

Section 5 – Mitigation Strategy

The goal of mitigation is to protect lives and reduce the future impacts of hazards including property damage, disruption to local and regional economies, the amount of public and private funds spent to assist with recovery, and to build disaster-resistant communities. Mitigation actions and projects should be based on a well-constructed risk assessment, provided in Section 4 of this plan. Mitigation should be an ongoing process adapting over time to accommodate a community's needs.

5.1 Community Capability Assessment

The capability assessment identifies current activities used to mitigate hazards. The capability assessment identifies the policies, regulations, procedures, programs, and projects that contribute to the lessening of disaster damages. The assessment also provides an evaluation of these capabilities to determine whether the activities can be improved in order to more effectively reduce the impact of future hazards. The following sections identify existing plans and mitigation capabilities within all of the communities.

Appendix J lists the plans and programs in place in Steele County as related to hazard mitigation. As part of the Steele County MHMP update, the county, its cities, and townships were asked to participate in filling out a “Local Mitigation Capabilities Assessment” (LMCA) form to report on their current mitigation capabilities and program gaps. Appendix K lists the LMCA reports gathered for Steele County.

5.1.1 National Flood Insurance Program (NFIP)

The NFIP is a federal program created by Congress to mitigate future flood losses nationwide through sound, community-enforced building and zoning ordinances and to provide access to affordable, federally-backed flood insurance protection for property owners. The NFIP is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. Participation in the NFIP is based on an agreement between local communities and the federal government that states that if a community will adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas (SFHAs), the federal government will make flood insurance available within the community as a financial protection against flood losses.

Table 27 below shows which jurisdictions in Steele County participate in the National Flood Insurance Program (NFIP). The cities of Blooming Prairie and Ellendale do not participate in the NFIP; however, they do not have FEMA mapped high risk areas.

Table 27. NFIP Participation in Steele County

Jurisdiction Name	NFIP y/n	FEMA Mapped High-Risk Areas
Blooming Prairie	n	None
Ellendale	n	None
Medford	y	Yes
Owatonna	y	Yes
Steele County	y	Yes

Data current as of July 16, 2017 (FEMA, 2017)

Repetitive loss properties are defined as properties that have had 2 or more flood insurance claims of \$1,000 or more in any rolling 10-year period. Property owners are asked to consider mitigation activities such as acquisition, relocation, or elevation, among other options. FEMA's Repetitive Loss (RL) properties strategy is to eliminate or reduce the damage to property and the disruption to life caused by repeated flooding of the same properties. Property owners are notified of their status by FEMA.

There are 5 repetitive loss properties in Steele County. All are single family residences located in Owatonna. None are classified as "Severe Repetitive Loss" (SRL). An SRL property is defined as a residential property that is covered under an NFIP flood insurance policy and:

- That has at least 4 NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- For which at least 2 separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.
- For both (a) and (b) above, at least 2 of the referenced claims must have occurred within any 10-year period, and must be greater than 10 days apart.

For more on the areas that flood repeatedly in Steele County, see section 4.4.5 *Flash Flood and Riverine Flood*.

5.1.2 Plans and Ordinances

Steele County and its incorporated communities have a number of plans and ordinances in place to ensure the safety of residents and the effective operation of communities, including a Zoning Ordinance, Floodplain Ordinance, Emergency Operations Plan, Capital Improvements Plan, and Local Water Management Plan. In Section 4.4 of this plan (*Hazard Profiles*) a review of the plans and programs in place was included as related to each of the hazards addressed in the plan. See Appendix J for a list of all plans and programs in place in Steele County, and Appendix K for the local mitigation capabilities assessment reports.

5.2 Mitigation Goals

In Section 4.0 of this plan, the risk assessment identified Steele County as prone to a number of natural hazards. The steering committee members understand that although hazards cannot be eliminated altogether, Steele County can work toward building disaster-resistant communities.

The goals and strategies being developed for the 2019 Minnesota State Hazard Mitigation Plan for natural hazards were adopted for use in the Steele County Plan (Table 28). This framework will allow for integration of the mitigation actions that are listed by Steele County and its jurisdictions into the state plan. The state will then be able to develop a statewide strategy that will benefit all of Minnesota.

