

Chapter 1: Mitigation Planning Process

1.1: Introduction

The Adams County Hazard Mitigation Plan is written to provide a strategy to address potential hazards in the county and its various governmental jurisdictions over the next five years. It is also designed to meet all the requirements of the Disaster Mitigation Act of 2000 (Stafford Act), which requires that any jurisdiction that seeks federal mitigation grant funding must adopt a FEMA approved hazard mitigation plan. Therefore, this plan is organized with the Stafford Act requirements in mind.

It has five major sections, organized into chapters:

- Mitigation planning process – this is the introduction to the plan and outlines the planning process.
- Community profile – this is a summary of planning area and jurisdictional characteristics and capabilities that may affect mitigation.
- Risk assessment – this is the detailed analysis of the potential hazards that could affect the planning area, the assessment of the types of risks and properties at risk, and the estimation of future losses.
- Mitigation strategy – this is the itemization, analysis, prioritization, and selection of mitigation strategies to address the specific hazards of concern for each jurisdiction.
- Implementation – this outlines the process of plan implementation, maintenance, and incorporation of the mitigation plan into other local government planning processes and procedures.

After the mitigation plan itself is an appendix, which includes meeting notices, meeting minutes, local jurisdiction adoption resolutions, FEMA review and approval documents, and related planning aids.

1.2: Statutory Framework

Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. 5165 as amended by the Disaster Mitigation Act of 2000 (DMA) (Public Law 106-390), provides for states, tribes, and local governments to undertake a risk-based approach to reducing risks to natural hazards through mitigation planning. FEMA implemented the hazard mitigation planning provisions through regulations at 44 CFR Part 201.

This Plan was prepared in accordance with the regulations governing the mitigation planning requirements for local mitigation plans as published under 44 CFR §201.6. Under 44 CFR §201.6, local governments must have a FEMA-approved Local Mitigation Plan in order to apply for and/or receive project grants under the following hazard mitigation assistance programs:

- Hazard Mitigation Grant Program (HMGP)
- Building Resilient Infrastructure and Communities (BRIC), which includes the following:
 - Pre-Disaster Mitigation (PDM)
 - Flood Mitigation Assistance (FMA)

1.3: Disclaimer

This mitigation plan is the best representation of the needs, concerns, and ideas of the active members of the mitigation planning team, the public, and the consultant. The ideas presented in this plan are not meant to be legally binding or represent the final authority on hazard mitigation issues. Local, state, and federal officials shall make final decisions as to what projects are undertaken or funds are used. This plan provides recommendations only.

1.4: Background

In 2017 Adams County's plan expired and in 2020 the county plan update was included in an award from FEMA to the State of Iowa. The State of Iowa sub-awarded the contract for Adams County's plan update to

East Central Iowa Council of Governments (ECICOG), who served as the administrator of the contract for approximately a dozen counties in Iowa. ECICOG sub-contracted with the Southern Iowa Council of Governments (SICOG) in Creston because Adams County is in the SICOG region. SICOG also prepared the previous plan for the county.

SICOG collaborated with the Adams County Emergency Management Agency's office to prepare the plan. While SICOG prepared the planning document and led all meetings, the Emergency Management Coordinator created the planning team, secured meeting locations, and facilitated planning and survey processes with the community.

1.5: Purpose of the Document

Building a disaster resistant community is a noble goal that challenges Adams County to undertake actions that protect families, businesses, and public facilities by reducing the effects of natural and other key disasters. Reducing the effects of these disasters makes economic sense and it is good public policy because it protects the citizens and the future of the community.

This multi-jurisdictional multi-hazard mitigation plan (plan) has been prepared in order to:

- Comply with Federal and State disaster mitigation planning requirements;
- Provide a comprehensive risk assessment that best defines the hazards most likely to impact Adams County, Iowa, and the various jurisdictions, including cities and schools, within the county;
- Identify hazard mitigation actions that would lessen or eliminate the effects of the hazards identified; and
- Outline a strategy for the implementation of hazard mitigation projects.

This plan was developed with the input of elected local officials and staff, community leaders, business leaders, educators, interested public, public health professionals, utility managers, local fire departments, the County's Sheriff's department, local economic development staff, educators, county engineering staff, volunteers, news media, School officials, other City and County officials, and the Adams County Emergency Management Agency (EMA).

The Disaster Mitigation Act of 2000 requires that all jurisdictions wishing to receive mitigation funds after November 2004 must complete a multi-hazard mitigation plan meeting certain planning processes and requirements. All jurisdictions are required to participate in the planning process and adopt the completed plan.

