State of Iowa

Iowa Comprehensive Emergency Plan

Part B: Iowa Hazard Mitigation Plan

September 2023

State of Iowa Hazard Mitigation Plan
Chapter 4: Local Mitigation: Capability and Coordination

4. Local Mitigation: Capability and Coordination

Successful mitigation of hazard risks can only occur through the efforts of local entities. State and federal resources can be targeted toward certain types of actions, but local jurisdictions and people are the ones who must recognize problems, begin the process of discovering solutions, and finally, commit to mitigating the hazard impacts that have or could occur where they live. This section will explore the capabilities of local jurisdictions and entities to carry out mitigation efforts, and how the State coordinates with them in their mitigation planning and project implementation.

4.1. Local Mitigation Capability

4.1.1. Local Hazard Mitigation Policies, Programs, and Capabilities

Local hazard mitigation plans are an excellent means of discovering the policies, capabilities and programs local jurisdictions have to assist them in their mitigation efforts. This information can be difficult to extract from all the plans, but the Iowa Department of Homeland Security and Emergency Management (HSEMD) has made such data collection easier by requiring the submission of data collection sheets when local hazard mitigation plans are submitted. The data collection sheets include a spreadsheet which lists the mitigation-related planning capabilities, policies and ordinances, programs, studies, reports, maps, and staff that are available to each jurisdiction covered by the mitigation plan.

In addition to listing the types of plans jurisdictions have that deal with mitigation, these data collection sheets also identify that local jurisdictions in Iowa have a variety of policies and ordinances that mitigate hazard impacts, such as building codes and zoning, floodplain, tree trimming, storm water, and subdivision and site development. Staff, organizational, and institutional capabilities available to jurisdictions include county emergency managers, building inspectors, engineers, floodplain administrators, economic development coordinators, councils of government, county emergency management commissions, watershed management authorities, and soil and water conservation districts.

Examples and more details on some of these policies, ordinances, and capabilities are laid out in this section. In addition, the level of involvement of jurisdictions in the National Flood Insurance Program (NFIP) is also examined, including a discussion about the communities that participate in the Community Rating System (CRS). Involvement in the National Weather Service's (NWS) Storm Ready program in Iowa is also presented.

A. Policies and Ordinances

In 2015 the State of Iowa passed legislation that adopted a state building code. The legislation makes the building code applicable to all Iowa cities with a population of 15,000 or more that have not adopted a local building code substantially in accord with the standards of a national building code organization. In addition, the state building code becomes applicable to any jurisdiction (county or city with less than 15,000) that has an ordinance passed accepting the application of the code. The adjoining list shows the cities with a building code, as of October 2022. Building codes and code enforcement are a key method of mitigating many hazards, and with this legislation there is much more assurance of local capability in this regard.

While not every city in Iowa has a building code, over half of the population of Iowa live in cities do. It is difficult for many small cities to adequately administer and enforce a building code. Many small cities

Iowa Cities with Building Code that Meets or Exceeds State Building Code

Adel	Le Mars
Algona	Madrid
Altoona	Marion
Ames	Marshalltown
Ankeny	Martensadle
Asbury	Mason City
Avoca	Maxwell
Bettendorf	Missouri Valley
Bondurant	Mitchellville
Boone *	Monroe
Burlington	Mount Pleasant
Carlise	Muscatine
Carroll	Nevada
Cedar Falls	Newton
Cedar Rapids	North Liberty
Centerville	Norwalk
Chariton	Orange City
Charles City	Osceola
Clear Lake	Oskaloosa
Clinton	Ottumwa
Clive	Panora
Colfax	Pella
Coralville	Perry
Council Bluffs	Pleasant Hill
Creston	Pleasantville
Cumming	Polk City
Davenport	Postville
Dallas Center	Prairie City
De Soto	Roland
Denison	Runnells
Des Moines	Sergeant Bluff
DeWitt	Shenandoah
Dubuque	Sioux Center
Earlham	Sioux City
Eldridge	Slater
Elkhart	Spirit Lake
Evansdale	Saint Charles
Fort Dodge	Storm Lake
Fort Madison	Stuart
Grimes	Tipton
Granger	Urbandale
Grinnell	Van Meter
Harlan	Vinton
Hartford	Washington
Hiawatha	Waterloo
Hudson	Waukee
Indianola	Waverly
Iowa City	Webster City
Iowa Falls	West Burlington
Jesup	West Des Moines
Johnston	Windsor Heights
Keokuk	Winterset
Knoxville	Woodward
Le Claire	

do not even have a clerk or administrator that works full-time, so having a building inspector is a bit much to expect. Yet, even small towns have to deal with natural hazards. Fortunately, small towns do not have to have a building code to prevent and mitigate natural hazards. Many, if not most, of the requirements in a building code do not have to do with natural hazard mitigation, but rather man-made hazards from electrical and plumbing, etc. Many cities that do not have a building code still have other codes that address natural hazards. For instance, over 700 jurisdictions (of roughly 1040 cities and counties) participate in the National Flood Insurance Program and thus have an ordinance regulating development in floodplains.

Many of these smaller towns actively pursue projects and activities to mitigate hazards, even though they do not have the staff or resources to sustain the ongoing commitment of a building inspector and building code program. Many of these small towns pursue grants from FEMA Hazard Mitigation Assistance to complete the mitigation actions they diligently document in their local Hazard Mitigation Plans. Unfortunately, they are virtually shut out from getting any funding from FEMA's Building Resilient Infrastructure and Communities (BRIC) grant program because they cannot get dozens of points in the competitive scoring process because they lack a building code and enforcement program. Even though they are underserved communities and may have socially vulnerable populations, there is very little chance that they could rise above such barriers that the BRIC scoring methodology imposes. FEMA is strongly encouraged to demonstrate its commitment to hazard mitigation in these smaller communities by changing its scoring system for the BRIC program. If FEMA will not significantly change such scoring factors, then FEMA is strongly encouraged to include in their plans a strategy with action steps toward developing other assistance or perhaps code-related recommendations for small towns that does not include adopting a full building code established by a for-profit company. FEMA should identify the requirements that are most important and applicable to preventing building damage from natural hazards (as natural hazards are the only type of hazards authorized for mitigation funding anyway). If FEMA cannot understand codes themselves to come up with their own code requirement recommendations and must rely on a private for-profit company to do it for them, certainly very small towns cannot be expected to have the understanding and/or resources to identify and adopt codes they are capable of enforcing.

Certainly, it would behoove many small towns to have some building codes to protect their future residents, but the benefit must exceed the cost, and when many small towns see little to no growth, there is simply not much benefit in adopting a full-fledged International Building Code – a code with fewer, but important, requirements would do far more

good for the cost and ongoing burden. The State has a strategy to help communities realize the importance of building codes. Action steps include outreach to communities to let them know that not only will they protect their citizens, but they will have a better chance at getting BRIC funding if they apply for it. But, state staff realizes that not every city will be able to successfully adopt and enforce a full building code. A key action step for such communities is to identify important requirements that could be administered by smaller communities and let them know what they are and how to do it. The profiles of some of the natural hazards discussed in Chapter 3 include a few of these possible requirements. More research needs to be done about how such requirements can be administered in practice, by small communities, and which requirements have the biggest "pay-off".

In addition to building code ordinances, local jurisdictions have been making great strides in passing ordinances for storm water control. Recently, the Iowa Storm Water Management Manual was developed and posted at Iowa DNR's website. The manual provides information on hydrologic changes with urban development, uniform sizing criteria, low-impact development alternatives and design guidelines for practices that protect water quality and reduce stream corridor erosion. Several local jurisdictions have adopted the uniform sizing criteria referenced in the manual. The Iowa Storm Water Education Partnership lists several communities that have adopted these or other storm water management ordinances. Most of the larger cities, shown in the list above, have adopted storm water management ordinances. A few counties and even several small cities have also adopted storm water management, construction site run-off control, or stream buffer ordinances. Even Panora, with just over 1000 people, adopted such an ordinance.

B. Staffing and Institutional Assistance and Capabilities

As may be expected, many of the larger cities or counties have community development, planning, or other staff who can help with mitigation efforts. Most Iowa jurisdictions, however, have small populations and few resources with which to hire staff to manage projects or programs. Still, though most small cities do not have the capability or knowledge themselves, many small cities are gaining staff assistance through their alignment with councils of government or, more recently, watershed management authorities (WMA). In 2010, Iowa lawmakers passed legislation authorizing the creation of WMAs, which are a mechanism for cities, counties, soil and water conservation districts (SWCD) and stakeholders to cooperatively engage in watershed planning and management. A WMA may undertake the following activities:

- Assess and reduce flood risk
- Assess and improve water quality
- Monitor federal flood-risk planning and activities
- Educate residents of the watershed regarding flood risks and water quality
- Allocate moneys made available to the authority for purposes of water quality and flood mitigation

Several WMAs have staff who work on these activities on behalf of the cities, counties, and SWCDs that are members of the WMA. For example, the Walnut Creek WMA and the Fourmile Creek WMA collect funds from their participating entities and other sources to pay for staff to assist them.

