

BIG STONE COUNTY

CHAPTER FIVE: GOALS, OBJECTIVES, STRATEGIES – NATURAL HAZARDS

Overview

The following table outlines the goals, objectives and mitigation strategies important to Big Stone 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 Big Stone County Local Task Force and the risk assessment in this plan. The chapter is divided into three sections; completed strategies by Big Stone County and cities, current goals, objectives and strategies for Big Stone County and cities, and the prioritization of strategies.

Definitions

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 Management Director as an estimate timeline in which to reach the strategy. *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 Management Director 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 approximately as low, moderate and high for comparative purposes.

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

General Mitigation Vision

“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.”

The following goals, objectives and strategies are separated by hazard.

Development of Strategies

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 Big Stone 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 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. It will be critical for the County and cities 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 and time consuming and it is difficult to identify the lead for the strategy. (i.e. Updating public facilities in the county with terrorism in mind.)

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 agreed to start with strategies that were manageable to see some notable progress – “baby steps”. It also seemed reasonable to include strategies that already 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 Big Stone County, the Local Task Force met for the third time on April 29, 2010 in Ortonville, 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.

The fourth Local Task Force meeting took place on May 27, 2010 in Clinton, MN. At this meeting, the Local Task Force solidified their prioritized mitigation strategies by discussing suggestions from the previous meeting. The Local Task Force had time previous to this meeting to review the updated strategies from the third meeting and through group consensus, voted on the highest priority strategies for Natural Hazards and discussed the plan in its entirety.

HMGP Funded Strategies: Big Stone County and Cities

Table 91. BSC & Cities Hazard Mitigation Grant Program Funded Strategies (FEMA-Related)

SUBGRANTEE	PROJECT	FEDERAL SHARE	DR-PROJECT NUMBER	CITY/LOCATION	DATE STARTED
Big Stone County	Overhead Line Conversion	\$2,802,195	DR-1078	Big Stone, Stevens, & Swift Counties	August 1996
City of Clinton	Living Snow Fence	\$14,140	DR-1175.40	Clinton, MN	September 2009

Source: MN HSEM 2009

Natural Hazard Strategies: No Longer Relevant

Table 92. BSC & 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.
Reasoning: The State of Minnesota now mandates that all manufactured homes must have tie-downs.		
Wildfires	Educate the public about firebreaks. FSA allows firebreaks (tilled or mowed strips) on CREP and CRP land – acreage used for firebreaks can be included in CRP. Provide resources to landowners who may not have equipment to create firebreaks.	DNR, FSA, SWCD, USFWS
Reasoning: This program is run by the DNR and FSA. They educate owners about firebreaks and when burning should occur on CREP and CRP lands.		

Completed Strategies: BSC & Cities Natural & Manmade Technological Hazards

Table 93. BSC & Cities Completed Strategies in Past 5 Years: Natural & Manmade Technological Hazards

HAZARD	STRATEGIES	Responsible Entity
Violent Storms & Extreme Temperatures	Worked to find financing for a new ambulance in Ortonville. Purchased a new ambulance in 2006 and a used ambulance in 2009.	Ortonville
Violent Storms & Extreme Temperatures	Purchased a portable generator for electricity losses for Community Building.	Graceville
Flood	Adopted Floodplain Ordinances.	Graceville, Odessa, Ortonville
Flood	Purchased 4 portable water pumps to have on-hand in event of flood.	Graceville
Flood	Purchased and store 1,000 sandbags in event of flood.	Graceville
Flood	Completed an Engineering Study that looked at rip-rapping in Central Park and Erosion Control.	Ortonville
Flood	Determined if existing Regulatory Floodplain Elevation (971) is adequate and adjust accordingly. New dFIRM maps for Big Stone County dated April 2006.	Big Stone County Zoning
Flood	Built and a purchased a lift station and necessary infrastructure for sewer system.	Odessa
Flood	Worked to raise the five township roads under water.	Roads raised and/or rip-rapped in Almond Township (1), Toqua Township (2), Otrej Township (1), and Artichoke Township (1).
Flood	Monitored and cleared waterways, culverts and ditches. Ortonville Township completed maintenance work on a malfunctioning tile.	Ortonville Township
Wildfire	Created a contract between DNR and local fire departments to organize repose to large wildfires. This contract should address the entities responsible for wildfires on state and federal-owned land.	Correll, Odessa
Wildfire	Encouraged DNR to give training locally. Look for funds for training if necessary.	Beardsley, Correll, Graceville, Odessa, Ortonville
Wildfire	Installed a dry hydrant at Otrej Lake. Big Stone County currently has 4 active dry hydrants.	Big Stone County
Fire	Purchased pagers and other needed equipment for local fire departments.	Beardsley, Correll, Graceville, Odessa, Ortonville
Water Supply Contamination	Implemented/Adopted Wellhead Protection Plans.	Odessa, Ortonville
Water Supply Contamination	Completed a Water Supply Plan in conjunction with Mn DNR.	Ortonville
Civil Disturbance/Terrorism	Installed security alarms at Water Treatment Plants/Well houses.	Johnson, Odessa, Ortonville