Table 28. Goals that will be used in the 2019 Minnesota State Hazard Mitigation Plan

Flooding Goal: Reduce deaths, injuries, property loss and economic disruption due to all types of flooding (riverine, flash flooding, dam/levee failure)
Wildfire Goal: Reduce deaths, injuries, property loss, natural resource and economic disruption due to wildfire (forest, prairie, grass, and peat bogs).
Windstorms Goal: Reduce deaths, injuries, property loss, and economic disruption due to windstorms.
Severe Winter Storms Goal: Reduce deaths, injuries, property loss, and economic disruption due to severe winter storms (blizzard, ice, and ice storm).
Lightning Goal: Reduce deaths, injuries, property losses, loss of services, and economic disruption due to lightning.
Tornado Goal: Reduce deaths, injuries, property loss, and economic disruption due to tornadoes.
Drought Goal: Reduce economic loss and environmental impacts due to drought
Extreme Heat Goal: Reduce deaths, injuries, and economic disruption due to extreme heat.
Extreme Cold Goal: Reduce deaths, injuries, property loss, and economic disruption due to extreme cold.
Landslide/Erosion Goal: Reduce deaths, injuries, property loss, and economic disruption due to landslides and erosion.

5.3 Mitigation Actions and Project Strategies

The mitigation actions in this plan are summarized into 4 main strategy types, as described in the FEMA publications *Local Mitigation Planning Handbook* (2013) and *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (2013). Also included are the new FEMA Climate Resilient Mitigation Actions (CRMA) released in 2016. Minnesota HSEM recommends the use of these mitigation strategies to be in alignment with the state plan and those recommended by FEMA. A fifth strategy type was determined by Minnesota HSEM for use within the state. They are listed in Table 29 below:

Table 29. Mitigation Strategies and Action Types

Mitigation Strategy	Description	Example Mitigation Actions
Local Plans and Regulations	These actions include government authorities, policies, or codes, that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> • Comprehensive plans • Land use ordinances • Planning and Zoning • Building Codes and Enforcement • Floodplain ordinance • NFIP Community Rating System • Capital improvement programs • Open space preservation • Shoreline codes • Stormwater management regulations and master plans

Mitigation Strategy	Description	Example Mitigation Actions
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p> <p>Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.</p>	<ul style="list-style-type: none"> • Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits • Floodwalls and retaining walls • Detention and retention structures • Culverts • Safe rooms
Natural Systems Protection	<p>These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.</p>	<ul style="list-style-type: none"> • Sediment and erosion control • Stream corridor restoration • Forest management • Conservation easements • Wetland restoration and preservation
Education and Awareness Programs	<p>These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions.</p>	<ul style="list-style-type: none"> • Radio or television spots • Websites with maps and information • Real estate disclosure • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • StormReady • Firewise Communities
Mitigation Preparedness and Response	<p>This is a State of Minnesota mitigation strategy with the intent of covering preparation and actions that protect life and property during a natural disaster.</p>	<ul style="list-style-type: none"> • Emergency operations plan • Flood fight plans and preparedness • Dam emergency action plans • Warning • Backup power • Emergency capabilities

In the review and discussion of selected mitigation strategies and actions, steering committee members and the public were asked to consider the ranking of mitigation actions by priority for implementation. Guidance for ranking mitigation activities is drawn from FEMA evaluation criteria. The evaluation criteria (STAPLE+E) involved the following categories and questions:

Social:

- Will the proposed action adversely affect one segment of the population?

- Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?

Technical:

- How effective is the action in avoiding or reducing future losses?
- Will it create more problems than it solves?
- Does it solve the problem or only a symptom?
- Does the mitigation strategy address continued compliance with the NFIP?

Administrative:

- Does the jurisdiction have the capability (staff, technical experts, and/or funding) to implement the action, or can it be readily obtained?
- Can the community provide the necessary maintenance?
- Can it be accomplished in a timely manner?

Political:

- Is there political support to implement and maintain this action?
- Is there a local champion willing to help see the action to completion?
- Is there enough public support to ensure the success of the action?
- How can the mitigation objectives be accomplished at the lowest cost to the public?

Legal:

- Does the community have the authority to implement the proposed action?
- Are the proper laws, ordinances, and resolutions in place to implement the action?
- Are there any potential legal consequences?
- Is there any potential community liability?
- Is the action likely to be challenged by those who may be negatively affected?
- Does the mitigation strategy address continued compliance with the NFIP?

Economic:

- Are there currently sources of funds that can be used to implement the action?
- What benefits will the action provide?
- Does the cost seem reasonable for the size of the problem and likely benefits?
- What burden will be placed on the tax base or local economy to implement this action?
- Does the action contribute to other community economic goals such as capital improvements or economic development?
- What proposed actions should be considered but be “tabled” for implementation until outside sources of funding are available?

Environmental:

- How will this action affect the environment (land, water, endangered species)?
- Will this action comply with local, state, and federal environmental laws and regulations?

- Is the action consistent with community environmental goals?

5.3.1 Hazard Mitigation Actions

Steele County and its included municipalities share a common Multi-Hazard Mitigation Plan and worked closely to develop it. Local leaders work together with the Steele County Emergency Management Director to ensure that the hazards and mitigation actions included in this plan are accurate and addressed in their jurisdictions. The jurisdictions responsible for each action are Blooming Prairie, Ellendale, Medford, Owatonna and Steele County.