C. National Flood Insurance Program and Community Rating System

The number of jurisdictions that participate in the National Flood Insurance Program (NFIP) continues to increase in Iowa. This is reflected in local policies and ordinances aimed at reducing development in flood plains and other hazard areas as well as providing homeowners the opportunity to purchase flood insurance through the NFIP. Several communities are in the process of applying for NFIP membership; in

part they do so to become eligible for federal and State mitigation funds. In 2010 there were 517 Iowa communities participating in the NFIP. In 2018, the number of communities participating had grown to 672. In July 2021 there were 688, and in 2022 there were 691. At last count in Spring 2023 there were 711.

While the increase in participating communities is good, there are still about 177 communities with mapped flood hazard areas that are not participating. Several of those, however, have no structures in the mapped floodplains and no plans to expand. The DNR's Floodplain Management staff has in their annual work plan to contact all these communities, but many of them do not have enough incentive or motivation to participate in NFIP.

Iowa law allows the Iowa Department of Natural Resources (DNR) to delegate the State's floodplain regulatory functions to a local government that has a flood study identifying the regulatory floodway and floodway fringe along with 100-year flood profile(s) and a floodplain management ordinance meeting NFIP and State minimum requirements. The State allows communities with delegated floodplain management authority to issue floodplain development permits for most types of development in lieu of the DNR. The State has delegated floodplain authority to approximately 136 communities participating in the NFIP. As part of the delegation process, the State retains the right to concur with or deny the granting of any variance from the community's floodplain management regulations. Although the State of Iowa's criteria for new floodplain development is similar to the minimum NFIP criteria in most respects, there are some important differences. For example:

- The lowest floor of new structures must be elevated an additional foot above the 100-year flood.
- Iowa does not allow new residential structures in the floodway.
- Residential structures must have wheeled vehicular access during the 100-year flood.
- The substantial improvement threshold includes additions that increase a building's footprint by 25 percent or more.
- All post-FIRM (Flood Insurance Rate Map) additions are considered cumulative improvements in the determination of increase in floor area.

As of March 2023, 13 communities participate in the Community Rating System (CRS) in the state of Iowa. These communities all voluntarily participate in activities that exceed the minimum standards for the NFIP. The communities receive discounted flood insurance rates for implementing activities that reduce flood damage to insurable property, support the insurance aspects of the NFIP, and encourage a comprehensive approach to floodplain management. The communities and the respective flood insurance discounts available to their citizens is shown in the following table:

Community Participating in Community Rating System (CRS)	CRS Class (as of October 2021)	% Discount on Flood Insurance	
		For Property in Special Flood Hazard Area	For Property Not in Special Flood Hazard Area
Cedar Falls, City of	5	25	10
Cedar Rapids, City of	6	20	10
Charles City	9	5	5
Clive, City of	5	25	10
Coralville, City of	7	15	5
Davenport, City of	7	15	5
Des Moines, City of	7	15	5
Iowa City, City of	6	20	10

Community Participating in Community Rating System (CRS)	CRS Class (as of October 2021)	% Discount on Flood Insurance	
		For Property in Special Flood Hazard Area	For Property Not in Special Flood Hazard Area
Kalona, City of	9	5	5
Linn County	7	15	5
Pottawattamie County	9	5	5
Story County	7	15	5
Urbandale	7	15	5

D. Dam Safety Program

Until recently, Iowa was one of the few states that did not have the authority to require a dam owner of a high hazard potential dam (HHPD) to prepare an Emergency Action Plan (EAP). Fortunately, Iowa regulations have changed since the last update of the Iowa Hazard Mitigation Plan and now High Hazard dams must develop an EAP. It is very important that HHPDs have EAPs as it has "long been established that having an EAP reduces the potential for loss of life downstream of dams"[1]. The EAP accomplishes three important objectives:

1. Identifies the area below the dam that would be flooded from a failure,

2. Establishes lines of communication for the dam owner and emergency response personnel, and

3. Provides for warnings and evacuations to be conducted by police, fire, and rescue teams.

As of 2023, about two-thirds of the HHPDs have EAPs. But, now that EAPs have become a requirement, the expectation is that dam owners and the local communities in which they reside will become more capable to address the risks of the dams.

Several resources are available to help dam owners develop EAPs. The USACE has helped develop EAPs and inundation mapping for about one HHPD each year. An EAP was recently completed by them for the Virden Creek Dam in the Waterloo area. This next year they will be helping update EAPs for a series of dams along Bacon Creek in the Sioux City area. Iowa DNR's Levee Safety Program was also involved with those efforts, and they have pursued funding and resources to help other dam owners create or update EAPs for HHPDs. Thus, all HHPDs are expected to have EAPs within the next five years.

Dam owners are not the only ones who should be prepared to deal with a dam failure. Local emergency management and other officials should also know the risks and be prepared for them. Several counties and cities have looked closely at the risks associated with HHPDs in their jurisdictions. The following counties included extensive analyses of the risk of HHPD dam failures in their local hazard mitigation plans: Adams, Carroll, Clinton, Dallas, Jackson, Johnson, Lucas, Polk and Sioux. The Plans for these counties contained detailed estimates of the number of buildings and dollar losses associated with dam failures. Thus, they may be more prepared than the other 29 counties that have HHPDs. On the other

[1] From page 9 of Iowa DNR's *Maintenance Manual for Dam Owners* found at https://www.iowadnr.gov/Portals/idnr/uploads/water/dams/dams_manual.pdf

hand, inundation maps exist for most of the HHPDs in the state. In fact, only 11 counties do not have any inundation maps for any of the HHPDs in their jurisdictions. So, while many counties may not have calculated the estimated losses from dam failures, they at least have maps that show the areas that would be inundated.

