Minnesota State All-Hazard Mitigation Plan

April 15, 2005

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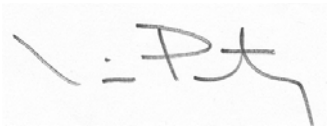
This Plan has been reviewed and approved by:



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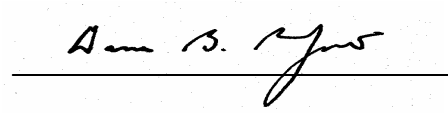
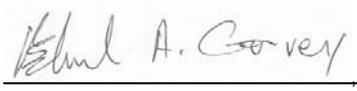
Governor, State of Minnesota

Al Bataglia
Director, Division of Homeland Security and Emergency Management
Department of Public Safety

The Minnesota State All-Hazard Mitigation Plan has been reviewed and approved by the following department/agency commissioners/leadership:

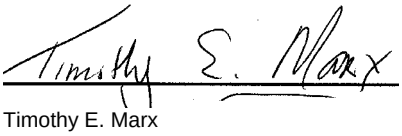


Dana Badgerow
Commissioner, Department of Administration



, for Glenn Wilson

Glenn Wilson
Commissioner, Department of Commerce



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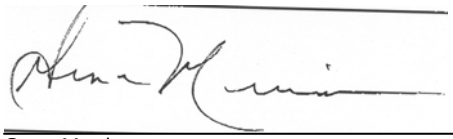

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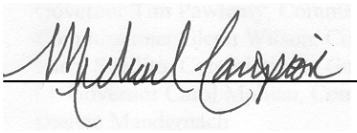

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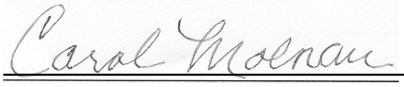

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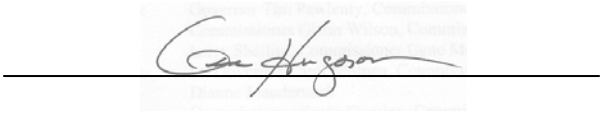

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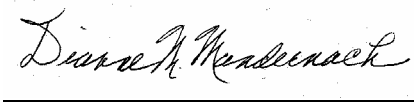

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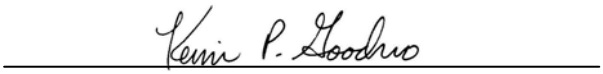

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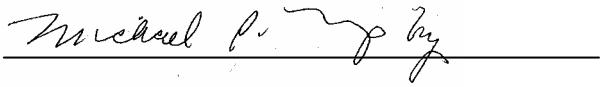

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This plan will be reviewed and updated yearly or as necessary and at least every 3 years as required by FEMA—and resubmitted for approval. After any review, and if any portion of the plan is changed:

1. The revision **date** will be noted in upper right corner of changed pages.
2. The revision **number** in the upper right corner of every page of that individual section will be increased by one.
3. Specific **change(s)** on individual pages will be indicated by red highlighted text in electronic versions. These indications denote changes for that particular update/revision.

I. EXECUTIVE SUMMARY

A. Purpose

This updated version of the state plan now reflects the Disaster Mitigation Act (DMA) of 2000 planning requirements and emphasises plan coordination and program implementation. Another important addition to the state plan is a discussion of how the outcomes of the local mitigation plans will be reflected in future drafts of the state plan. Both natural and human-caused hazards are addressed.

The State of Minnesota is vulnerable to a variety of potential disasters. These hazards, both natural and human caused, threaten loss of life and property of the state. Such hazards as riverine and flash flooding, urban and wildfires, blizzards, tornado and straight line winds, earthquakes; ice storms, droughts, hazardous material spills, and nuclear, biological, or chemical releases have the potential for inflicting vast economic loss and personal hardship. Vulnerability will continue to increase as the state develops and Minnesota's population grows in the Metro area.

Hazard mitigation planning and preparedness will be the most effective instrument to diminish losses by reducing the impact of disasters upon people and property. Although mitigation efforts will not eliminate all disasters, the state shall endeavor to be prepared as much as possible for a disaster.

This All-Hazard Mitigation Plan represents the efforts of state and local agencies in fulfilling the responsibility for hazard mitigation planning. The intent of the plan is to reduce the actual threat of specific hazards by limiting the impact of damages and losses.

B. Scope

The All-Hazard Mitigation Plan evaluates and ranks the major natural, technological and domestic preparedness hazards, affecting the state of Minnesota as determined by frequency of event, economic impact, deaths and injuries. Mitigation recommendations are based on input from state and local agencies and national best practices.

C. Mitigation Definition

Hazard mitigation may be defined as any action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards. Potential types of hazard mitigation measures include the following:

- Structural hazard control or protection projects
- Retrofitting of facilities
- Acquisition and relocation of structures
- Development of mitigation standards, regulations, policies, and programs
- Public awareness and education programs
- Development or improvement of warning systems1.