Table 31 lists all mitigation actions for Steele County and its jurisdictions. Appendix G contains separate mitigation action tables for each jurisdiction. Each of these mitigation action charts detail the hazard, the mitigation action to address it, the priority ranking for implementation (1 = High Priority; 2 = Moderate Priority; 3 = Low Priority, see Table 30), its current stage of implementation, the timeframe for implementation going forward, the jurisdictions who have identified they will work to implement the action, the responsible parties to carry through with implementation, and comments on how the plan will be implemented through existing planning mechanisms and potential funding to make implementation happen.

Table 30. Criteria for Mitigation Action Ranking

Ranking	Criteria
High Priority (1)	<ul style="list-style-type: none"> • Methods for reducing risk from the hazard are technically reliable. • The County has experience in implementing mitigation measures. • Mitigation measures are eligible under federal grant programs. • There are multiple mitigation measures for the hazard. • The mitigation measure(s) are known to be cost effective. • The mitigation measures protect lives and property for a long period of time, or are permanent risk reduction solutions.
Moderate Priority (2)	<ul style="list-style-type: none"> • Mitigation methods are established. • The County has limited experience with the kinds of measures that may be appropriate to mitigate the hazard. • Some mitigation measures are eligible for federal grants. • There is a limited range of effective mitigation measures for the hazard. • Mitigation measures are cost-effective only in limited circumstances. • Mitigation measures are effective for a reasonable period of time.
Low Priority (3)	<ul style="list-style-type: none"> • Methods for reducing risk from the hazard are not well-established, are not proven reliable, or are experimental. • The State or Counties have little or no experience in implementing mitigation measures, and/or no technical knowledge of them. • Mitigation measures are ineligible under federal grant programs. • There is a very limited range of mitigation measures for the hazard, usually only one feasible alternative. • The mitigation measure(s) have not been proven cost effective and are likely to be very expensive compared to the magnitude of the hazard. • The long-term effectiveness of the measure is not known, or is known to be relatively poor.

Mitigation actions that have been completed or deleted from the 2010 Steele County Multi Hazard Mitigation Plan are identified and reported on in Appendix H. Completed and deleted mitigation actions are not carried over into the updated mitigation action chart.

In addition to ranking the hazard mitigation actions using STAPLE+E, the steering committee also reports on the status of the mitigation action. Completed and deleted mitigation actions are denoted in Appendix H. Ongoing mitigation actions from the initial review were incorporated into annual reviews by the mitigation team. The status designations are:

- New – New actions that have been identified since the last plan
- Ongoing – Actions from the last plan that require continuing application
- In Progress – Actions from the last plan that are currently being acted upon

The mitigation types are defined as follows:

- Local Planning and Regulations
- Structure and Infrastructure Projects
- Natural Systems Protection
- Education and Awareness Programs
- Mitigation Preparedness and Response Support

Table 31. Steele County Master Mitigation Action Chart (2017-2021)

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
1	All-Hazards	Education & Awareness Programs	Work to ensure that all Steele County residents are aware of and sign-up for the Everbridge emergency notification system.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management in coordination with local city and township government	This is a standing effort of the Steele County Emergency Management Program. Sign-up for Everbridge is available on the Steele County Emergency Management website and reminders are also put out via Facebook. Cities also work to promote sign-up by local residents by sharing information on city websites and announcements at public meetings. The Steele County CERT (Community Emergency Response Team) may be used to help encourage residents to sign up for Everbridge and understand the different options when registering for this service.	County Budget
2	All-Hazards	Mitigation Preparedness & Response Support	Ensure that Steele County and its cities have multiple methods established to relay emergency notifications to all segments of the public.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management in coordination with City Emergency Managers	Steele County residents receive emergency warnings through the PSAP with IPAWs, the Everbridge Emergency Warning System, NOAA All-Hazard Radios, and through the outdoor emergency warning siren system using voice and siren. The County also addresses the language barriers in communicating disaster preparedness information and disaster warnings to non-English population groups. This information is provided through ECHO (Emergency Communication Health Outreach). ECHO increases access to life-saving emergency information by facilitating efficient mass media messaging in multiple languages.	County/City Budgets