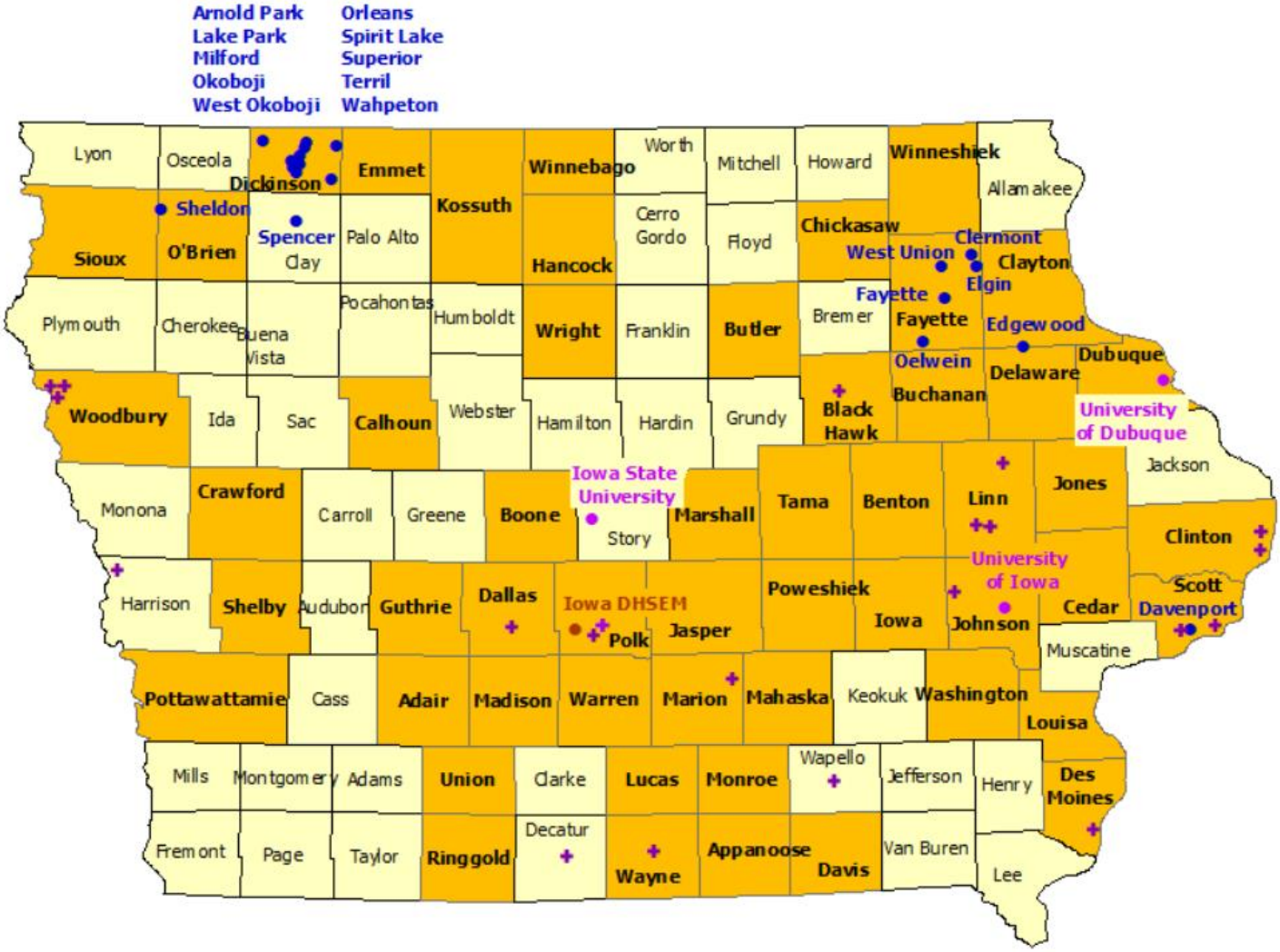
E. Storm Ready

Storm Ready is a NOAA National Weather Service program that helps community leaders and emergency managers strengthen their local safety programs by preparing for severe weather through advanced planning, education, and awareness. Iowa currently has 76 Storm Ready sites as shown on the adjoining map.

In addition to the 76 Storm Ready sites, there are 21 Storm Ready supporters in Iowa. Supporters of the Storm Ready program include Howard H. Cherry Scout Reservation and Little Sioux Scout Ranch. The Little Sioux Scout Ranch has built multiple tornado safe rooms through private partnerships following the devastation it experienced June 11, 2008, when an EF3 tornado ravaged the camp, killing four Boy Scouts and injuring 48 others. The Howard H. Cherry Scout Reservation in Central City has seven tornado safe rooms at the Howard H. Cherry Scout Reservation.

On April 13, 2006, Iowa City, which is located in Storm Ready Johnson County, experienced an F2 tornado which swept through the heart of the city. The Johnson County Sheriff's Office and St. Patrick's Catholic Church were critically damaged by the tornado's path of destruction. Due to timely forecasts and warnings from the National Weather Service and the quick actions of the emergency management community in following adopted procedures that included activating indoor warning systems and outdoor tornado sirens, nearly 50 people took appropriate action which saved them from injury or even death. Johnson County officials and other community leaders had joined Storm Ready to develop plans to handle all types of severe weather prior to the tornado event which enabled them to prevent what could have been a terrible tragedy. In response, the National Weather Service honored five community heroes involved in the Iowa City tornado for their life-saving actions. On July 17, 2010, Dickinson County, another Storm Ready county, experienced damaging winds. No injuries or deaths were reported during the storm. Many residents, and the county's emergency manager, credited the NWS for the advance warning. Local media credited NWS, along with the county being Storm Ready, specifically, as reasons why there were no casualties.

Storm Ready Counties and Other Storm Ready Sites in Iowa, 2023. Source: https://www.weather.gov/stormready/ia-sr.
Storm Ready counties are colored orange.
Other Storm Ready sites are shown with points.



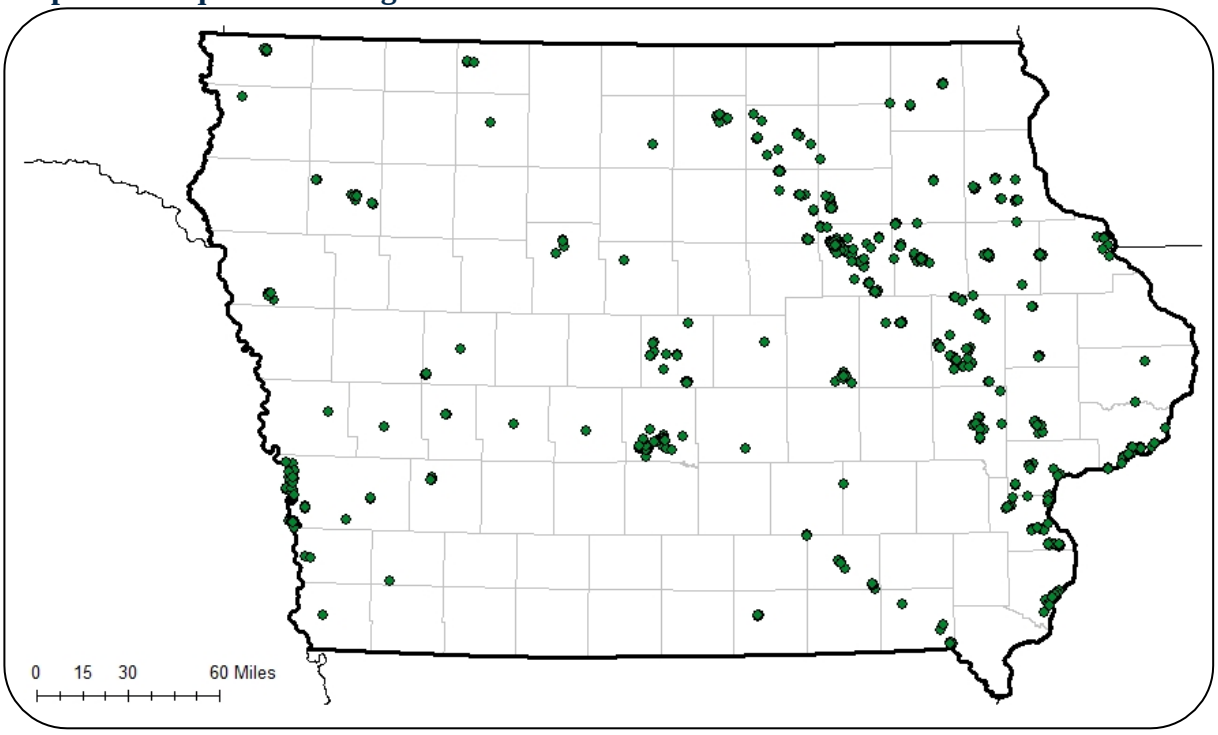
4.1.2. Effectiveness of Local Hazard Mitigation Policies, Programs, and Capabilities

The effectiveness of community mitigation capabilities and programs can be seen in the number of communities that have acquired property in flood hazard areas to ensure no future damage occurs to structures upon these properties. Communities in Iowa have acquired many properties, demolished them, and turned them into perpetual greenspace through Hazard Mitigation Assistance (HMA) programs. The following chart shows the number of acquisitions made with HMA funding assistance, how many are greenspace, and the number of communities. The chart also illustrates how much has been done at the local level to address the many repetitive loss properties in their jurisdictions. A repetitive loss property is one in which the owner holds NFIP flood insurance for the property, and has made two or more claims on it of at least $1000 each within any rolling 10-year period. As the chart shows, at least 124 repetitive loss properties have been acquired. That number only reflects repetitive loss properties that were acquired with funding from the sources indicated on the chart. Other properties have been acquired with other sources, such as Community Development Block Grant funds. Following the chart is a map that

shows where flood-prone properties, both repetitive loss and others, have been acquired throughout the state.

Disaster Funding Source	Properties Acquired	Perpetual Green Space	Number of Communities	Repetitive Loss Properties	Number of Communities
DR-4642	2	2	2	0	0
DR-4557	7	7	3	2	1
DR-4483	5	5	1	0	0
DR-4421	256	256	13	1	1
DR-4386	30	30	6	1	1
DR-4334	12	12	1	1	1
DR-4289	43	43	8	10	4
DR-4281	4	4	1	0	0
DR-4234	10	10	1	2	1
DR-4187	25	25	2	0	0
DR-4184	37	37	5	2	2
DR-4181	11	11	3	0	0
DR-4126	41	41	2	8	1
DR-4119	1	1	1	1	1
DR-4114	1	1	1	1	1
DR-1998	4	4	1	0	0
DR-1930	17	5	4	2	2
DR-1880	86	85	6	8	3
DR-1763	933	922	33	85	19
TOTAL	**1525**	**1501**		**124**	

Properties Acquired to Mitigate Future Flood Loss. Source: Iowa HSEMD



Another way in which communities can be seen to have been effective in their mitigation efforts is through the losses that have been avoided due to the mitigation projects they have initiated. HSEMD staff have kept track of several mitigation projects that local jurisdictions have completed since 1995. Whenever a hazard event strikes the area where the project was done, an estimate is made of the loss that was avoided because of the project. These avoided losses are recorded and over time one can see the value, or return on investment, of having completed the mitigation projects.

