

State of Iowa

# Iowa Comprehensive Emergency Plan

---

## Part B: Iowa Hazard Mitigation Plan

September 2023



**State of Iowa Hazard Mitigation Plan  
Chapter 2: Planning and Coordination**

|   |            |
|---|------------|
| <b>2. Planning and Coordination</b>   | <b>2-1</b> |
| 2.1. Coordination and Integration in Planning   | 2-1        |
| 2.1.1. Iowa Hazard Mitigation Team  | 2-1        |
| 2.1.2. Iowa Silver Jackets Flood Risk Management Team   | 2-4        |
| 2.1.3. Iowa Watershed Approach  | 2-5        |
| 2.1.4. Iowa Drought Plan  | 2-9        |
| 2.1.5. Cooperating Technical Partners   | 2-9        |
| 2.1.6. RECs Hazard Mitigation Plan  | 2-11       |
| 2.1.7. Diversity, Equity and Inclusion (DEI) Initiative, Social Vulnerability and Underserved Communities | 2-11       |
| 2.1.8. Integration with Iowa Dam Safety Program   | 2-12       |
| 2.1.9. Other Planning and/or Coordinating Initiatives   | 2-12       |
| 2.2. Hazard Mitigation Planning Process Timeframe   | 2-14       |

## 2. Planning and Coordination

### 2.1. Coordination and Integration in Planning

While the primary responsibility of writing the *Iowa Hazard Mitigation Plan* falls to the Iowa Department of Homeland Security and Emergency Management (HSEMD), development of the plan is coordinated through the State Hazard Mitigation Team (SHMT). The SHMT was established by executive order of the governor and its official membership includes representatives of various State agencies. In addition, representatives of federal, local, nonprofit and private entities are always engaged in SHMT activities and so have contributed to the hazard mitigation plan update process. A greater description of the SHMT and its involvement in the plan update is found in section 2.1.1.

In addition to engagement with the SHMT, development of the *Iowa Hazard Mitigation Plan* has been coordinated and integrated with other planning initiatives and coordinating bodies involving many different sectors, including emergency management, economic development, land development, housing, health and social services, infrastructure, and natural and cultural resources. In particular, the Iowa Flood Risk Management Team (Silver Jackets) has become a key entity with which the hazard mitigation plan development has been coordinated. Indeed, the Silver Jackets is now an integral part of the planning and implementation apparatus for the plan. The relationship between the SHMT, the Silver Jackets, and the hazard mitigation plan is described further in sections 2.1.1 and 2.1.2.

The Iowa Hazard Mitigation Plan update process coincided with the implementation of the Iowa Watershed Approach (IWA) and wherever possible the efforts of the IWA were integrated into the hazard mitigation plan process. More about the Iowa Watershed Approach is found in section 2.1.3. Another important planning initiative with which the plan update was integrated was the development of the Iowa Drought Plan, which is described in 2.1.4. Section 2.1.5 describes integrated planning efforts with the Cooperating Technical Partners, which includes the Statewide Floodplain Mapping Project and Risk MAP efforts. The update of the REC Hazard Mitigation Plan, found in the annexes of this plan, is described in section 2.1.6. Recent efforts regarding diversity, equity and inclusion (DEI), social vulnerability and underserved communities is explained in section 2.1.7. In section 2.1.8. the involvement with the Dam Safety Program in developing the *Iowa Hazard Mitigation Plan* is described. Details on other planning and/or coordinating initiatives with which the State's hazard mitigation planning process integrated are provided in section 2.1.9.

#### 2.1.1. Iowa Hazard Mitigation Team

The State of Iowa Hazard Mitigation Team (SHMT) was first established by an executive order of the Governor in 1990. Two succeeding executive orders further shaped the development and structure of the SHMT, with Executive Order 62 (EO 62)<sup>1</sup> being the last one issued with direction for the SHMT. Executive Order 62, issued in 1998, requires two main component groups: the primary Iowa hazard mitigation team and the secondary Iowa hazard mitigation team. Agencies of both the primary and secondary teams participated in the planning process and provided key resources and technical assistance. The primary SHMT membership includes representatives from six State agencies designated in EO 62 that are required to participate in all SHMT activities. The secondary team includes representatives from other

---

<sup>1</sup> See [http://publications.iowa.gov/3954/1/Executive\\_Order\\_Number\\_Sixty\\_-\\_Two.pdf](http://publications.iowa.gov/3954/1/Executive_Order_Number_Sixty_-_Two.pdf) for entire text of Executive Order 62.

State agencies who provide assistance and information to the primary team on an as-needed basis. Members of the secondary team participate in SHMT functions related to their area of expertise. The State agency membership of the primary and secondary teams is as follows:

| <b>SHMT Primary Team State Agencies</b>                                | <b>Acronym</b> |
|--|----------------|
| Iowa Department of Natural Resources                                   | DNR            |
| Iowa Department of Transportation                                      | DOT            |
| Iowa Economic Development Authority                                    | IEDA           |
| Iowa Department of Cultural Affairs                                    | DCA            |
| Iowa Department of Public Safety—State Fire Marshal’s Office           | DPS-Fire       |
| Iowa Department of Homeland Security and Emergency Management          | HSEMD          |
| <b>SHMT Secondary Team State Agencies</b>                              | <b>Acronym</b> |
| Iowa Department of Administrative Services—General Services Enterprise | DAS-GSE        |
| Iowa Department of Public Health                                       | IDPH           |
| Iowa Department of Agriculture and Land Stewardship                    | IDALS          |
| Iowa Department of Commerce—Iowa Utilities Board                       | IUB            |
| Iowa Department of Management  | DOM            |
| Iowa Department of Revenue   | IDR            |
| Iowa Department of Education   | IDOE           |
| Iowa Department of Justice   | DOJ            |
| Iowa Department of Workforce Development                               | IWD            |
| Governor’s Office  | IGOV           |

(Note: In the midst of the *Plan* update process, the Department of Public Health merged with the Department of Human Services and is now called Iowa Health and Human Services.) In addition to the State agencies mentioned above, the SHMT may include other federal, State, and local agencies as well as private and nonprofit organizations that are not explicitly called out in EO 62 as part of either the primary or secondary team, but are invited and encouraged to attend and participate in SHMT meetings. Representatives of these agencies and organizations that attended SHMT meetings in the *Iowa Hazard Mitigation Plan* update process include:

| <b>Agency</b>   | <b>Acronym</b> |
|---|----------------|
| USDA Natural Resources Conservation Service                                   | NRCS           |
| Department of Housing and Urban Development                                   | HUD            |
| Federal Emergency Management Agency—Region VII                                | FEMA           |
| United States Army Corps of Engineers   | USACE          |
| United States Geological Survey   | USGS           |
| National Weather Service  | NWS            |
| Iowa Association of Electric Cooperatives (Rural Electric Cooperatives - REC) | IAEC or REC    |
| Polk County Emergency Management Agency                                       | PCEMA          |
| Iowa Flood Center (located at the University of Iowa)                         | IFC            |

The representatives of the agencies of the primary SHMT, the secondary SHMT, and the other agencies listed above were invited to the meetings of the SHMT and/or Iowa Flood Risk Management Team (Silver Jackets), which serves as a sub-set of the SHMT (see details below in 2.1.2). Dates of the meetings are documented in section 2.2. Altogether, those who participated in the SHMT or Silver Jackets activities and attended their meetings included representatives from several different sectors with mitigation capabilities, including:

- Emergency management (FEMA, HSEMD, and PCEMA);
- Economic development (IWD, HUD);
- Land use and development (DPS-Fire, Iowa League of Cities);
- Housing (HUD, IEDA);
- Health and social services (Iowa Health and Human Services Department);
- Infrastructure (DOT, IUB, HUD, USACE, IAMU, IAEC);
- Natural and cultural resources (DNR, NRCS, DCA, IDALS);
- Hazard and asset data (DNR, DOT, HSEMD, DAS-GSE, IDPH, IUB, IDOE, IWD, FEMA, USACE, USGS, NWS).