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
3	All-Hazards	Mitigation Preparedness & Response Support	Promote, grow, and strengthen Steele County's local CERT (Community Emergency Response Team) and CAER (Community Awareness Emergency Response) groups.	Ongoing	High	2017-2021	Steele County	SC Emergency Management in coordination with CERT and CAER groups	The Steele County CERT and CAER groups are an important element of the Steele County Emergency Management Program. We will seek to continue to promote and strengthen these groups with additional outreach to local residents, organizations, and businesses.	County Budget
4	All-Hazards	Mitigation Preparedness & Response Support	Expand, train and organize Ham Radio Operators to enhance communications.	Ongoing	Moderate	2017-2021	Steele County	SC Emergency Management	Steele County has trained instructors that provide annual amateur radio instruction and testing. The group also holds regular meetings and participates in field days.	County Budget
5	All-Hazards	Mitigation Preparedness & Response Support	Continue to foster partnerships with surrounding counties to create regional partnerships that support emergency preparedness, response, and recovery.	Ongoing	High	2017-2021	Steele County	SC Emergency Management	Steele County Emergency Management participates in a Joint Powers Board, which consists of Emergency Management Directors from Homeland Security Emergency Management Region I. There are monthly meetings to promote regional initiatives.	County Budget
6	All-Hazards	Education & Awareness Programs	Work to promote emergency preparedness for local residents.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management in coordination with City EM's	This is a standing effort of the Steele County Emergency Management Program. The County provides emergency preparedness presentations to cover information such as developing family emergency plans, develop go-kits, push for Everbridge sign up, etc. City EM's also work to provide this same information at the local level.	County/City Budgets

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
7	Severe Winter & Summer Storms	Mitigation Preparedness and Response Support	Ensure that plans are in place for emergency sheltering and that designated shelter facilities are identified.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management in coordination with City EM's	Steele County has a shelter plan and has trained CERT members how to open the shelter at the National Guard Armory in Owatonna. The Armory is a State-designated shelter facility, and helps to ensure our preparedness to meet the needs of local residents and travelers.	County/City Funding
8	All-Hazards	Mitigation Preparedness & Response Support	Purchase more 800 mhz radios for CERT and other groups to use after a disaster.	New	Moderate	2017-2021	Steele County	SC Emergency Management	Steele County Emergency Management constantly is working to improve its inventory of response equipment.	County Budget
9	Severe Winter & Summer Storms	Mitigation Preparedness and Response Support	Identify critical facilities or infrastructure that do not have backup power in the event of a major power outage resulting from severe winter or summer storms. <i>(Critical facilities may include: police/fire departments, EOC, health care facilities, water & sewer treatment facilities, and other facilities deemed as critical, i.e. public schools and sheltering facilities).</i>	New	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management, City Admin & Public Works	County buildings (Admin & SCHA) are high priorities for backup generators in the event of a power outage. The County Admin building serves as a hub for County operations (IT, Treasurer, Board of Commissioners, P&Z, Assessors, etc.) and will serve as a command center in the event of a disaster. City jurisdictions have also identified a need for backup power for government buildings or other critical facilities or infrastructure.	County/City budgets
10	Severe Winter & Summer Storms	Mitigation Preparedness and Response Support	Purchase and install generator hook-ups and encourage local generator purchases for identified critical facilities that require backup power.	New	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management, City Admin & Public Works	Steele County, local city governments, and schools will evaluate feasibility to purchase and install generators for key facilities.	County/City Budgets Possible FEMA HMA 5% Initiative Funding for Generators

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
11	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Work to ensure that all cities have battery backup on traffic lights and warning sirens in the event of power outages from severe winter/summer storms.	New	Moderate	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management, City Admin & Public Works	All the traffic lights in the City of Owatonna have battery backup on traffic lights.	County/City Budgets
12	Severe Winter & Summer Storms	Structure and Infrastructure Projects	Work with rural electrical coops and municipal utilities to identify and address mitigation measures for above ground power lines that are susceptible to damage from severe storms (i.e., strengthening/burying) in order to reduce potential power outages.	New	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	Steele-Waseca Cooperative Electric in cooperation with Steele County and city municipal utilities (Owatonna P.U. and Blooming Prairie P.U.)	<p>The (Steele-Waseca Cooperative Electric) SWCE continues to protect the electrical distribution system by continuously doing line and pole inspections, trimming trees and vegetation that imperil power lines and inspecting underground power lines. SWCE will look for opportunities to protect the power distribution system by reinforcing transmission lines or burying lines underground when feasible.</p> <p>The Steele County Emergency Manager, Utilities and CAER group continue to work with the County Planning Commission and staff to modify county subdivision regulations to require burial of all new power distribution lines before any new subdivision plats will be approved, if feasible.</p>	Electric Coop Funding, Possible FEMA HMA funding for Infrastructure Retrofit , Rural Utility Service (RUS), and CSC funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
13	Severe Winter & Summer Storms	Mitigation Preparedness and Response Support	Work to improve the coverage of Doppler radar for Steele County.	Ongoing	High	2017-2021	Steele County	SC Emergency Management	This is an Ongoing effort of the Steele County Emergency Management Program. Because of the distance from the Doppler radar in Chanhassen, smaller tornadoes are difficult to identify on radar. SKYWARN spotters are not activated and are not used in the dark. Steele County residents are vulnerable to tornados at night that cannot be spotted or identified on radar. Steele County will continue to work to obtain more Doppler radar to cover all areas of Steele County.	County Budget
14	Severe Winter & Summer Storms	Mitigation Preparedness and Response Support	Promote the use of NOAA weather radios as a key communications resource for residents, businesses, and facilities that house vulnerable populations (i.e., nursing homes, group homes, senior centers, and day care facilities).	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management in coordination with City EM's	This is a standing effort of the Steele County Emergency Management Program. Grant funding was used to provide NOAA All Hazard Weather Radios in Schools and Public Gathering Points in Owatonna. Weather Radios have been promoted through SKYWARN and anyone that purchases a NOAA Weather Radio can drop it off at the Owatonna Fire Station and SKYWARN members will program it for free to the Steele County Codes. Promotion of the value of NOAA weather radios is also a part of Steele County's annual participation in the NWS spring and winter Severe Weather Awareness Weeks in April and November.	County/City Budgets