About 90 percent of these projects have been property acquisition projects, like those described above, however, some projects were electrical retrofit and drainage infrastructure. The adjoining table summarizes, by county, the best available data on avoided losses from mitigation projects in Iowa. Where the loss estimate was given in a range, the lowest/most conservative estimate was used. Projects were funded through FEMA Hazard Mitigation Assistance, FEMA Public Assistance, Community Development Block Grant, the Iowa Flood Mitigation Board, and local funds. The overall return-on-investment ratio for all the tracked projects is 1.36 as of March 2023.

County	Avoided Damage 1995-2023	Total Cost of Tracked Projects, 1995-2023	Return on Investment as of March 2023
Appanoose	$492,368	$227,796	2.16
Audubon	$570,032	$260,860	2.19
Benton	$8,546,181	$7,829,311	1.09
Black Hawk	$118,865,636	$36,412,848	3.26
Bremer	$3,761,462	$8,756,878	0.43
Buchanan	$35,290,646	$6,228,038	5.67
Buena Vista	$30,613,506	$19,765,363	1.55
Butler	$7,021,441	$4,971,566	1.41
Carroll	$707,779	$621,589	1.14

County	Avoided Damage 1995-2023	Total Cost of Tracked Projects, 1995-2023	Return on Investment as of March 2023
Cass	$307,730	$172,454	1.78
Cedar	$3,893,161	$1,954,210	1.99
Cerro Gordo	$19,097,946	$12,279,092	1.56
Cherokee	$57,003,037	$9,069,163	6.29
Chickasaw	$222,337	$370,069	0.60
Clay	$3,269,980	$2,684,440	1.22
Clayton	$34,911,462	$9,069,319	3.85
Clinton	$139,406	$26,062	5.35
Dallas	$49,980	$49,887	1.00
Delaware	$3,042,776	$2,664,262	1.14
Des Moines	$30,657,493	$2,981,756	10.28
Dubuque	$33,742,917	$211,170,232	0.16
Emmet	$713,304	$97,588	7.31
Fayette	$2,787,629	$443,814	6.28
Floyd	$8,414,849	$4,312,275	1.95
Franklin	$152,006	$64,313	2.36
Fremont	$39,595	$211,736	0.19
Guthrie	$282,702	$151,001	1.87
Hamilton	$149,940	$76,594	1.96
Harrison	$114,359	$88,332	1.29
Jasper	$92,319	$145,427	0.63
Johnson	$5,916,000	$14,365,177	0.41
Jones	$2,732,664	$2,081,809	1.31
Linn	$148,724,898	$94,149,120	1.58
Louisa	$63,037,815	$11,017,174	5.72
Lyon	$4,198,233	$4,744,225	0.88
Marshall	$0	$105,893	0.00
Mills	$4,696,171	$815,867	5.76
Montgomery	$511,360	$175,425	2.91
Muscatine	$5,839,714	$918,867	6.36
Osceola	$2,513,658	$605,611	4.15
Page	$49,568	$248,064	0.20
Palo Alto	$30,773	$54,357	0.57
Polk	$35,085,288	$29,426,936	1.19
Pottawattamie	$3,866,151	$11,205,295	0.35
Scott	$16,779,412	$4,461,689	3.76
Shelby	$0	$12,508	0.00
Sioux	$177,016	$263,676	0.67
Story	$19,132,004	$3,670,206	5.21
Tama	$18,460,997	$1,319,249	13.99
Van Buren	$2,944,238	$351,046	8.39
Wapello	$3,876,217	$20,732,336	0.19
Webster	$633,312	$1,558,716	0.41

County	Avoided Damage 1995-2023	Total Cost of Tracked Projects, 1995-2023	Return on Investment as of March 2023
Winneshiek	$484,746	$1,538,013	0.32
Woodbury	$1,343,625	$1,510,881	0.89
Wright	$5,518,766	$6,047,115	0.91
Statewide	**$751,506,605**	**$554,535,529**	**1.36**

4.1.3. Barriers and Challenges at the Local Level in Updating Local Mitigation Plans and Implementing Mitigation Plans, Policies and Programs

While several local jurisdictions have often been successful in their hazard mitigation efforts, many jurisdictions face challenges finding success. HSEMD staff held several meetings, both virtually and in-person across the state, with county emergency management (EM) coordinators and local city officials representing jurisdictions of various sizes and location (rural and urban) to discuss the status and future of local hazard mitigation planning. These sessions revealed several challenges to implementing local mitigation policies and programs as well as barriers to updating and implementing FEMA-approved local mitigation plans. Challenges and barriers identified at the local level include:

- Amount of information needed on an application is overwhelming for small towns, where the clerk is often part-time. Most of the jurisdictions in Iowa have small populations and few resources. They do not have the staff to manage projects or programs, nor the money to contract with someone else to do so. Many do not even have the time and capability to make application for funds to do projects.
- Staff at small cities and counties often don't have access or knowledge of the history or impacts of disasters. Also, they may not know about the presence of high hazard potential dams (HHPDs), much less the potential harm that could come from failure of an HHPD, or what to do in the event of such failure. As mentioned in section 4.1.1(D) above, only two-thirds of the HHPDs have EAPs. That means there are 30 or so HHPDs that lack EAPs, and so it is more likely that the officials in those communities would not have a plan about what to in the event of a dam failure. (An effort to address this is currently underway, as described in 4.1.1D.)
- Applications and procedures also complicated.
- Council of Governments (COGs) could help, but their time and abilities are limited.
- Not all of the right people attend planning meetings. While there are many volunteers present at the meetings, not enough public works, road or utility workers, or decision makers participate, resulting in hazard mitigation plans that do not contain good information about the problems in the community.
- It's hard to get people engaged. Hard to get buy-in from decision-makers.
- During mitigation planning, local jurisdictions create their wish list, but do nothing with it after that.
- When cities do submit a Notice of Interest (NOI) to HSEMD, usually the EM Coordinator does not know. It could help to tell EM Coordinators what is submitted in their county, perhaps on a semi-annual or annual basis so they can follow up with the communities if application development stalls.
- Communities do not know about resources and grant opportunities. Like, they do not know about RTTA, Silver Jackets, BRIC Project Scoping, etc.
- It would be helpful to have flyers to pass out, and presentations at the Clerk School, Iowa League of Cities. Need to get out in front of cities and identify what the cities need to do (to start mitigation efforts and how to follow through until project completion).

- Would be helpful to have lists of example projects, and divided by city size – so cities of different size would know what might be possible.
- Would be great to have outreach and training to small towns, and even help on application development. Talk to communities about the importance of simple and small things, like tree trimming. Share with them about programs and where they can get resources and help.
- Have one page flyers on all these different things. (No one reads much more than a page)
- Offer trainings regionally, so city staff can get to the trainings easier – try to piggy back on to League of Cities and other entities that do regional offerings.
- Hazard mitigation funding has multiple issues:
    - Cities do not have the money required for the engineering and other pre-award work, and they do not want to invest in something so speculative that may or may not result in a grant award.
    - Local match can be hard
- Even small projects, like generators and sirens, can be hard because of all the procedures that a local jurisdiction must do. It would be helpful if the state led a project that acquired multiple generators or sirens for multiple cities and lined up the generators, sirens and contractors to install, etc. This would be good even if it were only once every 5 years.
- Some communities are apprehensive of the long-term commitments/consequences that may come with mitigation. For example, if the community acquires a flood-prone property, they are unsure what they would do with the property and if they could afford the long-term maintenance of it.
- Commitment to keeping mitigation projects in place and maintaining them properly is a challenge. Several communities are face vulnerability to flooding because flood-protecting levees have not been maintained and are now ripe for failure.
- While many jurisdictions may enact ordinances to keep assets out of the danger of hazards, they do not always have the capacity to adequately enforce such ordinances.

4.1.4. Opportunities for Implementing Mitigation Actions through Local Capabilities

A host of opportunities for implementing and forwarding mitigation at the local level were identified at meetings conducted with EM Coordinators and local city officials. Opportunities which local jurisdictions could take advantage of to help them accomplish hazard mitigation, include:

- Jurisdictions could participate in one or several of the State or federal programs listed in Section 5 that would help them get closer to their mitigation goals. Not all of the programs are focused solely on mitigation, but they can be a piece of a larger effort to achieve mitigation.
- Local jurisdictions may find greater opportunities in partnerships. For example, a city facing flood problems could become a partner member of a watershed management authority and then find through joint planning and collaboration that the solution to their flood problems lies upstream from their city limits. They could then partner with other agencies to get funding from multiple entities, including their own, to build wetlands, ponds, and other flood control and storm water management devices in and out of their city to implement a comprehensive flood mitigation strategy.
- While COGs may indeed have limited time and ability (as mentioned in section 4.1.3), this resource is one that most cities do not take advantage of and could.
- If EM Coordinators are made aware when cities submit applications for hazard mitigation assistance, the EM Coordinators can help shepherd the project.