The members of the SHMT and the agencies they represent were very involved in the process of updating the *Iowa Hazard Mitigation Plan*. At the outset, the SHMT agencies provided data for the hazard risk assessment. Many SHMT members provided valuable review and input on the form and development of the hazard analysis and risk assessment as it progressed through 2022.

Rather than have large meetings with all the members of the SHMT in attendance, Iowa HSEMD staff met with different agencies of the SHMT throughout 2022 to better integrate with the planning efforts and initiatives of each agency. For instance, HSEMD staff met with IEDA and were able to discuss the programs that the two agencies have that overlap or achieve similar results with different resources. The IEDA has a new program that allows them to provide generators, something that HSEMD has been doing for years. But, the IEDA program is able to reach different jurisdictions that HSEMD was not able to with their resources. So, by meeting to discuss these things, the agencies were able to share information, and strategize on how to best use the available resources to do the most good. IEDA also uses a program called Green Streets. Green Streets is not so much a program, actually, as it is a set of standards. Such standards incorporate standards that help mitigate flood and other hazard damage. The Green Street standards are required with several of the assistance programs that IEDA administers. IEDA also requires other hazard mitigation standards besides Green Streets. For instance, a safe room is required for buildings that have no basement whenever CDBG funding is used for the building. Through such programs and coordination, hazard mitigation is integrated into housing, infrastructure and land use development that comes out of IEDA's involvement with local communities.

As the planning process progressed, the SHMT directed the amendment of the plan's goals, changing them to integrate past objectives into the goals. (Thereby, "objectives" were dropped from the Plan, and more explicit goals were adopted instead.) Toward the end of 2022, the SHMT and Silver Jackets reviewed the several hazard mitigation actions, both past and proposed. Members of the SHMT are subject matter experts in the programs, projects, and initiatives they separately manage and administer. As a result, their knowledge was critical to updating the hazard mitigation actions. Over a series of meetings beginning in December 2022, the SHMT amended or eliminated the mitigation actions that were in the previous plan version. They directed the creation of a few more mitigation actions, many of which came out of the

strategies and lessons learned from the Iowa Watershed Approach (see section 2.1.3 for more about integration of the hazard mitigation plan process with the Iowa Watershed Approach process).

After the mitigation actions were all finally composed, the SHMT and Silver Jackets discussed how to prioritize the mitigation actions. After a scoring rubric was developed, each member had the opportunity to use an online survey tool to score the several mitigation actions in order to prioritize or rank them. The scoring criteria included each of the following factors:

- Cost effectiveness
- Environmental soundness
- Ability of at least one agency to pay for implementation of the action
- Technical feasibility or capability of State personnel to handle implementation of the action
- Past progress and projected need

More on the prioritization method and process is found in section 5.6. The online survey tool was also used to find out which agencies had roles implementing which actions.

A timeline that includes the meetings and other actions of the SHMT is found in section 2.2 Hazard Mitigation Planning Process Timeframe.

### **2.1.2. Iowa Silver Jackets Flood Risk Management Team**

The Silver Jackets was created in 2011. Its charter was revised in 2015, after which several additional partners joined the team. As it was chartered to do many of the same activities that the SHMT would do, but only for flood hazards, the SHMT and Silver Jackets agreed to have the Silver Jackets assist the SHMT with those functions as they pertain to the flooding hazard. Rather than cover flood hazard issues in both meetings, the SHMT largely leaves to the Silver Jackets the discussion of particulars relating to flood mitigation issues. The SHMT meeting receives a report of the Silver Jackets' activities and then can spend the rest of their meeting on other hazards or items more general in nature.

Essentially, the Silver Jackets acts as the SHMT for flooding. At their meeting, the Silver Jackets do the following that previously would have been done by the SHMT for flooding:

- Report/evaluate progress on flood mitigation actions and projects
- Identify implementation issues
- Provide briefings on updates

The Silver Jackets is well positioned to coordinate and work with the SHMT to mitigate flood impacts because of all the knowledge and expertise of the partners and the resources they can bring to the table. Agencies participating in the Iowa Silver Jackets include HSEMD, DNR, IEDA, USACE (including St. Paul, Omaha, and Rock Island Districts), USDA NRCS, NOAA National Weather Service, USGS Iowa Water Science Center, Iowa Flood Center at the University of Iowa, and the Iowa Floodplain and Stormwater Management Association.

The Iowa Silver Jackets will monitor implementation of this plan's actions related to flood mitigation. The Silver Jackets meet several times each year, and in each of these meetings progress on the implementation of one or more of the flood-related mitigation actions will be reported. The chart located in 6.3 indicates the actions that will be reported to the Silver Jackets and for which progress will be reviewed over the course of a year. The Silver Jackets and its partners will also consider how effective these actions are at least once in the next five years.

The timeline found in section 2.2 documents the meetings and other actions of the Silver Jackets as related to the *Iowa Hazard Mitigation Plan* update process.

### 2.1.3. Iowa Watershed Approach

In 2014 the U.S. Department of Housing and Urban Development announced the Community Development Block Grant - National Disaster Resilience Competition (CDBG-NDR). The CDBG-NDR would award almost \$1 billion in funding for disaster recovery and long-term community resilience through a two-phase competition process. All states and general local governments with major disasters declared in 2011, 2012, and 2013 were eligible to participate in phase one of the competition. Iowa participated in phase one and was successful in being invited to compete in the second and final phase of the competition. In January 2016 HUD announced CDBG-NDR awardees, which included Iowa, which was awarded \$96.9 million for its Iowa Watershed Approach project.

The Iowa Watershed Approach was a six-year project focused on addressing factors associated with flood disasters in the state of Iowa. Whereas the past approach to flood mitigation planning in the state had largely been undertaken city by city, or county by county, and documented in county hazard mitigation plans, the Iowa Watershed Approach looked comprehensively at the causes of flooding at a watershed scale and sought to propose solutions that would involve the entire watershed. The IWA project also provided benefits of improved water quality by implementing conservation practices outlined in the [Iowa Nutrient Reduction Strategy](#). The executive summary of the CDBG-NDR phase two application contains this description of the IWA:

The Iowa Watershed Approach is, at its core, a watershed-scale program based on a holistic approach recognizing that:

- 1) heavy precipitation and flooding events are increasing in frequency;
- 2) upstream activities impact downstream communities;
- 3) upstream and downstream communities need to voluntarily work together;
- 4) when possible, flooding should be addressed at its source, using science-based, reasonable, cost-effective practices;
- 5) improving community resilience to floods requires risk mitigation and community-directed initiatives and planning; and
- 6) program strategies must also respect, protect, and sustain Iowa's valuable agricultural economy, which provides food, fuel, and fiber for the world and sustains family incomes for many Iowans.