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
15	Severe Winter & Summer Storms	Natural Systems Protection	Work with municipal and rural coop utility companies to inventory, trim, or cut down trees that are growing by electric lines to reduce risk of power outages during winter or summer storms.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Highway Department, City EM's, Steele-Waseca Cooperative Electric, and municipal utilities (Owatonna P.U. and Blooming Prairie P.U.)	This is an ongoing effort of Steele County Public Works in cooperation with utilities. Keeping power lines clear of trees will help to reduce the risk of power outages from downed lines during storms.	City Municipal Utility and Rural Utility Coop Funding
16	Severe Winter Storms	Mitigation Preparedness and Response Support	Continue to coordinate emergency transportation plans & procedures with the Minnesota Department of Transportation to prepare for emergency shut-down of I-35 during severe winter storms and to provide for the safe sheltering of stranded motorists.	Ongoing	High	2017-2021	Steele County	SC Emergency Management, MN DOT	Steele County has been designated as an Interstate 35 closing point for Winter Weather by the Minnesota Department of Transportation. Emergency Plans have been developed to facilitate the closing of the freeway and opening of a shelter at the National Guard Armory. The Steele County Emergency Manager works with the County Highway Department and Minnesota Department of Transportation to limit travel on major county highways during hazardous driving conditions by blocking entrances to the major highways using freeway gates.	County/ MN DOT

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
17	Severe Summer Storms	Mitigation Preparedness & Response Support	Provide/participate in the National Weather Service's SKYWARN "Storm Spotter" training in various parts of the County for first responders and community residents.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	Emergency Management in collaboration with local cities and NWS	This is a standing part of the Steele County Emergency Management Program. Steele County has trained National Weather Service SKYWARN Instructors who provide annual training sessions for community volunteers, law enforcement, and fire departments. We will continue to encourage more volunteers to become active in the severe storm spotters network (SKYWARN, CERT, Ham Radio, etc.).	County Budget and NWS funding to deliver program
18	Severe Summer Storms	Mitigation Preparedness & Response Support	Continue to strengthen the Steele County SKYWARN program by creating maps and GPS tools that can be used by our network of storm spotters across the county, and work to coordinate safe participation by all storm spotters.	Ongoing	High	2017-2021	Steele County	SC Emergency Management	Steele County used grant funds to purchase 5 wind speed gauges used by SKYWARN. The SKYWARN/RADIO base has GR level 3 radar software with a goal of purchasing level. The County has also provided Instant Alert for 2 years, internet access in the base, and the GIS person works closely with the group for maps/map tools. Computers, furniture and printing needs have been donated by various local businesses. The SKYWARN program has a response plan that assigns spotters to pre-determined locations within the county that have been identified as safe spotting locations with good vantage points. What remains to be done is coordinate all spotters within the county. This includes Steele County SKYWARN, Law Enforcement Spotters, and Fire Department spotters.	County Budget