- More could be done to connect jurisdictions of similar size to help each other with mitigation efforts. Small communities that have had completed mitigation projects could be connected with those who are interested but do not know what to do.
- Underground power and data lines, including finding a way to underground investor-owned lines.
- Establish mutual aid agreements between city utilities and other city utilities and RECs.
- Getting businesses, especially large employers and those that provide vital services, to have robust business continuity plans.
- Create back-up plans for fuel dispensing (like during a power outage).
- Explore how to island-off and provide back-up power to portions of town, and at least having ability to provide back up generation to a portion of town at any given time.
- Analyze/assess public buildings and how critical they are – understand the level of risk of losing and prepare accordingly
- Apply for Project Scoping very helpful to get better understanding and come up with good plan of action.
- Lobby FEMA to change BRIC scoring to drop the State Building Code points
- Lobby FEMA to give more points to not only EDRCs, but any city with less than 3000 (or even any city with less than 5000)
- Work with together with EM Coordinators and dam-owners on Emergency Action Plans
- Enact ordinances and codes to restrict development in hazard-prone areas, such as below HHPDs

4.2. State Strategy for Removing Barriers of Local Mitigation Planning and Helping Local Governments Update Plans

4.2.1. Sharing State Priorities

For several years now Iowa HSEMD has required local jurisdictions who receive funding for developing an update of their local hazard mitigation plan to fill out and submit a data collection sheet. A couple of years ago the format of the data collection sheet was updated so that it would integrate more closely with the State's hazard mitigation plan. The data collection sheet is an Excel workbook that includes several worksheets. The worksheets are not only for collecting data for the state, but they provide sample methods for local entities to be able to gather information for their own use.

Below is a portion of a worksheet that helps local entities document mitigation actions for a community, while simultaneously providing them cues on possible mitigation actions that are related to those in the State's hazard mitigation strategy. The worksheet also helps them ensure they comply with requirements for the local hazard mitigation plan. The column in the middle of the chart below has a dropdown list from which can be chosen actions that are directly linked to the State's mitigation actions. By using this collection sheet and tool, the State's priorities can be shared with locals when they develop their plans.

Mitigation Action Chart for: Sample City			*Filling in the fields with * provides information to comply with C4 and C5 of FEM				
Actions Considered to Reduce Hazard Risks			Action Tied to This State Mitigation Action # (Must identify if Plan funded through Iowa HSEMD)	*Criteria for Prioritizing Implementation of Actions*			
Action #	Mitigation Action*	If applicable, indicate for what specific location(s)?		Timeframe* (e.g. 1-3 yrs, 3-5 yrs, 6-10yr)	*Likely Benefit Compared to Cost? (Low to High)	*Potential Funding Source(s)*	[Other]
	SAMPLE ACTIONS:		Not a State Plan action				
3	Install dry hydrants in areas without water mains & domestic fire hydrants.		Install dry hydrants in areas w	1-3 yrs	Medium	City	
4	Connect to redundant water sources.		Connect to redundant water s	3-5 yrs	Medium	SRF	
5	Elevate/protect wastewater lift station(s)		Elevate/protect wastewater li	6-10 yrs	High	HSEMD	
6	Elevate flood-prone properties to one ft. or more above base flood elev.		Elevate flood-prone propertie	1-3 yrs	Medium	HSEMD	
7	Construct/install backflow prevention, pumps or impervious manholes.		Construct/install backflow pre	1-3 yrs	High	HSEMD	
8	Install and maintain protective measures for the physical safety and security of critical facilities.		Construct/install backflow pre	6-10 yrs	Low		
9	Construct public safe room(s)		Structure/Infrastructure 2.8 C	1-3 yrs	Low		

The data collection sheet is also used to collect local risk assessment information and mitigation actions to integrate into the state's mitigation plan. Once the state's 2023 Plan update is adopted, the data collection sheets will be updated with the State's new mitigation actions and priorities. Also, the format will be updated so that it is easier for local jurisdictions to use and share their risk assessment data and local mitigation actions.

Another way in which the State shares its mitigation priorities is through its method of prioritizing projects and jurisdictions for hazard mitigation grants. The criteria used for prioritization is described in section 4.3.1.

4.2.2. Sharing Risk Assessment Data (website)

Shortly after the adoption of the *2018 Iowa Hazard Mitigation Plan*, the risk assessment data that was used and portrayed in the Plan was placed in an interactive website so that local jurisdictions could easily access risk assessment data. The "Hazard Mitigation Viewer" is available at https://iowahsemd.maps.arcgis.com/apps/MapSeries/index.html?appid=581c59432cb24779af37161c492309fadata. This resource provides the data presented in the state plan in a much better format for local entities. Instead of just static images that are statewide in scope, the Viewer provides data at the county level (or smaller) so that local jurisdictions can use the risk assessment data when updating their own local hazard mitigation plans. The user can select data for specific counties or cities. Once the 2023 update of the state Plan is adopted, the Hazard Mitigation Viewer will be updated with the new information from the 2023 Plan.

4.2.3. Technical Assistance and Training

HSEMD engages in several types of training activities that enhance the planning and project development capabilities of communities. Iowa HSEMD offers various hazard mitigation courses and presentations. Some of these are just an hour or two, while others are a day or two. The Iowa Department of Natural

Resources also offers training related to hazard mitigation, particularly flood mitigation, with sessions focused on NFIP, Community Rating System (CRS), and other risk reduction initiatives that build capabilities in planning and project implementation. Unfortunately, the occurrence of the COVID pandemic disrupted the usual training activities of the state. It took some time to readjust and begin offering courses and presentations again.

In 2019, HSEMD held workshops on flood mitigation at two different conferences, teaching participants how to do integrate watershed approach methods into a flood mitigation project that could be submitted for a FEMA HMA grant. That same year HSEMD also held longer workshops with two counties to delve even deeper into that topic.

In 2020 HSEMD once again held its workshop at a conference, but this time it was virtual because of COVID. COVID stymied efforts to put on full-day or multi-day trainings, and it wasn't until 2022 that HSEMD offered another multi-day course on hazard mitigation, specifically targeting emergency managers. Also in 2022 a half-day workshop was held for state and federal agencies to learn about the state hazard mitigation plan and planning process.

HSEMD has also made presentations at meetings of the Iowa Association of Councils of Governments (ICOG) and the Iowa Floodplain and Stormwater Managers Association (IFSMA). In addition, awareness sessions have been delivered to a number of watershed management authorities about local hazard mitigation plans and how watershed plan elements can be integrated into local hazard mitigation plans.

Another important source of training specifically relating to flood mitigation can be found on the web at https://www.extension.iastate.edu/floodinginiowa/. This website houses the "Flooding in Iowa Project", which is a series of web-based videos designed to educate local officials and the general public about floodplains, flood risks, and basic floodplain management principles. The DNR also has conducted at least two training workshops each year for local floodplain managers.

HSEMD provides technical assistance for planning and grant management under the direction of the state hazard mitigation officer (SHMO). The primary conduits for technical assistance to local plan writers is through the state hazard mitigation planner and mitigation planning staff. Iowa has provided some form of technical assistance since 1997 and continues to ensure local hazard mitigation planning efforts in Iowa are integrated with applicable State and federal legal requirements.

HSEMD will provide technical assistance upon request to anyone involved in developing a local hazard mitigation plan. Plan updates over the past five years in the state have been done almost entirely by entities that have written prior local hazard mitigation plans. The staff at these entities, whether a council of government or a consulting firm, are familiar with staff at HSEMD. They have received training from HSEMD and know that they can contact department staff at any time. When these entities employ new staff members, HSEMD has often reached out to them to offer training and technical assistance. They do not always accept these offers, but they at least know they can turn to HSEMD for assistance.

In many instances, plan writers receive technical assistance from HSEMD after submitting a local hazard mitigation plan for review. On occasion plan writers have submitted early drafts of portions of a plan to get comments, and then HSEMD provides technical assistance in the form of comments after review, sometimes both in writing and in person. HSEMD reviews every local hazard mitigation plan before allowing it to be submitted to FEMA Region VII for review and approval. Through this review process, technical assistance has been provided in regard to dozens of plans over the last five years so that plan writers can improve their plans before final submission to FEMA.