The State of Iowa proposes a program through which Iowans will work together to address factors that contribute to floods. This approach is consistent with other statewide programs in Iowa to reduce flooding and improve water quality, such as the Iowa Flood Mitigation Program and the *Iowa Nutrient Reduction Strategy*. We will improve quality of life and health through upstream watershed investments tied to community resilience programming activities. This will result in a state-of-the-art adaptive model to make Iowa's vulnerable populations more resilient to changing flood hazard conditions today and for the next century.

Nine distinct watersheds representing different Iowa landforms will serve as project sites for the IWA. Each will form a watershed management authority, develop a hydrologic assessment and watershed plan, and implement projects in the upper watershed to reduce the magnitude of downstream flooding and to improve water quality during and after flood events. Landowners will

pay 25 percent of the construction cost for projects on their land, further demonstrating their commitment to land stewardship, the environment, and their downstream neighbors.

The Iowa Economic Development Authority, the City of Dubuque, HSEMD, and the Iowa Flood Center (IFC), which is a part of the IIHR- Hydrosience and Engineering at the University of Iowa (IIHR), joined numerous other partners to create the IWA program. The collaboration of agencies, universities, and municipalities that created the Iowa Watershed Approach included representatives from several different sectors with mitigation capabilities, including:

- Emergency management (HSEMD);
- Economic development (Iowa Economic Development Authority);
- Infrastructure (Iowa Economic Development Authority; Iowa DOT; and the cities of Dubuque, Storm Lake, and Coralville);
- Natural and cultural resources (University of Northern Iowa Tallgrass Prairie Center, Iowa Water Center, Iowa State University Extension, IDALS, DNR, NRCS, county soil and water conservation districts, the Nature Conservancy, Iowa Natural Heritage Foundation, Iowa Soybean Association, Iowa Corn Growers Association, Iowa Farm Bureau, Iowa Agricultural Water Alliance, and local Natural Resources Conservation and Development offices); and
- Hazard and asset data (HSEMD, IFC).

These many partners worked together to achieve these goals of the Iowa Watershed Approach:

- Reduce flood risk
- Improve water quality
- Increase flood resilience
- Engage stakeholders through collaboration and outreach/education
- Improve quality of life and health, especially for susceptible populations
- Develop a program that is scalable and replicable throughout Iowa, the Midwest and the US.

It is this last goal that elevates the IWA program from one of simply local interest to one with statewide implications. HSEMD and many of the other IWA partners had a keen interest in discovering, through the implementation of the IWA, what strategies and methods are replicable and appropriate for implementation at the different scales represented by the range of watersheds and infrastructure projects. The IWA has been integrated as a key planning initiative of the state hazard mitigation planning process.

The nine watersheds that served as project sites for the IWA were:

- Bee Branch Creek in Dubuque,
- Upper Iowa River,
- Upper Wapsipinicon River,
- Middle Cedar River,
- Clear Creek,
- English River,
- North Raccoon River,
- West Nishnabotna River, and
- East Nishnabotna River.

**Map of Iowa Watershed Approach.** Source: Iowa Flood Center.



In addition, in eight of the watersheds (all but Bee Branch, the smallest watershed), innovative in-field and edge-of-field practices were implemented to reduce the magnitude of downstream flooding and improve water quality during and after flood events. Volunteer landowners selected from different practices, including:

- Wetland Construction
- Storm Water Detention Basins
- Perennial Cover
- Oxbow Restoration
- Farm Ponds
- Floodplain Restoration
- Prairie Strips

The IWA grant provided at least 75 percent of the cost share for the construction of such practices.

The location, type, and number of projects in each watershed was determined by entities called Watershed Management Authorities (WMAs). The WMA of each watershed was guided by stakeholder input and information about maximizing peak flow reductions and water-quality improvements.

What is a WMA? Two or more eligible political subdivisions within a watershed can form a WMA through a Chapter 28E Agreement. WMA activities can include: assessment and reduction of flood risk; assessment and improvement of water quality; flood risk planning and activities; educational activities; and allocation of funds for water quality and flood mitigation. These Watershed Management Authorities are the nucleus of the IWA. The IWA program ensured that each of these watersheds has a WMA. In each watershed that did not already have a WMA, staff from the Iowa DNR helped willing city, county and soil and water conservation district representatives form a WMA for their respective watershed.

A WMA brings local stakeholders together to prioritize their watershed improvement needs, share resources, and foster new partnerships and collaborations. Since the beginning of the IWA initiative, representatives from the IWA state partners met with the WMAs in each watershed to assist the WMAs.

A hydrologic assessment and a watershed plan were developed for each of eight IWA watersheds (all but Bee Branch). The IFC and the IIHR developed the hydrologic assessment for each watershed to provide local leaders, landowners, and residents with an understanding of the hydrology – the movement of water – within their watershed. This assessment provided valuable information to stakeholders to help guide strategic decision-making to efficiently address flooding and water-quality concerns.

The watershed plans included an analysis of hypothetical scenarios to reduce downstream flow and improve water quality. They incorporated stakeholder input and now serve as a guide for the selection of future project sites. The projects needed to reach water-quantity and -quality goals for each watershed is beyond what can be accomplished with the funds available through the CDBG-NDR award. So, each plan serves as a vision for the future of that watershed. The WMAs can use the plans to develop priorities, to support future funding requests to other sponsors, and to monitor progress.

Besides a watershed plan, the IWA program delivered several other publications and technical products including:

- Flood resilience action plans that communicate potential flood risk to infrastructure, housing, and critical facilities. Through the IWA partnership, additional information addressing issues related to vulnerable populations was provided.
- Eight watershed-based loss avoidance studies that examine the benefits of structural and non-structural practices as they are implemented in the MID-URN areas.
- The report *Strategies for Flood Resilience: A Four-Point Guide to Helping Local Jurisdictions with Watershed Approach Flood Reduction*.

In addition to these written products, the IWA program included engagement and outreach activities. Such activities included site tours, field days, and public presentations at municipal and county meetings. A statewide WMA Advisory Board was formed with at least one advisor from each WMA and at least one representative from the City of Dubuque (to represent the Bee Branch Watershed, which does not have nor need a WMA because the entire watershed falls within a single jurisdiction – that is, the City of Dubuque). The board can review progress, discuss common challenges, share implementation successes and recommendations, strategize long-term solutions for statewide flood peak reduction and water-quality improvements, and suggest resilience programming strategies. ISU Extension and Outreach delivered research-based info graphics on watershed approach practices. Also, ISU developed a Watershed Academy to build capacity among the WMA coordinators to improve the effectiveness and repeatability of successful practices. The University of Northern Iowa's (UNI) Tallgrass Prairie Center also shared scientifically-based information through workshops, print and online technical guides and videos, and consultation.

The IWA represents a vision for Iowa's future—a future that voluntarily engages stakeholders throughout the watershed to achieve common goals, while moving toward greater resiliency. The hope is that lessons learned from the IWA can help other communities realize less vulnerability and flooding, and greater resilience by replicating the best practices from the IWA.

#### 2.1.4. Iowa Drought Plan

To create the Iowa Drought Plan, representatives from the Iowa Department of Agriculture and Land Stewardship (IDALS), the Iowa Department of Homeland Security and Emergency Management (HSEMD), and the Iowa Department of Natural Resources (DNR) met biweekly from April to October 2022 to prepare a drought plan, along with stakeholders and partners from the National Drought Mitigation Center (NDMC) and USDA Climate Hub in Ames. The planning team determined at its first meeting that the plan should be completed by the end of 2022 to align with the State Hazard Mitigation Plan update and to avoid a long, drawn-out planning period. Early meetings included representatives from water suppliers and distributors.