1.6: Key Definitions and Acronyms

Key terms and definitions include:

- **Community Rating System (CRS):** program that provides incentives for National Flood Insurance Program communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of the policyholders in those communities are reduced.
- **Exposure:** the part of the asset base in the path of or exposed to a given hazard.
- **Extent:** The size of an area affected by a hazard or hazard event (often in terms of percentage of total jurisdictional area)
- **Flood Hazard Area:** The area shown to be inundated by a flood of a given magnitude on a map.
- **Flood Insurance Rate Map (FIRM):** Map of a community, prepared by FEMA, shows both the special flood hazard areas and the risk premium zones applicable to the community under the National Flood Insurance Program.
- **Flood Zone:** A geographical area shown on a FIRM that reflects the severity or type of flooding in the

area.

- **Floodplain:** Any land area, including watercourse, susceptible to partial or complete inundation by water from any source.
- **Hazard:** A source of potential danger or adverse condition.
- **Hazard Event:** A specific occurrence of a particular type of hazard.
- **Hazard Mitigation:** Any sustained action taken to reduce or eliminate long-term risk to people and property from natural hazards and their effects.
- **Magnitude:** A measure of the strength of a hazard event. The magnitude (also referred to as severity) of a given hazard event is usually determined using technical measures specific to the hazard
- **Mitigate:** To cause something to become less harsh or hostile, to make less severe or painful
- **Planning:** The act or process of making or carrying out plans; the establishment of goals, policies, and procedures for a social or economic unit.
- **Preparedness:** Actions that strengthen the capability of government, citizens, and communities to respond to disasters.
- **Probability:** A statistical measure of the likelihood that a hazard event will occur.
- **Recovery:** The actions taken by an individual or community after a catastrophic event to restore order and lifelines in a community.
- **Risk:** The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.
- **Vulnerability or susceptibility:** Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, since many businesses depend on uninterrupted electrical power, if an electric substation is flooded it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct ones.
- **Vulnerability (or risk) assessment:** The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability assessment should address impacts of hazard events on the existing and future built environment.

The following acronyms and abbreviations are found throughout this document:

- **Committee or Team:** The Adams County Hazard Mitigation Planning Committee or Team, the group of appointed and volunteer officials that directed the creation of this mitigation plan
- **CRS:** Community Rating System
- **DMA 2000:** Disaster Mitigation Act of 2000
- **EMA:** Emergency Management Agency
- **EMC:** Adams County Emergency Management Commission or Coordinator, depending on use/context
- **EMS:** Emergency Medical Services, such as ambulance and rescue teams
- **EPA:** United States Environmental Protection Agency
- **FEMA:** The Federal Emergency Management Agency
- **HARA:** hazard analysis and risk assessment (a step in the planning process)
- **HAZMAT:** Hazardous Materials, generally as defined by the EPA
- **HMP:** Hazard Mitigation Plan
- **IHSEMD:** Iowa Homeland Security and Emergency Management Department
- **NCDC:** National Climactic Data Center
- **NFIP:** National Flood Insurance Program

- **NIMS:** National Incident Management System
- **PH:** Adams County Public Health
- **SICOG:** Southern Iowa Council of Governments
- **SIRWA:** Southern Iowa Rural Water Association
- **USDA:** United States Department of Agriculture

1.7: Planning Context

Hazard mitigation planning in rural counties in Iowa is often in the purview of the County Emergency Management Agency, as is the case for this plan. While the Coordinator may be skilled in the area and is a champion when it comes to the issues, many hazard mitigation actions will not be led or implemented by the Agency. Rather, the Agency and its hired Coordinator, and other staff, if any, should be highly involved in planning, the role of the Agency is overarching, often focusing on other elements of the emergency management.



Emergency management has four phases that often have gray areas when it comes to the process and the tasks and actions undertaken. The following figure illustrates the natural or normal flow of this process. Because of the intricate nature of the emergency management effort, some mitigation actions in this plan could also fall into the categories of preparedness, response, and recovery. Further, hazard mitigation tasks make preparation, response, and recovery easier.

1.8: Hazard Mitigation Planning Process

The Plan was developed by the Adams County Hazard Mitigation Planning Team (planning team), which included representatives from the county, incorporated cities, surrounding counties, state agencies, and local businesses and organization and local residents. Participants in the planning process and measures taken to solicit and encourage public participation are identified in the Planning Process section.