Goals, Objectives and Mitigation Strategies – Natural Hazards

Hazard: Violent Storms and Extreme Temperatures

Goal 1: Safe and accessible rooms from violent storms.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Encourage all new homes without basements to have a safe room where residents may go during violent storms.	A. Educate homeowners on safe shelters with TV announcements or when people apply for building permits.	Recurring	County, Clinton, Correll, Odessa, and Ortonville	\$1,500	FEMA
Objective 1: Strategy A Information: A. Education regarding safe shelters and emergency preparedness is a recurring strategy for Big Stone County . This is a new strategy for Clinton (1-2 years), Correll (1 year), Odessa (2 years), and Ortonville (2-3 years).					
2. Require all new manufactured home parks to provide safe room for park residents either through a structure on site or a plan of evacuation to safe shelter off site.	A. Work with the manufactured park in Ortonville to develop a Safe Room Plan. Require that the safe room plan go through the local governing unit each year for review. Through this process, determine a safe room for mobile homes.	1 year	Ortonville	Staff Time	--
Objective 2: Strategy A Information: A. This strategy has been modified from Recurring to 1 year.					
3. Ensure that all hospital, school and nursing home facilities have a severe storm plan in place.	A. The County Emergency Management Director should continue to do periodic visits and review plans annually.	Recurring	County EM	--	--
4. Ensure that public and open areas have a safe room identified.	A. Include a safe room in any building improvements at the county park and golf club in Graceville and Big Stone County (Ortonville).	Recurring	Graceville, County Zoning	High	FEMA
	B. Discuss with City Council to determine whether or not to purchase a safe room. *New Strategy	1-2 years	Clinton	Staff Time	--
5. Ensure safety of storm victims. *New Objective	Draft a plan to house storm victims. *New Strategy	2 years	Graceville EMS/Civil Defense	Staff Time	--

Goal 2: Improve and maintain Severe Storm Warning System for all county residents.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Ensure that emergency management personnel, county sheriff, emergency response persons are notified as soon as possible in the event of a severe storm.	A. Continue current programs and plans that are in place and periodically review the effectiveness of these plans. Evaluate equipment needs.	Recurring	County EM	--	--
	B. Draft an Emergency Operations Plan for City.	1 year	Correll	Staff Time	--
2. Assess adequacy of existing emergency warning sirens.	A. The County Emergency Management Director should review countywide siren needs and look for funding to provide new/improved warning systems.	Recurring	County EM	--	FEMA
3. Ensure that all sectors of the county have immediate access to severe weather warnings and weather radios.	A. Educate the public on the use of weather radios.	Recurring	County EM	\$500	FEMA
Objective 3: Strategy A Information:					
A. This strategy has been completed. It has been modified from 1-2 years to a “Recurring” strategy.					
4. Assess adequacy of existing emergency equipment.	A. The County Emergency Management Director should review emergency equipment needs annually.	Recurring	County EM	--	--
5. Ensure that roads are kept clear during heavy snow events. *New Objective	A. Build a Living Snow Fence surrounding town. *New Strategy	10 years	County Engineer, Johnson	High	FEMA
Goal 3: Protect people and county infrastructure from the impacts of severe weather.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Keep electric lines away from trees.	A. Work with power companies.	Recurring	Barry, Beardsley, Clinton, Correll, Graceville, Johnson, Odessa, and Ortonville	--	--
2. Encourage people to limit travel on state and major county highways when weather conditions warrant.	A. Continue to enforce the current plans and procedures in place.	Recurring	County Law Enforcement	--	--

Goal 3: Minimize the damage from flooding on township roads.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Assess damage from flood events.	A. Provide riprap to stabilize roads to prevent repeated flood damage.	2-5 years	County Engineer and Townships	\$500,000	DNR/FEMA
Objective 1: Strategy A Information: A. Strategy was not completed due to a lack in funding.					
2. Raise township roads left under water after the 2009/2010 floods. *Modified/New Objective	A. Identify roads that continually flood during spring and work to find funding resources to raise or stabilize roads as needed. *New Strategy	2-5 years	County Engineer and Townships	\$500,000 - \$1,000,000	DNR/FEMA
3. Keep township roads and fields from flooding.	A. Monitor and clear waterways, culverts and ditches.	Recurring	Townships and County Engineer	Low	DNR/FEMA
Objective 3: Strategy A Information: A. Strategy was not completed in entirety, due to a lack in funding. It has been modified from 2-5 years to a “Recurring” strategy. Ortonville Township performed maintenance work on a malfunctioning tile in Fall 2009.					
Goal 4: Maintain NFIP Compliance for participating jurisdictions.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Develop and implement strategies to demonstrate “Continued Compliance”. *New Goal, Objective, and Strategies	A. Work with MN DNR to review and update the Floodplain Management Ordinance as required.	Recurring	Graceville, Odessa, Ortonville, BSC	--	--
	B. Work with MN DNR on development applications in identified Flood Prone Areas.	Recurring	Clinton, Graceville, Odessa, Ortonville, BSC	--	--
	C. Encourage property owners in “Flood Prone” areas to purchase flood insurance.	Recurring	Clinton, Graceville, Odessa, Ortonville, BSC	--	--
	D. Discourage zoning variances in Flood Hazard Areas.	Recurring	Graceville, Odessa, Ortonville, BSC	--	--
	E. Discourage development in Flood Prone Areas.	Recurring	Clinton	--	--

Hazard: Drought

Goal 1: Monitor the county’s ground water supplies and demands.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Establish a comprehensive and ongoing water monitoring program.	A. Continue to monitor aquifer levels and water quality. Work with DNR to ensure that permitted water use is not depleting water resources in Big Stone Lake and other lakes.	Recurring	County Zoning	--	MnDNR
2. Support conservation.	A. Continue to support conservation programs in the county that conserve water and decrease the moisture in the soil.	Recurring	County SWCD	--	--