Stakeholder meetings were scheduled for July and August, with an initial draft of the plan released in October 2022 for comment from partners and participating stakeholders. Simultaneously, HSEMD and DNR met with other state agencies (DOT, DPH, DHS, IEDA) to discuss agency needs and capabilities regarding drought mitigation.

The stakeholder meetings took place in Sioux City (July 20, 2022), Cedar Rapids (July 21, 2022), and Creston (July 22, 2022), as well as virtually using Zoom on August 3, 2022. Attendees included representatives from local emergency management, city government, tribal government, fire departments, rural water associations, environmental groups, academia, local health departments, industry, agricultural producer associations, FEMA, and elected officials. Attendees participated in a series of five breakout sessions with prepared questions meant to engender discussion. The discussion provided valuable insight into how the state responds to drought, which was documented and consulted to draft the drought plan. Stakeholder concerns and ideas were incorporated throughout the document.

In addition to stakeholder meetings, the initial draft of this plan was released for stakeholder comment on October 28, 2022, with comments due by November 15, 2022. Comments were received from emergency management personnel, environmental advocates, rural affairs advocates, drought experts, climatologists, and more. Some partners continued providing input as late as mid-December 2022. Each comment received was a valuable contribution to the plan and informed the planning team's work.

The drought planning process also afforded hazard mitigation planners the opportunity to engage closely with agencies and organizations with climate change expertise. In particular, HSEMD worked closely with the State Climatologist to find out from him about climate change in Iowa, and how it affects natural hazards and risk in the state.

#### 2.1.5. Cooperating Technical Partners

Another important initiative that has been vital to hazard mitigation planning in Iowa is the Cooperating Technical Partners (CTP) program. The CTP program has allowed the state of Iowa to become an active partner with FEMA in flood hazard mapping and Risk MAP. The CTP program in Iowa is overseen by the Iowa Department of Natural Resources, specifically the DNR's GIS section. Of particular interest to hazard mitigation, the DNR GIS section has been involved with the statewide Floodplain Mapping Project and Risk MAP.

The DNR worked with the Iowa Flood Center (IFC), the USACE and the Iowa Natural Heritage Foundation to complete the statewide Floodplain Mapping Project<sup>2</sup>. The Project succeeded in completing

---

<sup>2</sup> Information on the Iowa Floodplain Mapping Project at <http://iowafloodcenter.org/projects/floodplain-mapping/>

draft flood hazard maps that delineate boundaries of flooded areas for 100-year (1 percent annual chance) and 500-year (0.2 percent annual chance) for 85 of Iowa’s counties. Efforts were focused on those counties that were declared Presidential Disaster Areas following the 2008 floods. Iowa’s remaining 14 counties were mapped by the Army Corps of Engineers. In addition to 100 and 500-year boundary maps, Flood Risk Management Maps are available to Iowans, thanks to a partnership with the Iowa Natural Heritage Foundation. These maps provide scour-prone floodplain areas, flood depths, and gradients of flood risk. The data and information from the statewide floodplain mapping project has enabled flood risk analyses in this plan.

In most cases the DNR and FEMA have been able to take the products through the review process and have them adopted by the National Flood Insurance Program. The 100-year floodplain boundary on those maps have been used and will be used to establish flood insurance rates. Recently-collected light detection and ranging (LiDAR) data provided by the DNR was used to map all streams in Iowa which drain to one square mile or more. Both the draft flood hazard maps and the Flood Risk Management Maps are available for public use at [www.iowafloodmaps.org](http://www.iowafloodmaps.org).

Risk Mapping, Assessment, and Planning (Risk MAP) is a FEMA program that has been coordinated in Iowa through the DNR. HSEMD has also been included in Risk MAP activities. Risk MAP makes planning resources available to local jurisdictions for hazard mitigation. These resources can be utilized for the development of risk assessments, watershed studies, mitigation plan elements, mapping, and risk communications. Risk MAP has completed several flood-risk reports in Iowa, including those for the Middle Cedar, Middle Iowa, East and West Nishnabotna, and North Raccoon watersheds. These reports inform communities about risk to the built environment through Hazus modeling. HSEMD planners work frequently with Risk MAP program staff to integrate data and technical resources into state and local hazard mitigation planning. Coordination between HSEMD and DNR has greatly improved in the past five years as they reach out together to engage local jurisdictions and help them discover their flood risks and what can be done about them.

This coordination between HSEMD and DNR, along with other agencies from Iowa Silver Jackets, led to the creation of the “Help CUT Flooding TEAM”, which is short for “Helping Communities Understand Their Flooding To Explore Alternatives for Mitigation”. This initiative includes representatives from state and federal agencies who have technical resources, like mapping and engineering analysis, which can often be provided to help communities understand their flood issues and options for mitigation.

These representatives meet as needed to discuss communities looking for such assistance. Most often, this technical assistance can be provided to a community at no cost, but may require a commitment to assist the agencies with information required for the analysis. Collectively, the state and federal agencies can provide modeling, planning technical assistance, and assist with gathering information required to determine project feasibility and conduct a benefit-cost analysis.

There is no financial assistance for implementation or construction, but with the additional information that is provided, communities are better positioned to apply for financial assistance available under an array of programs such as those found within FEMA’s Hazard Mitigation Assistance.

The “Help CUT Flooding” initiative is possible in large part because of the Real Time Technical Assistance (RTTA) funding appropriated through the Iowa CTP program funding. RTTA is used by the Iowa CTP to answer “what if” questions that arise during review of risk data with communities or raised by communities through other outreach like the Help CUT Flooding initiative. As RTTA projects arise without prior knowledge of a need for study or work being performed, they will be bi-annually reviewed

by our RTTA team (typically October and April). This team consists of members of the Department of Natural Resources (DNR) Statewide Floodplain Mapping program, DNR Floodplain Permitting staff and Iowa HSEMD. The DNR sees the involvement of Iowa HSEMD as important in order to coordinate efforts for future projects that might be request FEMA Hazard Mitigation Assistance (HMA) grants through Iowa HSEMD.

Review of potential RTTA projects are “graded” based on relevant factors related to need. Following review of potential RTTA projects the Iowa CTP requests cost estimate bids from approved consultants to assess what projects will be feasible through current RTTA funding available in the funding year. Priority has been given to projects under a certain threshold to allow more flexibility in awarding tasks through Task Orders as they are created. Projects over the threshold are still considered based on urgency of need and funding availability.

The outcomes from RTTA and Help CUT Flooding initiative include RTTA reports for several cities. These reports include analyses of several alternatives and recommendations for development of preferred alternatives. Cities that have received RTTA reports include Oelwein, Decorah, Vinton, Belle Plaine, Cherokee, Mason City, Spencer, Wolford and Garwin. From these, those that have gone on to receive HMA awards include Vinton and Oelwein. Cherokee has also received HMA assistance through Direct Technical Assistance of the Building Resilient Infrastructure and Communities program.