[1]The emphasis of such a measure is on a total warning system; not simply the purchase of warning equipment hardware.

D. Benefits

The benefits of hazard mitigation include the following:

- Saving lives, protecting the health of the public, and reducing injuries
- Preventing or reducing property damage
- Reducing economic losses
- Minimizing social dislocation and stress
- Reducing agricultural losses
- Maintaining critical facilities in functioning order
- Protecting infrastructure from damage
- Protecting mental health
- Reducing legal liability of government and public officials.

E. Legal Basis of Plan

1. Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Public Law 106-390, October 30, 2000 (Section 322 of this statute requires that a state All-Hazard Mitigation Plan be prepared following a Presidential Disaster Declaration.). With this, the plan will conform to the 44 CFR Parts 201 and 206: Hazard Mitigation Planning and Hazard Mitigation Grant Program. The plan will be written to the standards of an Enhanced Plan as noted in part 201.5, which provides for states to receive an increased percentage of HMGP funds.

2. Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. And the Pre-Disaster Mitigation (PDM) Program was authorized by §203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (Stafford Act), 42 USC, as amended by §102 of the Disaster Mitigation Act of 2000.

3. Minnesota Statutes, Chapter 12. (Delineates Minnesota Homeland Security and Emergency Management [HSEM] responsibilities.)

4. Governor's Executive Order 04-04. (Assigns emergency responsibilities [including hazard mitigation] to state agencies.).

   HSEM has been designated as the state's coordinating agency for disaster preparedness, emergency response, and disaster recovery assistance. HSEM has statutory responsibility for coordinating the state's hazard mitigation efforts through the State Hazard Mitigation Officer (SHMO).

5. The State Hazard Mitigation Officer has the overall authority and responsibility for maintenance of the plan. The plan will be reviewed on an annual basis; and every three years it will be resubmitted to FEMA for their review as required by the federal DMA 2000 planning guidelines.

6. The State will comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44CFR 13.11(c). The State will amend its plan as necessary to reflect the changes in State or Federal laws and statutes as required in 44 CFR section 13.11(d).

7. Other relevant legislative initiatives include a result of the 1999 legislative session that required the Department of Public Safety (DPS), the Department of Finance, and Department of Administration, Local Planning Assistance to conduct a study and make recommendations for establishing a State Hazard Mitigation Program.

Land Use Controls:

There is no State of Minnesota land use plan. However, in Minnesota Statutes, there are a number of essential elements for the management of the state's resources - land and water. The state preempts local land use decisions and authority, at least to some extent by:

Shoreland Management (Minn. Statutes § 105.485) Adopted in 1969. - Established regulations classifying shoreland based upon suitability for development and a classification of lakes, streams and rivers and establishing ordinances for permissible uses.

Water Quality (Minn. Statutes § 115.03, 105.38.) Enforcing the Federal Water Pollution Control Act of 1972 - Any project or development that pollutes state waters is required to meet the standards established for the receiving water.

Flood Plain Management (Minn. Statutes § 104.01 - 104.08) - All types of development having high flood damage potential are regulated by statewide standards to be enforced by conforming county and municipal ordinance.

Power Plant Siting (Minn. Statutes § 116.55) Adopted in 1973. - State approval required.

Critical Areas (Minn. Statutes § 116G.02) Adopted in 1973. - Addressed any development that would make a material change in the use or appearance of any structure or land within areas so designated.

Environmental Policy Act (Minn. Statutes § 116D.02) Adopted in 1973. - Stipulates when Environmental Impact Statements must be prepared for various types of private and government actions.

Wild and Scenic Rivers (Minn. Statutes § 104.32) Adopted in 1973. - Classifies and regulates designated rivers and the permitted and conditional uses and types of development in each class.

Solid Waste Management (Minn. Statutes § 116F.01) - Establishes statewide standards administered through the counties.

Air Quality (Minn. Statutes § 116.01.) Enforcing the Federal Clean Air Act. - Major air polluters regulated at point-of source. Also when area air quality standards are exceeded in an area, all growth and development contributing must be addressed.

Water Resources (Minn. Statutes § 36.25 - 36.26, Chapter 702 1973 Laws sub. 1, and 105.106) Adopted in 1973. - Applied to all types of residential, agricultural, and industrial development dependent on the appropriation of water or some action related to works on public waters.

F. Plan Objectives

1. Determine the extent of existing mitigation programs and policy--capabilities.

2. Evaluate and rank all-hazards that impact Minnesota.

3. Create a detailed, working document that will establish a standardized process for ensuring coordination of recovery-related hazard mitigation efforts following a major emergency/disaster and implement an on-going, comprehensive state hazard mitigation strategy.

4. Familiarize state and local officials, and the general public about comprehensive hazard mitigation in Minnesota; obtain their support.