Technical assistance for planners has become less necessary as planners in the state have been improving their knowledge and skills in developing hazard mitigation plans. However, there is still much need for providing technical assistance to the employees and elected officials of cities, especially small cities. To address this need, HSEMD partnered with several agencies in the Iowa Silver Jackets to "Help Communities Understand Their Flooding" (Help CUT Flooding). USACE has helped a few communities, including Clive and Hartley, understand their flooding through direct assistance to them.

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.

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.

4.2.4. Funding

The Hazard Mitigation Assistance (HMA) grant programs include the Building Resilient Infrastructure and Communities (BRIC) grant, Hazard Mitigation Grant Program (HMGP), and the Flood Mitigation Assistance (FMA) Program. These programs are used as vehicles to fund and implement the integrated planning process and to implement mitigation measures via funding sources and policy. HMA grant programs are currently used to fund state and local planning efforts and to implement the mitigation strategies identified in this plan.

Besides these federal funding resources, the state supplies 10% of the cost of mitigation planning or a mitigation project. This funding shows the commitment of the state to hazard mitigation, and greatly helps jurisdictions in that they only need to come up with 15% of the non-federal match (as opposed to 25% without the state's contribution).

Iowa promotes multi-jurisdiction planning to provide a more efficient planning process, less grant management, and a more streamlined process in developing plans. Since 2008, planning applications must be multi-jurisdictional and include many (if not all) cities of the county or regional location, as well as the county. School districts are also included in the multi-jurisdictional plans.

Per Iowa Administrative Code, after a Presidential Declaration of Disaster, the declared counties are required to review, update, and certify their local mitigation and recovery plans. This certification must occur within 180 days after the closing date of the disaster incident period. HSEMD will receive HMGP grant dollars from declared disasters, of which up to 7 percent can be utilized for planning purposes to

promote local planning for compliance with the Disaster Mitigation Act of 2000. Compliance with DMA 2000 is required for local jurisdictions to be eligible for future HMA grant funds.

4.2.5. Helping Local Governments Update and Adopt Plans Before Expiration

Iowa is committed to local hazard mitigation planning. The state tracks the expiration status of local plans, and forecasts expiration dates in order to assess which jurisdictions may need funding to update their plan.

A total of 1015 city, county, town, township, or unincorporated jurisdictions in Iowa have adopted FEMA-approved local hazard mitigation plans in the past.[2] Currently 643 are approved, 224 are approvable pending adoption (APA), and 148 are expired. Of those jurisdictions with APA or expired plans, 163 have an update in progress. Thus, 806 jurisdiction's plans (79.4%) are either approved or being updated. A total of 209 jurisdictions' plans (20.6%) are not approved and are not currently being updated. Of these, 105 are awaiting funding and are expected to update their plan within the next one to three years. Thus, only 104 jurisdictions (10.2%) have plans that are expired and not expected to be updated in the near future. However, even among these, the number may be lower, as some counties do not always timely alert the state to their update progress.

To improve plan update and adoption rates, HSEMD intends to use part of its annual state set-aside funds from the BRIC program to fund local mitigation plan updates. Because updates take 10-18 months, and BRIC funding is typically applied for several months before award, HSEMD is proactively reaching out to jurisdictions whose plans are expiring two years ahead of time and inviting them to apply for HMA funding.

4.2.6. Reviewing & Approving Local Plans, & Integrating into the State Mitigation Plan

Local hazard mitigation plans in Iowa are multi-jurisdictional with their geographic scope typically being the area of a single county. The local plan's risk assessment addresses the hazards faced by the county and its jurisdictions. Mitigation strategies are outlined for each jurisdiction in the county (or region, if larger than a county). When the plan is completed, it is submitted to HSEMD for review and subsequent submission to FEMA for approval. Through the review process HSEMD incorporates measures to coordinate and link elements of local hazard mitigation plans into the State hazard mitigation plan update. This interconnected process and timeframe are as follows:

1. While planners are developing local hazard mitigation plans, HSEMD provides technical assistance for planning under the direction of the State Hazard Mitigation Officer (SHMO). The

[2] Data in this paragraph come from the June 1, 2023 quarterly plan status update from FEMA Region 7. The data were edited to remove duplicate jurisdictions and special jurisdictions (school, fire, hospital, college/university, flood control, water/sewer, and other), and updated as of July 12th, 2023 according to HSEMD staff's knowledge of plan status. This includes adoption resolutions that have not yet been recorded by FEMA.

primary conduits for technical assistance to local plan writers are the state mitigation planner and mitigation staff. *Timeframe: about 10-18 months.*

2. A HSEMD staff planner provides comments and suggestions as planners request assistance prior to plan submission to HSEMD. Also, for plans funded by HMA grants, local planners alert State staff about quarterly progress and milestones, and upcoming meetings to provide the opportunity to attend. *Timeframe: concurrent with above step.*
3. Eventually, the plan writer submits the completed local hazard mitigation plan to HSEMD for complete review. This may come during or after the public comment period. For plans that are funded by HMA grants, HSEMD requires submission of a data collection sheet in addition to the mitigation plan. This spreadsheet collects plan data in a consistent method for easier coordination into the State's hazard mitigation update. *Timeframe: end of steps 1 and 2 above.*
4. HSEMD mitigation staff reviews the local plan. *Timeframe: four days to four weeks.*
   As the plan is reviewed, the reviewer has the opportunity to review information that may be valuable to include in the State hazard mitigation plan, including:

   a. Notable land use and development changes
   b. Previous hazard occurrences
   c. Location and probability data
   d. Potential loss and vulnerability information for each hazard
   e. Problem statements that summarize the vulnerabilities and issues jurisdictions face
   f. Other risk assessment information that may be of statewide interest
   g. What local entities are doing or intend to do about repetitive loss properties
   h. Progress and ideas on mitigation strategies.

5. The HSEMD plan reviewer extracts information from the local plan that may be pertinent to the State's hazard mitigation plan and includes it in designated files for review and possible inclusion into the state hazard mitigation plan update. The data collection sheet is also inserted into a file for further review and analysis during the next State hazard mitigation plan update. *Timeframe: concurrent with above step.*
6. If, after review, changes are needed or recommended, HSEMD contacts the plan writer and communicates issues and suggestions. The plan writer will make changes and resubmit the plan, thereby going back to step 4 above. State review of local mitigation plans is generally completed within two weeks from the time the plan is submitted for review. *Timeframe: end of steps 4 and 5 above.*
7. When HSEMD finds the local plan acceptable, they submit it to FEMA Region VII for final review and approval. *Timeframe: four days to four weeks.*

4.3. Prioritizing Projects for Funding

4.3.1. Criteria for Prioritizing Jurisdictions and Projects to Receive FEMA HMA

A. Eligibility and Prioritization for HMA Funding

For the specific HMA programs from FEMA, HSEMD establishes the criteria for prioritizing local jurisdictions that receive planning and project grants. This is based on several considerations, including communities with the highest risk, most vulnerable populations, most repetitive loss, and most intense

development pressures likely to result in high future risk. The three HMA Programs administered by HSEMD under the direction of the SHMO are the HMGP, the BRIC Program, and the FMA Program. Eligible applicants for funding are State and local governments, private nonprofit organizations, and Indian tribal governments as outlined in the 44 CFR § 206.434.

In general, HSEMD considers funding four different types or categories of activities for HMA grant funding. They are:

1. Local hazard mitigation plans
2. Other Capability- and Capacity-Building (C&CB) activities (e.g. project scoping)
3. "5 Percent Initiative" projects
4. "Regular" projects

HSEMD will use the following basic eligibility requirements for all activities, regardless of type or category, proposed for HMA funding:

1. All proposed activities for funding must conform to the State of Iowa's Hazard Mitigation Plan that is developed as a requirement of Section 322 of the Stafford Act.
2. Except for activities to develop local hazard mitigation plans, all activities proposed for HMA by local jurisdictions must advance fulfillment of a mitigation action listed in the jurisdiction's local hazard mitigation plan.
3. Proposed activities should contribute to a long-term solution to the problem it is intended to address.

Besides the above basic eligibility requirements, each category has additional eligibility requirements as detailed below.

Besides having to meet eligibility requirements for grant funding, proposed activities are selected for consideration based on how well a particular activity "scores" according to **prioritization criteria**. Some prioritization criteria apply to activities in several categories, while certain criteria only apply to proposed activities of a single category.