#### **2.1.6. RECs Hazard Mitigation Plan**

The rural electric cooperatives (RECs) under the Iowa Association of Electric Cooperatives (IAEC) have participated in the planning process as mitigation planning partners since the 2007 update of the Iowa Hazard Mitigation Plan. RECs are treated as private non-profit organizations for the purpose of disaster assistance provided by FEMA under the Stafford Act. The SHMT, in an agreement with the REC, incorporated electric cooperatives as a revised Annex for this update to the state plan. This will meet the planning requirement in the event of subsequent disasters. The REC community generally has representation at SHMT meetings, but also put together a planning committee specifically for the development and update of the REC Annex for the State Hazard Mitigation Plan. With help from IAEC staff and contractors, they completed an update of their plan that was adopted by the IAEC Board in early 2023.

#### **2.1.7. Diversity, Equity and Inclusion (DEI) Initiative, Social Vulnerability and Underserved Communities**

Iowa HSEMD embarked on an initiative in 2022 to explore DEI and understand how to improve its efforts to be inclusive of groups and populations that may have been left out of the benefits of emergency management and hazard mitigation in the past. This exploration has been enlightening. While the future will yet bring more changes, HSEMD mitigation staff have already made changes to incorporate what has been learned. For one thing, HSEMD has updated its criteria for prioritizing projects and jurisdictions for receiving mitigation grant funds. Proposed activities for funding are selected for consideration based on how well a particular activity “scores” according to prioritization criteria. One of those criteria is whether or not a jurisdiction is underserved. Such communities get extra points in their score. Another criteria is socially vulnerable (SV) population: under that criteria Economically Disadvantaged Rural Communities (EDRCs) and those with higher SV Index numbers get more points in their score.

Iowa HSEMD also made a special effort in developing this *Plan* through performing special analyses in the hazard analysis and risk assessment. To assess hazard risk as it relates to those more socially vulnerable, HSEMD staff researched factors that would present barriers or challenges to people in either understanding or responding to emergency events. Analysis was done on these several factors, which included age (children or older populations), disability (physical and mental), financial constraints, limited English proficiency, access to a vehicle, or living alone. (The analysis indicated that the most vulnerable counties, based on those factors, are Crawford, Emmet, Appanoose, and Des Moines counties – for more details see section D in either 3.3.4, 3.3.5, or 3.3.6.)

### **2.1.8. Integration with Iowa Dam Safety Program**

Staff from the Iowa DNR’s Dam Safety Program have been involved with the development of the update of the 2023 Hazard Mitigation Plan throughout the entire planning process. Jonathan Garton is the manager over both the Dam Safety Program and Flood Plain Management staff. He is a member of Iowa Silver Jackets, and attends over 80% of the meetings. Much communication occurred between him and HSEMD staff in the process of analyzing the risks of high hazard potential dams. He and his staff provided data and analysis, and access to DNR’s dam inventory. Data that has been provided include a complete list of all dams regulated by the state. Information provided about each dam has included location, population at risk (if currently known), inundation maps (if available), and inspection reports.

Mr. Garton and the Dam Safety Program have also contributed much input regarding what is currently being done to improve our understanding of dam risks, what will be done, and what actions should be added to the Iowa Hazard Mitigation Plan. They have their own plans for addressing high hazard potential dams and those plans have been shared freely with Iowa HSEMD so that planning efforts integrate seamlessly.

USACE has also been very involved in the mitigation planning process. They have provided similar information about USACE dams, which are not state-regulated. Another resource for dam information has been local hazard mitigation plans. Estimates of buildings at risk and economic losses from dam failures have come mostly from USACE and local hazard mitigation plans.

### **2.1.9. Other Planning and/or Coordinating Initiatives**

#### **A. Disaster Recovery Plan Exercises**

To facilitate the maintenance and future update of Disaster Recovery Plans, both for the State plan and for local county plans, HSEMD engages in exercises. This is an excellent method for gathering information regarding what current processes, programs, and regulations are utilized in disaster recovery. But, not only that, the discussions in these exercises deal with hazard mitigation as well.

HSEMD planners facilitate these disaster recovery exercises at the local level, and encourage participation from many sectors, including emergency management, economic development, land use development (including code enforcement), utilities and infrastructure, housing, health and social services, utilities and infrastructure, and natural and cultural resources.

Participants of such exercises often recognize the valuable role of FEMA mitigation grant programs to not only mitigate future disasters, but also to provide recovery funding for housing. This is so because in Iowa many hazard mitigation grant funds have been used to purchase and acquire properties that are in flood areas and have already been impacted by flood disasters.

These local recovery exercises began the year that the last Iowa Hazard Mitigation Plan was updated. They have continued since then. HSEMD planners have continued to attend these exercises to discover the challenges faced at the local level, solicit input for the state's hazard mitigation program, and to integrate with the recovery planning process. Counties in which hazard mitigation staff have participated in such exercises include Allamakee, Shelby, and Marshall Counties.

### **B. Threat and Hazard Identification and Risk Assessment (THIRA)**

The State of Iowa has completed and updates on a regular basis a Threat and Hazard Identification and Risk Assessment (THIRA). The THIRA identifies threats and hazards, gives them contexts, and leads to capability targets. The THIRA serves as the basis for the State Preparedness Report (SPR) which helps set priorities for the State. The list of hazards from the Risk Assessment section of the State Mitigation Plan gave Iowa planners a starting point for the THIRA. The THIRA serves as connective tissue between mitigation, preparedness, and strategic planning activities in the State of Iowa.

### **C. Water Resources Coordinating Council (WRCC)**

The WRCC's purpose is to preserve and protect Iowa's water resources, and coordinate the management of those resources in a sustainable and fiscally responsible manner. As directed in statute, the WRCC is to use an integrated approach to overcome old categories, labels, and obstacles, with the primary goal of managing the State's water resources comprehensively rather than compartmentally. The authorizing legislation also directs the WRCC to develop recommendations for policies and funding, and to promote a watershed management approach to reduce the adverse impact of future flooding on the state's residents, businesses, and communities. It is also to promote the improvement of soil and water quality. The council is directed to consider policies and funding options for various strategies including, but not limited to: additional floodplain regulation; wetland protection, restoration, and construction; the promulgation and implementation of statewide storm water management standards; conservation easements and other land management; perennial ground cover and other agricultural conservation practices; pervious pavement, bioswales, and other urban conservation practices; and permanent or temporary water retention structures.

The WRCC is headed by IDALS. Other members include representatives from the DNR, IDPH, HSEMD, Iowa State University College of Agriculture, University of Iowa College of Public Health, University of Iowa College of Engineering, University of Northern Iowa College of Natural Sciences, DOT, IEDA, and the Iowa Finance Authority. Others invited to attend WRCC meetings include representatives from USACE, EPA, USDA (NRCS, Rural Development, and Farm Services agencies) and USGS Iowa Water Science Center.

### **D. Meetings with Emergency Management Coordinators and Representatives of Local Jurisdictions**

HSEMD staff have met with county emergency management coordinators throughout the state to discuss the status and future of local hazard mitigation planning. The Iowa Emergency Management Association has divided the state into six districts, and each district has regular meetings for the emergency management coordinators within the district. HSEMD staff attended meetings of most of the districts and held hour plus long sessions to discuss the issues related to hazard mitigation planning at the local level. They also hosted a workshop for emergency managers to learn more about hazard mitigation. Feedback from these meetings informed various portions of this plan, but most particular section 4. These sessions were extremely valuable in developing the state hazard mitigation plan, especially in relation to the following:

- Challenges to implementing local mitigation policies, programs, and capabilities;
- Opportunities for implementing mitigation actions through local capabilities;
- Barriers to updating and implementing FEMA-approved local mitigation plans; and,
- Approach to remove barriers in order to advance local mitigation planning.