5. Fulfill the mitigation planning requirements found in 44 CFR parts 201.4 and 201.5, resulting in an Enhanced State Mitigation Plan; this makes the state eligible to receive increased funds under the HMGP, based on twenty percent of the total estimated eligible Stafford Act disaster assistance.

II. FOUNDATIONS OF THE STATE MITIGATION PROGRAM

A. State Mitigation Program Overview

FEMA currently has three mitigation grant programs that are administered by the State: Hazards Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation program (PDM), and the Flood Mitigation Assistance (FMA) program. Both HMGP and PDM are administered through the Department of Public Safety, Division of Homeland Security and Emergency Management; the FMA is administered by the Minnesota Department of Natural Resources.

Hazard Mitigation Grant Program (HMGP)
Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.

Hazard Mitigation Grant Program funding is only available to States following a Presidential disaster declaration. Eligible applicants are:

- State and local governments
- Indian tribes or other tribal organizations
- Certain private non-profit organization

Individual homeowners and businesses may not apply directly to the program; however a community may apply on their behalf. HMGP funds may be used to fund projects that will reduce or eliminate the losses from future disasters. Projects must provide a long-term solution to a problem, for example, elevation of a home to reduce the risk of flood damages as opposed to buying sandbags and pumps to fight the flood.

In addition, a project's potential savings must be more than the cost of implementing the project. Funds may be used to protect either public or private property or to purchase property that has been subjected to, or is in danger of, repetitive damage.

Pre-Disaster Mitigation (PDM) Program

The Pre-Disaster Mitigation (PDM) program provides technical and financial assistance to States and local governments for cost-effective pre-disaster hazard mitigation activities that complement a comprehensive mitigation program, and reduce injuries, loss of life, and damage and destruction of property. FEMA provides grants to States and Federally recognized Indian tribal governments that, in turn, provide sub-grants to local governments (to include Indian Tribal governments) for mitigation activities such as planning and the implementation of projects identified through the evaluation of natural hazards. The Pre-Disaster Mitigation (PDM) Program was authorized by §203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (Stafford Act), 42 USC, as amended by §102 of the Disaster Mitigation Act of 2000.

Funding for the program is provided through the National Pre-Disaster Mitigation Fund to assist States and local governments (to include Indian Tribal governments) in implementing cost-effective hazard mitigation activities that complement a comprehensive mitigation program. All applicants must be participating in the National Flood Insurance Program (NFIP) if they have been identified through the NFIP as having a Special Flood Hazard Area (a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) has been issued). In addition, the community must not be suspended or on probation from the NFIP.

44 CFR Part 201, Hazard Mitigation Planning establishes criteria for State and local hazard mitigation planning authorized by §322 of the Stafford Act, as amended by §104 of the DMA. After November 1, 2003, local governments and Indian Tribal governments applying for PDM funds through the States will have to have an approved local mitigation plan prior to the approval of local mitigation project grants. States will also be required to have an approved Standard State mitigation plan in order to receive PDM funds for State or local mitigation projects after November 1, 2004. Therefore, the development of state and local multi-hazard mitigation plans is key to maintaining eligibility for future PDM funding.

Flood Mitigation Assistance (FMA) Program

FMA provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP). There are three types of grants available under FMA: Planning, Project, and Technical Assistance Grants.

FMA Planning Grants are available to States and communities to prepare Flood Mitigation Plans. NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project Grants. FMA Project Grants are available to states and NFIP participating communities to implement measures to reduce flood losses. Ten percent of the Project Grant is made available to states as a Technical Assistance Grant.

These funds may be used by the state to help administer the program. Communities receiving FMA Planning and Project Grants must be participating in the NFIP. A few examples of eligible FMA projects include: the elevation, acquisition, and relocation of NFIP-insured structures. Funding for the program is provided through the National Flood Insurance Fund, and FMA is funded at $20 million nationally.

States are encouraged to prioritize FMA project grant applications that include repetitive loss properties. The FY 2001 FMA emphasis encourages states and communities to address targeted repetitive loss properties identified in the Agency's Repetitive Loss Strategy. These include structures with four or more losses, and structures with 2 or more losses where cumulative payments have exceeded the property value. State and communities are also encouraged to develop Plans that address the mitigation of these target repetitive loss properties.

Community Rating System (CRS)

While not a funding source, the NFIP's Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

One of the creditable activities of the program is provision of a floodplain management plan. Criteria have been established for the development and preparation, review, public input and adoption to ensure a comprehensive plan. In addition to the planning activities, credit is also provided for such activities as public information, mapping and regulations, and flood preparedness. These activities work toward the first goal of the CRS, damage reduction.

As of October 1, 2003 there were only 3 communities participating in the CRS.