Hazard: Wildfire

Goal 1: Prevent wildfires.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Minimize the amount of fuel in areas prone to fire damage.	A. Encourage carefully controlled burns. FSA allows controlled burns on CREP and CRP. The FSA offers cost share for controlled burns on CREP and CRP land. Encourage landowner responsibility.	Recurring	FSA, SWCD, DNR, USFWS	--	--
2. Minimize wildfire risks within Big Stone State Park and the National Wildlife Refuge.	A. Work with the U.S. Fish and Wildlife Service to minimize wildfire risks.	Recurring	USFWS, DNR	--	--
3. Provide education to the public about wildfire prevention.	A. Work with the FSA office to provide education to landowners. Some landowners may not realize that burning is allowed and beneficial.	Recurring	FSA, Local Fire Departments, County Law Enforcement	--	--
Goal 2: Minimize structure loss from wildfire and protect the safety of residents and firefighters.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Minimize impact of wildfire in residential areas by creating firebreaks between structures and areas with wildfire fuel.	A. Educate the public about firebreaks. FSA allows firebreaks (tilled or mowed strips) on CREP and CRP land – acreage used for firebreaks can be included in CRP. Provide resources to landowners who may not have equipment to create firebreaks.	Recurring	FSA, Local Fire Departments, County Board	Low	--
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	Local Fire Departments & County EM	--	--
Objective 2: Strategy A Information:					
A. Strategy has been completed. It has been modified from 1-2 years to a “Recurring” strategy.					
3. Increase access to equipment suitable to fighting wildfires.	A. Do an inventory of equipment available and keep up-to-date for local fire departments. Look for grants for additional equipment if necessary.	Recurring	Local Fire Departments & DNR	--	--
4. Install dry hydrants in suitable areas.	A. Identify locations for dry hydrants and install as needed and as funding is available. *New Strategy	2-5 years	Local Fire Departments & DNR	--	MnDNR/ FEMA
Goal 3: Protect the safety of residents.					
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	Local Fire Departments & DNR	--	--

Hazard: Dam Failure

Goal 1: Prevent structure from cracking or breaking.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Ensure dam construction is maintained and functioning properly.	A. Coordinate dam inspections with the DNR and Army Corps of Engineers.	Recurring	County, DNR, ACOE	--	MnDNR Fisheries, ACOE
Goal 2: Provide safety to residents.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Warn residents of danger if dam failure occurs.	A. Ensure that the Emergency Plan for dam failure is updated. Encourage the Army Corps of Engineers to work with local agencies to keep plans current.	Recurring	ACOE	--	--

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 four cities within Big Stone County (and Big Stone County) as determined previously in Table 51. Currently, all five jurisdictions actively participate in the NFIP. Graceville, Odessa, Ortonville, and Big Stone County all have Floodplain Management Ordinances in effect. The City of Clinton also participates in the program, but they have No Special Flood Hazard Areas identified in the community; however they are considering passing a Floodplain Ordinance in 2010. Four communities, Barry, Beardsley, Correll, and Johnson do not participate in the program as they do not have Special Flood Hazard Areas. The NFIP participation from the initial Big Stone County All-Hazard Mitigation Plan has not changed in the past five years. Table 94 identifies NFIP participation, dates of Initial Flood Insurance Rate Maps (FIRM), current effectiveness of map dates, and Emergency Dates if applicable.

Table 94. BSC & Cities NFIP Participation

Jurisdiction	NFIP Status	Initial FIRM Identified	Current Effective Map Date	Emergency Date
Barry	Not Participating	no data	No Special Flood Hazard Areas	no data
Beardsley	Not Participating	no data	No Special Flood Hazard Areas	no data
Clinton	Participating	4/17/2006	No Special Flood Hazard Areas	4/17/2006
Correll	Not Participating	no data	No Special Flood Hazard Areas	no data
Graceville	Participating	4/17/2006	4/17/2006	4/14/2006
Johnson	Not Participating	no data	No Special Flood Hazard Areas	no data
Odessa	Participating	4/17/2006	4/17/2006	1/3/1985
Ortonville	Participating	2/19/1986	4/17/2006	2/19/1986
Big Stone County	Participating	6/17/1986	4/17/2006	6/17/1986

Source: FEMA 2008

Table 95 (following page) provides FEMA's NFIP Insurance Report for Ortonville and Big Stone County. Information attained in this report identifies total insurance premium amounts, number of A-Zone properties (100-year floodplain), number of existing policies, total insurance coverage, and total claims and amounts paid to each jurisdiction since 1978.

Table 95. FEMA NFIP Insurance Report

Jurisdiction	Total Premium	A-ZONE	Number of Policies	Total Coverage	Total Claims Since 1978	Total Paid Since 1978
Ortonville	\$20,989	25	29	\$3,975,200	24	\$252,536
Big Stone County	\$7,768	8	21	\$3,662,700	27	\$285,311
TOTAL	\$28,757	33	50	\$7,637,900	51	\$537,847

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 Clinton, Graceville, Odessa, Ortonville, and Big Stone County processes for continued compliance.

Clinton

Clinton does not have any designated Special Flood Hazard Areas. However, there is one main area considered “flood-prone” as determined by city staff. This area contains seven residential properties that are likely to need flood proofing measures or sandbagging efforts to prevent flooding from occurring. This is in addition to the nursing home, which is at constant risk of flooding. Clinton is committed to working with the MN DNR and FEMA to analyze the “flood-prone” area and determine if they should be considered Flood Hazard Areas. Below are three strategies that Clinton intends to complete as methods to continue compliance with National Flood Insurance Program.