This part of the plan addresses the following Stafford Act requirements:

Section 201.6 (c)(1): [The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

The Adams County EMA took a leadership role in collaboration with SICOG planning staff to develop the planning process and coordinate the planning team meetings. The contractor produced the draft and final plans and coordinated the review with the State of Iowa and FEMA. Using official guidance provided by FEMA and the Iowa Homeland Security and Emergency Management Department, the plan is organized according to the following phases:

- Organize Resources
- Assess risks
- Develop the mitigation plan
- Implement the plan

Figure 1.1 (next page) shows how the mitigation plan requirements and the Community Rating Service (CRS) planning steps relate to the four phases of the mitigation planning process and the How-To Guides. The CRS is a voluntary program for NFIP-participating communities that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) Reduce flood losses; (2) Facilitate accurate insurance rating; and (3) Promote the awareness of flood insurance.

The Adams County planning team contributed to the process by:

- Providing facilities for meetings
- Attending and participating in meetings
- Collecting data
- Promoting the plan to elected officials and other relevant organizations
- Making decisions on planning processes and content
- Assisting with the evaluation of goals, objectives, and alternative actions
- Submitting worksheets (examples in appendices) as assigned by the contractor
- Reviewing drafts
- Assisting in setting up discussions with elected officials to adopt the plan

Outside agencies and organizations also participated in the planning process by providing examples and technical assistance, including FEMA Region 7, IHSEMD, and the Iowa DNR floodplain section.

The planning team communicated throughout the planning process through face-to-face meetings, email, and phone conversations, as well as the official meetings and survey worksheets. The following table shows the flow of meetings for this hazard mitigation plan update. Each meeting involved a morning and evening session with the same agenda in order to attract the best turnout. Appendix B to this plan includes the public notices, agendas, Powerpoint presentations, sign-in sheets, and minutes for the official planning meetings.

Figure 1.3: Official Meeting Summaries

Official Meeting Date	Audience(s)	Main Topics
March 29, 2021	Planning Team	Kickoff, introduction, discuss early steps, worksheets
September 28, 2021	Planning Team	Discuss and rank mitigation actions; discuss goals; start mitigation strategy
April 28 2022	Planning Team	Discuss mitigation strategy, final planning process, and adoption process
April 5, 2022	Planning Teams	Final meeting to review and take plan comments

Step 2: Involve the Public

44 CFR 201.6(b): In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include: (1) An opportunity for the public to comment on the plan during the drafting stage and prior to planning approval.

The planning team met four times between March 2021 and June 2022 (see above table). All meetings complied with the Iowa Open Meetings Law. Iowa’s Open Meetings Law “Seeks to assure, through a requirement of open meetings of governmental bodies, that the basis and rationale of governmental decisions, as well as those decisions themselves, are easily accessible to the people. All actions and discussions at meetings of governmental bodies, whether formal or informal, including work sessions, must be conducted in open session unless exceptions or exemptions are specifically provided by law. Open session means a meeting to which all members of the public have access.”

Additionally, as the plan was nearing completion, a significant media blitz involving the local newspaper covering all jurisdictions was initiated. The draft plan was provided online at www.sicog.com and as a hard copy at all participating city halls and the county courthouse, where the public could view the plan and make comments. The public comments could be made by phone, fax, email, or in person directly to the planning consultant or at the final planning team meeting. This meeting, held on DATE, was designed primarily to take public comment. A full draft of the plan with appendices and maps was presented.

While the general public, outside of the planning team, offered few comments, they are incorporated in the ideas and concepts found in this plan. There is no section of the plan with the listing of specific comments.

Generally, local officials and residents offered comments specific to a statement and the statement was edited.

Finally, in accordance with State of Iowa Law, public meetings were held prior to the jurisdictions adopting the HMP.

Step 3: Coordinate with Other Departments and Agencies

44 CFR 201.6(b): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process. (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Adams County Emergency Management invited other local, state, and federal departments and agencies, local businesses, academia, private and non-profit agencies, and surrounding counties to attend the planning meetings, provide input outside of meetings, and review and comment on draft sections of the plan. Those that were part of the planning team and attended meetings are listed earlier in this chapter and are listed in the sign-in sheets in Appendix B. Certainly, some people and organizations that provided input may be missing or not listed accidentally.

Other sources of information and planning documents are referenced throughout the plan and in Appendix D.