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
19	Severe Summer Storms	Structure and Infrastructure Projects	Identify areas where vulnerable populations are susceptible to tornadoes or extreme wind events (i.e. schools, campgrounds, or RV/mobile home parks) and evaluate for construction or retrofit of safe rooms or storm shelters.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna and School Districts	Emergency Management, HC Public Health, in coordination with townships and local cities	Tornadoes are one of the top ranked natural hazard that pose risk to Steele County. Steele County Emergency Management and City Emergency Managers will work to identify where safe room construction or retrofit is needed and may be feasible and work to explore advancing a safe room project.	County/City budgets
20	Severe Summer Storms	Structure and Infrastructure Projects	Implement construction or retrofit projects for safe rooms or storm shelters in identified vulnerable locations.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna and School Districts	SC Emergency Management, HC Public Health, in coordination with townships and local cities	Any community safe room projects that the County is involved in will be part of the Steele County Emergency Management program. SC Emergency Management will work with any school or jurisdiction seeking to develop an application to FEMA for a safe room project.	County/City budgets Possible FEMA HMA funding for Safe Room Construction
21	Severe Summer Storms	Mitigation Preparedness & Response Support	Upgrade the warning siren paging system to newer technologies, and identify areas for voice sirens.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Emergency Management in coordination with townships and local cities	New outdoor emergency warning sirens were installed in Ellendale, Blooming Prairie and Owatonna. In Owatonna the siren system was completely replaced with new sirens and voice sirens were installed at Lake Kohlmeyer, Downtown, the water park and at the Steele County Fairgrounds. A new voice siren was also recently installed at the Brooktree Golf course.	County Budget

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
22	Severe Summer Storms	Education & Awareness Programs	Provide public awareness & education of what the warning sirens mean and what safety measures to take when they are activated.	Ongoing	High	2017-2021	Steele County	SC Emergency Management	This is accomplished through a media campaign for Severe Weather Awareness Week with the National Weather Service. Steele County also participates in the Statewide Tornado Drill in April each year.	County Budget
23	Severe Summer Storms	Education & Awareness Programs	Provide awareness and education to homeowners and businesses on measures to decrease the vulnerability of homes and public buildings from damage from lightning strikes.	Ongoing	Moderate	2017-2021	Steele County	SC Emergency Management and Municipal Public Utility providers	This is accomplished through information from the public utilities.	County Budget, Utility Funding
24	Extreme Temps (Heat / Cold)	Education & Awareness Programs	Educate the public on the dangers of extreme heat or extreme cold and how to take personal safety measures during periods of extreme temperatures.	Ongoing	High	2017-2021	Steele County	SC Emergency Management, SC Public Health and School District Staff	This is done as part of the NWS annual spring and winter severe weather awareness weeks. It is also done during actual periods of extreme temperatures. Information on staying safe during periods of extreme heat or cold is relayed to the public through channels such as radio, TV, and Facebook.	County Budget
25	Extreme Temps (Hot / Cold)	Mitigation Preparedness & Response Support	Develop plans to respond to extreme temperatures situations in Steele County.	Ongoing	Moderate	2017-2021	Steele County	SC Emergency Management and SC Public Health	In the event of a severe heat or cold temperature event that posed risk to public safety, Steele County Emergency Management would work with Public Health to release information to the public about personal safety measures.	County Budget

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
26	Flooding	Local Planning & Regulations	Upgrade the Steele County and local city culvert plans and prioritize most vulnerable areas. Include buffer strips in most vulnerable areas.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Highway Dept., SC Public Works	This is a standing effort of the Steele County Highway Department and local city Public Works programs.	County /City Budgets
27	Flooding	Structure and Infrastructure Projects	Identify areas of concern at areas around bridges and culverts to mitigate erosion and soil stabilization issues.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Highway Dept., SC Public Works, City & Township public works	This is a standing effort of the Steele County Highway Department/Public Works and of each city's public works department.	County/City/ Township Budgets
28	Flooding	Local Planning & Regulations	Identify, map, and prioritize roads in the County and cities & townships that are impacted by flood events, and implement required mitigation measures to reduce future flood damages.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna, All Townships	SC Highway Dept., SC Public Works, SC GIS, and local city and township public works	This is a standing effort of the Steele County Highway Department/Public Works.	County/City Budgets, State Aid Funding, Possible FEMA HMA funding for Localized Flood Reduction Projects
29	Flooding	Local Planning & Regulations	Develop stormwater management plans and improve stormwater management systems at the county and city level.	Ongoing	New	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna, All Townships	SC Envr. Services, SC SWCD and local city public works depts., MN DNR, MPCA, and Watershed Plans	Steele County maintains a County Water Plan and a Watershed Plan which both address stormwater management planning and projects. The County is working to identify upland areas to hold water to help reduce the impact of stormwater flow.	County/SWCD budgets, Clean Water Fund, Possible MPCA/PFA grant funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
30	Flooding	Local Planning & Regulations	Ensure that wellhead protection plans are in place to address flooding that may lead to contaminated drinking water.	New	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Public Works, SC SWCD, MN Dept of Health and local city and township public works depts.	Cities work directly with the Minnesota Department of Health on the development or update of wellhead protection plans to ensure they meet State requirements.	MDH Source Water Protection grant funding for wellhead improvement projects
31	Flooding	Local Planning & Regulations	Work with the City of Owatonna to address raising control panels for traffic lights above flood level.	Ongoing	High	2017-2021	Steele County City of Owatonna	SC Public Works, City Public Works	Currently there is only control panel that must be raised above flood level. All other traffic lights have been addressed.	County/City Budgets
32	Flooding/ Erosion	Natural Systems Protection	Work to reduce erosion to streambanks and bridges due to flooding throughout the County.	Ongoing	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC Highway Dept., SC Public Works in coordination with local city EM's, Public Works depts., SC Env Services, SC SWCD, and Watershed plans	Steele County and many communities experience high erosion due to flooding, including impacts to bridge areas and streambanks being severely cut away. Steele County and each city is working to identify and implement measures to reduce erosion. We will work in coordination with the Watershed plans.	County/City Budgets, Possible FEMA grant funding for Localized Flood Reduction Projects , Clean Water Fund
33	Flooding	Local Planning & Regulations	Identify properties that experience damage from repetitive flooding, and work with property owners to buy out structures and turn into open-space.	New	High	2017-2021	Steele County Ellendale, Medford, Owatonna	SC Emergency Management, SC Envr. Services, and City Admin.	This is an ongoing effort of Steele County in conjunction with the cities of Ellendale, Medford, and Owatonna. The City of Blooming Prairie is not within the floodplain.	County/City Funding, Possible FEMA grant funding for Property Acquisition

