

# YELLOW MEDICINE COUNTY

## CHAPTER FIVE: GOALS, OBJECTIVES, STRATEGIES - NATURAL HAZARDS

### Overview

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The following tables outline the goals, objectives and mitigation strategies for natural hazards important to Yellow Medicine County. The goals are used as a framework for the objectives and mitigation strategies, which in turn, provide specific information on how mitigation decisions should be made. The goals, objectives and strategies are based on the issues identified by the Local Task Force and the risk assessment in this plan. The chapter is divided into three sections; completed strategies by Yellow Medicine County and cities, current goals, objectives and strategies for Yellow Medicine County and cities, and the prioritization of strategies.

### Definitions

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*Goals* are general statements.

*Objectives* are action statements and start with an action verb.

*Strategies* support the action of the objective.

The *Time Frame* was determined with the task force and the County Emergency Manager as an estimate timeline in which to reach the strategy.

The *Time Frame –Recurring* is a strategy type that does not have a specific time length. Once the strategy has been completed, the responsible entity will re-start the strategy.

*Responsible Entity* is the entity in charge of initiating and completing the strategy identified. This was determined by the task force and County Emergency Manager as the most likely entity to complete the strategy.

The *Estimated Cost* was an educated guess of the cost of each strategy. Some strategies would not cost extra and were denoted "--". Some costs were not known and denoted as "unknown".

The *Funding Partner* is a potential partner for the county/city to obtain funding from in order to complete a strategy.

### General Mitigation Vision

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“The county will strive to work with surrounding communities and local emergency responders to create and implement a proactive and results-oriented all-hazard mitigation plan that will make the county and region a safer and more sustainable place to live by protecting and enhancing the resources of the county as they relate to hazards that may have an impact in the future.”

## **Development of Strategies**

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To determine strategies for each hazard identified in the risk assessment (Chapter 4) small group problem-solving techniques were used. Once the hazards most likely to affect Yellow Medicine County were identified and prioritized a public meeting was held to review these hazards and their rankings and identify strategies to address mitigation for each hazard. Individuals participating in the public meeting included task force members, interested parties, elected officials, technical team members and some general public. Past hazard activities in the county influenced strategy development and strategy ranking (i.e. 1997 and 2001 flooding). In many cases when the hazards were identified for the inventory, strategies were also discussed at that time providing a good place to start discussion.

The following outlines the plan's strategy development process. 1) Using the focus group approach and working toward group consensus each hazard was reviewed individually. 2) Participants offered suggestions and input which stimulated a lively discussion as part of the planning process. All suggestions were considered and recorded by the facilitator. 3) A limited amount of time was set on each hazard by the facilitator to move the group forward. 4) Debate followed before the group was asked to decide if it should be part of the plan – group consensus was needed. 5) The group noted they could not be totally inclusive – some strategies may not even be considered – others may not be feasible.

### **General Criteria**

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|--------------------------|------------------------------------|
| 1. History               | 5. Effectiveness                   |
| 2. Successful Strategies | 6. Building on what already exists |
| 3. Need                  | 7. Legal Authority                 |
| 4. Risks                 | 8. Environmental Impact            |

### **Cost/Benefit Criteria**

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|------------------------|---|
| 1. Costs/Efficiencies  | 4. Overall Impact                                 |
| 2. Economic Impact     | 5. Resources Needed (Social & Fiscal)             |
| 3. Budget Requirements | 6. Benefits Provided by Project (Social & Fiscal) |

Identifying costs that would be attached to each strategy was the most difficult part of the process. Due to limited time and resources to develop the plan it wasn't feasible to spend a lot of time on estimating the costs. It is critical for the Board to constantly be evaluating the costs as part of implementation and maintenance for the All-Hazard Mitigation Plan. Strategies that dealt with rural areas seemed harder to include in the plan – more costly, harder to regulate, and would need population buy-in. Many strategies are costly, labor intensive, time consuming and it is difficult to identify the lead for the strategy. It was determined that the Emergency Manager will perform a cost-benefit review for all potential future project applications. Participants in the planning process agreed that to implement an ordinance or regulation was the difficult part of some strategies – would it be possible and feasible to follow-through? Participants started with strategies that were manageable to see notable progress – “baby steps”. It was reasonable to include strategies that have been started, but not yet completed. Some strategies require more information and data before developing a strategy and should be readdressed in future updates.

In addition to creating new mitigation strategies for Yellow Medicine County, the Local Task Force met for the second time on January 13, 2010 in Porter, MN, and analyzed strategies found in the initial All-Hazard Mitigation Plan. The process for strategy analysis included two steps: Step 1) Discuss a strategy and determine its “status”, Step 2) Determine why the strategy has that status. Four different “Statuses” were available to assign to a strategy: 1) Completed, 2) Not completed – strategy still feasible, 3) Recurring - does not have a specific time length and once the strategy is completed the responsible entity will restart the strategy, and 4) Not completed – no longer relevant. Once a strategy was assigned a status by the Local Task Force through group consensus, the Local Task Force had to determine **why** it was in that status. For example, a Flood Strategy that received “not completed – strategy is still feasible” may have not been completed due to fund shortage; however, a jurisdiction may see that flood project as still important to complete in the future.

Following the second Local Task Force meeting, another meeting was held with Yellow Medicine County’s Emergency Manager, Engineer, and Zoning Administrator to re-evaluate the mitigation strategies and ensure that the statuses determined by the Local Task Force were agreeable. Some strategies were modified as they dealt specifically with programs under the instruction of the county. Further, the staff was able to make suggestion regarding the prioritization of the strategies. These changes and recommendations were noted and discussed at the third Local Task Force meeting.

The third Local Task Force meeting took place on February 24, 2010 in St. Leo, MN. At this meeting, the Local Task Force solidified their prioritized hazards by discussing suggestions made by the Emergency Manager, Engineer, and Zoning Administrator; in addition to their suggestions at the previous meeting. The Local Task Force had time previous to this meeting to review the updated strategies from the second meeting and through group consensus, voted on the highest priority strategies for Natural Hazards.

## HMGP Funded Strategies: Yellow Medicine County and Cities

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**Table 107. YMC & Cities Hazard Mitigation Grant Program Funded Strategies (FEMA-Related)**

SUBGRANTEE	PROJECT	FEDERAL SHARE	DR-PROJECT NUMBER	CITY/LOCATION	DATE STARTED
Yellow Medicine County	Power Line Conversion	\$335,625	DR-1151.02	Yellow Medicine County	October 1997
Yellow Medicine County	Acquisition of 9 Properties	\$178,905	DR-1175.10	Echo - 1 property, Granite Falls – 8 properties	October-November 1997
Yellow Medicine County Soil & Water Conservation District	Living Snow Fence	\$47,004	DR-1175.34	Yellow Medicine County	February 1999
Yellow Medicine County	Power Line Conversion	\$434,400	DR-1569.08	Yellow Medicine County	November 2006
Yellow Medicine County	Power Line Conversion	\$263,963	DR-1622.00	Yellow Medicine County	July 2007

Source: MN HSEM 2009

## Completed Strategies: Natural & Manmade Technological Hazards for Yellow Medicine County and Cities

**Table 108. YMC & Cities Completed Strategies in Past 5 Years for Natural & Manmade Technological Hazards**

HAZARD	STRATEGIES	Responsible Entity
Violent Storms & Extreme Temperatures	Evacuation plan for Mobile Home Parks should include a location for a safe room. No cities have mobile home parks and all homes without basements have an identified safe room.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Violent Storms & Extreme Temperatures	Educate city councils on the benefits of the universal building code in times of disaster.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Violent Storms & Extreme Temperatures	Provide handheld weather meters for County Emergency Personnel.	Yellow Medicine County Law Enforcement
Violent Storms & Extreme Temperatures	Build/remodel for a new ambulance garage to store both of Clarkfield's ambulances.	Clarkfield
Violent Storms & Extreme Temperatures	Work with NWS to improve broadcast range of weather radios to improve signals to remote areas of county.	Yellow Medicine County
Violent Storms & Extreme Temperatures	Improve cell phone service. Yellow Medicine County has placed three towers and Clarkfield has one new tower.	Yellow Medicine County, Clarkfield
Violent Storms & Extreme Temperatures	Require that all manufactured home parks have tie-downs. This is now a state mandate.	Yellow Medicine County, Echo, Porter, Canby, Granite Falls, *Other cities do not have manufactured homes.
Violent Storms & Extreme Temperatures	Identify and map community safe rooms.	Hanley Falls
Violent Storms & Extreme Temperatures	The Law Enforcement Center in Granite Falls has installed proper wiring, transfer switches, and a generator to act as an Emergency Operations Center.	Yellow Medicine County, Granite Falls
Violent Storms & Extreme Temperatures	Encourage that an evacuation plan is posted at Yellow Medicine County Fairgrounds and other event areas.	Yellow Medicine County Emergency Manager
Violent Storms & Extreme Temperatures	Identified two buildings as safe shelters at the Yellow Medicine County Fairgrounds in Canby.	Yellow Medicine County, Emergency Manager
Violent Storms & Extreme Temperatures	Educate public to keep tree plantings away from power lines. Pass ordinances to keep trees at specified distances from power lines.	Yellow Medicine County, Granite Falls, Canby
Violent Storms & Extreme Temperatures	Promote weather radios with priority given to schools, hospitals, and nursing homes.	Canby, Clarkfield, Echo, Granite Falls
Violent Storms & Extreme Temperatures	Work with the NWS to improve broadcast range of weather radios by purchasing additional transmitters to improve signals to remote areas of county.	Yellow Medicine County
Floods	Complete the acquisition and relocation of three homes on Minnesota Avenue. Complete plan to keep historical building intact.	Granite Falls
Floods	Complete acquisition and relocation of Main Street businesses. The buildings north of Ladner's should be flood proofed and renovated to have one floor leased. Buildings south of Ladner's should be removed completely.	Granite Falls
Floods	Relocate City Hall and demolish existing City Hall.	Granite Falls
Floods	Consider flood proofing the Yellow Medicine County Museum and building a levee in the floodplain.	Granite Falls

Floods	Yellow Medicine SWCD completed the Lazarus Dam Project, increasing the height and length of a levee and created a “dry dam” to hold waters of a 100-year flood event.	Watershed Districts and DNR
Drought	Author and adopt a County Wellhead Protection Ordinance.	Yellow Medicine County
Drought	Continually monitor water meters.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Wildfire	Create a mutual aid agreement between DNR and local fire departments to organize response to large wildfires.	West Central Firefighters Association, Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Wildfire	Encourage DNR to give training locally.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Wildfire	Do an inventory of wildfire equipment available and look for grants for additional and updated equipment when necessary.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Wildfire	Remove debris and dead vegetation around camping areas on an annual basis.	Yellow Medicine County, Canby
Fire	Ensure that building codes include alarms and sprinkler systems as requirements on all commercial and industrial buildings.	Clarkfield, Granite Falls, and Stony Run Township
Fire	Purchase equipment that is needed to fight fires, such as fire trucks and PTE equipment.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Fire	Update communication equipment such as pagers to communicate with dispatch and other fire departments.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Fire	Purchase gas meter for fire department for use by community.	Porter
Fire	Manage abandoned buildings.	Porter
Hazardous Materials	Develop Mass Evacuation Procedures for a hazardous materials incident.	Yellow Medicine County Emergency Manager
Hazardous Materials	Develop a plan/policy to contend with meth labs in the county. Promote and enforce building codes that improve protection from hazardous events.	Yellow Medicine County Law Enforcement, Granite Falls, Clarkfield
Hazardous Materials	Developed a City Evacuation Plan and practice the plan in event of ammonia leaks.	Wood Lake
Hazardous Materials	Continue to participate in regional exercises that test local plans and interaction between local agencies. Participate in “High Angle Rescue” Team – a countywide organization for emergency response situations.	Wood Lake
Water Supply Contamination	Build a new Water Treatment Plant and dig a new well due to arsenic found in water supply.	Hanley Falls
Water Supply Contamination	Establish a program to install backflow protection at the water meter service which would not allow anything to go back into water system.	Lincoln Pipestone Rural Water
Civil Disturbance/Terrorism	Install backflow protection at the water meter service which would not allow anything to get back into the water system.	Granite Falls
Civil Disturbance/Terrorism	Develop security for county and all high profile cases.	Yellow Medicine County Law Enforcement
Civil Disturbance/Terrorism	Televising City Council Meetings.	Canby
Civil Disturbance/Terrorism	Develop response plan for agro-terrorism.	Yellow Medicine Zoning Administrator
All Hazards	All homes are easily identifiable with visible house numbers and street signs.	Canby, Clarkfield, Granite Falls, Hanley Falls, St. Leo, Wood Lake

