

PART SIX: SECONDARY UNNATURAL HAZARDS

The following human-created or technological hazards are possible, but are not considered top priority in Faribault County by the jurisdictions within. They will be summarized accordingly.

DAM FAILURE

Dams are manmade structures built to impound water. Dams are built for many purposes including water storage for potable water supply, livestock water supply, irrigation, or fire suppression. Other dams are built for flood control, recreation, navigation, hydroelectric power or to contain mine tailings. Dams may also be multifunction, serving two or more of these purposes.

Dam failures can occur at any time in a dam's life, however, failures are most common when water storage for the dam is at or near design capacity. At high water levels, the water force on the dam is higher and several of the most common failure modes are more likely to occur. Correspondingly, for any dam, the probability of failure is much lower when water levels are substantially below the design capacity for the reservoir.

Dam Failure Risk Assessment

Hazard:	Dam Failure
Location	Finseth Pond, Minnesota Lake, South Walnut Lake, Rice Lake
Historic Events	None on record
Likely to happen now?	No
How often?	Very infrequently
Where would event occur?	Dams identified in "Location" above
Severity of event?	Low
When would hazard likely occur?	Any time of year
What other hazards could occur at the same time?	Flooding
Economic impacts	Costs incurred to repair/rebuild dam, property damages
Loss of life impacts	Very minimal
Risk Level VH – Very High H – High L – Limited M – Minimal	Citizens/People: M Animals/Livestock: M Housing: M Critical Structures: M Infrastructure: L Total: L
<i>Risk Assessment</i>	
Unlikely – 1 Occasional – 2 Likely – 3 Highly Likely – 4	<u>Frequency of Occurrence</u> 1
More than 12 hours – 1 6-12 hours – 2 3-6 hours – 3 Minimal-None – 4	<u>Warning Time</u> 2
Limited – 1 Minor – 2 Major – 3 Substantial – 4	<u>Potential Severity</u> 1
Minimal – 1 Limited – 2 High – 3 Very High – 4	<u>Risk Level</u> 1

(Total divided by 4) Very Low – 1 Low – 2 Moderate – 3 High – 4	<u>Overall Priority</u> 1 Very Low
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Vulnerability to Dam Failure

The National Inventory of Dams (NID) lists 4 dams in Faribault County, all of which carry a hazard category of low, meaning failure would like result in no loss of life and physical/ economic damage only to the dam owner. The table below provides an inventory of Faribault County dams and their associated hazard ranking.

County	Dam Name	Hazard Category
Faribault	Finseth Pond	Low
Faribault	Minnesota Lake	Low
Faribault	South Walnut Lake	Low
Faribault	Rice Lake	Low

Probability: High – Annually to 2yrs, Medium - 5yrs, Low – 10yrs

Impact: High – Loss of life and \$500,000 plus property damage, Medium – bodily injuries and \$250,000 property damage, and Low – bodily discomfort and less than \$100,000 in property damage

POTENTIAL IMPACTS AND CASCADING EFFECTS

The potential impacts of dam failure include the loss of life and possible injuries, secondary impacts such as flooding and damage to or loss buildings and infrastructure, increased demand on emergency services and equipment, loss and/or reduction in available water reserves, and economic impacts such as the costs associated with repair/replacement of dam facilities. Most of the effects due to a dam failure in Faribault County would be minimal.

Dam Failure Gaps and Deficiencies

There have been no program gaps or deficiencies regarding the possibility of a dam failure hazard event identified within Faribault County.

ACTIONABLE MITIGATION STEP:

Actionable Mitigation Steps are more elaborately explained with project, timeframe, responsible jurisdictions/staff, possible funding sources, and priority level in the Action Plan section of this document. Suggested areas of focus are denoted in parentheses.