An effort was gained to solicit comments from surrounding counties. The planning consultant, SICOG, has worked with all the surrounding EMAs and has written some of the plans in the surrounding counties. That insight and those contacts were used in the planning process for the Adams County plan update. Further, as part of the review and public comment period, SICOG notified the organization's members via email and monthly newsletter of the availability of the plan for comment on the SICOG website, www.sicog.com.

Phase 2: Assess Risk

Step 4: Assess the Hazards

This step involved identifying and profiling the hazards.

Step 4a: Identify the Hazards

During the second planning team meeting, the planning team worked on hazard identification. Because not all members attended the meeting and some members wanted more time to contemplate the hazard list, the survey process continued several weeks after the meeting. The Powerpoint discussion showing hazard definitions from the State of Iowa HMP and the survey for this purpose are found in Appendix B. Chapter 3 of this plan details the hazard identification and results. At a planning meeting, the results were discussed and corrections made as needed.

Step 4b: Profile the Hazards

During a planning team meeting, the planning team worked on hazard profiling, which covered only those hazards that were identified as having occurred in the jurisdictions and that could occur but are not yet reported. The scoring system and survey for this purpose are found in Appendix C. Chapter 3 of this plan details the hazard profile and results. At the third planning meeting, the results were discussed and corrections made as needed.

Step 5: Assess the Problem

This step includes the determination of assets at risk and the estimation of losses.

Step 5a: Identify Assets at Risk

In order to link the kinds of hazards that can occur with the impact they have on humans and property, the risk assessment must identify the assets at risk. The vulnerability assessment on which the planning team worked during a planning team meeting helped create a full assessment of properties and populations that are vulnerable to various hazards. Local asset data, such as valuation data from the County Assessor's Office, were used. The forms used can be found in Appendix C. Chapter 3 of the plan details the assets at risk.

Further, as part of the risk assessment, the planning team developed a capability assessment. The relationship between risk and capabilities is notable. Strong capabilities should reduce the risk to lives and property. The capability assessment was incorporated into the community profile in Chapter 2 and the discussion of the mitigation problem statements and overall vulnerability assessment in Chapter 4. Worksheets used in this process are found in Appendix C.

Step 5b: Estimate Losses

All natural hazards were evaluated for annualized losses that may occur, based on current values of properties and historical data. The methodology used and the estimation itself is found in Chapter 3.

Phase 3: Develop the Mitigation PlanStep 6: Set Goals and Objectives

While the goals of the previous plan are noble and useful, the planning team thought that new goals and objectives should be considered. During a planning team meeting, the planning team considered mitigation goals following on the community survey. Forms used in this process are found in Appendix C. The goals and objectives were determined in large part by a vote of members attending that meeting, in order to create the wording that made the most sense for the leaders of the jurisdictions in the county. This information is presented in Chapter 4.

Step 7: Review Possible Activities

Using experience, the State ideas, the list of actions from the previous plan, and FEMA/State guidance, the planning team created a multi-page worksheet with over one hundred possible mitigation actions, found in Appendix C. This worksheet was distributed to planning team members and other key organizations and department heads in the county in order to learn of the status of mitigation actions. Additionally, other mitigation actions were added for jurisdictions during the planning team discussions and as part of reviews of surveys and worksheets. Mitigation actions that are already in place, underway, or complete were listed in Chapter 4. Relevant mitigation actions that are not already in place, underway, or complete were listed later in the same chapter. As part of the evaluation, each jurisdiction was to update its list of mitigation actions from the previous plan in order to document what has been completed, what is still in consideration, and what is no longer relevant.

During a planning team meeting, the results of this process were brought together and projects were discussed. The team began work on a full list of mitigation actions to include in the plan, which would be evaluated more using the evaluation process outlined by FEMA and the State. This process is detailed in Chapter 4. As requested, the contractor met with individual jurisdictions to evaluate, select, and prioritize mitigation measures.

After the initial review, each jurisdiction was given a draft mitigation strategy with total evaluation scores. The planning team selected projects from the list with consideration of scores and capabilities and prioritized those that were deemed relevant for the next five years. The planning team created for each jurisdiction a list of projects along with the timeframe for implementation and the assessment of responsibility. The process and results are found as the full mitigation strategy in Chapter 4.

Step 8: Draft the Plan

The draft of the hazard mitigation plan was completed on **DATE**. At that time, the previously mentioned public comment period was completed and the draft plan was edited to consider public comments. At the final planning team meeting, the draft was presented to consider further comments. The draft plan, once the planning team approved it, was submitted for approval and adoption by the local jurisdictions, the IHSEMD, and FEMA.