## Natural Hazard Strategies: No Longer Relevant

**Table 109. YMC & Cities: Natural Hazard Strategies – No Longer Relevant**

HAZARD	STRATEGIES	Responsible Entity
Violent Storms & Extreme Temperatures	Require that all manufactured homes have tie-downs by adding to manufactured home ordinances. Provide tie-downs for homes in need.	Citizens with manufactured homes without tie-downs.
<b>Reasoning:</b> The State of Minnesota now mandates that all manufactured homes must have tie-downs.		
Violent Storms & Extreme Temperatures	Support the ICS weather channel provided through the cable channels.	Yellow Medicine County Sheriff
<b>Reasoning:</b> The equipment has been rendered obsolete due to unavailable funding to replace equipment as needed. Program has been eliminated by Yellow Medicine County Sheriff.		
Violent Storms & Extreme Temperatures	Use funds to acquire AWS real-time weather monitoring stations for the County Emergency Manager.	Yellow Medicine County, Emergency Manager
<b>Reasoning:</b> Program was determined to not be cost-effective.		
Floods	Acquire and relocate 4 businesses and 5 residences out of the flood prone area.	Granite Falls
<b>Reasoning:</b> Removed for duplication of strategies. Businesses and residences are covered in other flood strategies.		
Wildfires	FSA allows firebreaks on CREP and CRP land. Educate landowners about firebreaks.	DNR, FSA
<b>Reasoning:</b> This program is run by the DNR and FSA. They educate owners about firebreaks and when burning should occur on CREP and CRP lands.		
All Hazards	Work to train the Community Emergency Response Team (CERT) to be ready to work and train volunteers during disasters, in addition to developing research and outreach materials.	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
<b>Reasoning:</b> Funding unavailable for cities. Program is too costly.		

## Goals, Objectives and Mitigation Strategies – Natural Hazards

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
<b>1.</b> Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	A. Educate public on safe rooms.	Recurring	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$500	--
<b>2.</b> Ensure that all hospitals, schools and nursing home facilities have a severe storm plan in place to protect patients and students.	A. Each city should meet annually with the County Emergency Manager, emergency personnel (fire, police and ambulance), and representatives from nursing homes, schools and hospitals to assess storm safety procedures including safe rooms.	Recurring	County, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	N/A	County
<b>3.</b> Educate residents of safe rooms in community.	A. Identify and/or map community safe rooms that could be used by manufactured home parks and other residents that do not have safe room on their property. Provide a handout to all residents with a pamphlet outlining emergency information.	1-2 years	Clarkfield, Echo, Granite Falls, Hanley Falls, Porter, St. Leo	\$500 per city	FEMA
<b>Objective 3: Strategy A Information:</b>					
A. Identifying and/or mapping community shelters for new residents was an original strategy for every city in Yellow Medicine County. <b>Canby, Hazel Run, and Wood Lake</b> completed the strategy. This strategy was modified for <b>Clarkfield, Echo, Granite Falls, Hanley Falls, Porter</b> and <b>St. Leo</b> as they were unaware, and it is now directed at all residents in cities and will contain information on all emergency information, rather than only emergency routes and safe rooms.					
<b>4.</b> Continue to address safe room needs in the county.	A. Educate the public with a presence at county fairs, flyers and newspaper articles including the “sheltering in place” component.	Recurring	County Emergency Manager	\$1,000	--
	B. Investigate feasibility of providing safe room at county parks and public golf courses. Identify a safe room for the campgrounds in Canby and Del Clarke Lake.	2-15 years	County and Canby	\$10,000 for county	FEMA
	C. Build safe rooms as needed.	5-15 years	Canby, Porter	\$30,000/shelter	FEMA
<b>Objective 4: Strategies A-C Information:</b>					
A. Public education at county fairs strategy was completed and has been modified to a “Recurring” strategy.					
B. Investigating feasibility of providing safe shelters at county parks is in process by Yellow Medicine County. <b>Canby</b> has not yet identified a safe room for the campground due to funding constraints. This strategy has been modified to not include cities to remove duplication, as Objective 3A targets cities.					
C. <b>Canby</b> and <b>Porter</b> have identified a need for a safe room in their communities, funding was unavailable to complete the strategy from the initial plan. <b>Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, St. Leo, Wood Lake</b> have been removed from building safe shelters as a strategy as they do not have a need for additional safe rooms in their communities.					

<b>Goal 2: Improve severe storm warning system for all county residents.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Assess adequacy of existing civil defense sirens.	A. Inventory and assess adequacy of the county civil defense siren system. Replace malfunctioning sirens. Look for funding to add sirens to cities without complete siren coverage, provide backup power to all sirens, and replace malfunctioning sirens.	2-5 years	County Emergency Manager, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$63,000 for county \$17,000 per siren, varies by city	NOAA
<b>Objective 1: Strategy A Information:</b>					
A. The strategy to inventory, assess, replace, and provide backup power for the county civil defense siren system is currently underway. The Emergency Manager has submitted a grant to update the county civil defense siren system. Each city has determined what they would prefer to update their community system; <b>Canby</b> – backup power system, <b>Echo</b> – siren and backup power, <b>Hanley Falls</b> – backup power system, <b>Hazel Run</b> – siren, <b>Porter</b> – siren, <b>St. Leo</b> – siren and backup power system, and <b>Wood Lake</b> – siren and backup power. <b>Clarkfield</b> and <b>Granite Falls</b> have completed this strategy and are satisfied with their community system.					
2. Ensure that all communities and rural areas of the county have immediate access to severe weather warnings and communications.	A. Improve links to National Weather Service to obtain current storm warning information.	Recurring	County	--	--
<b>Objective 2: Strategy A Information:</b>					
A. To improve links with the National Weather Service, Yellow Medicine County now utilizes information from Aberdeen, SD to obtain current weather information.					
3. Assess Yellow Medicine County's current warning system: how the county is notified; who and how people and organizations within the county are notified.	A. Get additional funding for the Incident Command System (ICS) to work on regional projects. Research and secure federal funding to upgrade county warning system.	3-5 years/ Recurring	County	\$50,000	NWS
	B. Work with the state of Minnesota to determine the best plan of action for the switch from UHF to VHF. Find funding for the switch from UHF to VHF to include new towers and radios.	3 years	County	\$1.5 Million	Dept. of Justice
	C. Purchase new digital radios and mobile computers for Police Department.	2 years	Clarkfield Police Department	\$20,000	Dept. of Homeland Security
<b>*New Strategy</b>					
<b>Objective 3: Strategy A-B Information:</b>					
A. The strategy to obtain additional funding for the ICS to work on regional projects has been modified to "Recurring". Funding has been attained to purchase new GPS equipment. This strategy has not yet been completed due to funding availability.					
B. Yellow Medicine County attained a communications grant in 2009. The ARMOR System will be in effect in 2013 to allow communications to run at 800 megahertz. Focus has shifted concerning Responsible Entity from Cities and County to County, city Fire Departments will participate once the system is in place.					
<b>Goal 3: Protect people and infrastructure from the impacts of severe weather.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Encourage that all new local electrical distribution lines be placed underground when applicable.	Work with utility companies to assess the safest placement of utility lines.	Recurring	County, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake MN Valley Cooperative	--	FEMA

2. Keep tree plantings away from power lines.	Educate public to keep tree plantings away from power lines.	Recurring	County SWCD	\$1,000	--
	Modify county official controls to control tree growth near power lines and encourage cities to do the same.	Recurring	County SWCD, Granite Falls	\$1,000	--
<b>Goal 4: Provide emergency response to protect people in the event of a severe weather disaster.</b>					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Establish an emergency operations center that is equipped with necessary tools and provide a backup location to this center. These locations should also have a backup power source.	A. Install wiring, transfer switch, and generators to all communities in the county that serve as emergency operations centers and to community buildings that act as safe rooms for residents.	2 years	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$2,000 - \$10,000 pending product (see Ch. 6)	FEMA
<b>Objective 1: Strategy A Information:</b> A. This strategy has not been completed in all cities due to lack in fund availability. Each city has determined what they would prefer to update their Emergency Operations Center/community buildings that act as safe rooms for residents. <b>Canby</b> - three backup generators and wiring/transfer switch, <b>Hanley Falls</b> - two transfer switches and two generators, <b>Porter</b> - wiring transfer system and generator, and <b>Wood Lake</b> - generator. <b>Granite Falls, Clarkfield, and Echo</b> have completed this strategy. <b>Hazel Run and St. Leo</b> do not have funding available to complete this strategy.					
2. Ensure that County and City Emergency Operations Plans are kept up-to-date.	A. Each community should continue to meet annually with the County Emergency Manager and emergency personnel (Fire, Police, Ambulance – when applicable) to assess the County Emergency Operations Plan.	Recurring	County Emergency Manager, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	--	--
<b>Objective 2: Strategy A Information:</b> A. The Emergency Manager created the Incident Command System (ICS) Committee comprised of representatives from all cities to discuss projects on a regional basis. This committee meets on a regular basis multiple times throughout a year.					

## Hazard: Floods

<b>Goal 1: Eliminate nonconforming structures in the identified 100-year floodplain.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Eliminate existing nonconforming private and public structures in identified 100-year floodplains in Granite Falls.	A. Move the Granite Falls Fire Hall to a location outside of the floodplain.	5 years	City of Granite Falls, FEMA, Fire Association	\$1 million	FEMA/DNR
	B. Relocate the Water Treatment Plant out of the 100-year floodplain.	2 years	Granite Falls	\$4.4 million	FEMA/DNR
	C. Relocate the 2 farmsteads near Dike Road in Stony Run Township.	5 years	Stony Run Township, Granite Falls	Unknown	FEMA/DNR
<b>Objective 1: Strategy A-C Information:</b> A. Strategy in process, funding not yet available. B. Strategy in process, funding not yet available. Timeframe has been modified from 5-10 years to 2 years. C. Strategy in process, funding not yet available.					
2. Address flooding issues of the Yellow Medicine County Museum in Granite Falls.	A. Work with the county and DNR to find a solution to prevent flood damages.	Recurring	County, Granite Falls, Yellow Medicine Historical Society, DNR	--	FEMA/DNR
	B. Relocate the building to a site outside the 100-year floodplain.	5 years	Granite Falls, Yellow Medicine Historical Society, DNR	Unknown	FEMA/DNR
<b>Objective 2: Strategy B Information:</b> B. Strategy in process, funding not yet available. Timeframe has been modified from 3-5 years to 5 years.					
3. Address the flood issue of the approximately 20 homes south on Prentice Street in Granite Falls. These homes will likely be in the 100-year floodplain in updated floodplain maps and in danger of future floods.	A. Start discussions with landowners. Work on best plan for future flooding.	5 years	Granite Falls	--	FEMA/DNR
	B. Acquire land for right of way levee footprint.	4-7 years	Granite Falls	Unknown	FEMA/DNR
	C. Consider buyout of properties.	7-8 years	Granite Falls	Unknown	FEMA/DNR
<b>Objective 3: Strategy A-C Information:</b> A. Strategy in process, funding not yet available. Timeframe has been modified from 3 years to 5 years. B. Strategy in process, funding not yet available. C. Strategy in process, funding not yet available.					
4. Encourage cities to adopt Floodplain Ordinances if they have 100-year floodplains.  *New Objective	Draft and adopt a floodplain ordinance.  *New Strategy	6 months	Porter	--	--