Floodplain Management Activities

Preventive activities keep flood problems from getting worse. The use and development of floodprone areas is limited through planning, land acquisition, or regulation. Preventive measures are usually administered by building, zoning, planning, and/or code enforcement offices:

- Planning and zoning
- Stormwater management
- Open space preservation
- Drainage system maintenance
- Floodplain regulations
- Dune and beach maintenance

Property protection activities are usually undertaken by property owners on a building-by- building or parcel basis. They include:

- Relocation
- Floodproofing
- Acquisition
- Sewer backup protection
- Building elevation
- Insurance

Natural resource protection activities preserve or restore natural areas or the natural functions of floodplain and watershed areas. They are usually implemented by parks, recreation, or conservation agencies or organizations:

- Wetlands protection
- Best management practices
- Erosion and sediment control

Emergency services measures are taken during a flood to minimize its impact. These measures are the responsibility of city or county emergency management staff and the owners or operators of major or critical facilities:

- Flood warning
- Critical facilities protection
- Flood response
- Health and safety maintenance

Structural projects keep floodwaters away from an area with a levee, reservoir, or other flood control measure. They are usually designed by engineers and managed or maintained by public works staff:

- Reservoirs
- Channel modifications
- Levees/floodwalls/seawalls
- Beach nourishment
- Diversions Storm sewers

Public information activities work to inform property owners, potential property owners, and visitors about hazards, ways to protect people and property from the hazards, and the natural and beneficial functions of local floodplains. They are usually implemented by a public information office:

- Map information
- Library

- Outreach projects
- Technical assistance
- Real estate disclosure
- Environmental education

Mitigation Committee Formation and Support

The Minnesota Recovers Task Force (MNRTF) was created by Executive Order. State and federal agencies meet initially after a disaster for an indefinite period of time to pool all resources for the affected area during the response and recovery periods. Applications are sent to the MNRTF for review and concurrence on project funding.

In addition to the Minnesota Recoveries Task Force, the state formed the Mitigation Advisory Committee (MAC) back in June 1999 to promote disaster resistance in Minnesota by:

- Educating the public about hazard mitigation methods
- Developing statewide mitigation partnerships
- Encouraging building code adoption & enforcement
- Encouraging responsible growth through planning & zoning
- Encouraging appropriate insurance coverage

The MAC advises DHSEM on mitigation issues, which included Project Impact. There were five Project Impact communities in Minnesota – Steele County, City of Burnsville, Washington County, City of Fridley, and Stearns/Benton Counties Partnership. The MAC reviewed all Project Impact community applications and makes a recommendation to the HSEM Director. The MAC also works with the Minnesota Project Impact Partnership, a group of statewide organizations that support the ideals of disaster resistance. The MAC reviewed the disaster study and recommended several objectives to the HSEM Director. The MAC hosted and attended workshops on GIS Applications in Emergency Management and Local Hazard Mitigation Planning. The MAC worked with two vendors on the development of a slogan-logo for statewide hazard mitigation activities. The MAC coordinated fund raising activities for development of disaster mitigation public education resources.

B. Prioritizing Local Assistance

Review of mitigation project applications—and planning applications—are conducted by the State Hazard Mitigation Officer (SHMO) and are prioritized according to FEMA and state criteria. These criteria are listed below and on the Pre-Application Ranking form that follows. These criteria focus on identifying communities *with the highest risks, repetitive loss properties, and most intense development pressures*; benefits are also identified for use in the FEMA Benefit Cost Analysis Module.

1. Measures that best fit within an overall plan for development and/or hazard mitigation in the community, disaster area, or state.

2. Measures that, if not taken, will have a severe detrimental impact on the applicant such as potential loss of life, loss of essential services, damage to critical facilities, or economic hardship on the community.
3. Measures that have the greatest potential impact on reducing future disaster losses.
4. Measures that are designed to accomplish multiple objectives, including damage reduction, environmental enhancement, and economic recovery.
5. Measures that are in accordance with any overall-hazard mitigation project priorities established by FEMA or the State of Minnesota.
6. Additional state criteria that may be considered
   a) Geographic distribution of projects
   b) Projected cost of proposed project
   c) Relative cost-effectiveness of projects
   d) Conformity of project with existing local hazard mitigation plans and land use/building regulations in the communities. Sub-grantees who do not have a plan will be required to develop a multi-hazard mitigation plan.
   e) Applicant's level of interest and demonstrated degree of commitment to hazard mitigation actions and programs.
   f) Are there any repetitive loss properties included in the project or will the project protect any repetitive loss properties

One particular criterion that is uniquely addressed through this methodology is that of *development pressures*, assuring that growth of the community does not infringe on known hazard areas—for example, in the floodplain. Item #1 and #6/d above speak to this, noting the importance of adhering to an "overall plan for development" and second, mitigation actions that conform to "…existing hazard mitigation plans, land use / building regulations." This type of detail will become even more apparent as the State reviews local mitigation plans; in the meantime, this information is gathered during the applicant process, as noted above and below, in the Pre-Applicant Ranking form below. This form prompts with questions that point toward growth issues in particular: "Does the project restore floodplains and/or wetlands?" And "Does the project have multiple objectives such as damage reduction, environmental enhancement and economic recovery?" And "Does the project promote development of recreational areas/historic areas?"