Strategies to Continue NFIP Compliance:

1. Work with the MN DNR on development applications in identified Flood Prone Areas.
2. Discourage development in “flood-prone” areas.
3. Encourage property owners to purchase flood insurance.

Graceville

The City of Graceville utilizes digital FIRM maps dated April 17, 2006, to illustrate the location of 100 and 500-year floodplain boundaries within municipal limits. In order to prevent development in the 100-year floodplain, Graceville passed a Floodplain Management Ordinance in March of 2006. The process that Graceville uses to monitor potential development in the floodplain is through tracking building permits and ensuring that all residents, whether within the 100-year floodplain or not, have their basement or bottom floor above the 1,099 foot elevation level. The high water mark for Graceville was 1,097 feet in 1997 and any person that proposes a building must know the elevation of the bottom floor or take steps to increase the elevation level by adding fill. Further, a person must obtain a certificate of elevation to prove the new elevation of the structure, produced by a Minnesota licensed surveyor. As of 2010, no building permits have been requested for properties within the 100-year floodplain.

On the following page are four strategies that the City of Graceville intends to complete as methods to continue compliance with National Flood Insurance Program.

Strategies to Continue NFIP Compliance:

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

Odessa

The City of Odessa also utilizes digital FIRM maps dated April 17, 2006, to illustrate the location of 100 and 500-year floodplain boundaries within municipal limits. In order to prevent development in the 100-year floodplain, Odessa passed a Floodplain Management Ordinance in March of 2006. The process that Odessa uses to monitor potential development in the floodplain is through tracking building permits. If a permit application is received by an applicant, the applicant must provide information for the Zoning Administrator to determine whether they are within the General Floodplain District. This information includes a valley cross-section showing the channel of the stream, elevation of land areas, and cross-sectional areas to be occupied by the proposed development, a surface view plan showing elevations of the ground, structure, fill, and size/location and spatial arrangement of all proposed and existing structures on site. Further, the applicant must provide photographs of existing land uses, vegetation upstream and downstream, soil types, and a profile showing the slope of the bottom of the channel for at least 500 feet in either direction of the proposed development. The applicant must also submit this information to a designated engineer or expert and have them provide a technical evaluation. This information would be presented to the City Council who could accept the evaluation, submit the documents to FEMA or the MnDNR for review and comment. Below are four strategies that the City of Odessa intends to complete as methods to continue compliance with National Flood Insurance Program.

Strategies to Continue NFIP Compliance:

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

Ortonville

The City of Ortonville utilizes digital FIRM maps dated April 17, 2006, to illustrate the location of 100 and 500-year floodplain boundaries within municipal limits. In order to prevent development in the 100-year floodplain, Ortonville passed a Floodplain Management Ordinance in September of 1989. The process that Ortonville uses to monitor potential development in the floodplain is also through tracking building permits. An applicant must fill out a building applicant and the building official/zoning official will review the application to determine whether the property in question is located within a floodplain. Pending a building permit review and investigation the building official/zoning official will make a recommendation to the

City Council. Below are four strategies that the City of Ortonville intends to complete as methods to continue compliance with National Flood Insurance Program.

Strategies to Continue NFIP Compliance:

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

Big Stone County

Big Stone County utilizes digital FIRM maps dated April 17, 2006 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, Big Stone County passed a Floodplain Management Ordinance on March 7, 2006 that is actively updated as the MN DNR instructs. The permitting process for properties in the floodplain is very dependent on elevations in Big Stone County. The building permit application has a section devoted to the floodplain and a person must fill out that section that specifies elevation levels of the property. If a person does not know whether a property is in the floodplain, the Zoning Administrator will make a determination and have the person fill out the floodplain section of the permit. The Zoning Administrator reviews the entire building application and allows development if the applicant uses specific filling technique and fill to raise the elevation of the property to meet the Floodplain Ordinance guidelines. Once the project is complete, Big Stone County requires a Certificate of Elevation to determine the new elevation, which must be completed by a Minnesota licensed surveyor on FEMA floodplain forms. Once the Certificate of Elevation is received and approved, Big Stone County completes a Certificate of Occupancy and presents it to the applicant. In addition to a Floodplain Management Ordinance, Big Stone County prepared the Big Stone County Plan that identifies flood-related strategies such as creating an incentive to establish buffers in priority area. Below are four strategies that Big Stone County has committed to in order to continue with NFIP compliance.

Strategies to Continue NFIP Compliance:

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

Prioritizing Strategies

The fourth Local Task Force meeting took place on April 29, 2010, in Ortonville, MN. At this meeting, the Local Task Force solidified their prioritized hazards by discussing suggestions made by the County Emergency Management Director, Engineer, Auditor, 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 violent storms, wildfires, and flooding – which match the highest priority of hazards in Big Stone County. Violent Storms had the highest risk rank (moderate), due to the unforeseen nature of a storm. The strategies are focused not only a countywide level (updating and maintaining the warning siren system), but also on a city basis. The majority of the strategies focus on recurring education efforts. The flood mitigation measures are aimed at frequently flooded areas and township roads. 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 Big Stone County Emergency Management Director 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 96 identifies the prioritized strategies for natural hazards in Big Stone County.