B. Prioritization Criteria for Proposed Activities Except Plans

The following **prioritization criteria** apply to activities of all categories except the Local Hazard Mitigation Plan category:

1. "Communities at highest risk with highest vulnerability" (S15a1): Under this criterion, proposals for mitigation projects for flood (flash or riverine), severe winter storms, or wind (including tornado) are given the most available points no matter where in the state. The most available points under this criterion are also given to projects that address mitigation of hazards in communities identified as being most vulnerable for that particular hazard, as identified in the hazard's profile in the current Iowa Hazard Mitigation Plan or more recent HARA hazard profile, meaning that:
    a. For drought mitigation projects, most points available under this criterion would go to proposed activities in Webster, Carroll, Crawford, Sioux, Sac, Wapello, Woodbury or Pottawattamie Counties;
    b. For Excessive Heat, most points available under this criterion would go to proposed activities in these counties: Adams, Appanoose, Crawford, Emmet, Fayette, Greene, Kossuth, Monona, Montgomery, Osceola, Palo Alto, Van Buren, or Wayne counties;

   c. For dam or levee failure projects, most points available under this criterion would go to proposed activities in communities already behind an accredited levee or a high hazard potential dam;
   d. For earthquake-mitigation projects, most points available under this criterion would go to proposed activities in Des Moines, Linn, Polk, and Scott Counties;
   e. For wildfire mitigation projects, most points available under this criterion would go to proposed activities in Woodbury and Plymouth Counties;
   f. For landslide mitigation projects, most points available under this criterion would go to proposed activities in Allamakee, Clayton, Des Moines, Dubuque, Harrison, Lee or Woodbury Counties;
   g. For sinkhole mitigation projects, most points available under this criterion would go to proposed activities addressing a developed area above an abandoned mine.
   h. For hail, most points available under this criterion would go to proposed activities in Calhoun, Des Moines, Hardin, Johnson, Linn, O'Brien, Polk Sac, or Webster Counties.
   i. Some points, but not the maximum available for this criterion, may be given to other communities according to their relative degree of vulnerability as shown in the relevant Iowa Hazard Mitigation Plan hazard profile.
2. "Underserved communities" (S15a1): Less points to communities that got more FEMA HMA in last 10-15 years. Maximum points for this criterion given to communities who got $0.
3. "Socially vulnerable populations" (S15a1): EDRCs get maximum points of this criterion. For other communities: the higher their social vulnerability index (SVI) number, the more points they get.
4. "High-risk properties (including repetitive loss)" (S15a2): Most points available under this criterion go to proposed activities that seek to address repetitive loss or the most high-risk properties.
5. "Areas under intense development pressure" (S15a3): Most points available under this criterion go to communities with greater amounts of recent growth (within past 5-15 years), measured in either percentage growth (i.e. communities with higher % growth get more points), OR absolute growth (i.e. communities with greater number of persons added to population get more points). (Allowing more points whether high growth is measured in % or absolute numbers allows both small and large communities to get more points).
6. "Areas with increasingly severe impacts from climate change"(S15a3): The only area currently showing increased climate change impacts, at least relative to other areas of Iowa, would be eastern Iowa, which has been seeing increased precipitation over time and is expected to continue to do so. Increased precipitation leads to increased flooding, so proposed flood mitigation actions in eastern Iowa will receive points for this climate change criterion. (Some areas of Iowa are projected to have more drought impacts from climate change, but that has not yet played out.)
7. "High hazard potential dams" (HHPD) [S15b and HHPD 7]: For "Regular" type projects for HHPDs, the project gets double BCR Bonus points (see "Regular Project" type below) to account for other and extra benefits the project provides. Also, for project proposals that address a High Hazard Potential Dam, the most points available under this criterion go to projects:
   a. that address the most pressing failure modes of the dam,
   b. for dams whose potential consequences from a dam incident are in the top quartile in severity of potential consequences of all HHPD dams in Iowa,
   c. that reduce potential consequences from a dam incident to be within the bottom quartile in severity of potential consequences of all HHPD dams in Iowa,

8. "Address high priority state mitigation actions" [S10b and S12b]: Most points available under this criterion go to project types that align with mitigation actions in Iowa Hazard Mitigation Plan that have been determined higher priority.
9. "Application completeness": Most points available under this criterion go to proposals with more completed elements of an HMA application.
10. "More non-federal funding sources": Proposals that include funding from more non-federal sources, and in higher proportion (compared to the total project cost) than the minimum required, receive more points.
11. "More recent mitigation efforts": Jurisdictions more active in hazard mitigation (as shown by mitigation projects initiated in past 10-15 years) receive more points.
12. For BRIC: Project proposals that are to be submitted under BRIC will also be evaluated in regards to how well the project scores in regards to BRIC's Technical and Qualitative Review criteria. Those that score the highest will receive more points under this criterion (but this criterion only relates to projects to be submitted under the BRIC competition).
13. For FMA: Project proposals that are to be submitted under FMA will also be evaluated in regards to how well the project scores in regards to FMA's Review criteria. Those that score the highest will receive more points under this criterion (but this criterion only relates to projects to be submitted under the FMA competition).
14. For HMGP: Project proposals that are to be submitted under HMGP will receive more points for proposed activities in the designated disaster area for the particular HMGP award (but this criterion only relates to projects to be submitted under HMGP).
15. For HMGP: Project proposals that are to be submitted under HMGP will receive more points for proposed activities that mitigate the type of hazard(s) for which the disaster was declared (but this criterion only relates to projects to be submitted under HMGP).

Eligibility requirements and prioritization criteria that apply only, and specifically, to proposed activities of each category are as follows:

1. C&CB activities (other than developing local hazard mitigation plans):
   Additional Eligibility Requirement: Proposed activity must lead to, or endeavor to lead to, development of a project eligible for HMA.
   Additional Prioritization Criterion (in addition to those listed above):
   a. "Helps more than one place": Most points available under this criterion go to projects that provide mitigation for more than one place. For example, projects that incorporate a watershed approach (with a project that addresses flooding far upstream) gets more points than a project that prevents flooding only at a single-location (and may in fact "push" water downstream for others to deal with). For non-flood hazards, mitigation projects that are multi-jurisdictional get more points than those that only benefit a single jurisdiction.

2. "5 Percent Initiative":
   Additional Eligibility Requirement:
   a. Conform to 44 CFR, Part 9, Floodplain Management and Protection of Wetlands.
   b. Must consider long-term changes to the areas and entities it protects, and has manageable future maintenance and modification requirements.
   Additional Prioritization Criterion (in addition to those listed above):

a. "Warning/Alert": Siren projects to receive more points under this criterion than generator projects. (Generator projects, but not siren projects, can be submitted as regular projects with a completed benefit-cost analysis, and are encouraged to be submitted as such.)
b. "Region- or County-wide": Multi-jurisdiction projects to receive more points under this criterion than single jurisdiction projects.

3. Regular Project:

Additional Eligibility Requirements:

a. Conform to 44 CFR, Part 9, Floodplain Management and Protection of Wetlands.
b. Must consider long-term changes to the areas and entities it protects, and has manageable future maintenance and modification requirements.
c. The project should resolve a significant risk to public health and safety; it should not cost more than the anticipated value of the reduction in both direct damage and subsequent negative impacts to the area if future disasters occur.
d. The project should be cost effective and substantially reduce the risk of further damage, hardship, loss, or suffering resulting from a major disaster.
e. In determining cost effectiveness, analysis is performed utilizing a FEMA-approved benefit-cost-analysis module and is in conformance with OMB Circular A-94.
f. When a range of options is considered, the project that is chosen should be the one that is determined to be the most practical, effective, and environmentally-sound alternative.

Additional Prioritization Criterion (in addition to those listed above):

a. "Helps more than one place": Most points available under this criterion go to projects that provide mitigation for more than one place. For example, projects that incorporate a watershed approach (with a project that addresses flooding far upstream) gets more points than a project that prevents flooding only at a single-location (which may in fact "push" water downstream for others to deal with). For non-flood hazards, mitigation projects that are multi-jurisdictional get more points than those that only benefit a single jurisdiction.
b. "BCR Bonus" (S15a): To encourage projects that maximize benefits, extra points will be given based on how high the Benefit Cost Ratio (BCR) is.

C. Eligibility and Prioritization Criteria for Proposals to Develop Local Hazard Mitigation Plans

Additional Eligibility Requirement: Proposal must be for development of a multiple jurisdiction plan, and at least include all cities (willing to participate) in at least one county.

Prioritization Criteria (note that the prioritization criteria listed above do not apply to local hazard mitigation plan development projects):

a. "Longest expired": Proposals to update plans that have been expired the longest will receive the most points under this criterion.
b. "More recent mitigation efforts": Jurisdictions more active in hazard mitigation (as shown by mitigation projects initiated in past 10-15 years) receive more points.
c. "Soonest to expire": Proposals to update plans that will expire the soonest will receive the most points under this criterion.
d. "More non-federal funding sources": Proposals that include funding from more non-federal sources, and in higher proportion (compared to the total project cost) than the minimum required, receive more points.