<b>Goal 2: Improve the safety and security of Granite Falls and other flood prone areas.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Install pumping stations to protect Granite Falls from internal flooding.	A. Install a permanent pumping station at intersection of Prentice Street and Main Street.	1 year	Granite Falls	\$100,000	FEMA/DNR
	B. Install a permanent pumping station at intersection of 12 <sup>th</sup> Avenue and 7 <sup>th</sup> Street.	1-2 years	Granite Falls	\$1.5 Million	FEMA/DNR
<b>Objective 1: Strategy A-B Information:</b>					
A. The pumping station location has changed from Intersection of 8 <sup>th</sup> Avenue/2 <sup>nd</sup> Street. Strategy in process, funding not yet available. Timeframe modified from 1-2 years to 1 year.					
B. Strategy in process, funding not yet available. Timeframe modified from 1-2 years to 3-5 years.					
2. Protect the Sanitary Sewer Treatment Plant in Granite Falls from future flooding.	A. Relocate existing sanitary sewer lift station.	2 years	Granite Falls	\$325,000	FEMA/DNR
<b>Objective 2: Strategy A Information:</b>					
A. Strategy in process, funding not yet available. Timeframe has been modified from 1-2 years to 2 years.					
3. Prevent sanitary sewer line from becoming inundated with spring flooding. <b>*New Objective</b>	Replace approximately 1,500 lineal feet of sanitary sewer on the west side of the Minnesota River, south of the river crossing. <b>*New Strategy</b>	5 years	City	\$401,000	FEMA
4. Address flooding issues as a region.	A. Work with state agencies, local governments, and emergency managers to address flooding issues as a region.	Recurring	Canby, Clarkfield, Granite Falls, Porter, County Emergency Manager	\$10,000	FEMA
	B. Complete a City-wide Stormwater Project with 6 additional lines and refurbishing an existing stormwater line. <b>*New Strategy</b>	2 years	Canby	\$100,000	FEMA
	C. Purchase two 1,200 gallon/minute diesel portable pumps to handle rain/snow melt. <b>*New Strategy</b>	3-5 years	City	Unknown	FEMA
5. Establish a plan of action to address flood emergencies.	A. Identify necessary resources for flood emergencies in the region and contract for assistance.	Recurring	Canby, Clarkfield, Granite Falls, Porter, County Emergency Manager	--	--
	B. Work regionally to improve the flood forecast system.	Recurring	County Emergency Manager	\$30,000	HSEM
6. Evaluate flood risks for the floodplains of Canby Creek and the confluence of Spring Creek and the Yellow Medicine River.	A. Acquire funding to do research and assessment as needed.	Recurring	Watershed Districts, DNR	Unknown	FEMA/DNR
<b>Objective 5: Strategy A Information:</b>					
A. Evaluating flood risks on the floodplains of Canby Creek and confluence of Spring Creek and the Yellow Medicine River is an ongoing strategy. In 2005, Yellow Medicine SWCD completed the Lazarus Dam Project, increasing the height and length of a levee and created a “dry dam” to hold waters of a 100-year flood event.					

7. Educate the public on “sanitation cutting” that is allowed on RIM land which allows timber to be removed on land prone to flooding.	A. Work with the SWCD to educate the public on this program.	Recurring	County, Watershed Districts	--	--
<b>Goal 3: Protect the structures that are repeatedly flooded.</b>					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Upgrade and protect Dike Road near Granite Falls.	A. Modify and raise the Dike Road levee.	5 years	Granite Falls	\$260,000	FEMA/DNR
	B. Install a fixed weir section in the temporary levee to control water discharge.	5 years	Granite Falls	\$875,000	FEMA/DNR
<b>Objective 1: Strategy A-B Information:</b> A. Strategy in process, funding not yet available. Timeframe has been modified from 3-4 years to 5 years. B. Strategy in process, funding not yet available. Timeframe has been modified from 3 years to 5 years.					
2. Upgrade the Reach 1 Levee to protect for 500 year floods near Granite Falls.	A. Raise the Reach 1 Levee.	1-2 years	Granite Falls	\$1.6 million	FEMA/DNR
<b>Objective 2: Strategy A Information:</b> A. Strategy in process, funding not yet available.					
3. Flood proof buildings that are repeatedly flooded.	A. Flood proof the Hydro Plant in Granite Falls	3-5 years	Granite Falls	\$200,000	FEMA/DNR
	B. Flood proof the apartment building on Minnesota Avenue in Granite Falls.	3-5 years	Granite Falls	\$50,000	FEMA/DNR
<b>Objective 3: Strategy A-B Information:</b> A. Strategy in process, funding not yet available. Timeframe has been modified from 3-5 years to 2 years. B. Strategy in process, funding not yet available. Timeframe has been modified from 3-5 years to 2 years.					
<b>Goal 4: Minimize infrastructure damage from flooding.</b>					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Reduce flood damage around Water Treatment Facilities.	A. Relocate the Water Treatment Plant in Granite Falls out of the Floodplain.	2 years	Granite Falls	\$4.4 million	FEMA/DNR
2. Reduce inflow and infiltration into municipal sewer systems.	A. Monitor to determine where and why inflow and infiltration is occurring.	Recurring	Yellow Medicine County Watersheds and Zoning, Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	--	Unknown
<b>Goal 5: Ensure continued compliance with NFIP standards for participating communities.</b>					
See Next Section “NFIP Compliance” on pages 17-18 for discussion.					

## Hazard: Drought

<b>Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans.	A. Actions by County Board and City Councils.	2-10 years	County, Canby, Clarkfield, Hanley Falls, Hazel Run, Wood Lake	Staff Time	--
<b>Objective 1: Strategy A Information:</b> A. <b>Granite Falls</b> has completed this strategy. <b>Echo</b> asked to be removed from this strategy as the City does not use city wells for drinking water and they contract with Lincoln Pipestone Rural for water. <b>Porter</b> and <b>St. Leo</b> have not yet committed to this strategy due to funding constraints.					
<b>Goal 2: Monitor the county's ground water supplies and demands.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Encourage use of water meters to monitor water consumption.	A. Most communities have water meters. Ensure water consumption information is available during drought times.	Recurring	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	--	--
2. Establish a comprehensive and ongoing water monitoring program.	A. Drill monitoring wells into each of the county's major aquifers at the appropriate locations and establish an ongoing program to monitor aquifer levels and water quality.	Recurring	DNR is lead agency, County, Lincoln Pipestone Rural	--	--
<b>Objective 2: Strategy A Information:</b> A. Drilling monitoring wells is an ongoing effort and the strategy has been modified from 3-5 years to a recurring time frame. The DNR routinely leads this process and Lincoln Pipestone Rural (private company) contracts with Yellow Medicine County to perform the drilling service.					

## Hazard: Wildfire

<b>Goal 1: Prevent Wildfires.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Minimize the amount of fuel (dry/dead grasses) in areas prone to fire damage.	A. Work with the Minnesota DNR to include prescribed burning on all county lands and parks. Work with FSA to educate landowners about cost share funding available for controlled burns on CRP and CREP lands. Provide regulations in conservation plantings that consider controlled burns in the future.	Recurring	County SWCD, FSA, DNR	--	--
2. Minimize wildfire risks within the county.	A. Work with/offer input as the DNR creates a wildfire susceptibility model to determine areas which are more prone to wildfires.	Recurring	DNR (lead agency) County	--	DNR
	B. Remove debris and dead vegetation around camping areas on an annual basis. Thin the tree canopy surrounding camping areas to minimize chances of wildfires from spreading.	Recurring	County, Canby, Granite Falls, Campground Managers	--	--
3. Make sure the railroad keeps grass mowed along the tracks.	A. Contact railroads when railroads are not kept clean.	Recurring	Clarkfield, Granite Falls, Hanley Falls, Hazel Run, Wood Lake	--	--
<b>Objective 3: Strategy A Information:</b>					
A. Canby, Echo, Porter, and St. Leo do not have railroads.					
<b>Goal 2: Minimize structure loss from wildfire.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Create access to additional firefighters other than those already in the county for large wildfires.	A. Create mutual aid agreement between DNR and local fire departments to organize response to large wildfires. This contract should address the entities responsible for wildfires on state- and federal-owned land.	1-2 years	Clarkfield, Hazel Run, and Wood Lake	\$1,000	--
<b>Objective 1: Strategy A Information:</b>					
A. Canby, Hanley Falls, Granite Falls, Echo, and Porter have completed this strategy.					
2. Promote training programs between the DNR and local firefighters.	A. Encourage DNR to give training locally. Look for funds for training if necessary.	Recurring	DNR, ICS Committee, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FD	--	DNR
<b>Objective 2: Strategy A Information:</b>					
A. This strategy has been completed and is now considered a recurring strategy.					

3. Increase access to equipment suitable to fighting wildfires.	A. Inventory wildfire equipment available in county. Look for grants for additional and updated equipment as needed (grass rigs, ATVs, etc.).	Recurring	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FD	Varies for each City FD	FEMA/DNR
	B. Look at access roads and driveways to areas prone to wildfire to provide for a wider variety of fire equipment.	Recurring	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FD	\$30,000	--
<b>Objective 3: Strategy A-B Information:</b>					
A. This strategy has been completed and is now considered a “Recurring” strategy.					
B. This strategy is in process and not completed due to funding constraints. It has been modified from 5 years to now a “Recurring” strategy.					
4. Increase communication between DNR and local emergency personnel.	A. Organize radio channels between DNR, state patrol, local police departments, and local fire departments. When the DNR lights a prescribed burn, the information should be transferred to local dispatch to be prepared for fires that could reignite.	Recurring	DNR, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FD	--	--
<b>Goal 3: Protect the safety of residents.</b>					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Provide education to the public about wildfire prevention.	A. Work with neighborhood associations and provide materials to the public on property maintenance.	Recurring	County, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FD	\$5,000	--

## Hazard: Dam Failure

<b>Goal 1: Prevent structure from cracking or breaking.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Ensure dams are maintained and function properly.	A. Coordinate monthly dam inspections with the DNR and US Army Corps of Engineers (ACOE).	Recurring	Canby, Granite Falls, ACOE, DNR	--	--
<b>Goal 2: Provide safety to residents.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Warn residents of danger if dam failure occurs.	A. Monitor water levels of the reservoir and gauge water capacity. Ensure that emergency plans for dam failures are annually updated. Encourage the ACOE and DNR work with local agencies to keep plans current.	Recurring	Canby, Granite Falls, Watershed Districts, DNR, ACOE	--	--
2. Minimize development within floodplains.	A. Offer the Community Buyout Program to residents living within a 100-year floodplain. Amend zoning regulations to prohibit future development within the 100-year floodplain.	Recurring, 1 year	County Zoning Administrator, Porter	Unknown	--
<b>Objective 2: Strategy A Information:</b>					
A. The Community Buyout Program is continually offered to residents. <b>Porter</b> intends to pass a Floodplain Ordinance preventing development in the floodplain within one year.					