Dam Inspection (All County Dams) – The Minnesota DNR regulates nearly 900 of the numerous dams in the state. The DNR and the US Army Corps of Engineers routinely inspect the dams and reservoir capabilities for flooding and dam failure. Their reports indicate whether the sizes of the dams are adequate for any major floods and spring runoff. These inspections should be performed for all Faribault County dams on a regular basis to ensure their safety and proper functioning.

TERRORISM

Terrorism hazards are intentional, criminal, malicious uses of force and violence to perpetrate disasters against people or property. They can be the result of human-caused actions intended to intimidate or coerce a government or the civilian population to further political or social objectives – which can be either domestic or international, depending on the origin, base and objectives of the terrorist organization. They may be perpetrated by individuals for personal reasons. Hazards can result from the use of weapons of mass destruction (WMD). Examples of WMD that could be used include biological, chemical, nuclear and radiological weapons; arson, incendiary, explosive and armed attacks. In addition, industrial sabotage and intentional hazardous materials releases and cyber terrorism (an attack on electronic mediums such as communications) may be used.

Faribault County Terrorism Hazard Risk Assessment

Hazard:	Terrorism
Location	Countywide, particularly public buildings, dams, transportation facilities, and water systems
Historic Events	None
Likely to happen now?	Unlikely
How often?	Extremely rarely/Never
Where would event occur?	Anywhere in County
Severity of event?	Could be very severe in an extreme event
When would hazard likely occur?	Any time of year
What other hazards could occur at the same time?	Infectious diseases, flooding, dam failure, water supply contamination, exposure to hazardous materials, fire
Economic impacts	Potentially devastating if event is severe enough
Loss of life impacts	Potential for significant loss of life
Risk Level VH – Very High H – High L – Limited M – Minimal	Citizens/People: H Animals/Livestock: M Housing: M Critical Structures: H Infrastructure: H Total: L
<i>Risk Assessment</i>	
Unlikely – 1 Occasional – 2 Likely – 3 Highly Likely – 4	<u>Frequency of Occurrence</u> 1
More than 12 hours – 1 6-12 hours – 2 3-6 hours – 3 Minimal-None – 4	<u>Warning Time</u> 4
Limited – 1 Minor – 2 Major – 3 Substantial – 4	<u>Potential Severity</u> 3
Minimal – 1 Limited – 2 High – 3 Very High – 4	<u>Risk Level</u> 2

(Total divided by 4) Very Low – 1 Low – 2 Moderate – 3 High – 4	<u>Overall Priority</u> 2.5 Low/Moderate
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Vulnerability to Terrorism and Specific Areas of Concern

Cascading effects and risk of an intentional human-caused disaster are highly dependent on the specific mode of attack used and asset targeted. Many of these have been detailed in the technological hazards portion of the plan covering dam failure and hazardous materials incidents. Fires and secondary explosions are possible with explosive attacks and fires from arson attacks can extend beyond the intended target. Targets could also include any building or facility that is owned, operated, or utilized by any level of government, including local, county, state, and federal. Most of the concern regarding the possibility of terrorism events in Faribault County is connected with the municipal water supplies of cities throughout the county, as has been indicated in city surveys by the City of Blue Earth. Additionally, due to the agricultural nature of Faribault County areas, there are also agricultural chemical use/storage sites that may possibly be targeted in an attack. Most communities within the county have not identified the possibility of terrorism as a priority concern, but the possibility of such an event must still be considered and planned for as part of a thorough Hazard Mitigation plan.

POTENTIAL IMPACTS AND CASCADING EFFECTS

The potential impacts of acts of terrorism include the loss of life and injuries sustained due either to the event itself or the aftermath, possible secondary hazards such as fires or outbreaks of infectious diseases, the loss or reduction of necessary supplies such as water, widespread panic among residents, increased demand on emergency services, and impacts on buildings and infrastructure that may be either damaged or destroyed in such an event, which can lead to economic losses for the area as well.

Terrorism Hazards Gaps and Deficiencies

There have not been any specific gaps or deficiencies related to terrorism hazards identified by city survey respondents.