D. How the Process works:

1. Jurisdictions (and others) submit a Notice of Interest (NOI)
2. The NOI submission prompts HSEMD staff to work with applicant on developing a full application for HMA funding. As applications developed, staff find out as soon as possible:
    a. Does proposal meet eligibility requirements for category of mitigation activity?
    b. How does proposal score for each prioritization criteria that applies to the type of activity proposed?
3. Once a quarter (or more often), meeting held with HSEMD Mitigation staff and others to review sub-applications submitted to HSEMD but not yet submitted to FEMA. For each category, prioritize those that meet eligibility requirements.
4. Tentatively slot highest priority projects into open funding opportunities. Work on further developing and submitting applications for those projects. Also work on some "alternate" projects that did not quite meet the prioritization scores to make it into available funding, but are among the next three or four highest priority proposals (or equating to up to 20% of available funding). If the sub-applicants of the proposed priority projects do not submit all necessary materials for a complete application, these alternate project proposals will be submitted in their place on the day before the deadline for submission to FEMA.
5. Also at quarterly meeting there is a review of how effectively the funded projects are fulfilling and advancing the mitigation actions of the State Plan, and how effectively the funded projects are resulting in projects that address objectives of the prioritization criteria. As some mitigation actions and criteria objectives are "fulfilled" (and thus, others not), weighting will be shifted to criteria that have not yet seen as much fulfillment (i.e. more point values may be assigned to some criteria while less point values assigned to others). Document the change in weighting that occurs at these meetings.
6. At least quarterly, discuss HSEMD capacity and ability to manage increased grant program funding. Document what we are in the process of doing to increase capacity if there is a need because of increased program funding.
7. On annual basis meet with other agencies to identify and provide updates on the funding sources available through their agencies for mitigation-related projects.
8. At quarterly meeting, identify proposals that are eligible and perhaps better suited for other funding opportunities available through other agencies. Inform sub-applicants of these other opportunities, especially those sub-applicants whose proposals do not score high enough to be prioritized for current HMA funding.

4.3.2. Limitation and Deficiencies

While the State has many programs, offices and resources that address different facets of hazard mitigation, limitations and deficiencies hinder the overall effectiveness of the State's efforts to fund or implement the mitigation projects of highest priority. This section describes some of these limitations and deficiencies.

1. As is often the case, employees and elected officials of cities and counties will declare that a major challenge is lack of funding to implement their identified mitigation solutions. While this is no doubt often true, sometimes these officials are limited in their ability to identify alternative

solutions that are less expensive. To illustrate: One city had a well house in a location threatened by floodwaters, and the identified solution was that of a costly relocation or elevation. After consultation with DNR staff, the city determined they could instead flood-proof the structure and install a door to hold back flood water. This alternative is a far cheaper solution. Often, local officials are limited in their ability to explore and understand less expensive alternatives.

2. The issue above speaks to the deficiency of a lack of awareness of options for mitigation solutions. Not only is awareness of mitigation options deficient, but so also is an awareness of programs, problems, and risk. Across the state, community leaders and administrators are not aware that mitigation programs exist or who they need to contact to get assistance. Often, they do not know what risks and threats are present and which are of major concern. In addition, they may know they have a recurrent issue due to a hazard, but the causes that influence the problem are not understood resulting in an inability to address it.
3. Related to a lack of awareness is misunderstanding or incomplete understanding, which can cause real obstacles to effective hazard mitigation. For example, many people blame field tiling as a primary cause of downstream flooding. Yet little research has been done to examine that idea, and in fact one study found "some evidence that streamflow peaks resulting from very intense rainfall events are either not impacted or are reduced under tile drainage scenarios compared to undrained scenarios"[3]. Other factors, including soil health, soil type, drainage ditches, channel modification, and surface intakes may be greater factors. What needs to be conveyed is what works to reduce hazard risks and under what conditions. When the impact of factors is not well understood, it can be a real obstacle to implementing effective mitigation solutions. If understanding of all the factors of the problem is deficient, when attempts are made to address the problem, the chosen solution may only address 15% of the problem, when it may have been anticipated to address 85% of the problem.
4. Another limitation is that sometimes the problems and solutions are very technical in nature. Detailed engineering may be needed to fully comprehend problems and solutions. Once engineering is complete, there is a challenge of communicating the issues to the public so they can trust the potential solutions enough to commit to them.
5. Another limitation or deficiency is the lack of documentation that leads to misunderstanding locations with the most severe hazard impacts of hazards. For example, many communities experience floods that damage roads or otherwise result in road closures, but expenses associated with such damages and closures are not documented until there is a federal disaster declaration. How many times are these locations damaged, but never documented? What are the associated expenses of these undocumented damages? Without this information, the knowledge of where impacts are the most severe and to what degree is limited.
6. Related to the lack of documentation of expenses and impacts of hazard events is a limitation related to identifying the most pressing needs. Some communities know which agencies provide

[3] Franz, Kristie and Nandita Basu, William Simpkins, Matt Helmers, Özlem Acar, Becca Scheler , Brandon Sloan, Alexander Morrison, Larry Weber, Rick Cruse, *HYDROLOGIC IMPACTS OF DRAINAGE SYSTEMS* report submitted to IEDA in 2014.

assistance and make themselves known to these state and federal partners. But many communities may quietly endure hazard impacts for a long time, and their issues go "under the radar." Without knowing where impacts are felt, mitigation resources may not be properly allocated. That is, mitigation resources may not be targeted to locations that would result in risk reduction for larger areas, greater populations, or more structures.

7. Finally, with well over 100 different programs that can advance mitigation efforts in the state, coordination among all those programs and agencies can be a challenge. Without proper communication and coordination, duplication of efforts can occur. Even worse, some programs may end up working at cross purposes and result in efforts that hinder those of others.

4.3.3. Approach to Address Deficiencies and Using Different Programs to Fund Projects that Address Multiple Priorities

The strategies listed in this plan seek to overcome these limitations and deficiencies. For example, the Iowa Watershed Approach provides a method or framework that may overcome many of the challenges listed above. It provides a better way to organize and analyze issues. Rather than focusing on the problems in a single city or county, the approach takes a look at several cities and county areas that fall within one watershed. By evaluating the issues and factors that affect a watershed area, synergistic practices that will address more than one jurisdiction, and thereby prove more cost effective, can be identified. Also, the watershed approach brings partners together that may not necessarily work together on a regular basis. For instance, one agency or program may address water quality, while another focuses on water quantity (flooding). The two agencies may not normally work together because they are trying to address different problems, but by coordinating they may find they could take advantage of one another's efforts.

Similarly, the Iowa Silver Jackets provides a framework for coordination and understanding. Plus, the agencies and staff in these partnerships can work together for outreach and to improve awareness of problems and potential solutions.

The Risk MAP efforts of the Coordinating Technical Partners also bring awareness and technical assistance directly to local communities. The CTP agencies have been working more closely in the past few years to overcome the challenges listed above.

State of Iowa staff have recognized barriers in the advance of local hazard mitigation planning. Meetings and communication between and among HSEMD staff, the State Hazard Mitigation Team, and partners of the Iowa Flood Risk Management Team (aka "Silver Jackets") have generated many ideas on how to approach such barriers and help local communities improve their mitigation planning and implementation. While these discussions and improvements are continually ongoing, these are a few of the plans for improvement:

1. HSEMD will develop a local hazard mitigation planning resources webpage with information needed for risk assessments.
2. HSEMD plans to develop a local hazard mitigation plan template/framework that will be available online.
3. Once a plan template is promulgated, jurisdictions that use the template will be eligible for quicker review and approval of the plan, as the State will request from FEMA the authority to approve these plans without sending them to FEMA Region VII for review.

4. Online (live) hazard mitigation plan workshops will be developed, with HSEMD staff facilitating a portion of the workshops, and include a working portion where county and/or city staff identify issues and possible solutions using online forms and tools.
5. These plan workshops will be held multiple times throughout the year, some during daytime hours when city and county staff are at work, and others at night so volunteers may attend.
6. Publicize at the local level the availability and usefulness of flood risk reports as a planning resource.
7. Request that future flood risk reports developed through RiskMAP include level 2 Hazus analysis that utilizes parcel record data and other available information that would give better flood loss estimates.
8. Focus efforts for getting participation in planning on those jurisdictions that have the greatest risks, which means not spending unwarranted time and effort encouraging involvement from jurisdictions that have little risk (perhaps determine a series of questions and criteria to help determine which cities have high risk levels).
9. As has already been done, give counties the option of letting the State handle administration of a hazard mitigation planning grant by hiring the planner for them, completing the progress reports, and handling payment and other administrative issues.