## National Flood Insurance Program Compliance

### National Flood Insurance Program (NFIP).

The National Flood Insurance Program (NFIP) is a program regulated by the Federal Emergency Management Agency (FEMA). The NFIP provides maps for local floodplain management in an effort to reduce federal expenditures due to flood events throughout the nation. The NFIP is also the primary source for flood insurance for flood-properties and those located in 100 and 500-year floodplains. The NFIP has three basic requirements: floodplain identification and mapping, floodplain management, and the purchasing of flood insurance. Floodplains are found in five cities within Yellow Medicine County as determined previously in Table 55. Currently, four communities actively participate in the NFIP, including Canby, Clarkfield, Granite Falls, and Porter; in addition to Yellow Medicine County. Canby, Clarkfield, Granite Falls and Yellow Medicine County all have Floodplain Management Ordinances in effect and the City of Porter intends to pass a Floodplain Management Ordinance in the upcoming year (2010). One community, Wood Lake, has elected not to participate in the NFIP, even though floodplains have been identified in municipal limits. Wood Lake does not participate in the program as no properties are located in the identified floodplains. Yellow Medicine County attempted to work with Wood Lake to participate in the NFIP program, however the city declined. Yellow Medicine County will continue to work with Wood Lake to encourage NFIP participation. The cities Echo, Hanley Falls, Hazel Run, and St. Leo do not have Special Flood Hazard Areas. There have been no changes in NFIP participation since the initial Yellow Medicine County All-Hazard Mitigation Plan completed in 2005. Table 110 identifies NFIP participation, dates of Initial Flood Insurance Rate Maps (FIRM), current effectiveness of map dates, and Emergency Dates if applicable.

**Table 110. YMC & Cities NFIP Participation**

Jurisdiction	NFIP Status	Initial FIRM Identified	Current Effective Map Date	Emergency Date
Canby	<b>Participating</b>	<b>6/1/1983</b>	<b>6/1/1983</b>	<b>6/1/1983</b>
Clarkfield	<b>Participating</b>	no data	<b>1/1/1950</b>	<b>2/28/1987</b>
Echo	No Special Flood Hazard Areas	no data	no data	no data
Granite Falls	<b>Participating</b>	<b>4/1/1977</b>	<b>6/4/1980</b>	<b>4/1/1977</b>
Hanley Falls	No Special Flood Hazard Areas	no data	no data	no data
Hazel Run	No Special Flood Hazard Areas	no data	no data	no data
Porter	<b>Participating</b>	no data	<b>7/9/1976</b>	<b>3/20/1974</b>
St. Leo	No Special Flood Hazard Areas	no data	no data	no data
Wood Lake	<b>Not Participating</b>	no data	<b>1/17/1975</b>	<b>1/17/1976</b>
Yellow Medicine County	<b>Participating</b>	<b>11/15/1978</b>	<b>11/15/1978</b>	<b>11/1/1978</b>

Source: MN DNR 2008

Table 111 provides FEMA’s NFIP Insurance Report for Canby, Granite Falls, and Yellow

Jurisdiction	Total Premium	A-ZONE	Number of Policies	Total Coverage	Total Claims Since 1978	Total Paid Since 1978
Canby	\$12,409	10	13	\$2,133,800	2	\$2,179
Granite Falls	\$16,734	7	19	\$3,425,000	101	\$1,547,492
Yellow Medicine County	\$4,468	6	8	\$1,065,300	21	\$378,122
<b>TOTAL</b>	<b>\$33,611</b>	<b>23</b>	<b>40</b>	<b>\$6,624,100</b>	<b>124</b>	<b>\$1,927,793</b>

Medicine County. Information attained in this report identifies total insurance premium amounts, number of A-Zone properties (100-year flpn), number of existing policies, total insurance coverage, and total claims and amounts paid to each jurisdiction since 1978.

**Table 111. FEMA NFIP Insurance Report**

Source: FEMA 2009

*NFIP Continued Compliance.*

FEMA mandates that all communities participating in the NFIP must identify continued compliance with the program. Following are descriptions of Canby, Clarkfield, Granite Falls, Porter, and Yellow Medicine County processes for continued compliance.

**Canby**

The City of Canby utilizes digital FIRM maps dated November 1978, to illustrate the location of 100 and 500-year floodplain boundaries within municipal limits. In order to prevent development in the 100-year floodplain, Canby passed a Floodplain Management Ordinance in March of 1989. The process that Canby uses to monitor potential development in the floodplain is by tracking building permits. A permit is filed and the citizen fills out the required information (location of proposed building unit, intended setbacks, etc.) and the City reviews the permit application. While reviewing the application, the City determines whether or not the building site is in the 100-year floodplain and considers the type of proposed development. If the site is in the designated floodplain, the application is sent to the DNR Area Hydrologist for review and comment.

In addition to a Floodplain Management Ordinance, the City of Canby has alluded to floodplain mitigation in the Canby Dam Contingency Plan that illustrates and defines specifically which properties should be evacuated in the event of a dam failure at the Del Clare Dam. Further, the Canby Comprehensive Plan of 2006 identifies the 100 and 500-year floodplains and made a statement that any proposed development that is located below the Ordinary Water Level requires a permit from the MN DNR, illustrating that floodplain development in the City should be avoided. Below are five strategies that the City of Canby intends to complete as methods to continue compliance with National Flood Insurance Program.

*Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps.
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.
3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.

4. Modify the current Building Permit Application by adding a “checkbox” that indicates Flood Hazard Areas.
5. Discourage zoning variances in Flood Hazard Areas.

### ***Granite Falls***

The City of Granite Falls utilizes digital FIRM maps dated November 1978, to illustrate the location of 100 and 500-year floodplain boundaries within municipal limits. To prevent future development in the 100-year floodplain, Granite Falls passed a Floodplain Management Ordinance in 1991 that is actively updated as the MN DNR instructs. The process Granite Falls utilizes to monitor potential development in the 100-year floodplain is similar to Canby. Granite Falls has citizens file a building permit with the City and the building inspector reviews each permit individually through a list of requirements. One of the first requirements is for the building inspector to determine whether or not the building site is within the 100-year floodplain and what type of development is proposed. In the event that the structure is within the 100-year floodplain the building inspector sends the permit application to the MN DNR Area Hydrologist to verify the location of the building site and its proximity to the 100-year floodplain. In some cases, the MN DNR Area Hydrologist visits with building permit applicants to discuss what type of development is allowed on their land if it is in within the 100-year floodplain for educational purposes. Once the MN DNR Area Hydrologist makes a finding and submits it to the City, the City then responds accordingly to the building permit applicant.

The City of Granite Falls has demonstrated a commitment to flood mitigation after the major flood in 1997 that caused a devastating impact on the City. Shortly after the 1997 Flood, a Section 205 Flood Control Study was prepared by the U.S. Army Corps of Engineers with the objective of determining the feasibility of developing a small flood control project in Granite Falls. The results of the study did not meet the Corps of Engineers’ cost/benefit ratio and no permanent flood control projects were recommended. To solicit public input into future flood fighting measures, the Granite Falls City Council held a series of community meetings in 2001 where property owners in the floodplain were invited to attend and offer input. These meetings focused on the realization of acquisitions and relocations of both residential and commercial properties. In late fall of 2001, the Granite Falls City Council commissioned a Hazard Mitigation Study to be completed though funding by the MN DNR and FEMA. The objective was to identify, evaluate and prioritize public health, safety and property damage risks and to develop a plan for implementation of mitigation strategies. The study was completed in January 2002 and updated in September 2003 and is now known as the Locally Preferred Plan. To coordinate efforts for flood mitigation, the City Council appointed a Flood Mitigation Task Force to develop a Final Concept Plan for the downtown commercial district and impacted residential areas. This plan is used to lobby at both state and federal levels for additional flood mitigation dollars. Below are seven strategies that the City of Granite Falls intends to complete as methods to continue compliance with National Flood Insurance Program.

#### *Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps.
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.

3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.
4. Modify the current Building Permit Application by adding a “checkbox” that indicates Flood Hazard Areas.
5. Discourage zoning variances in Flood Hazard Areas.
6. Encourage all property owners in Flood Hazard Areas to purchase flood insurance.
7. Routinely update the Flood Damage Reduction Plan for Granite Falls and continue to acquire, relocate, and remove structures from the 100-year floodplain.

### ***Porter***

The City of Porter has approximately 14 acres in 100-year floodplains within municipal limits. Currently, the land use of the floodplains is agricultural and no future development is slated for this area. Porter does not yet have a Floodplain Management Ordinance, but intends to pass an ordinance in the upcoming year (2010). Porter does routinely work to maintain their stormwater system and culverts to keep them free of ice jams throughout the winter season.

### ***Clarkfield***

The City of Clarkfield is participating in the NFIP program; however there are no 100 or 500-year floodplains located in city limits. Clarkfield does not have a Floodplain Management Ordinance and does not intend to pass one due to the nonexistence of flood-prone areas. However, Clarkfield does continually work to keep their stormwater sewer system updated and maintain their culverts to reduce flash flood opportunities.

### ***Yellow Medicine County***

Yellow Medicine County utilizes digital FIRM maps dated November 1978, to illustrate the location of 100 and 500-year floodplain boundaries within the unincorporated areas of the county. To prevent future development in the 100-year floodplain, Yellow Medicine County passed a Floodplain Management Ordinance in 1993 that is actively updated as the MN DNR instructs. The permitting process in Yellow Medicine County is slightly different from Canby and Granite Falls. A permit application is completed by an applicant and is reviewed by the Zoning Administrator. The Zoning Administrator reviews the digital FIRM maps to determine whether a property is in the floodway and what type of use the applicant proposes. If the permit is for a permitted use in the floodway, the permit goes to the Planning Commission and later the County Commission for approval. If the use is not permitted, the responsibility falls to the applicant to hire a surveyor and get elevation data of the property and submit the information to FEMA. The purpose would be to attain a document from FEMA to determine whether or not the property is in the floodplain. If this ruling is made, then the application is routinely processed. If the ruling is not made, then applicant may apply for a conditional use permit with additional standards determined in the Floodplain Management Ordinance; and must be approved by both the Planning Commission and County Commission.

In addition to the Floodplain Management Ordinance, the Yellow Medicine County Comprehensive Plan discusses numerous strategies and goals committing to reduce development in flood-prone areas and developing practices and standards for new development and

agricultural practices along shorelands, wetlands, and floodways to preserve the natural environment. Further the Yellow Medicine County Emergency Operations Plan emphasizes organized response to handling large flood situations in the County. On the next page are five strategies that Yellow Medicine County has committed to in order to continue with NFIP compliance.

*Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps.
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.
3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.
4. Discourage zoning variances in Flood Hazard Areas.
5. Encourage all property owners in Flood Hazard Areas to purchase flood insurance.

## Prioritizing Strategies

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The third Local Task Force meeting took place on February 24, 2010 in St. Leo, MN. At this meeting, the Local Task Force solidified their prioritized hazards by discussing suggestions made by the Emergency Manager, Engineer, and Zoning Administrator; in addition to their suggestions at the previous meeting. Strategies that were a high priority for the Local Task Force contained mitigation measures for flooding. Mitigation measures for flooding are very effective and can decrease risk tremendously. Addressing flood mitigation has been a top priority for the city of Granite Falls and much progress has been made. There are numerous other projects that must be addressed in order to complete the flood mitigation process. The risk assessment for flooding would be much higher if not for the mitigation measure already taken in the past ten years since the 1997 flood. In the risk assessment in Chapter 4, flooding was ranked a moderate/low risk, meaning that it has a greater risk than most hazards listed in this plan.