Phase 4: Implement the Mitigation Plan

Step 9: Adopt the Plan

Adoption by the local governing body demonstrates the jurisdiction’s commitment to fulfilling the mitigation goals and strategies outlined in the plan. In addition, adoption legitimizes the plan and authorizes responsible agencies to execute their responsibilities. Copies of the resolution adopting the plan are located in Appendix A.

Step 10: Implement, Evaluate, and (if needed) Revise the Plan

During the final planning meeting, the consultant described the prescribed FEMA and State process for the plan implementation, evaluation, and revisions. The final chapter of the plan, Chapter 5, details these processes and assigns responsibilities. Further, the chapter inserts current State and FEMA language about the topics.

Plan Update

44 CFR 201.6(d)(3): A local jurisdiction must review and revise its plan to reflect changes in the development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within 5 years in order to continue to be eligible for mitigation project funding.

In all phases of the planning process described above, the planning team reviewed the existing sections of the plan and provided comments on necessary changes.

Because this is a plan update, the remaining chapters provide descriptions of the changes in the definitions, scoring criteria, evaluation criteria, processes, requirements, and results since the previous plan was prepared and approved.

The following table lists the main items that were modified as part of the new plan when compared to the plan adopted in 2012.

Figure 1.4: Summary of Plan Update Changes

Chapter/Section/Topic	Description of Updates	Where Found in New Plan
Participation and prerequisites	No major changes.	Chapter 1; Appendices A and B
Planning process	Updated with new language; expanded planning process descriptions; sited some FEMA regulation statements.	Chapter 1; introductions to each chapter; Appendix B
Community profile	Updated with 2020 Census data and Census estimates; removed data that did not have a direct mitigation value; expanded information on other plans in the community; provided more community specific information; updated valuation information; moved and improved capability assessment data to and within the profile chapter.	Chapter 2
Risk assessment	Updated the list of possible hazards based on 2018 State plan; updated hazard definitions; updated profiles based on new information in State plan, other websites and experts, and local planning team data; updated flood, dam failure, and levee failure data and modified hazard classifications;	Chapter 3

Chapter/Section/Topic	Description of Updates	Where Found in New Plan
	updated FEMA declaration list; updated statutory language; modified scoring system; modified the data in appendices; updated risk maps; updated the critical asset lists and the data about those assets; improved loss estimation. Combined four chapters into one.	
Mitigation strategies	Full review of past mitigation strategies; updated list of possible strategies; improved capability assessment processes and data; updated goals and objectives; improved evaluation processes and documentation of results; updated implementation table information with better process for prioritization; more realistic number of mitigation actions so better chance they will be undertaken; updated statutory language; separate or notated information for NFIP and repetitive loss related data on which FEMA focuses. Combined three chapters into one.	Chapters 4
Plan maintenance, review, and evaluation	Updated statutory languages; expanded process for annual reviews; better example checklist(s); improved funding matrix and grant options list; clarified responsibilities for each jurisdiction for the annual and long-term maintenance, review, and evaluation.	Chapter 5
Inclusion of flood mitigation strategies	Provided a specific section to this issue outside of regular list of mitigation actions and described implementation based on NFIP and State law.	Chapter 4
Appendices	Updated and streamlined to shorten plan and take out non-useful data and maps; provided more documents to aid in local review and implementation;	Appendices A-G after plan document

1.9: Record of Participation

The following table shows the level of participation by each jurisdiction.

Figure 1.5: Summary of Planning Participation by Jurisdiction

Jurisdiction	Adams Co.	City of Corning	City of Nodaway	City of Prescott	SW Valley SCD	CHI Health
Attended at least 2 meetings or work sessions.	✓	✓		✓		
Submitted inventory and summary of reports and plans relevant to hazard mitigation.	✓	✓		✓		
Submitted description of what is at risk (local critical facilities and infrastructure at risk).	✓	✓	✓	✓	✓	
Submitted a description or map of local land use patterns (current and future).		✓				
Developed mitigation goals for the community (or attended goals creation process).	✓	✓		✓		
Developed mitigation actions/participated in analysis.	✓	✓	✓	✓	✓	
Prioritized actions.	✓	✓			✓	
Completed questionnaires.	✓	✓	✓	✓	✓	✓
Reviewed previous plan information.	✓	✓	✓	✓	✓	*
Reviewed and commented on draft plan.						
Hosted opportunities for public involvement.		✓				

* Did not adopt original plan, so not applicable