STATE OF MINNESOTA
HAZARD MITIGATION GRANT PROGRAM
FEMA-DR1569-MN

PRE-APPLICATION RANKING

APPLICANT:_____ COUNTY: _____
AMOUNT REQUESTED: $_____ SCORE: _____ RANK: _____

PROJECT TYPE	POINTS
Non-Structural Mitigation:	
Acquisition	
Residential	35
Critical Facility	35
Commercial	25
Relocation	
Residential	30
Critical Facility	30
Commercial	20
Floodproofing	
Residential	25
Critical Facility	25
Commercial	15
Planning (with implementation)	10
Development and implementation of zoning and building code ordinances, etc.	15
Educational Programs for public officials and citizens	15
Structural Mitigation:	
Storm Water Drainage Improvements	10
Detention/Retention Ponds	
Storm Sewer Improvements	
Other	
Bluff Stabilization	5
Channelization	5
Dam Improvements	5
Construction of small levees/berms	5
Erosion and sediment control	5
Other	5

Ineligible Activities: Warning Systems, Purchase of Equipment, planning without Implementation	0
Project Type Section Sub-Total (35 points possible)	
SITE VULNERABILITY	
Flood Event Frequency 5+ 4 3 2 1 0	 25 20 15 10 5 0
Does the Project involve removing structures from: Floodway Flood Fringe	 10 5
Does the project address multiple hazards?	10
Site Vulnerability Section Sub-Total (45 points possible)	
PROJECT BENEFITS	
Does the project alleviate or reduce the need for emergency services during disasters?	5
Does the project alleviate or reduce damages to improved structures?	10
Does the project have a beneficial impact on more than one community or is it multi-jurisdictional?	10
Does the project solve a problem independently or is it part of another solution with assurance that the project will be completed?	5
Is the project a long-term solution to a repetitive or imminently dangerous situation?	10
Does the project directly prevent death and injury by reducing a person's vulnerability to the hazard?	5
Does the project substantially reduce future disaster costs?	0-10
Does the project reduce the cost of repairing repetitive damages?	0-10
Does the project restore floodplains and/or wetlands?	5
Does the project have multiple objectives such as damage reduction, environmental enhancement and economic recovery?	0-10
Does the project promote economic growth and community development?	0-10

Does the project promote development of recreational areas/historic areas?	0-10
Does the project provide flood protection beyond the 100-year flood event?	10
Project Benefits Section Sub-Total (110 points possible)	
OTHER ITEMS TO CONSIDER	
Is the project in the declared area?	10
Mitigation Plan Approved Flood=5 Approved All-Hazards=10 Working on All-Hazards =5	10
Does the proposed project involve the use of innovative approaches to mitigation or mitigation measures?	5
Has the applicant submitted the project under a previous disaster?	5
Are other agencies willing to provide funds towards funding the project?	10
Is the applicant willing to put funds towards the project over and above the 12.5% local match?	10
Are there funds available to fund the entire project?	5
Is there future maintenance required on the project?	-10
Does the community participate in the CRS?	5
Other Items to Consider Section Sub-Total (60 points possible)	
TOTAL SCORE: (250 total points possible) **PROJECT RANK:**	

C. Monitoring Project Implementation

In addition to simply implementing specific strategies the state will continue to assess the way its mitigation program is achieving the goals and objectives of the plan. The Mitigation Plan is intended to serve as a guide for dealing with the impact of both current and future hazards. It is not a static document and must be modified to reflect changing conditions if it is to be an effective plan. Disasters or change in political or community views will require that the plan's goals and objectives be reevaluated.

The state will make use of the FEMA planning guide series, State and Local Mitigation Planning How-To guide: Bringing the Plan to Life. The associated worksheets of this guide will be put to use on strategy progress reporting, evaluation of the planning team, project results, revising the risk assessment, and on general plan revision itself.

Monitoring Points:

a) HSEM will serve as the grantee for project management and accountability of funds in accordance with 44 CFR Part 13. Sub-grantees (applicants) are accountable to the grantee for funds that have been awarded to them.

b) The HSEM financial management officer (FMO) will be responsible for managing the letter of credit procedures, and for placing the Section 404 funds obligated by FEMA for approved projects into a HMGP and PDM accounts at HSEM. The FMO will not obligate federal funds for a project until informed by the SHMO that FEMA has approved the project.
c) The SHMO will be responsible for initiating the completion, on behalf of the applicant, of a HMGP and PDM Sub-grant Award Agreements. The SHMO will provide the sub-grantee with a copy of the completed agreement, along with the Sub-grantee's Handbook.
d) The grantee and sub-grantee will implement a record keeping and financial system for the project. The State will keep an individual file on each project.
e) Sub-grantees will submit quarterly progress reports to the SHMO. The due dates for these reports are 15 days after the end of the fiscal quarter during the time the project is in progress. The SHMO will, in turn, submit quarterly progress reports to FEMA, as required. The final report will be a complete assessment of project accomplishment.
f) The SHMO will monitor and evaluate project accomplishment and adherence to the work schedule by utilizing the quarterly progress reports submitted by sub-grantees.
g) Sub-grantees will maintain financial records and receipts necessary to document all their expenditures relative to their projects for minimum of six years following submission of the final report and may be required to maintain them longer upon notification from the State.
h) The SHMO will review requests for partial payment, time extensions, changes in project scope, and cost overruns. The SHMO will also coordinate project closeout, with use of the following form:

PROJECT CLOSEOUT WORKSHEET

Project _____

Point of Contact _____

Criteria	Status/Finding/Date Completed	Initials & Date
STATE		
All Acquisitions Complete: # Total Parcels # Vacant Parcels		
Project Funds Expended: $ Federal $ State $ Local		
Closing Statements In		
Deed Restrictions Verified		
Project Certification Form Received		
Final Project and Admin. Payment(s) Made		
Notice of Close-Out to Region V		
FEMA		
CATEX or FONSI Received		
Benefit-Cost Analysis Documented		
Legals/Plat to GIS Closing Statements Deed Restrictions		
ADAMS/DAMAGES update and/or Deobligation		
Project Site Inspection		

Other Issues		

Scope of Work
Changes in scope of work include any work other than what was expressly identified in the project application. Changes may include, but are not limited to, a change in which properties are being acquired or a change in the number of properties being acquired or work on sites not identified in the original grant application.

A sub-grantee wishing to change the scope of work on a project must notify the SHMO in writing.

Payments
The state may issue a partial payment for a portion of FEMA's share (the "HSEM HMGP Share") of the cost of an approved hazard mitigation project to a sub-grantee. The "HSEM State Share" of the project, if any has been authorized, will not be provided until the project has been completed.

A partial payment to a sub-grantee will be based on expenditures that can be documented, ensuring that the remaining work to be completed is well within the dollar amount of the approved project.

A Cumulative Expenditure Report form is to be used to request the partial payment. The request must be submitted to the SHMO and must be accompanied by supporting documentation that substantiates the project expenditures to date.

Following the review and approval of the request and supporting documentation, the SHMO will authorize payment.

If the partial payment request is denied, the sub-grantee will be so advised, and given the reason for the denial.

If a presidential disaster declaration has been issued in Minnesota, the Federal Emergency Management Agency can—through the Hazard Mitigation Grant Program—pay for 75 percent of the cost of structural acquisition with the remaining 25 percent to be provided by the local governments. The Flood Damage Reduction (FDR) program administered by The Minnesota Department of Natural Resources, Division of Waters will pay half the local share leaving the local government unit with only a 12.5 percent share. The Minnesota Legislature created the FDR Grant Assistance Program in 1987 to provide technical and financial assistance to local government units for reducing the damaging effects of floods.

Time Limits and Extensions
As a general rule, projects must be started within 90 days of their approval by FEMA, and be completed within one year of the start date. Exceptions to these time limits may be granted for certain types of projects and/or special circumstances.

If a sub-grantee determines that it will not be able to complete its project by the date specified in the Sub-grant Award Agreement, it must immediately notify the SHMO, and request a time extension.

Cost Overruns
Sub-grantees must notify the SHMO by letter as soon as they determine their project will have a cost overrun. The letter should include the dollar amount of the overrun, the reason for the overrun, and provide appropriate justification and documentation (invoices, copies of contracts, pictures, etc.) to support the additional costs.

The SHMO will evaluate each cost overrun request, and make a determination as to whether or not it appears to be justified; if so, it may approved if the following criteria can be met:

a) No additional federal HMGP monies for the project are requested, or additional federal HMGP monies for the project are requested, and are available due a cost under run on another project.
b) The projects maintain a benefit/cost ratio of 1 or better.
c) The federal share of the project cost does not exceed 75 percent. If HSEM has approved the cost overrun, FEMA will be notified and requested to obligate the additional HMGP monies necessary for that project.
d) The full scope of work on all affected projects can still be met.
e) The amount of the change is less than 10% of the total project cost.
f) Cost overruns, which are determined by the SHMO to be justified, and deserving of approval, but which do not meet the criteria listed above may be submitted to FEMA for a determination.
g) If the FEMA Region V Regional Director approves the cost overrun request, he/she will notify the SHMO in writing, and proceed to process a supplement. However, in no case will the total amount obligated to the state exceed the funding limits set forth in Section 206.432(b) of the Final Rules for the Stafford Act.

Appeals
An applicant/sub-grantee may appeal any determination made (by either the SHMO or FEMA) related to federal assistance for a sub-grantee.

Upon receipt of an appeal, the SHMO shall review the material submitted, make additional investigations as necessary, and shall forward the appeal with a written recommendation to the FEMA Region V Regional Director within 60 days.