#	Hazard	Mitigation Strategy	Mitigation Action	Status	Priority Ranking	Time-frame	Jurisdictions	Responsibility	County Comments on Planning Mechanisms for Implementation	Possible Funding
34	Flooding	Education & Awareness Programs	Work to provide education to homeowners in all cities on green infrastructure methods to assist in local stormwater management.	New	High	2017-2021	Steele County, Blooming Prairie, Ellendale, Medford, Owatonna	SC SWCD, SC P&Z, and local city Public Works	The Steele County SWCD provides information and technical assistance as needed to communities to learn about and implement green infrastructure projects to help reduce localized flood damages and reduce erosion.	SWCD budget, Possible FEMA Funding for Green Infrastructure Projects

5.3.2 Mitigation Actions by Community

This plan is a multi-jurisdictional plan that covers Steele County, its school districts and the cities of Blooming Prairie, Ellendale, Medford and Owatonna. The Steele County risks and mitigation activities identified in this plan also incorporate the concerns and needs of townships and other entities participating in this plan.

Mitigation actions are separated by jurisdiction in Appendix G.

Section 6 – Plan Maintenance

6.1 Monitoring, Evaluation, and Updating the Plan

The Steele County Multi-Hazard Mitigation Plan (MHMP) should be considered a living document. The plan should be updated and approved by FEMA at a minimum of every 5 years. The guidance in this section will function as the primary tool when reviewing progress on the implementation of the Steele County MHMP.

The Steele County Emergency Management Director is the individual responsible for leading all efforts to monitor, evaluate, and update the hazard mitigation plan within the 5-year window. Throughout the 5-year planning cycle, the Steele County Emergency Management Director will convene planning team members from the County and each jurisdiction on an annual basis to monitor, review, evaluate, and update the Multi-Hazard Mitigation Plan. Feedback will be gathered on actions that have been completed or ideas for future mitigation actions that should be incorporated into the next update of the plan. This will be done during the 4th quarter of each year to coincide with annual update to the County's Emergency Operations Plan (EOP). Additional stakeholders will be added based on need. If needed, the Steele County Emergency Management Director will convene the group to meet on a more regular basis to monitor plan implementation progress and reassess needs and opportunities. This could be done annually, or in response to funding cycles of programs that provide resources for hazard mitigation activities. If there is a need for a special meeting due to new developments or a declared disaster occurring in the county, the team will meet to update pertinent mitigation strategies. Depending on Steele County opportunities and fiscal resources, mitigation projects may be implemented independently by individual communities or through local partnerships.

The committee will review the MHMP goals and objectives to determine their relevance to changing situations in Steele County. In addition, state and federal policies will be reviewed to ensure they are addressing current and expected conditions. The committee will also review the risk assessment portion of the plan to determine if this information should be updated or modified. The parties responsible for the various implementation actions will report on the status of their projects, and will include which implementation processes worked well, any difficulties encountered, how coordination efforts are proceeding, and which strategies should be revised.

Updates or modifications to the MHMP during the 5-year planning process will require a public notice and a meeting prior to submitting revisions to the individual jurisdictions for approval. The plan will be updated via written changes, submissions as the committee deems appropriate and necessary, and as approved by county commissioners.