ACTIONABLE MITIGATION STEPS:

Actionable Mitigation Steps are more elaborately explained with project, timeframe, responsible jurisdictions/staff, possible funding sources, and priority level in the Action Plan section of this document. Suggested areas of focus are denoted in parentheses.

1. Well protection (Countywide) – City public works director will work with the police department to ensure external safety at wells by using means such as lighting, fencing, and locking mechanisms around well houses. This acts as a form of public safety by preventing access by unauthorized persons (particularly children), as well as terrorism prevention to the water system.

2. Coordination/Cooperation with State and Federal Officials (Countywide) – Faribault County officials should continue to work with state and federal officials and agencies on domestic preparedness efforts to mitigate impacts from a terrorism event.
3. Design new facilities with terrorism in mind (Countywide, particularly governmental buildings such as the Faribault County Courthouse) – Facilities that may face an increased threat from terrorism should utilize design and building elements to minimize threats from terrorist attacks, such as blast-resistant materials and fire suppression systems. If it has been determined that there is an increased risk of a terrorism event targeting a government building, structural improvements/upgrades that lead to increased security and resistance may be considered as well.
4. Limit pedestrian access to government buildings (Countywide) – Government buildings may wish to restrict pedestrian access to all facilities, or specified areas within the buildings. This could be at all times or during specified times of increased security concerns.

PART SEVEN: ACTION PLAN

FARIBAULT COUNTY GENERAL GOALS AND OBJECTIVES

The following list of mitigation actions is found in the Minnesota State All-Hazard Mitigation Plan. These actions are intended to provide long-term hazard mitigation and loss reduction. The mitigation actions may fall under one or more of the following six broad categories:

Prevention – Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include:

- Planning and zoning
- Building codes
- Capital improvement programs
- Open space preservation
- Storm water management regulations

Property Protection – Actions that involve the modification of existing buildings or structures to protect them from a hazard area. Examples include:

- Acquisition
- Elevation
- Relocation
- Structural retrofits
- Storm shutters
- Shatter-resistant glass

Public Education and Awareness – Actions to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them. Such actions include:

- Education, outreach projects and publications
- Real estate disclosure
- Hazard information centers
- School-age and adult education programs

Natural Resource Protection – Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. These actions include:

- Sediment and erosion control
- Stream corridor restoration
- Watershed management
- Forest and vegetation management
- Wetland restoration and preservation

Emergency Services – Actions that protect people and property during and immediately after a disaster or hazard event. Services include:

- Warning and communication systems
- Emergency response services
- Protection of critical facilities

Structural Improvements - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include:

- Dams
- Levees

- Floodwalls
- Retaining walls
- Channel modifications
- Storm sewers
- Safe rooms
- Shelters

County general goals and objectives were developed based upon knowledge of county resources, political will, and existing hazard mitigation capacity. Faribault County Priority Goals were prioritized according to how many jurisdictions identified them as priorities in their completed survey and how those jurisdictions ranked the threat they believe that the hazard poses to the community. Strategies for each goal were also based upon their respective cost-effectiveness, relative ease of implementation using existing or readily available resources, and their anticipated acceptance within Faribault County communities. While participants based upon personal projections made cost estimates, more in-depth analysis will be conducted during future updates to the plan, in the form of a cost-benefit analysis. In addition, the planning process permitted deliberation of key issues and strategic areas of focus which influenced the decision making process in identifying county goals. Further prioritizations of goals identified below were chosen based upon vulnerability and capability of implementing hazard mitigation strategies.

1. To establish warning systems in the event of an emergency:

- A. By acquiring sirens to alert citizens to weather events.
- B. By maintaining storm watch personnel to help aid early detection of natural disasters.

2. To establish and enforce building and fire codes (planning and zoning):

- A. By updating the comprehensive planning and zoning ordinance.
- B. By enforcing the Uniform Fire Code.