Table 96. BSC Prioritized Strategies (Natural Hazards)

Ranked	Hazard	Strategy	Affected Participating Jurisdiction
1	Violent Storms	Improve the Warning Siren System in Big Stone County and replace, backup, or purchase new sirens (and related equipment) as requested by cities.	Big Stone County, Barry, Beardsley, Johnson, Odessa, and Ortonville
1	Violent Storms	Continue to work with seniors and vulnerable populations on violent storm notification.	Big Stone County
1	Violent Storms	Complete Educational Brochures for residents on a routine basis regarding violent weather.	Big Stone County, Clinton, Correll, Odessa, and Ortonville
2	Wildfire	Find suitable areas for dry hydrants.	Big Stone County
3	Flooding	Check and clean waterways and culverts that could flood farm roads and public areas.	County, townships and the cities of Ortonville, Clinton, Graceville and Odessa
3	Flooding	Work on flatland flood issues that pertain to culverts and drainage.	Big Stone County, Graceville, and Johnson
3	Flooding	Riprap problem/vulnerable areas.	Big Stone County and Townships
3	Flooding	Raise Township Roads left under water after the 1997 flood.	Big Stone County and Townships

BIG STONE COUNTY

CHAPTER SIX: GOALS, OBJECTIVES, STRATEGIES - BIG STONE COUNTY CITIES

Overview

The following tables outline the goals, objectives and mitigation strategies for Big Stone 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

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 Management Director 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 approximately as low, moderate and high for comparative purposes.

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

“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

To determine strategies for each city, a meeting was held between UMVRDC staff and city representatives. 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 of 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 ranking and reasoning for ranking strategies included:

1. History
2. Successful Strategies
3. Need
4. Risks
5. Costs/efficiencies.
6. Resources – social/fiscal
7. Economic impact
8. Fits with community planning goals
9. Effectiveness
10. Impact
11. Building on what already exists
12. Legal authority
13. Budget
14. Environmental impact

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 was not feasible to spend a lot of time on estimating the costs. Many strategies are costly, labor intensive and time consuming and it is difficult to identify the lead for the strategy.

Goals, Objectives and Mitigation Strategies: City of Barry

Hazard: Violent Storms and Extreme Temperatures

Goal 2: Improve and maintain Severe Storm Warning System for all county residents.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Assess adequacy of existing emergency warning sirens.	Obtain a warning siren for the community	10 years	City	\$17,000	NOAA	1	Citizen Safety
	Purchase a backup generator for the warning siren.	10 years	City	\$5,000	NOAA/ FEMA	2	Citizen Safety

Goals, Objectives and Mitigation Strategies: City of Beardsley

Hazard: Violent Storms and Extreme Temperatures

Goal 2: Improve and maintain Severe Storm Warning System for all county residents.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure that emergency management personnel, county sheriff, emergency response persons are notified as soon as possible in the event of a severe storm.	Increase communication between City and Big Stone County.	Recurring	City & Big Stone County	--	--	2	Citizen Safety
Assess adequacy of existing emergency warning sirens.	Purchase a backup generator for Warning Siren and wells.	8 years	City & Big Stone County	\$5,000	NOAA/ FEMA	1	Improve immediacy of rural knowledge of weather events
	Purchase 1 new weather siren.	5 years	Big Stone County	\$17,000	NOAA/ FEMA	3	Improve immediacy of rural knowledge of weather events
	Invest in a Remote System to turn on weather siren if needed.	10 years	City & Big Stone County	\$1,600	NOAA/	4	Citizen Safety
	Purchase an automatic transfer switch for generator (3-phase – 150amp).	5 years	City	\$1,500	FEMA	5	Citizen Safety

Goals, Objectives and Mitigation Strategies: City of Clinton

Hazard: Violent Storms and Extreme Temperatures

Goal 1: Promote safe and accessible safe rooms from violent storms.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Create an Educational Brochure on how to prepare for severe weather.	1-2 years	City	\$500	FEMA	1	Educate Citizens
Ensure that public and open areas have a safe room identified.	Discuss with City Council to determine whether or not to purchase a safe room.	1 year	City	Staff Time	--	3	Citizen Safety

Hazard: Flood

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

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Protect routinely flooded structures and areas throughout Big Stone County.	Flood proof 7 homes.	2-5 years	City	Moderate	FEMA/ MnDNR	2	Prevent Flooding/ Citizen Safety

Goal 4: Maintain NFIP Compliance for participating jurisdictions.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Develop and implement strategies to demonstrate "Continued Compliance".	Work with MN DNR on development applications in identified Flood Prone Areas.	Recurring	City	Staff Time	--	4	Prevent Flooding/ Citizen Safety
	Encourage property owners in Flood Prone areas to purchase flood insurance.	Recurring	City	Staff Time	--	5	Prevent Flooding/ Citizen Safety
	Discourage development in Flood Prone Areas.	Recurring	City	Staff Time	--	6	Prevent Flooding/ Citizen Safety

Goals, Objectives and Mitigation Strategies: City of Correll

Hazard: Violent Storms and Extreme Temperatures

Goal 1: Promote safe and accessible safe rooms from violent storms.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Create an Educational Brochure on how to prepare for severe weather.	1 year	City Clerk	\$500	FEMA	1	Educate Citizens
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
Ensure that emergency management personnel, county sheriff, emergency response persons are notified as soon as possible in the event of a severe storm.	Draft and adopt an Emergency Operations Plan for City.	1 year	City	Low	Big Stone County	2	Citizen Safety