6.2 Implementation

Steele County and its included municipalities share a common Multi-Hazard Mitigation Plan and work together closely to develop, revise, and implement it. This MHMP provides a comprehensive chart of mitigation actions for Steele County and its jurisdictions (see Section 5.3.1, *Hazard Mitigation Actions*). Jurisdictions participated in the MHMP planning process and identified the specific mitigation strategies

that they would seek to implement in their communities during the 5-year planning cycle. These mitigation actions are provided in *Appendix G: Mitigation Actions by Jurisdiction*.

A number of implementation tools are available to address hazards. Many of these tools are below, however, in some cases additional discussion is needed in order to identify what strategies are most appropriate to use. This will be part of an ongoing discussion as Steele County looks for opportunities for plan implementation. The following tools will be considered:

Education: In many cases education of residents has been identified as one of the most effective mitigation strategies.

Capital Investments: Capital investments such as fire and ambulance equipment, sprinkler systems and dry hydrants are tools that can limit risks and impacts of natural and man-made hazards.

Data Collection and Needs Assessments: Data collection and needs assessments can aid in gaining a better understanding of threats and allow planning for mitigation strategies accordingly. As resources are limited for this part of the planning process, additional data collection is likely to be an ongoing activity as resources become available.

Coordination: Responsibilities for mitigation strategies run across various county departments, local fire and ambulance departments, city and township governments, and a host of state and federal agencies. Ongoing coordination is an important tool to ensure resources are used efficiently. Coordination can also avoid duplication of efforts or prevent gaps that are created because of unclear roles and responsibilities. The mitigation plan review process can function as a tool to have an ongoing discussion of roles, responsibilities, and opportunities for coordination.

Regional Cooperation: Counties and public safety services providers throughout the region often share similar challenges and concerns. In some cases, a regional approach may be warranted as a mitigation strategy in order to save resources. Mutual aid agreements are a tool already in use for a number of services. Needs assessments for fire and ambulance services and development of assistance for volunteer recruiting, training, and retention could benefit from a regional approach. Cooperation among counties could also help in lobbying for certain funding priorities that address concerns relating to challenges in service delivery in rural areas. Organizations such as FEMA Region V and the MN Department of HSEM through the Regional Program Coordinator can offer tools and resources to assist in these cooperative efforts.

Regulation: Regulation is an important mitigation tool for Steele County. Regulation plays a particularly important role for land use, access to structures and the protection of water resources and public health.

6.3 Continued Public Involvement

Continued public involvement is critical to the successful implementation of the Multi-Hazard Mitigation Plan (MHMP). The Steele County Emergency Management Director and the steering committee members from the participating jurisdictions of the cities of Blooming Prairie, Ellendale, Medford, and Owatonna continue to engage new public stakeholders in planning discussions and project implementation during the 5-year cycle of this plan.

In order to seek continued public participation after the plan has been approved and during the 5-year window of implementation for this plan, the County will take the following measures:

- The plan will be posted on the Steele County website for the public to read and provide feedback. Collected feedback will be reviewed and the plan will be amended as necessary.
- Information will regularly be posted on the Steele County Emergency Management Facebook Page on current mitigation projects and topics and public feedback will be encouraged.
- Following major storms or natural disasters, Steele County Emergency Management will seek to gather concerns and new ideas for mitigation from local residents to include in the next update of the plan. This may be done through public meetings or news releases via local media (online, newspaper, radio).
- Each city participating in the plan will be responsible to keep their city councils, city departments, schools, and community members updated and engaged in the implementation of their respective mitigation action charts (see *Appendix G: Mitigation Actions by Jurisdiction*). Each respective jurisdiction will report their progress in this area to the Steele County Emergency Management Director.
- Jurisdictions will use numerous means of public outreach to engage new public stakeholders in providing input on mitigation efforts or concerns on hazards by sharing information at city council meetings, sharing information at special events, working with local schools and partner organizations, and posting information on relevant local or social media that their communities use to inform and engage the public. As mitigation projects are implemented, jurisdictions will work to keep the public updated and engaged in those local efforts.

This page is intentionally left blank

APPENDICES

- Appendix A – Steele County Maps
- Appendix B – Steele County Critical Facilities
- Appendix C – Steele County Hazard Events
- Appendix D – Adopting Resolutions
- Appendix E – Steering Committee Meetings
- Appendix F – Public Outreach & Engagement Documentation
- Appendix G – Mitigation Actions by Jurisdiction
- Appendix H – Past Mitigation Action Review Status Report (2011-2017)
- Appendix I – Works Cited
- Appendix J – Steele County Plans & Programs In Place
- Appendix K – Local Mitigation Capabilities Assessment Report

This page is intentionally left blank