3. To improve disaster planning and training:

- A. By updating City Emergency Operations Plans.
- B. By encouraging the use of NIMS by all emergency response personnel.

4. To better educate the public about procedures to follow in the event of an emergency:

- A. By working on a personal level to create personal protection planning.
- B. By notifying the citizenry, by neighborhood if necessary, of localized hazards.

5. To work towards obtaining a more uniform system of communications among response personnel throughout the County:

- A. By developing a communications language.

B. By taking steps to guarantee equipment compatibility.

6. To be more proactive in order to reduce disaster damages.

A. By maintaining or building new safety structures that will prevent major damages.

B. By making sure infrastructure systems are working correctly and efficiently.

PRIORITY GOALS AS ESTABLISHED IN HAZARD MITIGATION PLAN

The following goals have been determined as being the “priority listing” of goals for Faribault County hazard-mitigation planning efforts, as they are the forms of hazard events that have been deemed most likely to have a serious detrimental impact on Faribault County and all communities therein. These priority goals have been determined using the input of all Faribault County persons involved in the creation of this plan, using Social, Technical, Administrative, Political, Legal, Environmental, and Economic (also referred to as “STAPLEE”) criteria. It is recommended that Faribault County pursue this set of goals for hazard mitigation as soon as possible. While all possible hazard events could have a serious negative impact on the County, due to the fact that they have not been determined as being priority hazards they are not included within this section of Faribault County Goals, Objectives, and Strategies. However, every hazard does have Actionable Mitigation steps that have been designed to minimize the impact of these hazards on the County, and these are listed and described under the “Actionable Mitigation Steps for All Hazards” section.

An application may be submitted to the state for a federal grant share of up to 75% of the total project costs under FEMA’s Hazard Mitigation Grant Program. Projects will undergo a cost-benefit and project feasibility review before the state sends a request to FEMA for funding approval. The State Hazard Mitigation Officer should be contacted to determine the exact requirements for a pre-application review for the project.

1. SUMMER STORMS, SPECIFICALLY TORNADOES

COUNTY GOAL

To prevent or minimize loss of life, injuries, and damage to property due to severe summer storms, particularly dangerous tornadoes.

Objectives

Increased Public Education through the development and implementation of programs to teach people about the hazards posed by tornadoes and other summer storm hazards.

Strategies

Faribault County’s Department of Emergency Management will work with cities, towns and the regional development commission to develop educational material that can be presented to public via website and brochures. Brochures can be mailed to citizens in coordination with cities via utility billing or other public information mailings. Information would identify not only where to go for storm information (i.e. radio stations), but also where the nearest shelters are located. This information will be provided to citizens as a means to prevent damage or impacts of hazards. This information will be developed and disseminated in the year 2006. Afterwards, such information will be reviewed as a step in the annual monitoring and planning process.

2. FIRES, ESPECIALLY IN DOWNTOWN AREAS

COUNTY GOAL

To encourage the countywide adoption of the Minnesota State Building Code and to continue funding training for public education performed by county fire departments.

Objectives

To encourage the countywide adoption of the Minnesota State Building Code and to continue funding training for public education performed by county fire departments.

Strategies

Most cities have adopted the Minnesota State Building Code. Most of all residential and business construction in the county is covered by state building codes. However, the County has not yet adopted the state building codes. Development in unincorporated areas would be impacted most. The county will need to seek funding to explore the development and adoption of Minnesota State Building Code. Additionally, the County, along with city police, fire, public works and other appropriate units, will collaborate on distributing educational material to the public. Information can be made available via websites, handouts at community or youth events and public presentations.

3. WATER-RELATED HAZARDS

COUNTY GOAL

To keep all Faribault County residents and visitors safe from the possibility of water-related hazards throughout the County.

Objective

To increase the security of wells and various water-treatment facilities throughout Faribault County.