Goals, Objectives and Mitigation Strategies: City of Graceville

Hazard: Violent Storms and Extreme Temperatures

Goal 1: Promote safe and accessible safe rooms from violent storms.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure safety of storm victims. *New Objective	Draft a plan to house storm victims.	2 years	EMS/ Civil Defense	Staff Time	EMS/ Civil Defense	2	Safety for Vulnerable Populations

Hazard: Flood

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

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Protect routinely flooded structures and areas throughout Big Stone County. *New Objective	Purchase and place two 24-inch culverts under Nursing Home/Assisted Living Center "Link" and Driveway to prevent flooding.	1-5 years	Public Works	\$15,000	FEMA	1	Flood Potential during Rainfall Events

Goal 4: Maintain NFIP Compliance for participating jurisdictions.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Develop and implement strategies to demonstrate "Continued Compliance".	Work with MN DNR to review and update the Floodplain Management Ordinance as required.	Recurring	City	Staff Time	--	5	Prevent Flooding/ Citizen Safety
	Work with MN DNR on development applications in identified Flood Prone Areas.	Recurring	City	Staff Time	--	6	Prevent Flooding/ Citizen Safety
	Encourage all property owners in Flood Hazard Areas to purchase flood insurance.	Recurring	City	Staff Time	--	7	Prevent Flooding/ Citizen Safety
	Discourage Zoning Variances in Flood Hazard Areas.	Recurring	City	Staff Time	--	8	Prevent Flooding/ Citizen Safety

City of Graceville Strategies Continued:

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
Reduce contamination of private wells.	Draft a Well-head Protection Plan for City.	3-5 years	City	Staff Time	City/ County	3	Protect Potable Drinking Water

Hazard: Civil Disturbance/Terrorism

Goal 1: Protect critical infrastructure.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install security measures at City Water Treatment Plants.	Install security alarms at City Water Treatment Plant.	3-5 years	City	Moderate	DHS	4	Protect Critical City Infrastructure

Goals, Objectives and Mitigation Strategies: City of Johnson

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 emergency warning sirens.	Purchase a Warning Siren for City.	2 years	City	\$17,000	NOAA	2	Citizen Safety

Goal 3: Protect people and county infrastructure from the impacts of severe weather.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure that roads are kept clear during heavy snow events. *New Objective	Build a Living Snow Fence surrounding town.	10 years	County Engineer, City	High	FEMA	3	Citizen and Children Safety

Hazard: Flooding

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

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Protect routinely flooded structures and areas throughout Big Stone County. *New Objective	Install new culverts, complete ditching, land excavation, and cleaning of ditches. Estimate for project has been completed by Sullivan Excavating, Inc.	5 years	City	\$27,925.50	FEMA	1	Rectify Current Flatland Flooding Issues

Goals, Objectives and Mitigation Strategies: City of Odessa

Hazard: Violent Storms and Extreme Temperatures

Goal 1: Promote safe and accessible safe rooms from violent storms.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Create an Education Brochure with instructions for severe storms (residents and businesses).	2 years	City	\$500	FEMA	3	Citizen Safety
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 emergency warning sirens.	Purchase a new Warning Siren.	2-3 years	City	\$17,000	NOAA/FEMA	2	Citizen Safety

Hazard: Civil Disturbance/Terrorism

Goal 1: Protect critical infrastructure.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install security measures at City Water Treatment Plants.	Increase security around City Infrastructure (water tower).	2 years	City	\$2,500	--	1	Financial Security and Citizen Safety

Hazard: Flood

Goal 4: Maintain NFIP Compliance for participating jurisdictions.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Develop and implement strategies to demonstrate "Continued Compliance".	Work with MN DNR to review and update the Floodplain Management Ordinance as required.	Recurring	City	Staff Time	--	4	Prevent Flooding/Citizen Safety
	Work with MN DNR on development applications in identified Flood Prone Areas.	Recurring	City	Staff Time	--	5	Prevent Flooding/Citizen Safety
	Encourage all property owners in Flood Hazard Areas to purchase flood insurance.	Recurring	City	Staff Time	--	6	Prevent Flooding/Citizen Safety
	Discourage Zoning Variances in Flood Hazard Areas.	Recurring	City	Staff Time	--	7	Prevent Flooding/Citizen Safety

Goals, Objectives and Mitigation Strategies: City of Ortonville

Hazard: Violent Storms and Extreme Temperatures

Goal 1: Promote safe and accessible safe rooms from violent storms.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure that public and open areas have a safe room identified.	Publish and distribute an Educational Pamphlet that identifies safe rooms in public and open areas.	2-3 years	City	\$500	FEMA	4	Citizen Safety
Require all new manufactured home parks to provide safe room for park residents either through a structure on site or a plan of evacuation to safe shelter off site.	Work with the manufactured park in Ortonville to develop a Safe Room Plan. Require that the safe room plan go through the local governing unit each year for review. Through this process, determine a safe room for mobile homes.	1 year	City	Staff Time	--	3	Citizen Safety