Two other natural hazards that were also a high priority for the Local Task Force were tornados, violent storms (summer weather/winter weather) and wildfires. In the risk assessment in Chapter 4, tornados and summer weather ranked the highest risks in the county at a moderate risk and are somewhat frequent in Yellow Medicine County. Wildfires were also important to the Local Task Force as local fire departments continually work to improve their inventory of equipment and ensure the highest training is available to volunteer firefighters

The Local Task Force and the Yellow Medicine County Emergency Manager analyzed the strategies and prioritized according to need and feasibility as discussed in “Development of Strategies”. Although some hazards may be a high risk for the county it did not guarantee a strategy addressing that hazard would also rank high or take priority. Many factors went into this decision:

- Current strategies. Could a strategy be supplemented or enhanced?
- Costs. What could they feasibly afford at this time? Are there current funds addressing the hazard or strategy? Does it make sense to delay or does it only postpone higher costs and create other costs? Will it ever be affordable?
- Available resources. At this time what funds are available? Would there be additional funds in the future? Are there other projects that take a higher priority?
- Length of project. Some projects could be addressed quickly and require minimal investment in time even though it may be fiscally costly.
- Compatibility to other plans. Is the project a high priority in other plans? Could the project be addressed collaboratively for efficiencies in resources? Would there be duplication?
- Available information. Can a good decision be made with the current information? Is more research needed or does it make sense to wait for a current study or development for more information before making a decision?
- Impact. Some hazards can be impacted more by mitigations (i.e. strategies to reduce flooding compared to strategies to reduce tornadoes) and that’s where task force members thought made sense to start.

Table 112 identifies the prioritized strategies for natural hazards in Yellow Medicine County.

**Table 112. YMC Prioritized Strategies (Natural Hazards)**

<b>Ranked</b>	<b>Hazard</b>	<b>Strategy</b>	<b>Affected Participating Jurisdiction</b>
1	Violent Storms & Extreme Temperatures	Inventory and assess adequacy of county civil defense siren system. Look for funding to replace malfunctioning sirens, add sirens, and provide backup power to sirens throughout the county.	County, Canby, Clarkfield, Echo, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
1	Violent Storms & Extreme Temperatures	Obtain additional funding for the Incident Command System (ICS) to work on regional projects.	County
2	Flooding	Install permanent pumping station in Granite Falls.	Granite Falls
2	Flooding	Relocate the existing sanitary sewer lift station in Granite Falls.	Granite Falls
2	Flooding	Move the Granite Falls fire hall out of the floodplain.	Granite Falls
2	Flooding	Relocate Yellow Medicine County Museum from the 100-year floodplain.	Granite Falls
3	Wildfire	Do an inventory of wildfire equipment available. Look for grants for additional and updated equipment if necessary (grass rigs, etc.).	County, Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
3	Wildfire	Purchase equipment that is needed such as new fire trucks and PTE equipment.	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
3	Wildfire	Update communication equipment such as pagers to communicate with dispatch and other fire departments.	County, Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake

# YELLOW MEDICINE COUNTY

## CHAPTER SIX: GOALS, OBJECTIVES, STRATEGIES - YELLOW MEDICINE COUNTY CITIES

### Overview

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The following tables outline the goals, objectives and mitigation strategies for Yellow Medicine County cities and include both natural and manmade technological hazards. The goals are used as a framework for the objectives and mitigation strategies, which in turn, provide specific information on how mitigation decisions should be made. The goals, objectives and strategies were created by city staff on city-specific issues and the city-specific risk assessments found in Chapter 4.

### Definitions

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*Goals* are general statements.

*Objectives* are action statements and start with an action verb.

*Strategies* support the action of the objective.

The *Time Frame* was determined with the task force and the County Emergency Manager as an estimate timeline in which to reach the strategy.

*Responsible Entity* is the entity in charge of initiating and completing the strategy identified. This may either fall under the “city” or a specific department within a city.

The *Estimated Cost* was an educated guess of the cost of each strategy. Some strategies would not cost extra and were denoted “--”. Some costs were not known and denoted as “unknown”.

The *Funding Partner* is a potential partner for a city to obtain funding from in order to complete a strategy.

The *Rank and Reason for Ranking* was determined by individual cities and the process is discussed on the following page.

### General Mitigation Vision

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“The county will strive to work with surrounding communities and local emergency responders to create and implement a proactive and results-oriented all-hazard mitigation plan that will make the county and region a safer and more sustainable place to live by protecting and enhancing the resources of the county as they relate to hazards that may have an impact in the future.”

## **Development of Strategies**

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To determine strategies for each city, a meeting was held between UMVRDC staff and city representatives (Canby, Clarkfield, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake). The number and type of representatives varied from city to city, with most having one to three city participants including mayors, city staff, and/or city council members. At each meeting, city representatives were asked to comment on all strategies that pertained to their community and to determine whether their city completed a strategy, participated in a strategy, or felt their community should be removed from a strategy. This information was recorded and inserted in Chapters 5 and 7 (Goals, Objectives Strategies for Natural and Manmade/Technological Hazards). In addition to commenting on strategies, each community created a list mitigation strategies to complete in the next one to fifteen years, with at least one mitigation strategy that could potentially be funded by FEMA.

Many of the strategies selected by cities to complete, were listed in the initial All-Hazard Mitigation Plan for the County and are found in Chapters 5 and 7 (Goals, Objectives Strategies for Natural and Manmade/Technological Hazards). Once city representatives completed a list of strategies, noting a time line, responsible entity to complete the strategy, estimated cost, and potential funding partner; they were asked to rank the strategy in order of importance and provide reasoning for ranking. The criteria participants used in determining rank and reasoning for ranking strategies included:

### **General Criteria**

- |                          |                                    |
|--------------------------|------------------------------------|
| 1. History               | 5. Effectiveness                   |
| 2. Successful Strategies | 6. Building on what already exists |
| 3. Need                  | 7. Legal Authority                 |
| 4. Risks                 | 8. Environmental Impact            |

### **Cost/Benefit Criteria**

- |                        |   |
|------------------------|---|
| 1. Costs/Efficiencies  | 4. Overall Impact                                 |
| 2. Economic Impact     | 5. Resources Needed (Social & Fiscal)             |
| 3. Budget Requirements | 6. Benefits Provided by Project (Social & Fiscal) |

Identifying costs that would be attached to each strategy became the most difficult part of the process. Available data on past events was included when available. Due to limited time and resources to develop the plan it wasn't feasible to spend a lot of time on estimating the costs. Many strategies are costly, labor intensive, time consuming and it is difficult to identify the lead for the strategy. It was determined that the Emergency Manager will perform a cost-benefit review for all potential future project applications, as assistance to Yellow Medicine cities. Further, each city recognizes that many of strategies/projects from the initial All-Hazard Mitigation Plan that were not accomplished, was mostly commonly due to a lack in funding. Thus, the strategies listed for each city are essentially a "wish list/to-do list" where cities understand that if they do not accomplish each strategy in the provided estimated timetable, they will not be held accountable – provided they are able to disclose proper reasoning.

## City of Canby: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Continue to address safe room needs in the county.	Identify and purchase a safe room for Canby campgrounds.	10-15 years	City	\$30,000	FEMA/ County	7	Citizen Safety
<b>Goal 2: Improve severe storm warning system for all county residents.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Assess adequacy of existing civil defense sirens.	Purchase a backup power system for warning sirens.	5-10 years	City	\$5,000	NOAA	5	Citizen Safety
<b>Goal 4: Provide emergency response to protect people in the event of a severe weather disaster.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Establish an emergency operations center that is equipped with necessary tools and provide a backup location to this center. These locations should have a backup power source.	Purchase a backup generator for city-wide use.	5-10 years	City	\$1,000	FEMA/ USDA	3	Citizen Safety
	Purchase two backup generators for City Hall and Water Treatment Plant.	5-10 years	City	\$2,000	FEMA/ USDA	4	Citizen Safety
	Install wiring and transfer switch to City Hall.	5-10 years	City	\$8,000	FEMA	6	Citizen Safety

### Hazard: Floods

<b>Goal 2: Improve the safety and security of Granite Falls and other flood-prone areas.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Address flooding issues as a region.	Complete a City-wide Stormwater Project with 6 additional lines and refurbishing an existing stormwater line.	2 years	City	\$100,000	FEMA	2	Reduce Stormwater Runoff

### Hazard: Drought

<b>Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans.	Complete a city Wellhead Protection Plan.	1.5 years	City	Staff Time	--	1	Protection of Potable Water Sources

## City of Clarkfield: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>							
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Encourage cities to adopt the universal building code.	Update Building Code Ordinance to newest version, cost for new books as required.	1 year	Building Inspector/ Administration	\$500	--	1	Citizen Safety
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Educate residents about safe rooms, sirens, and encourage the use of weather radios. This could be accomplished in the City's Quarterly Newsletter and on the City Website.	1 year	City	\$500	FEMA	2	Citizen Education in Emergency Situations
Educate residents of safe rooms in community.							
<b>Goal 2: Improve severe storm warning system for all county residents.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Assess the county's current warning system: how county is notified; who and how people and organizations within the county are notified.	Purchase new digital radios and mobile computers for Police Department.	2 years	Police Department	\$20,000	Dept. of Homeland Security	3	Increase coverage for Police Department

### Hazard: Drought

<b>Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans.	Complete a city Wellhead Protection Plan.	1 –3 years	Water Department	Staff Time	City/ County	4	Protection of Potable Water Sources

### Hazard: Water Supply Contamination

<b>Goal 2: Protect residents from contaminated groundwater.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Provide adequate drinking water in the event of groundwater contamination.	Connect with Lincoln Pipestone Rural Water as a backup water option.	3-5 years	Water Department	\$300,000	USDA – Rural Water	6	Create access to alternate potable water sources

**City of Clarkfield – Continued.**

**Hazard: Transportation**

<b>Goal 1: Protect passengers from traffic/train accidents.</b>							
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Install gates at the Highway 59 and Railroad intersection in Clarkfield.	Request DOT division to install gates at the intersection of Hwy 59, Hwy 67, and the railroad.	5-10 years	City	\$200,000	Mn/DOT	7	Citizen Safety
Increase citizen safety on transportation road network.	Continue to lobby efforts to rebuild Hwy 59 to include adequate shoulders on roadway.	Ongoing	City	Staff Time	--	5	Benefit City and Region and increase traffic safety with wider roads

## City of Echo: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>							
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Purchase signage to mark weather shelter buildings and create an educational pamphlet to distribute to citizens.	2 years	City	\$25/sign	FEMA	4	Educate citizens on where to go and what to do in event of hazardous weather
Educate residents of safe rooms in community.							
<b>Goal 2: Improve severe storm warning system for all county residents.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Assess adequacy of existing civil defense sirens.	Purchase a backup generator for existing weather siren.	2 years	City	\$5,000	FEMA	2	Ensure that Siren will work in event of power outage
	Purchase an additional weather siren for the East end of town.	2-3 years	City	\$17,000	County	5	Ensure that all citizens are within hearing range of weather warning siren

### Hazard: All Hazards

<b>Goal 1: Look at general ideas that serve the county/community through any disaster that may arise.</b>							
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Ensure that homes are easily identifiable.	Ensure all residences within City limits have identifying addresses.	1 year	Fire Department	\$5,000	--	3	Improve timeliness of Emergency Response Staff
Educate citizens on where to go and what to do in event of all hazardous weather events.	Draft an Emergency Operations Plan for fires, chemical spills, severe weather events, and gas leaks.	3-5 years	City, Fire & Police Depts.	Staff Time	--	1	Educate citizens on where to go and what to do in event of hazardous weather

## City of Granite Falls: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

#### Goal 1: Have safe and accessible safe rooms from violent storms.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Educate residents of safe rooms in community.	Identify and map safe rooms and evacuation routes throughout the City.	2 years	Police Department	Staff Time	Police Department	14	Citizen Education