Strategies

The County will work with the cities to begin a serious dialogue about the security of our wells and water supplies and to begin securing areas with inadequacies. This dialogue will take place during the coming year by the Faribault Hazard Mitigation Countywide Task Force.

4. STRUTURAL CONTROLS AND WARNING

COUNTY GOAL

Utilize structural controls and warning to reduce damage from flooding, high winds, winter storms, and fire to limit property damage throughout Faribault County.

Objective

Continually review planning throughout Faribault County to integrate mitigation related construction techniques, structures, and warning systems to minimize the effects of natural hazards.

Strategies

Cities in Faribault County can utilize flood plain maps and city-identified flood-prone areas to target these areas for property acquisition/buyout and elevation. Modify storm drains to prevent street flooding. City ordinances could limit the placement of new development in the flood plain. County/cities can pursue funding to build or repair levees/dams to reduce flooding impacts to identified communities.

Encourage communities to participate in FireWise to use fire resistant building materials, increase defensible space, and utilize sprinkler systems.

Encourage communities and private partners to pursue funding for additional structural controls such as living snow fences, upgrading or burying power lines to reduce the impact of winter storms and damages due to strong winds.

Encourage the construction and maintenance of safe rooms and storm shelters to protect the public against high winds and tornadoes. Safe rooms could be encouraged in the construction of new single and multi-family residences. Shelters could be promoted for public use in parks, commercial buildings and other venues.

Encourage communities to maintain current outdoor warning capabilities and integrate other technologies such as NOAA weather radios and locally initiated Emergency Alert System (EAS) messages.

ACTIONABLE MITIGATION STEPS FOR ALL HAZARDS

The following Actionable Mitigation Steps for All Hazards are expanded explanations and recommendations of the Actionable Mitigation Steps contained within each section of this document. In this section, some concepts of possible timeframes, funding resources, and responsible jurisdictions/agencies (and if at all possible staff positions) have been included as well. These recommended projects are also listed in prioritized order, as deemed by Region Nine staff using the general criteria that projects with the greatest forecasted impact on reducing or eliminating impacts should be undertaken first. A priority level of one to three has been assigned to each project, with one denoting that the project should be undertaken as soon as possible, and three denoting that the project should be implemented as time allows.

These steps are only recommendations, and it is the responsibility of Faribault County and cities thereof to implement these measures, as they deem appropriate. Specific steps may very well require significantly more research as to whether they would be appropriate and feasible steps for Faribault County communities to take in their hazard mitigation efforts. It is recommended that these communities continue to use the suggestions included herein to assist in conceptualizing additional steps and strategies to help prepare for hazard events. Additionally, many of the mitigation projects included in this section are applicable to several forms of hazard events beyond the category under which they are listed, and these may be considered as mitigation projects for any and all hazards for which Faribault County and cities thereof decide they may be applicable to.

Hazard: Winter Storms

- **Mitigation Project-** Some Faribault County cities should focus on designating and/or creating public shelters for residents. Fire and police departments will work with city councils, business owners and rental facilities to identify appropriate shelters during winter storm events, including power and/or heat loss. Through zoning cities can negotiate with rental and trailer park owners on the establishment of appropriate shelter sites and procedures.

Timeframe- This project should be undertaken and completed as soon as possible, due to the fact that it is a serious gap in the preparedness to adequately prepare for a winter storm event.

Responsibility- The following cities of Blue Earth, Easton, Elmore, Frost, Kiester, Minnesota Lake, Walters, Wells, and Winnebago are responsible for the creation and implementation of this project.

Possible Funding- Funding for the identification and/or creation of adequate storm shelter facilities would be the responsibility of Blue Earth, Easton, Elmore, Frost, Kiester, Minnesota Lake, Walters, Wells, and Winnebago to fund by any means available to them that would be appropriate for use in this project.