Hazard: Flooding

Goal 2: Minimize the damage from flooding along the Big Stone Lake and Ortonville.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Protect the Peninsula infrastructure in Ortonville.	Finish the three-fourths mile of replacing old sewer main, sealing manholes, and replacing bituminous material.	5-6 years	City	\$700,000	City/ Rural Water	1	Citizen Safety and Funding
Goal 4: Maintain NFIP Compliance for participating jurisdictions.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Develop and implement strategies to demonstrate "Continued Compliance".	Work with MN DNR to review and update the Floodplain Management Ordinance as required.	Recurring	City	Staff Time	--	5	Prevent Flooding/ Citizen Safety
	Work with MN DNR on development applications in identified Flood Prone Areas.	Recurring	City	Staff Time	--	6	Prevent Flooding/ Citizen Safety
	Encourage all property owners in Flood Hazard Areas to purchase flood insurance.	Recurring	City	Staff Time	--	7	Prevent Flooding/ Citizen Safety
	Discourage Zoning Variances in Flood Hazard Areas.	Recurring	City	Staff Time	--	8	Prevent Flooding/ Citizen Safety

Hazard: Wastewater Treatment System Failure

Goal 1: Minimize damage from flooding.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Protect the Ortonville Wastewater Treatment Plant from flooding.	Continue to monitor levee protection at the Ortonville Wastewater Treatment Plant.	1 year	Public Works	Staff Time	--	2	Citizen Safety

BIG STONE COUNTY

CHAPTER SEVEN: GOALS, OBJECTIVES, STRATEGIES – MANMADE / TECHNOLOGICAL HAZARDS

Overview

The following table outlines the goals, objectives and mitigation strategies important to Big Stone 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 Big Stone County Local Task Force and the risk assessment in this plan. The chapter is divided into three sections; completed strategies by Big Stone County and cities, current goals, objectives and strategies for Big Stone County and cities, and the prioritization of strategies.

Definitions

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 Management Director 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 Management Director 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 approximately as low, moderate and high for comparative purposes.

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

General Mitigation Vision

“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

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 Big Stone 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 Management Director 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 Hazard Strategies: No Longer Relevant

Table 97. BSC & Cities Manmade-Technological Hazard Strategies – No Longer Relevant

HAZARD	STRATEGIES	Responsible Entity
Fire	Continue Fire Education Programs.	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs
Reasoning: Redundant strategy.		
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.	Big Stone County, Barry, Beardsley, Clinton, Correll, Graceville, Johnson, Odessa, Ortonville
Reasoning: The County and cities are covered for meth labs under hazardous wastes that fall under the Environmental Protection Agency jurisdiction.		
Civil Disturbance / Terrorism	Continue to review standoff vehicle distances.	County Law Enforcement
Reasoning: Issue has been addressed.		
Civil Disturbance / Terrorism	Continue to monitor actives that would need restriction. (Restricting vehicle access to the County Courthouse and City Halls)	County Law Enforcement
Reasoning: Issue has been addressed.		
Civil Disturbance / Terrorism	Continue review of facilities and make changes as needed. (Increase level of security with landscape design and lighting.)	County Law Enforcement
Reasoning: Threat level has been removed.		

Goals, Objectives and Mitigation Strategies – Manmade/Technological Hazards

Hazard: Infectious Diseases

Goal 1: Reduce the threat of infectious diseases through education and awareness.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Support and maintain programs that keep the county healthy and safe from infectious diseases.	A. Continue to support Countryside Public Health programs.	Recurring	Countryside Public Health (CPH) & County	--	--
	B. Work to make sure mass transportation and mobile community can address infectious disease outbreak.	Recurring	CPH	--	--
	C. Work with state on quarantine and isolation strategies.	Recurring	CPH	--	--
2. Educate the public.	A. Get uniform, accurate and up-to-date information out to the public through the risk communication service.	Recurring	CPH	--	--
	B. Continue cooperation with County Emergency Management Director, Countryside Public Health and hospitals and clinic staff.	Recurring	CPH, County EM, Hospital/Clinic Staff	--	--
Goal 2: Improve the effectiveness and quality of the various efforts addressing infectious diseases that have the potential to impact the county.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Maintain and update material, plans, and agreements for addressing infectious diseases.	A. Continue cooperation between Countryside Public Health and County Emergency Management Director.	Recurring	CPH, County EM	--	--

Hazard: Fire

Goal 1: Protect structures from wildfire.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Provide residents with adequate knowledge of fire safety.	A. Continue fire education programs.	Recurring	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs, County EM	--	--
2. Ensure fire departments have adequate staff and equipment to fight fires.	A. Have an annual assessment of equipment and personnel needs.	Recurring	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs, County EM	--	--
	B. Purchase needed equipment and secure funding sources.	Recurring	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs, County EM	Moderate	FEMA/MnDNR
	C. Actively seek funds to offer training to firefighters.	Recurring	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs, County EM	Moderate	FEMA/MnDNR
	*New Strategy				

Hazard: Hazardous Materials

Goal 1: Develop a county information service that provides useful and factual information about hazardous material located in the county.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Support policies and programs that assist in creating factual and timely information about hazardous material in the county.	A. Continue current programs and periodically evaluate their effectiveness.	Recurring	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs, County EM, Law Enforcement	--	DHSEM
2. Make sure emergency personnel have hazardous material location information.	A. Continue to use the 911 system that distributes information to emergency personnel.	Recurring	Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville FDs, County EM, Law Enforcement	--	DHSEM
Goal 2: Continue the effective efforts addressing hazardous material that may impact the county.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Maintain and update material, plans, and agreements for addressing hazardous material.	A. Review and update the Big Stone County Emergency Operations Plan that outlines procedures for dealing with hazardous material on an annual basis.	Recurring	County EM	--	DHSEM
Goal 3: Improve overall preparedness and equipment for handling hazardous events.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Adopt new technology to improve the county's ability to respond to a disaster.	A. Encourage that emergency responder groups, fire departments, and Emergency Management Director are trained to at least the Hazardous Materials Awareness level.	2 years	County EM	\$2,500	DHSEM
Objective 1. Strategy A Information:					
A. This strategy has been modified from Recurring to 2 years to place higher importance on training.					
Goal 4: Address inconsistencies and county shortcomings in dealing with hazardous materials.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Implement procedures or programs that address gaps or deficiencies in dealing with hazardous materials.	A. Work to educate farmers and fertilizer plants to secure ammonia tanks.	Recurring	Law Enforcement and Townships	--	--
2. Work with county and cities to address cleanup of meth labs.	A. Educate the public on the dangers of meth labs.	Recurring	Law Enforcement, Townships	--	--