In addition to meeting with county emergency management coordinators, HSEMD separately reached out to local city officials representing cities of various sizes and location (rural and urban), and had meetings with them. These meetings and activities were also used to gather input on the four points above.

**E. Meetings with Environmental and other Non-Profit Entities**

Several non-profit entities have collaborated with Iowa HSEMD regarding hazard mitigation opportunities over the last few years. These entities have included The Nature Conservancy (TNC), Ducks Unlimited, the National Wildlife Federation, and the Environmental Law Institute. HSEMD has been an active participant in their outreach and activities. HSEMD participated on a committee organized by TNC to study levee setbacks and nature-based solution along the Missouri River. The study also involved exploring new models for insuring and covering the risks and expenses of flooding.

Iowa HSEMD is also integrated into a planning initiative of the Environmental Law Institute, focused on wetland and flood mitigation.

**2.2. Hazard Mitigation Planning Process Timeframe**

The table below shows a schedule or timeline of the process to develop the *Iowa Hazard Mitigation Plan*. The column on the left shows the meetings and activities of the State Hazard Mitigation Team and the Iowa Department of Homeland Security and Emergency Management that were for the plan’s development. The column on the right shows activities that were not specifically focused on development of the plan, but with which the planning effort was integrated.

| Iowa Hazard Mitigation Plan Activities  | Year | <b>Related Activities</b> (planning initiatives & efforts with which hazard mitigation plan integrated)  |
|---|------|--|
| <p><u>All year</u>: Gathered data collection sheets as counties submitted local hazard mitigation plans</p> <p><u>11/19</u>: Iowa Flood Risk Management Team (Silver Jackets) Meeting</p>   | 2018 | <p><u>9/19</u>: Nishnabotna Watershed Management Authority (WMA) Board meeting</p> <p><u>10/12 &amp; 25</u>: Meetings about incorporating flood mitigation into Middle Cedar Watershed Plan</p> <p><u>10/16</u>: Upper Wapsipinicon WMA meeting</p> <p><u>10/26</u>: North Raccoon River (NRR) WMA mtg</p> <p><u>11/8</u>: Upper Iowa River (UIR) WMA meeting</p> <p><u>12/10</u>: NRR WMA workshop</p> <p><u>12/12</u>: Meeting of Iowa Watershed Approach (IWA) Team (multiple state agencies, multiple local entities, multiple non-profit entities, and multiple federal agencies)</p>   |
| <p><u>All year</u>: Gathered data collection sheets as counties submitted local hazard mitigation plans</p> <p><u>2/4</u>: State Hazard Mitigation Team (SHMT) &amp; Silver Jackets meetings -review progress on Mitigation Plan and actions</p> <p><u>4/29</u>: Iowa Silver Jackets meeting (in which Mitigation Plan actions reviewed, which is regular part of all meetings going forward)</p> <p><u>6/21</u>: HSEMD &amp; Iowa NRCS meeting to discuss using same BCAs &amp; integrating flood mitigation &amp; PL566(now called WFPO) plans</p> <p><u>8/1</u>: Iowa Silver Jackets meeting</p> <p><u>11/7</u>: Iowa Silver Jackets meeting</p> | 2019 | <p><u>All year</u>: Meetings of watershed management authority (WMA) boards &amp; other meetings of the Iowa Watershed Approach (IWA) project. Studies, data, mitigation actions and so forth discussed at these meetings. These discussions fed into strategy for hazard mitigation plan.</p> <p><u>1/10</u>: Nishnabotna Flood Mitigation Tournament</p> <p><u>3/4</u>: Business Plan meeting with DNR Cooperating Technical Partners (CTP)</p> <p><u>3/13</u>: HSEMD present how to integrate flood mitigation &amp; watershed plans at Iowa Water Conf.</p> <p><u>4/25-26</u>: HSEMD host local mitigation planning Workshop</p> <p><u>5/2</u>: USACE/HSEMD Flood Mitigation mtg</p> <p><u>5/13&amp;20</u>: Meetings with locals on how to choose places for detention basins for watershed approach flood mitigation</p> <p><u>5/16&amp;30</u>: Interagency Flood Mitigation Committee meetings (3 Federal &amp; 4 State agencies), and 2X each month rest of year</p> <p><u>5/24</u>: DNR CTP meeting with HSEMD</p> <p><u>8/14</u>: Meeting with Dubuque Co. on integrating watershed planning with mitigation planning</p> <p><u>10/16</u>: Meeting with Winneshiek Co. on integrating watershed plan &amp; mitigation plan</p> <p><u>10/24</u>: HSEMD present how to integrate flood mitigation &amp; watershed plans at conf. in Dubuque</p> <p><u>10/29</u>: Mtg to review Upper Wapsipinicon Watershed Plan for flood mitigation elements</p> <p><u>11/7</u>: Iowa/Fed Partners meeting in Sidney, IA focused on Nishnabotna watershed</p> |

| Iowa Hazard Mitigation Plan Activities  | Year                                     | Related Activities (planning initiatives & efforts with which hazard mitigation plan integrated)  |
|---|--|---|
| <p><u>All year</u>: Gathered data collection sheets as counties submitted local hazard mitigation plans</p> <p><u>2/4</u>: Iowa Silver Jackets meeting<br/><u>2/6&amp;13</u>: Meetings with Center for Rural Affairs</p> <p><u>6/12</u>: HSEMD &amp; Iowa NRCS meeting to discuss integrating flood mitigation &amp; WFPO</p> <p><u>7/29</u>: Iowa Silver Jackets meeting<br/><u>8/4</u>: Meeting to discuss opportunities for collaborating flood mitigation efforts with water quality efforts of IDALS and DNR</p> <p><u>8/26 &amp;9/25</u>: Meetings between HSEMD &amp; Nature Conservancy (TNC) to discuss opportunities for collaboration regarding flood mitigation, watershed approach &amp; natural infrastructure</p> <p><u>9/3</u>: HSEMD mtg with USGS on collaborating on planning &amp; flood mitigation</p> <p><u>9/17</u>: In Water Resources Coordinating Council (WRCC) meeting discuss coordinating flood reduction and nutrient reduction efforts</p> <p><u>10/23</u>: HSEMD &amp; IDALS meeting on Iowa Storm Water Management Manual (ISWMM) update &amp; making outreach to cities to adopt higher standards</p> <p>-</p> | <p>2020</p> <p>[CO<br/>VID<br/>HITS]</p> | <p><u>11/13-14</u>: CTP meetings (“Rendezvous”)</p> <p><u>All year</u>: Meetings of watershed management authority (WMA) boards and other meetings of the Iowa Watershed Approach (IWA) project. Studies, data collection, mitigation actions and so forth discussed at these meetings. These discussions fed into strategy for hazard mitigation plan.</p> <p><u>1/16</u>: Reveal of Iowa Flood Risk Toolkit- an outcome of CTP integrating with HSEMD</p> <p><u>1/21-23</u>: Recovery Plan Exercises -Allamakee County</p> <p><u>5/11</u>: Meeting on developing Iowa Commercial Property Buyout Guide</p> <p><u>6/3</u>: Meetings with Dubuque County officials about watershed approach flood mitigation</p> <p><u>7/15</u>: HSEMD Mtg with Rural Electric Cooperatives (REC) representative about prospects of mitigation project with portable generators</p> <p><u>10/13</u>: Lower Missouri River Nature-based Flood Resilience &amp; Insurance Study meeting (w/TNC)</p> <p><u>10/23</u>: Federal Partners Watershed Approach Principles Working Group meeting</p> <p><u>11/5</u>: USACE &amp;State of Iowa Partnering meeting</p> |