D. Project Completion and Closeout

When a sub-grantee has completed its hazard mitigation project, it will be responsible for completing a Project Completion Certification form. A completed certification form, along with the necessary supporting documentation, must be returned to the SHMO within 60 days of project completion.

Once the SHMO has received the Project Completion Certification form from a sub-grantee, he/she will initiate project closeout activities, including:

1. Reviewing documentation by using the Project Closeout Work Sheet to ensure that all claims and costs are eligible and in compliance with the Sub-grant Award Agreement.
2. Notifying FEMA that the project has been completed (once all project documentation has been approved). The letter to FEMA will certify that the approved work was completed, that reported costs were incurred in the performance of eligible work, and that the project is in compliance with the (applicable) FEMA/State Agreement.
3. Requesting final payment to the sub-grantee, which includes an administrative cost allowance, as stipulated in the Hazard Mitigation Sub-grant Award Agreement and any amendments to the agreement. The amount of this allowance will be in accord with Section 406(f)(1) of the Stafford Act.

Cost underruns rarely occur, but if they do and no other projects are pending to use these funds, then these funds would be returned to FEMA; again, this is a rare occurance and historically Minnesota has effectively used 99% of its funds for projects.

E. Eligibility Criteria for Mitigation Measures

To be eligible for the Hazard Mitigation Grant Program, a project must:

1. Be in conformance with the state hazard mitigation plan developed as a requirement of the DMA 2000.
2. Have a beneficial impact upon the designated disaster area, whether or not located in the designated area.
3. Be in conformance with 44 CFR Part 9, Floodplain Management and Protection of Wetlands, and 44 CFR Part 10, Environmental Considerations.
4. Solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed. Projects that merely identify or analyze hazards or problems are not eligible.
5. BE COST-EFFECTIVE AND SUBSTANTIALLY REDUCE THE RISK OF FUTURE DAMAGE, HARDSHIP, LOSS, OR SUFFERING RESULTING FROM A MAJOR DISASTER. THE SUB-GRANTEE MUST DEMONSTRATE THIS BY DOCUMENTING THAT THE PROJECT:
    a) Addresses a problem that has been repetitive or a problem that poses a significant risk if left unsolved.
    b) Will not cost more than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur. Both costs and benefits will be computed on a net present value basis.
    c) Has been determined to be the most practical, effective, and environmentally sound alternative after consideration of a range of options.

d) Contributes, to the extent practicable, to a long-term solution to the problem it is intended to address.
e) Considers long-term changes to the areas and entities it protects and has manageable future maintenance and modification requirements.

To be eligible for the Pre-Disaster Mitigation program funds:

FEMA will provide PDM grants to each of the fifty States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and American Samoa, which, in turn, may provide sub-grants to local and Indian Tribal governments.

Federally recognized Indian Tribal governments; and local governments to include State recognized Indian Tribes, authorized tribal organizations, and Alaska Native villages are eligible to apply to the Grantee for assistance. Private non-profit organizations are not eligible sub-grantee applicants; however, local governments may sponsor an application on their behalf.

All applicants must be participating in the National Flood Insurance Program (NFIP) if they have been identified through the NFIP as having a Special Flood Hazard Area (a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) has been issued). In addition, the community must not be suspended or on probation from the NFIP (except as directed by H.J. Res 2, February 20, 2003).

Mitigation planning and mitigation projects are eligible activities, including information dissemination activities regarding cost-effective mitigation technologies related to the proposed mitigation planning activity or project.

To be eligible for FEMA's Flood Mitigation Assistance (FMA) program:

An FMA project must, at a minimum, be:
Cost effective.
Cost beneficial to the National Flood Insurance Fund.
Technically feasible.
Physically located in a participating NFIP community or must reduce future flood damages in an NFIP community.

An FMA project must also conform with:
The minimum standards of the NFIP Floodplain Management Regulations.
The applicant's Flood Mitigation Plan.
All applicable laws and regulations, such as Federal and State environmental standards or local building codes

FMA is a pre-disaster grant program that rovides funding to States and communities to assist in their efforts to reduce or eliminate the risk of repetitive flood damage to buildings, and structures insurable under the National Flood insurance Program (NFIP). Planning, technical assistance and project grants are offered under this program. FMA

was created as part of the National Flood Insurance Reform Act of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the NFIP.

Cost Effectiveness of Mitigation Measures

The Stafford Act requires HMGP mitigation projects to be cost-effective, and FEMA regulations require net present value calculations to be used in determining cost-effectiveness.

Since mitigation projects are designed to reduce or eliminate future damages, cost-effectiveness evaluations of them must estimate damages, which are likely to be avoided over the entire expected life of each project.

Flood mitigation projects, particularly acquisition or elevation projects, located where a Flood Insurance Study or other reliable hydrology information is available will be evaluated using the FEMA RIVERINE FLOOD FULL DATA MODULE.