Hazard: Water Supply Contamination

Goal 1: Protect the quality of the county's ground water resources.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Reduce contamination from feedlots.	A. Enforce MN Rules 7020 and local ordinances.	Recurring	County Environmental Services (ES)	\$7,500/year	--
2. Reduce contamination of private wells.	A. Implement wellhead protection plans.	Recurring	Odessa, Ortonville, County ES	Low	--
Objective 1. Strategy A Information: A. This strategy has been completed and modified from 2 years to a "Recurring" strategy. Odessa completed a plan and Graceville plans to accomplish their plan in 3-5 years.					
3. Minimize contamination of ground water from unused/abandoned wells.	A. Enforce Minnesota Department of Health rules and sealing requirement.	Recurring	County ES	Low	--
Goal 2: Protect residents from contaminated ground water.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Provide adequate drinking water in the event of ground water contamination.	A. Continue to identify in the Emergency Operations Plan.	Recurring	County EM	Low	--
2. Test private wells.	A. Continue school programs for testing private wells. Educate the public.	Recurring	CPH, Schools	--	--
Goal 3: Focus on efforts in areas more prone to ground water contamination.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Implement Wellhead Protection Program.	A. Continue to monitor feedlot locations and adopt prohibited land uses.	Recurring	County ES	\$5,000	--
Objective 1. Strategy A Information: A. This strategy has been completed and modified from 2 years to a "Recurring" strategy.					

Hazard: Wastewater Treatment System Failure

Goal 1: Minimize damage from flooding.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Protect the Ortonville Wastewater Treatment Plant from flooding.	Continue to monitor levee protection at the Ortonville Wastewater Treatment Plant.	Recurring	Ortonville	--	FEMA
Goal 2: Protect the health of residents.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Ensure that all public facilities are working properly.	Continue updating sanitary sewer systems and securing funding to make these updates.	Recurring	Barry, Beardsley, Clinton, Correll, Graceville, Johnson, Odessa, Ortonville	Moderate	USDA Rural Water

Hazard: Civil Disturbance/Terrorism

Goal 1: Protect critical infrastructure.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Install security measures at the city water treatment plant.	A. Install security alarms/make infrastructure secure.	2-5 years	Odessa, Graceville	Moderate	--
Objective 1. Strategy A Information:					
A. This strategy has been completed in Ortonville, Clinton, and Beardsley . Barry, Correll, and Johnson do not have water treatment plants.					
Goal 2: Decrease vulnerability of regional and state resources in county.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Work with state and federal agencies engaged in the statewide domestic preparedness strategy to identify further options for the county.	A. Schedule discussions with school leaders, hospital administrators, law enforcement and local units of government to address performance in response to terrorism, focusing on schools and hospitals.	Recurring	County EM, Law Enforcement	\$5,000	--

BIG STONE COUNTY

CHAPTER EIGHT: PLAN MAINTENANCE & IMPLEMENTATION

Implementation & Maintenance

Implementation and Maintenance. The Big Stone 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 Big Stone County Emergency Management Director. It will be their responsibility to gather a Local Task Force to update the All-Hazard Mitigation Plan on a routine basis. Every year, the County Emergency Management Director 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 Management Director 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 two-year update meeting, the Big Stone County Emergency Management Director will finalize a new Local Task Force to begin the required five-year update process. This will be accomplished in coordination with Big Stone County 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 any future update processes – direct mailing list of interested parties, public meetings, press releases, surveys, 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 public libraries for public comment or placing the plan on county and city websites. Notifications of these methods could be placed in chamber newsletters, the UMVRDC 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, Big Stone County and cities will also 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.

The 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. Big Stone 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 county plans such as County Comprehensive Plans, the County Water Plan, and all Emergency Operations Plans. Chapter One will serve as an executive summary to be attached to those plans as necessary. The County Board and Emergency Management Director 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 98 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 98. BSC & Cities - Local Planning Mechanisms

Planning Mechanisms	Jurisdictions
Comprehensive Plan	Big Stone County, Graceville, Ortonville
Emergency Operations Plan	Big Stone County
Capital Improvement Plan	Ortonville
Local Water Management Plan	Big Stone County
Zoning Ordinance	Big Stone County, Beardsley, Clinton, Correll, Graceville, Odessa, Ortonville
Floodplain Ordinance	Big Stone County, Graceville, Ortonville, Odessa
Shoreland Ordinance	Big Stone County

Many of these plans or policies can help implement the goals, objectives and strategies in Big Stone County’s All-Hazard Mitigation Plan. The Big Stone County Emergency Management Director is responsible for meeting with each city within the County two times throughout the next five years. During these meetings, the Emergency Management Director 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 Big Stone County’s All-Hazard Mitigation Plan will be available at all city offices, during these meetings the Emergency Management Director 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 Big Stone County and its corresponding cities.