### Hazard: Flood

#### Goal 1: Eliminate nonconforming structures in the identified 100-year floodplain.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Eliminate nonconforming private and public structures in identified 100-year floodplains in Granite Falls.	Move the Granite Falls Fire Hall to a location outside the 100-year floodplain.	5 years	City	\$1,000,000	FEMA/DNR	9	Prevent Flooding
	Relocate the 2 farmsteads near Dike Road in Stony Run Township.	5 years	City	Unknown	FEMA/DNR	11	Prevent Flooding
	Relocate the Water Treatment Plant in Granite Falls out of the floodplain.	2 years	City	\$4,400,000	FEMA/DNR	4	Prevent Flooding
Address the flooding issues of the Yellow Medicine County Museum in Granite Falls.	Relocate Yellow Medicine County Museum out of 100-year floodplain.	5 years	City	Unknown	FEMA/DNR	12	Prevent Flooding
Address the flood issue of the approximately 20 homes south on Prentice Street. These homes will likely be in the 100-year floodplain in updated floodplain maps and in danger of future floods.	Start discussions with landowners. Work on best plan for future flooding.	5 years	City	Unknown	FEMA/DNR	15	Prevent Flooding
	Acquire land for right-of-way levee footprint.	4-7 years	City	Unknown	FEMA/DNR	8	Prevent Flooding
	Consider buyout of properties	7-8 years	City	Unknown	FEMA/DNR	16	Prevent Flooding

#### Goal 2: Improve the safety and security of Granite Falls and other flood-prone areas.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install pumping stations to protect the City of Granite Falls from internal flooding.	Install a permanent pumping station in downtown at intersection of Main Street and Prentice Street.	1 year	City	\$100,000	FEMA/DNR	1	Prevent Flooding
	Install a permanent pumping station at intersection of 12th Avenue and 7th Street.	3-5 years	City	\$1,500,000	FEMA/DNR	7	Prevent Flooding
Protect the Sanitary Sewer Treatment Plant in Granite Falls from future flooding.	Relocate existing sanitary sewer lift station.	2 years	City	\$325,000	FEMA/DNR	3	Prevent Flooding

**Goal 2: Improve the safety and security of Granite Falls and other flood-prone areas. - Continued**

Prevent sanitary sewer line from becoming inundated with spring flooding.	Replace approximately 1,500 lineal feet of sanitary sewer on the west side of the Minnesota River, south of the river crossing.	5 years	City	\$401,000	FEMA	<b>10</b>	Prevent Flooding
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**Goal 3: Protect the structures that are repeatedly flooded.**

<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Upgrade and protect the Dike Road near Granite Falls.	Modify and raise the Dike Road levee.	5 years	City	\$260,000	FEMA/ DNR	<b>13</b>	Prevent Flooding
	Install a fixed weir section in the temporary levee to control water discharge.	5 Years	City	\$875,000	FEMA/ DNR	<b>14</b>	Prevent Flooding
Upgrade the Reach 1 Levee to protect for 500-year floods.	Raise the Reach 1 Levee.	2 years	City	\$1,600,000	FEMA/ DNR	<b>2</b>	Prevent Flooding
Flood-proof repeatedly flooded buildings.	Flood proof the Hydro Plant in Granite Falls.	2 years	City	\$200,000	FEMA/ DNR	<b>5</b>	Prevent Flooding
	Flood proof the apartment building on Minnesota Avenue in Granite Falls.	2 years	City	\$50,000	FEMA/ DNR	<b>6</b>	Prevent Flooding

## City of Hanley Falls: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Continue to address safe room needs in the county.	Determine a Community meeting place for shelter and how to get information out to residents including provision of emergency supplies.	1 year	City	Staff Time	--	3	Citizen Safety
<b>Goal 2: Improve severe storm warning system for all county residents.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Assess adequacy of existing civil defense sirens.	Purchase back-up power supply for warning sirens.	5 years	Streets/Fire Depts.	\$10,000	NOAA	2	Ensure Warning Siren Will Operate
<b>Goal 4: Provide emergency response to protect people in the event of a severe weather disaster.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Establish an emergency operations center that is equipped with necessary tools and provide a backup location to this center. These locations should also have a backup power source.	Purchase two transfer switches for Water Treatment Center and Fire Hall.	5 years	City	\$10,000	FEMA	4	Ensure Facilities Will Be Operable
	Purchase two 5,000 watt generators for City Office.	7 years	City	\$2,000	FEMA	5	Ensure Power in Emergency Situations

### Hazard: Flood

<b>Goal 2: Improve the safety and security of Granite Falls and other flood-prone areas.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Address flooding issues as a region.	Purchase two 1,200 gallon/minute diesel portable pumps to handle rain/snow melt	3-5 years	City	Unknown	FEMA	1	Flood Event Likely to Occur

### Hazard: Drought

<b>Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans.	Complete a city Wellhead Protection Plan.	3-5 years	City	Staff Time	City/County	7	Protect Potable Water Sources

## Hanley Falls – Continued.

### Hazard: Fire

<b>Goal 2: Protect structures from fire.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Ensure that Fire Departments have adequate equipment to fight fires.	Purchase a Grass Rig for Fire Department.	1-2 years	City	\$2,000 - \$3,000	FEMA	<b>6</b>	Increase Firefighting Capabilities

## City of Hazel Run: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

Goal 2: Improve severe storm warning system for all county residents.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Assess adequacy of existing civil defense sirens.	Purchase a backup generator for Emergency Weather Siren.	10 years	City	\$5,000	FEMA	5	Ensure Coverage for Entire Community

### Hazard: Drought

Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans.	Participate and help implement the County Wellhead Protection Plan.	2 years	City	--	County	2	Protect Potable Water Supply

### Hazard: Water Supply Contamination

Goal 1: Protect the quality of the county's groundwater resources.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Minimize contamination of groundwater from unused or abandoned wells.	Work with County to cap abandoned wells in the City.	5 years	City	--	County	3	Protect Potable Water Supply

### Hazard: All Hazards

Goal 1: Look at general ideas that serve the county/community through any disaster that may arise.							
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Educate citizens on where to go and what to do in event of all hazardous weather events.	Create an Emergency Operations Plan that lists the order of command during an emergency.	2-3 years	City	Staff Time	--	4	Improve Emergency Response Time
Ensure that homes are easily identifiable.	Make all homes in Hazel Run easily identifiable by numbering all homes.	1 year	City	\$5,000	--	1	Citizen Safety

## City of Porter: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>							
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Continue to address safe room needs in the county.	Purchase/build a safe room for community.	5 years	City	\$30,000	FEMA	6	Citizen Safety
Educate residents of safe rooms in community.	Identify and map safe rooms available to citizens.	5 years	City	\$500	--	7	Citizen Safety
<b>Goal 2: Improve severe storm warning system for all county residents.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Assess adequacy of existing civil defense sirens.	Purchase a warning siren for city.	2 years	City	\$17,000	NOAA	3	Ensure Coverage for Entire Community
<b>Goal 4: Provide emergency response to protect people in the event of a severe weather disaster.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Establish an emergency operations center that is equipped with necessary tools and provide a backup location to the center. These locations should have a backup power source.	Install wiring, transfer switch, and generators to the Fire Hall.	10 years	City	\$30,000	--	8	Ensure Facility Will Be Operable During Hazardous Events

### Hazard: Flood

<b>Goal 1: Eliminate nonconforming structures in the identified 100-year floodplain.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Encourage cities to adopt Floodplain Ordinances if they have 100-year floodplains.	Draft and adopt a floodplain ordinance.	6 months	City	Staff Time	--	5	Prevent Flooding

### Hazard: Fire

<b>Goal 2: Protect structures from fire.</b>							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure that Fire Departments have adequate equipment to fight fires.	Purchase an all-terrain grass rig for Fire Department.	2 years	Fire Department	\$20,000	USDA/FEMA	1	Improve Firefighting Capabilities

**Porter – Continued.**

**Hazard: Hazardous Materials**

<b>Goal 3: Improve overall preparedness and equipment for handling hazardous events.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Adopt new technology to improve the county's ability to respond to a disaster.	Create Standard Operating Procedures for how to handle hazardous events.	1 year	City	Staff Time	--	4	Citizen Safety & Firefighter Preparedness

**Hazard: All Hazards**

<b>Goal 1: Look at general ideas that serve the county/community through any disaster that may arise.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Ensure that homes are easily identifiable.	Identify all homes in city limits.	1 year	City	--	--	2	Citizen Safety & Improve Fire Department Response Time

## City of St. Leo: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

<b>Goal 1: Have safe and accessible safe rooms from violent storms.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Continue to address safe room needs in the county.	Create an Educational Pamphlet that contains information on where to go during a hazardous event and what supplies are necessary for an emergency kit. Send through utility billing mailing and post posters in high traffic area buildings.	2 years	City	\$500	FEMA	2	Citizen Education and Safety
<b>Goal 2: Improve severe storm warning system for all county residents.</b>							
<b>OBJECTIVE</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>	<b>Rank</b>	<b>Reason for Ranking</b>
Assess adequacy of existing civil defense sirens.	Purchase a Weather Warning Siren.	15 years	City	\$17,000	NOAA	1	Ensure Coverage for Entire Community
	Purchase a backup generator for the weather sirens.	10 years	City	\$5,000	NOAA	3	Ensure Coverage for Entire Community

## City of Wood Lake: Goals, Objectives and Mitigation Strategies

### Hazard: Violent Storms and Extreme Temperatures

Goal 2: Improve severe storm warning system for all county residents.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Assess adequacy of existing civil defense sirens.	Purchase a portable generator for Community Center.	1 year	City	\$1,000	USDA/ Rural Development	2	Citizen Safety
	Purchase a back-up power generator for weather warning sirens.	5 years	City	\$5,000	FEMA	3	Citizen Safety
	Purchase a Weather Warning Siren for East side of City.	5 years	City	\$17,000	NOAA	4	Ensure Coverage for Community

### Hazard: Drought

Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans.	Draft and adopt a Wellhead Protection Ordinance.	5-10 years	City	Staff Time	--	5	Protect Potable Water Sources

### Hazard: Hazardous Materials

Goal 3: Improve overall preparedness and equipment for handling hazardous events.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Adopt new technology to improve the county's ability to respond to a disaster.	Purchase sensor to detect ammonia leaks.	3 years	Equity Elevator/City	\$500	--	1	Citizen Safety

# YELLOW MEDICINE COUNTY

## CHAPTER SEVEN: GOALS, OBJECTIVES, STRATEGIES - MAN-MADE TECHNOLOGICAL HAZARDS

### Overview

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The following table outlines the goals, objectives and mitigation strategies for man-made technological hazards important to Yellow Medicine County. The goals are used as a framework for the objectives and mitigation strategies, which in turn, provide specific information on how mitigation decisions should be made. The goals, objectives and strategies are based on the issues identified by the task force and the risk assessment in this plan.

### Definitions

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*Goals* are general statements.

*Objectives* are action statements and start with an action verb.

*Strategies* support the action of the objective.

The *Time Frame* was determined with the task force and the County Emergency Manager as an estimate timeline in which to reach the strategy.

The *Time Frame – Continual* is a strategy type that does not have a specific time length. Once the strategy has been completed, the responsible entity will re-start the strategy.

*Responsible Entity* is the entity in charge of initiating and completing the strategy identified. This was determined by the task force and County Emergency Manager as the most likely entity to complete the strategy.

The *Estimated Cost* was an educated guess of the cost of each strategy. Some strategies would not cost extra and were denoted "--". Some costs were not known and denoted as "unknown".

Each of the items above may change as goals, objectives and strategies change and as mitigation activities occur. Refer to the "Implementation and Maintenance" section in this chapter for an explanation on how the plan will be updated.

### General Mitigation Vision

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"The county will strive to work with surrounding communities and local emergency responders to create and implement a proactive and results-oriented all-hazard mitigation plan that will make the county and region a safer and more sustainable place to live by protecting and enhancing the resources of the county as they relate to hazards that may have an impact in the future."