Priority Level- 1

- **Mitigation Project-** Utilize city ordinances to discourage placement of trees near power lines. Winter storms, particularly ice storms, can easily down trees. Trees that topple near or on power lines present a serious secondary hazard in addition to the winter storm itself, and can also lead to power outages. Cities should utilize local ordinances to limit the locations of trees nearby to power lines.

Timeframe- This mitigation project could be undertaken immediately, and the amendments to city ordinances could be prepared, approved, and adopted relatively quickly.

Responsible Jurisdictions/Agencies- City governments would be responsible for the strategy, primarily planning/zoning department staff and the city councils.

Possible Funding- The primary costs associated with this mitigation project would be the staff time needed by the city planning staff to prepare or amend the ordinance, which would be the responsibility of the local city government.

Priority Level- 1

- **Mitigation Project-** Undertake community education and drills to prepare residents for severe weather storm events. This could take the form of public education classes/seminars, presentations to schools and community groups, and creation/distribution of informational literature regarding winter storm events. Faribault County already has some programs in place, but special emphasis should be given to the following cities of Blue Earth, Briceyn, Kiester, Frost, and Walters.

Timeframe- Community education and drills could be undertaken immediately, if they are already not being conducted. If Faribault County communities are already performing these forms of public outreach, then they may consider increasing their events prior to and during the winter storm season when these hazard events are most likely to occur. These programs should be an ongoing effort within communities.

Responsible Jurisdictions/Agencies- City personnel would be largely responsible for the development, implementation, and continuation of these projects. Local fire department and police personnel may be involved with presentations and the development of informational material. The State of Minnesota has information available as well, which could likely be utilized by Faribault County officials for distribution to their local residents.

Possible Funding- Funding for these projects could come from local jurisdictions, grant sources for emergency preparedness and public education, and possibly contributions from local civic non-profit groups.

Priority Level- 2

- **Mitigation Project-** Assure availability of information for non-English speaking Faribault County Residents. County and city personnel may want to consider that language barriers are minimized and that all residents, regardless of language spoken, are able to get up-to-date information regarding winter weather events.

Timeframe- This project could be implemented over the course of 6 months to one year, which should provide adequate time to determine how to best approach the project and the specific needs of each community.

Responsible Agencies/Jurisdictions- Faribault County personnel as well as city personnel from all Faribault County communities would be responsible for implementing this mitigation project.

Possible Funding- This project could be funded mainly out of any available and appropriate city and county funds.

Priority Level- 2

- **Mitigation Project-** Education of key personnel. Special consideration should be given to the cities of Winnebago, Minnesota Lake, Blue Earth, Kiester, and Elmore. Community personnel that are likely to be involved with the immediate effects of a winter hazard event (such as fire department and police department staff) should undergo continuing training to ensure that they have the newest and best knowledge and resources available to them so that they may be more effective in dealing with a winter storm emergency.

Timeframe- This mitigation project is already in place in many communities, but it should be ongoing for all of them. Education workshops, seminars, conferences, etc. are held year-round and applicable training should be considered at all times.

Responsible Jurisdictions/Agencies- City fire department and police staff would be the most likely to be involved with ongoing education regarding winter hazard events. County officials may be involved as well. Some of the training is conducted by State of Minnesota agencies.

Possible Funding- Funding for education of key personnel can come from local city governments, from fire department or police department funds, and grants for emergency preparedness.

Priority Level- 2

- **Mitigation Project-** Encourage the public to listen to local news sources, including television and radio broadcasts. These broadcasts can be extremely useful in disseminating information to residents in the event of a severe winter storm event, but are only effective if they are utilized. Reminders could be placed in city correspondence (such as water bills or newsletters) and on city web sites, if they are available.

Timeframe- This mitigation project can be implemented immediately, and should especially be encouraged during the winter storm season when events are most likely to occur.

Responsible Jurisdictions/Agencies- Local cities would be largely responsible for implementation of this mitigation project. Local news sources may also be involved through use of their own broadcasts making note of their severe weather alert capabilities.