other plans and policies. The Kansas City region is preparing a 2025 update to the Regional Climate Action Plan (KC Climate Coalition with support from MARC) and the results of that analysis will be used to engage local officials to take more proactive steps to mitigate risks from natural hazards.

5.4 Attachments

Attachment 5.1: Community Mitigation Goals and Actions

Attachment 5.2: School Mitigation Goals and Actions

ⁱ FEMA *Local Mitigation Planning Handbook*, 6-B, March 2013