| Iowa Hazard Mitigation Plan Activities   | Year        | Related Activities (planning initiatives & efforts with which hazard mitigation plan integrated)  |
|--|-------------|---|
|  |             | <p><u>12/9</u>: HSEMD &amp; DNR meeting on choosing who to help and how to help Communities Understand Their flooding (Help CUT Flooding)<br/> <u>12/15</u>: Federal Partners in Mitigation and Resilience - Watershed Approach meeting</p>   |
| <p>All year:<br/>           - Gathered data collection sheets when counties submitted their local hazard mitigation plans<br/> <u>2/3</u>: Iowa Silver Jackets meeting<br/> <u>2/4-5</u>: Meetings with Dubuque Co., USACE and USGS on collaboration &amp; flood modeling<br/><br/> <u>3/1</u>: Help CUT Flooding meeting – discuss with ISWEP, DNR-mapping, DNR-Dam Safety, DNR-Floodplain, USACE, IEDA, NRCS, HUD, USGS, FEMA, IDALS, HSEMD on how all partners can collaborate to Help CUT Flooding<br/> <u>3/5</u>: ISWMM update meeting with HSEMD, IDALS, DNR<br/><br/> <u>5/6</u>: Iowa Silver Jackets meeting<br/><br/> <u>8/31</u>: Iowa Silver Jackets meeting<br/><br/> <u>9/9</u>: HSEMD &amp; NRCS meeting on collaborating efforts for WFPO and flood mitigation planning in HSEMD<br/><br/>           Fall:</p> | <p>2021</p> | <p><u>All year</u>: Meetings of WMA boards and other meetings of the IWA project. Studies, data collection, mitigation actions and so forth discussed at these meetings. These discussions fed into strategy for hazard mitigation plan.<br/><br/> <u>2/16</u>: Meeting with USACE and City of Clive on economic models to estimate flood loss<br/> <u>2/18</u>: Marshall County Economic RSF workshop<br/> <u>2/25</u>: English River WMA meeting<br/><br/> <u>3/2</u>: Federal Partners in Mitigation and Resilience-Resilient Watershed Strategy meeting<br/><br/> <u>4/5</u>: Help CUT Flooding meeting w/several state and federal agencies, Iowa Flood Center (IFC) and ISWEP<br/> <u>4/8</u>: HSEMD present how to build natural infrastructure and reduce flooding with HMA at virtual Iowa Water Conference<br/> <u>4/19</u>: Federal Partners in Mitigation and Resilience-Resilient Watershed Strategy meeting<br/> <u>4/30</u>: Missouri River Nature-based Flood Resilience &amp; Insurance Study meetings (with TNC, USACE, &amp; insurance professionals)<br/> <u>6/2</u>: Missouri River Nature-based Flood Resilience &amp; Insurance Study meetings (with TNC, USACE, &amp; insurance professionals)<br/> <u>6/21</u>: Missouri River Nature-based Flood Resilience &amp; Insurance Study meetings (with TNC, USACE, &amp; insurance professionals)<br/><br/> <u>8/3</u>: Federal Partners in Mitigation &amp; Resilience-Resilient Watershed Strategy meetings<br/><br/> <u>9/9</u>: Federal Partners in Mitigation &amp; Resilience-Resilient Watershed Strategy meetings</p> |

| Iowa Hazard Mitigation Plan Activities  | Year        | Related Activities (planning initiatives & efforts with which hazard mitigation plan integrated)   |
|---|-------------|--|
| <ul style="list-style-type: none"> <li>- Identified data and maps needed for hazard analysis and risk assessment</li> <li>- Reviewed past programs and agencies that have supported hazard mitigation</li> <li>- Found or verified contact information for representatives of programs and agencies that support hazard mitigation</li> </ul>   |             |  |
| <p>All year:</p> <ul style="list-style-type: none"> <li>- Gathered data for and worked on risk assessment and maps</li> <li>- Gathered data on State facilities to estimate potential losses</li> <li>- Gathered data collection sheets when counties submitted their local hazard mitigation plans</li> <li>- Collected hazard mitigation capability information from State, federal and other agencies</li> </ul> <p><u>1/19</u>: Iowa Silver Jackets Meeting<br/> <u>1/28</u>: Workshop with SHMT and other to review requirements of HM Plan update<br/> <u>3/2</u>: Levee partnership opportunities meeting HSEMD and USACE</p> <p><u>3/29</u>: HSEMD &amp; NRCS meeting on collaborating to find areas with greatest potential of using a watershed approach to reduce flooding<br/> <u>4/8</u>: Meeting with District 4 Emergency Management (EM) Coordinators to get input on local mitigation efforts<br/> <u>4/12</u>: Meeting with DAS on state facilities threatened by hazards</p> <p><u>4/20</u>: Iowa Silver Jackets meeting</p> <p><u>5/9</u>: Meeting with DOT about road &amp; bridge flooding<br/> <u>6/1</u>: Hazard Mitigation, Wetlands and Watershed Approach meeting to integrate efforts of NRCS, DNR, HSEMD and IDALS<br/> <u>6/2</u>: Meeting with Electric Cooperatives rep.<br/> <u>6/7</u>: Meet with WRCC to discuss flood mitigation and mitigation plan update</p> | <p>2022</p> | <p><u>3/1</u>: Drought Plan Development Team (IDALS, DNR, HSEMD, others) meeting<br/> <u>3/10</u>: WRCC mtg with input from HSEMD, IEDA, IDOT, ISU Extension, USGS, NRCS, NWS, DNR, &amp; IDALS<br/> <u>3/16</u>: Drought Plan Development Team Meeting</p> <p><u>4/6</u>: Drought Plan Development Team Meeting</p> <p><u>4/15</u>: Meeting with Wetlands and Hazard Mitigation Planning Advisory Committee, composed of representatives from Environmental Law Institute (ELI), TNC, National Wildlife Federation and others<br/> <u>4/19</u>: Mitigation for Emergency Managers training<br/> <u>4/21</u>: Meeting with ISU on local grid resiliency</p> <p><u>5/26</u>: Drought Plan Development Team Meeting</p> <p><u>6/9</u>: Drought Plan Development Team Meeting</p> |