## **Development of Strategies**

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To determine strategies for each hazard identified in the hazard inventory and risk assessments (Chapters 3 & 4) small group problem-solving techniques were used. Once the hazards most likely to affect Yellow Medicine County were identified and prioritized a public meeting was held to review these hazards and their rankings and identify strategies to address mitigation for each hazard. Individuals participating in the public meeting included task force members, interested parties, elected officials, technical team members and some general public. Past hazard activities in the county influenced strategy development and strategy ranking (i.e. 1997 and 2001 flooding). In many cases when the hazards were identified for the inventory, strategies were also discussed at that time providing a good place to start discussion.

The following outlines the plan's strategy development process: 1) Using the focus group approach and working toward group consensus each hazard was reviewed individually. 2) Participants offered suggestions and input which stimulated a lively discussion as part of the planning process. All suggestions were considered and recorded by the facilitator. 3) A limited amount of time was set on each hazard by the facilitator to move the group forward. 4) Debate followed before the group was asked to decide if it should be part of the plan – group consensus was needed. 5) The group noted they could not be totally inclusive – some strategies may not even be considered – others may not be feasible.

### **General Criteria**

- |                          |                                    |
|--------------------------|------------------------------------|
| 1. History               | 5. Effectiveness                   |
| 2. Successful Strategies | 6. Building on what already exists |
| 3. Need                  | 7. Legal Authority                 |
| 4. Risks                 | 8. Environmental Impact            |

### **Cost/Benefit Criteria**

- |                        |   |
|------------------------|---|
| 1. Costs/Efficiencies  | 4. Overall Impact                                 |
| 2. Economic Impact     | 5. Resources Needed (Social & Fiscal)             |
| 3. Budget Requirements | 6. Benefits Provided by Project (Social & Fiscal) |

Identifying costs that would be attached to each strategy was the most difficult part of the process. Due to limited time and resources to develop the plan it was not feasible to spend a lot of time on estimating the costs. It is critical for the Local Task Force to constantly be evaluating the costs as part of implementation and maintenance for the All-Hazard Mitigation Plan. Strategies that dealt with rural areas seemed harder to include in the plan – more costly, harder to regulate, and would need population buy-in. Many strategies are costly, labor intensive, time consuming and it is difficult to identify the lead for the strategy. It was determined that the Emergency Manager will perform a cost-benefit review for all potential future project applications. Participants in the planning process agreed that to implement an ordinance or regulation was the difficult part of some strategies – would it be possible and feasible to follow-through? Participants started with strategies that were manageable to see notable progress – “baby steps”. It was reasonable to include strategies that have been started, but not yet completed. Some strategies require more information and data before developing a strategy and should be readdressed in future updates.

## Manmade / Technological Strategies: No Longer Relevant

**Table 113. YMC & Cities: Manmade / Technological Strategies – No Longer Relevant**

HAZARD	STRATEGIES	Responsible Entity
Fire	See Wildfire Section.	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FDs
<b>Reasoning:</b> This is duplication of strategies. The Wildlife Section has a dedicated Goal and multiple Objectives/Strategies for preventing wildfires from affecting structures.		
Fire	Ensure that building codes include alarms and sprinkler systems as requirement on all commercial and industrial buildings.	Canby, Echo, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
<b>Reasoning:</b> These cities do not have funding available to pay for a building inspector and do not have building codes.		
Fire	Provide gas meters for Fire Departments for use by the community.	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, St. Leo, Wood Lake FDs
<b>Reasoning:</b> The city Fire Departments are not in agreement over the use of gas meters. Many stated that they are very costly and continually need to be re-calibrated, which increases the overall price. Further, there are liability issues at stake for the Fire Departments concerning the use of the gas meters.		
Fire	Enforce building codes. Update City Council of citations.	Canby, Echo, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
<b>Reasoning:</b> These cities do not have funding available to pay for a building inspector and do not have building codes.		
Fire	Adopt a plan of action for the city to deal with abandoned buildings. Adopt ordinance for city to be able to take dilapidated, abandoned buildings if necessary.	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, St. Leo, Wood Lake
<b>Reasoning:</b> Cities plan to work on individual actions for undetermined times. This strategy has been combined with another to remove duplication.		
Hazardous Materials	Adopt an ordinance for landlords to clean up meth labs before residence is occupied again. Educate business owners and employees to be aware of possible meth purchases.	Yellow Medicine County, Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, St. Leo, Wood Lake
<b>Reasoning:</b> The County and cities are covered for meth labs under hazardous wastes that fall under the Environmental Protection Agency jurisdiction.		
Civil Disturbance / Terrorism	Televisе City Council Meetings.	Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, St. Leo, Wood Lake
<b>Reasoning:</b> These cities do not televise City Council Meetings and do not intend to do so in the future.		
All Hazards	Work to train the CERT team to be ready to work and train volunteers during disasters and to develop research and outreach materials.	Clarkfield, Canby, Echo, Granite Falls, Hanley Falls, Hazel Run, St. Leo, Wood Lake
<b>Reasoning:</b> These cities do not have the funding available to create a CERT Team and have asked to be removed from this strategy.		

## Goals, Objectives and Mitigation Strategies - Manmade/Technological Hazards

### Hazard: Infectious Diseases

<b>Goal 1: Reduce the threat of infectious diseases through education and awareness.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Support and maintain programs that keep the county healthy and safe from infectious diseases.	A. Adopt the Public Health Emergency Guidelines when completed.	1 year	Countryside Public Health and County Emergency Manager	--	--
<b>Objective 1: Strategy A Information:</b> The Public Health Emergency Guidelines have not been fully completed. Timeframe has been modified from 1 year to 1-2 years.					
2. Centralize data and information in order to educate the public.	A. Educate the public of websites and data centers for accurate and current information and through the risk communication service.	Recurring	Public Health and County Emergency Manager	--	--
	B. Continue cooperation with Emergency Manager, Countryside Public Health, and hospitals/clinic staffs.	Recurring	Countryside Public Health, County Emergency Manager, Hospital and Clinic Staff	--	--
<b>Goal 2: Improve the effectiveness and quality of the various efforts addressing infectious diseases that have the potential to impact the county.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Maintain and update material, plans, and agreements for addressing infectious diseases.	A. Work on guidelines to keep EMS informed of possible outbreaks. Work with State of Minnesota on Quarantine/Isolation plan.	Recurring	Countryside Public Health	--	--

## Hazard: Fire

<b>Goal 1: Protect structures from fire.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Ensure that Fire Departments have adequate equipment to fight fires.	A. Purchase equipment that is needed such as new fire trucks and PTE equipment.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FDs	\$70,000 for PPE/FD \$200,000 for trucks	FEMA
	B. Update communication equipment such as pagers to communicate with dispatch and other fire departments. Computers are needed in emergency vehicles.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FDs	\$40,000	FEMA
<b>Objective 1: Strategy A-B Information:</b>					
A. This strategy has been completed and is now considered a recurring strategy.					
B. This strategy has been completed and is now considered a recurring strategy.					
<b>Goal 2: Provide safety to residents.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Focus education measures toward residents living in Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake.	A. Provide school programs to youth, focusing on stoves, smoke detectors, smoking and evacuation and education to homeowners, focusing on carbon monoxide poisoning, evacuation and smoke alarms. Work with insurance companies on education and demonstrate using fire extinguishers.	Recurring	Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake FDs	--	--
<b>Goal 3: Reduce building hazards.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Keep electrical units up to code.	A. Enforce building codes. Update city council of citations.	Recurring	Clarkfield, Granite Falls, Stony Run Twp	--	--
<b>Objective 1: Strategy A Information:</b>					
A. <b>Clarkfield, Granite Falls, and Stony Run Township</b> are the only jurisdictions in Yellow Medicine County with Building Codes. <b>Canby, Echo, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake</b> are removed from this strategy, as they have neither building codes nor a building inspector.					
2. Manage abandoned buildings.	A. Inspect abandoned buildings and remove as needed.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$2,000	--
<b>Objective 2: Strategy A Information:</b>					
A. This strategy has been modified to include the phrase “remove as needed” to allow flexibility in handling the issue of abandoned buildings.					
3. Provide residents with adequate knowledge of fire safety.	A. Encourage public safety day and work with ongoing programs to promote fire safety.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$2,000	--

## Hazard: Hazardous Materials

<b>Goal 1: Develop a County Information Service that provides useful and factual information about hazardous material located and transported through the county.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Support policies and programs that assist in creating factual and timely information about hazardous material in the county.	A. Provide staff resources to fire departments to assist them in identifying areas of high risk involving hazardous material. Require that hazardous materials locations are readily available to local fire departments. Utilize the Geographic Information Systems capability to map locations of fixed facilities using hazardous materials and associated transportation corridors. Map known locations of hazardous material/waste sites by working directly with the Pollution Control Agency. Develop a local home safety program to educate about disposable hazardous material.	Recurring	County Emergency Manager	\$24,000	EPA / MnDNR
<b>Goal 2: Improve the effectiveness and quality of the various efforts addressing hazardous material that may impact the county.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Maintain and update material, plans, and agreements for addressing hazardous material.	A. Review and update the Yellow Medicine County Emergency Operations Plan that outlines procedures for dealing with hazardous material on an annual basis. Update the Water Plan to address all hazardous material in the county as it relates to ground and surface water. Continue to expand the use of mutual aid agreements and memoranda of understanding to improve coordination among state, local and federal agencies and appropriate private sectors.	Recurring	County Emergency Manager and County Zoning Administrator	--	--
<b>Goal 3: Improve overall preparedness and equipment for handling hazardous events.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Adopt new technology to improve the county's ability to respond to a disaster.	A. Need proper personal protection equipment to respond to hazardous materials disasters for Fire Departments, Law Enforcement, and Ambulance/EMT Departments as applicable to each city.	2 years	County, Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$5,000	FEMA
	B. Continue to participate in regional exercises that test local plans and interaction between local agencies.	Recurring	County and Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	\$4,000/year	--

(Objective 1 Continued) <b>1.</b> Adopt new technology to improve the county's ability to respond to a disaster.	C. Continued training in the use of the Nation Incident Management System for all hazard materials incidents that may occur in the county.	Recurring	County	\$3,500	Fire Grant/ Dept. of Justice
	D. Encourage that emergency responder groups, fire department, and emergency managers are trained to at least the Hazardous Materials Awareness level.	Recurring	County	\$4,000	HSEM/ Dept. of Justice
	E. Ensure that the first responder groups conduct the required terrorism and hazardous materials training and maintains current records on all completed training.	Recurring	County	\$10,000	HSEM/ Dept. of Justice
	F. Create Standard Operating Procedures for how to handle hazardous events.  *New Strategy	1 year	Porter	--	--
	G. Purchase sensor to detect ammonia leaks.  *New Strategy	3 years	Wood Lake/ Equity Elevator	\$500	--
<b>Objective 1: Strategy A Information:</b> A. Strategy in process, funding not yet available.					
<b>Goal 4: Address inconsistencies and county shortcomings in dealing with a hazardous materials event.</b>					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
<b>1.</b> Implement procedures or programs that address gaps or deficiencies in dealing with hazardous materials.	A. Develop the capability to integrate plume modeling software with GIS technology to model potential hazards created by releases of liquid, gaseous or airborne solid hazardous materials.	1-2 years	County Emergency Manager	\$30,000	HSEM
<b>Objective 1: Strategy A Information:</b> A. Strategy in process, funding not yet available.					