| Iowa Hazard Mitigation Plan Activities   | Year                   | Related Activities (planning initiatives & efforts with which hazard mitigation plan integrated)   |
|--|------------------------|--|
| <p><u>6/14</u>: Get input on local mitigation at meeting with District 6 EM Coordinators</p> <p><u>7/8</u>: Joint meeting of Silver Jackets &amp; SHMT. Attendees solicited to:</p> <ul style="list-style-type: none"> <li>- Update info on their respective programs and agencies</li> <li>- Give info on progress toward actions</li> <li>- Consider &amp; share ideas for new actions</li> </ul> <p><u>7/11</u>: Iowa Silver Jackets meeting</p> <p><u>July</u>: Meetings and communication with Iowa Cultural Affairs (state historic preservation) integrating their planning effort with mitigation planning</p> <p><u>July</u>: Meetings with DNR Dam Safety Program and Floodplains staff to get their data, analysis and input on HHP dams (7/26) and to review and evaluate NFIP and CRS efforts in Iowa</p> <p><u>July and August</u>: Meetings to develop criteria for prioritizing jurisdictions and projects for grant awards</p> <p><u>8/10</u>: Meeting with HSEMD, IEDA and DNR</p> <p><u>8/12</u>: Meeting with IDOT, HSEMD and DNR</p> <p><u>8/12</u>: HSEMD meeting with Department of Public Safety (DPS) State Fire Marshall (key topic: building codes and enforcement)</p> <p><u>8/15</u>: HSEMD &amp; NRCS meeting on potential of using a watershed approach to reduce flooding</p> <p><u>8/15</u>: Meeting with Iowa Utilities Board (IUB), HSEMD and DNR</p> <p><u>8/18</u>: Meeting with Shelby County officials regarding economic impacts of disasters and how to prepare, recover and mitigate</p> <p><u>8/25</u>: Meeting with Iowa Health and Human Services (IHHS), HSEMD and DNR</p> <p><u>9/8</u>: Get input on local mitigation at meeting with District 3 EM Coordinators</p> <p><u>9/9</u>: Meeting with DNR Water Supply Engineering regarding vulnerability of public drinking water systems</p> <p><u>9/12</u>: Meeting with administrators and staff of cities (&amp; a mayor) to get input on hazard threats, mitigation challenges and successes</p> <p><u>9/20</u>: HSEMD and DNR-mapping meeting</p> <p><u>9/21</u>: WRCC meeting with:</p> <ul style="list-style-type: none"> <li>- IWA final report and lessons learned</li> </ul> | <p>2022<br/>Cont'd</p> | <p><u>6/14</u>: IWA Partner meeting (wrap-up meeting)</p> <p><u>6/23</u>: Drought Plan Development Team Meeting</p> <p><u>7/6</u>: Drought Plan Stakeholder Input Iowa Falls</p> <p><u>7/21</u>: Drought Plan Stakeholder Input Meeting Cedar Rapids</p> <p><u>7/22</u>: Meeting with Dept. of Cultural Affairs</p> <p><u>8/3</u>: Virtual Drought Plan Stakeholder Input mtg.</p> <p><u>8/26</u>: HSEMD meet with ELI about Wetlands and Hazard Mitigation Planning</p> <p><u>9/1</u>: Drought Plan Development Team Meeting</p> <p><u>9/9</u>: Federal Partners in Mitigation/Resilience mtg</p> <p><u>9/14</u>: Drought Plan Development Team Meeting</p> |

| Iowa Hazard Mitigation Plan Activities  | Year           | Related Activities (planning initiatives & efforts with which hazard mitigation plan integrated)   |
|---|----------------|--|
| <ul style="list-style-type: none"> <li>- 4 Points to Helping Locals Reduce Flooding with Watershed Approach</li> <li>- IEDA project for bioretention &amp; flood mitigation</li> <li>- IEDA using Green Streets criteria in CDBG disaster recovery projects</li> <li>- Drought Plan update &amp; input</li> </ul> <p><u>9/21</u>: THIRA &amp; Hazard Mitigation Plan Collaboration Meeting</p> <p><u>10/6</u>: Iowa Silver Jackets Meeting, including:</p> <ul style="list-style-type: none"> <li>- Challenges of locals in mitigation</li> <li>- Mitigation Goals and objectives</li> </ul> <p><u>10/13</u>: Present at conference on Help CUT Flooding, with DNR and USACE, &amp; get input</p> <p><u>10/26</u>: Meet with State Climatologist on considerations of changing future conditions, including the effects of changes in weather patterns and climate on hazards.</p> <p><u>10/27</u>: Meeting addressing Diversity, Equity and Inclusion in hazard mitigation efforts</p> <p><u>11/4</u>: HSEMD meeting with U.S. EPA about integrating EPA’s resources into local jurisdiction mitigation efforts</p> <p><u>12/2&amp;12</u>: SHMT Meetings:</p> <ul style="list-style-type: none"> <li>- Challenges of locals in mitigation</li> <li>- Combining Goals and objectives</li> <li>- Considering social vulnerability</li> <li>- Impacts of climate change</li> <li>- Types of mitigation actions</li> <li>- Review analysis &amp; risks of hazards</li> <li>- Consider actions to mitigate risks</li> </ul> | 2022<br>Cont’d | <p><u>9/28</u>: Drought Plan Development Team Meeting</p> <p><u>10/19</u>: Drought Plan Development Team Meeting</p> <p><u>12/8</u>: USACE &amp; State of Iowa Partnering meeting</p> <p><u>12/14</u>: Drought Plan Development Team Meeting</p> |
| <p><u>1/9</u>: Iowa Silver Jackets meeting which included:</p> <ul style="list-style-type: none"> <li>- Coordinating mitigation-related training and assistance that different agencies provide to locals</li> <li>- Goals, Objectives &amp; Mitigation Actions</li> </ul> <p><u>2/15</u>: Levee performance evaluations meeting with HSEMD, USACE and NRCS</p> <p><u>3/31</u>: HSEMD &amp; DNR meet to discuss State Revolving Fund and Hazard Mitigation</p> <p>April: Survey of SHMT &amp; Silver Jackets to get input on mitigation actions</p> <p><u>4/11</u>: SHMT meeting:</p> <ul style="list-style-type: none"> <li>- Decide on changing wording of actions</li> <li>- Decide on proposed new actions</li> <li>- Discuss how to prioritize actions</li> </ul>  | 2023           | <p><u>2/16 &amp; 3/3</u>: Meetings with IFC, USGS and USACE on identifying areas with greatest Potential Of using a Watershed Approach to Reduce Flooding (POWAR Flooding)</p>   |

| Iowa Hazard Mitigation Plan Activities   | Year | Related Activities (planning initiatives & efforts with which hazard mitigation plan integrated)   |
|--|------|--|
| <p><u>April:</u> Meetings with Ducks Unlimited on collaborating on flood mitigation<br/> <u>4/19:</u> Sub-committee meets to decide on drought mitigation actions to include<br/> <u>4/21:</u> Continuation of 4/11 SHMT meeting</p> <p><u>4/27:</u> Iowa Silver Jackets meeting. Reviewed &amp; decide on mitigation actions related to flood hazards or dam/levee failure.<br/> <u>5/2:</u> Sub-committee meets to decide on levee-related mitigation actions to include<br/> <u>5/4:</u> Joint meeting of SHMT and Silver Jackets to prioritize the Mitigation Actions of the Planning and Regulation Category and the Warning and Redundancy to Mitigate Disaster Disruptions Category<br/> <u>5/12:</u> Meeting about portable generators with representatives from Iowa Association of Municipal Utilities (IAMU), RECs, ISU and HSEMD<br/> <u>May:</u> Online survey of SHMT and Silver Jackets members to complete prioritization of mitigation actions and assign roles/responsibilities<br/> <u>June:</u> Formal rule-making procedure began so hazard mitigation plan can be adopted<br/> <u>July:</u> Period for public to comment on hazard mitigation plan<br/> <u>July – August:</u> Final changes made to hazard mitigation plan</p> |      | <p><u>4/26:</u> Meeting with Wetlands and Hazard Mitigation Planning Advisory Committee (representatives from ELI, TNC, National Wildlife Federation and others)</p> |