## Hazard: Water Supply Contamination

<b>Goal 1: Protect the quality of the county's ground water resources.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Reduce contamination from feedlots.	A. Continue to monitor and regulate locations of feedlots and map level I and II feedlots with GIS.	Recurring	County Zoning Administrator	--	--
2. Reduce contamination into private wells.	A. Provide more security at well houses and education materials on testing private wells.	Recurring	County Zoning	--	--
3. Reduce contamination into community water systems.	A. Provide more security at the Burr Treatment plant.	Recurring	Lincoln Pipestone Rural Water	\$50,000	USDA Rural Development
<b>Objective 3: Strategy A Information:</b>					
A. Strategy in process, funding not yet available. This strategy has been modified from 5 years to Recurring.					
4. Minimize contamination of ground water from unused or abandoned wells.	A. Continue the abandoned well sealing program within the county.	Recurring	County Zoning Administrator	--	--
5. Reduce contamination from herbicide and pesticide use.	A. Look at current water plan to see if improvements can be made to protect the water supply.	Recurring	County Zoning Administrator	--	--
6. Reduce contamination from individual septic systems.	A. Inspect and enforce upgraded septic systems for homeowners.	Recurring	County Zoning Administrator	--	--
<b>Goal 2: Protect residents from contaminated ground water.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Provide adequate drinking water in the event of ground water contamination.	A. Identify alternate drinking water sources during an emergency in the Emergency Operations Plan.	Recurring	County Emergency Manager	--	--
	B. Connect with Lincoln Pipestone Rural Water as a backup water option.	3-5 years	Clarkfield Water Department	\$300,000	USDA – Rural Water
<i>*New Strategy</i>					
<b>Goal 3: Focus on efforts in areas more prone to ground water contamination.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Implement the wellhead protection program for the county.	A. Keep the implementation of the wellhead protection plan well funded and as a top priority.	Recurring	County Zoning Administrator	--	--
2. Protect the wellhead.	A. Enclose wellheads to protect from contamination.	2-3 years	County Zoning Administrator	Unknown	Unknown
<b>Objective 2: Strategy A Information:</b>					
A. Strategy in process, funding not yet available.					

## Hazard: Wastewater Treatment Facility Failure

<b>Goal 1: Protect the health of residents.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
<b>1.</b> Ensure that all public facilities are working properly.	A. Continue updating sanitary sewer systems and securing funding to make these updates	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	Unknown	USDA
<b>2.</b> Address the threat of human-induced failures, including terrorism.	A. Monitor activities around each city sanitary sewer system.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake, Law Enforcement, County Emergency Manager	--	--
<b>3.</b> Educate the public in the event of sewer system failure and any health threats in conjunction to failure.	A. Include in the County's Emergency Plan the necessary steps to take in the event of a wastewater treatment facility failure. Explore mitigation strategies for facility failure to include in management plans.	Recurring	Law Enforcement, County Emergency Manager	--	--
<b>4.</b> Reduce contamination from individual septic tank systems.	A. Establish a county program to update individual septic tank systems.	Recurring	County Zoning Administrator	--	SCDP/MPCA
<b>Objective 4: Strategy A Information:</b>					
A. Strategy in process, funding not yet available. This strategy has been modified from 2-3 years to Recurring.					

## Hazard: Civil Disturbance / Terrorism

<b>Goal 1: Reduce risk to critical government facilities and services.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Increase the level of security for government facilities and services and in major public areas.	A. Increase security at major public gathering places.	Recurring	County Sheriff Department	--	--
	B. Hire a consultant to evaluate the security issues in the county including government, dam, water and safety.	10 years	County Sheriff Department	\$60,000	911 Grants/HSEM
	C. Develop cyber security plan and cyber risk mitigation plans. Conduct cyber risk and vulnerability assessment.	Recurring	County Emergency Manager	\$30,000	911 Grants/HSEM
<b>Objective 1: Strategy A-C Information:</b>					
A. This strategy has been modified by splitting apart from strategy B and is Recurring.					
B. This strategy has been modified from 2-3 years to 10 years due to funding availability.					
C. This strategy has been modified from 3 years to Recurring.					
2. Keep city council meetings secure.	A. Have security present and work with legislation to keep weapons out of city council meetings.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake	--	--
<b>Objective 2: Strategy A Information:</b>					
A. This strategy has been modified from 2-3 years to Recurring.					
<b>Goal 2: Decrease vulnerability of regional and state resources in county.</b>					
<b>OBJECTIVES</b>	<b>STRATEGIES</b>	<b>Time Frame</b>	<b>Responsible Entity</b>	<b>Estimated Cost</b>	<b>Funding Partner</b>
1. Work with state and federal agencies engaged in the statewide domestic preparedness strategy to identify further options for the county.	A. School emergencies should be addressed and drills practiced.	Recurring	Schools	--	--

## Hazard: Transportation

Goal 1: Protect passengers from traffic/train accidents.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Install gates at the Hwy. 59/railroad intersection in Clarkfield.	A. Request the Minnesota DOT to install gates at the intersection in Clarkfield.	5-10 years	City of Clarkfield	\$200,000	Mn/DOT
<b>Objective 1: Strategy A Information:</b>					
A. This strategy has been modified from 3-5 years to 5-10 years due to a lack in funding availability.					
2. Increase citizen safety on transportation road network. <b>*New Objective</b>	A. Continue to lobby efforts to rebuild Hwy 59 to include adequate shoulders on roadway. <b>*New Strategy</b>	Ongoing	Clarkfield	Staff Time	--

## All Hazards

Goal 1: Look at general ideas that serve the community through any disaster that may arise.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Educate the public.	A. Continue all programs and incorporate new hazards into existing programs. Educate public on insurance for disasters and risk management.	Recurring	Canby, Clarkfield Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake, Emergency Personnel, County Emergency Manager	--	--
2. Ensure that homes are easily identifiable.	A. Paint house numbers on curb.	1 year	Echo, Hazel Run, Porter	\$5,000 / City	--
<b>Objective 2: Strategy A Information:</b>					
A. This strategy has been modified from 2-3 years to 1 year for <b>Porter, Hazel Run, and Echo.</b>					
3. Educate citizens on where to go and what to do in event of all hazardous weather events. <b>*New Objective</b>	A. Draft an Emergency Operations Plan for fires, chemical spills, severe weather events, and gas leaks. <b>*New Strategy</b>	2-5 years	Echo, Hazel Run	Staff Time	--

# YELLOW MEDICINE COUNTY

## CHAPTER EIGHT: PLAN MAINTENANCE & IMPLEMENTATION

### Implementation & Maintenance

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**Implementation & Maintenance.** The Yellow Medicine County All-Hazard Mitigation Plan is intended to serve as a guide for dealing with the impact of both current and future hazards for all county people and institutions. As such, it is not a static document but must be modified to reflect changing conditions if it is to be an effective plan. The goals, objectives and mitigation strategies will serve as the action plan. Even though individual strategies have a responsible party assigned to it to ensure implementation; overall responsibility, oversight and general monitoring of the action plan has been assigned to the Yellow Medicine County Emergency Manager. It will be their responsibility to gather a Local Task Force to update the All-Hazard Mitigation Plan on a routine basis. Every two years, the County Emergency Manager will call a meeting to review the plan, mitigation strategies and the estimated costs attached to each strategy. All participating parties of the original Local Task Force and cities will be invited to this meeting. Responsible parties will report on the status of their projects. Committee responsibility will be to evaluate the plan to determine whether:

- Goals and objectives are relevant.
- Risks have changed.
- Resources are adequate or appropriate.
- The plan as written has implementation problems or issues.
- Strategies have happened as expected.
- Partners participating in the plan need to change (new and old).
- Strategies are effective.
- Any changes have taken place that may affect priorities.
- Any strategies should be changed.

In addition to the information generated at the Local Task Force meetings, the County Emergency Manager will also annually evaluate the All-Hazard Mitigation Plan and update the plan in the event of a hazardous occurrence. Two-year updates are due on the anniversary of the plan approval date.

After the second update meeting (four years will have passed), the Yellow Medicine County Emergency Manager will finalize a new Local Task Force to begin the required five-year update process. This will be accomplished in coordination with cities and the entire All-Hazard Mitigation Plan shall be updated and submitted to FEMA for approval (within 5 years of plan adoption). These revisions will include public participation by requiring a public hearing and published notice, in addition to multiple Local Task Force meetings to make detailed updates to the plan.

Public participation for updates is as critical as in the initial plan. Public participation methods that were used in the initial writing will be duplicated for future update processes – direct mailing list of interested parties, public meetings, press releases, questionnaires, and resolutions of participation and involvement. Additional methods of getting public input and involvement are encouraged such as placing copies of the plan in the Yellow Medicine County Emergency Manager’s Office and city offices, in addition to placing the plan on the Yellow Medicine County and UMRDC websites. Further, cities will be encouraged to place a notice on their websites stating the plan is available for review at the city offices. Notifications of these methods could be placed in chamber newsletters, the UMRDC newsletter and newspapers. Committee responsibilities will be the same as with updates.

Chapters 5, 6, and 7 focus on mitigation strategies for natural hazards, city-specific mitigation strategies for both natural and man-made/technological hazards, and man-made/technological hazards. The All-Hazard Mitigation Plan proposes a number of strategies, some of which will require outside funding in order to implement. If outside funding is not available, the strategy will be set aside until sources of funding can be identified. In these situations, Yellow Medicine County and cities will consider other funding options such as the county’s/cities’ general funds, bonding and other sources. Based on the availability of funds and the risk assessment of that hazard, the county will determine which strategies should be continued and which should be set aside. Consequently, the action plan and the risk assessment serves as a guide to spending priorities but will be adjusted annually to reflect current needs and financial resources.

This last step requires an evaluation of the strategies identified in the goals and policies framework, selecting preferred strategies based on the risk assessment, prioritizing the strategy list, identifying who is responsible for carrying out the strategy, and the timeframe and costs of strategy completion. Yellow Medicine County and cities have incorporated the preferred strategies including identification of the responsible party to implement, the timeframe and the cost of the activity with the goals and policies framework.

This plan will be integrated into other Yellow Medicine County plans such as the County Comprehensive Plan, County Water Plan, County Transportation Plan and Emergency Operations Plan. Chapter One will serve as an executive summary to the All-Hazard Mitigation to be attached to those plans as necessary. The County Board and Emergency Manager will encourage cities to implement their city-specific mitigation strategies in their comprehensive plans, land use regulations, zoning ordinances, capitol improvement plans and/or building codes by including mitigation strategies in their plans as listed in Table 114 on the following page. Further, as each land use mechanism is updated, mitigation strategies will be evaluated to determine whether they can implement or include them at that time. This evaluation will consist of basic cost-benefit analyses, much like what was used to create the mitigation strategies as discussed in Chapters 5, 6, and 7.

**Table 114. YMC & Cities - Local Planning Mechanisms**

<b>Planning Mechanisms</b>	<b>Jurisdictions</b>
Comprehensive Plan	Yellow Medicine County, Canby, Granite Falls, Echo
Emergency Operations Plan	Yellow Medicine County, Canby
Capital Improvement Plan	Clarkfield, Granite Falls
Local Water Management Plan	Yellow Medicine County
Watershed Plan	Yellow Medicine County
Land Use Plan	Yellow Medicine County, Echo
Flood Damage Reduction: Minnesota River at Granite Falls, MN: Locally Preferred Plan	Granite Falls
Zoning Ordinance	Yellow Medicine County, Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, Wood Lake
Building Code	Clarkfield, Granite Falls, Stony Run Township
Floodplain Ordinance	Yellow Medicine County, Canby, Granite Falls
Shoreland Ordinance	Yellow Medicine County

Many of these plans or policies can help implement the goals, objectives and strategies in Yellow Medicine County’s All-Hazard Mitigation Plan. The Yellow Medicine County Emergency Manager is responsible for meeting with each city within the County two times throughout the next five years. During these meetings, the Emergency Manager will review all Local Planning Mechanisms and collaborate with the cities to ensure the All-Hazard Mitigation Plan is becoming as integrated into local plans as possible. As adopted versions of Yellow Medicine County’s All-Hazard Mitigation Plan will be available at all city offices, during these meetings the Emergency Manager will solicit and collect any public comments relevant to the plan and make a record for the upcoming update process to be discussed at a Local Task Force meeting. These Local Planning Mechanisms are meant to work cooperatively together in order to ensure the health, safety, and welfare of Yellow Medicine County and its corresponding cities.