Flood mitigation projects located where detailed hydrology information is not available and many other types of small infrastructure and non-riverine projects will be evaluated using the FEMA RIVERINE LIMITED DATA MODULE.

Large, complicated projects will be evaluated by a FEMA contractor under the Hazard Mitigation Technical Assistance Program (HMTAP).

HSEM or FEMA staff will perform benefit/cost (B/C) analyses of proposed projects based on the materials described in the "Information Needs" sections below.

Cost Benefit Concepts

a) "Benefits" are expected future damages, losses, and costs that would be avoided with a project in place, discounted to present value.

b) "Costs" are the total initial construction and installation costs, long-term maintenance costs, and project management costs, discounted to present value.

c) "Present Value" is the result of a calculation to determine the time value of money. Dollars expected to be received in the future have a present value that is less than dollars available now. Present value is calculated by use of a discount rate of 7% (current rate established by Federal OMB). This "discounting" calculation may be thought of as the reverse of an "interest" calculation.

d) "B/C Ratio" is the sum of yearly benefits over the life of the project, discounted to present value, divided by total costs, also discounted. If the ratio is > 1.0, the project is cost-effective (benefits exceed costs).

Post-disaster Assessment Strategy

Following a disaster, it will be important to evaluate the impact of previous mitigation methods, or conversely, the impact on the structures that did not receive recommended mitigation measures. This follow-up evaluation will document the actual value and effectiveness of mitigation activities.

One method to accomplish this activity is to determine the actual cost avoidance accomplished as a result of previous mitigation measures.

First, a review will be conducted following a disaster to determine whether or not there were any previous mitigation actions taken in the effected area. For example, these actions could have been an acquisition/demolition, flood proofing or elevation, storm shelters, reinforcement of structures, or other structural measures designed to protect property. During this review, it should also be determined whether there were any projects that were proposed but not accepted by a property owner.

If any mitigation actions had been accomplished an estimate will be prepared for damage that would have occurred as a result of the latest disaster to each structure impacted by the mitigation activity. For flooding for instance this could involve an individual structure in the case of an acquisition/demolition, elevation, or structures protected by a structural measure of some nature.

For properties that were subject to proposed mitigation actions that were not accepted or accomplished, damage loss figures would be assembled to enable comparison with estimated losses if the activity had been accomplished.

The Minnesota Department of Public Safety, Division of Emergency Management, compiled a report on Minnesota Mitigation Success Stories in September 2001. This report included success stories regarding flooding, winter storms and creating disaster resistant manufactured home communities. This report and several other Minnesota success stories is available on the Region V website.

A success story regarding Minnesota's living snow fences was published in the January-February 1999 edition of the Minnesota Conservation Volunteer.

Several other Minnesota success stories have been documented in publications of the Association of State Floodplain Managers. These are available online at their website www.floods.org

F. Program Management Capabilities

It is the State's goal to meet FEMA's 12-month application deadline each and every time by submitting complete applications, benefit-cost analyses, and records of environmental reviews. If there are extenuating circumstances and the 12-month deadline will be missed, the State will file for a 90-day extension on the deadline.

The State will perform and complete both the benefit-cost analyses and the records of environmental to the best of it capability. The benefit-cost analyses will include all

supporting documentation such as Flood Insurance Rate Maps, Flood Insurance Studies and all documentation of damage turned in by the local communities. Records of Environmental (RER) will be turned in with the appropriate state and federal correspondence letters, topographic maps with project site(s) labeled, pictures of the project site and any other information needed for a complete RER.

In keeping with the requirements contained in both the completed Sub-grant Award Agreement and the Sub-grantee's Handbook, the grantee and sub-grantee will implement a record keeping and financial system for the project. The State will keep an individual file on each project.

Sub-grantees will submit quarterly progress reports to the SHMO. The due dates for these reports are 15 days after the end of the fiscal quarter during the time the project is in progress. The SHMO will, in turn, submit quarterly progress reports to FEMA, as required. The final report will be a complete assessment of project accomplishment.

The SHMO will monitor and evaluate project accomplishment and adherence to the work schedule by utilizing the quarterly progress reports submitted by sub-grantees. The SHMO will contact sub-grantees if such a report is not received in a timely manner. Additionally, the SHMO will promptly respond to any suggestion, in the context of the quarterly report or otherwise, that a significant problem with a project exists. Such problems will also be reported to the GAR or his/her designee as necessary. The SHMO will monitor projects continually: before, during, and after the course of a project.

Sub-grantees will maintain financial records and receipts necessary to document all their expenditures relative to their projects for minimum of six years following submission of the final report and may be required to maintain them longer upon notification from the State.

As a general rule, projects must be started within 90 days of their approval by FEMA, and be completed within one year of the start date. Exceptions to these time limits may be granted for certain types of projects and/or special circumstances.

If a sub-grantee determines that it will not be able to complete its project by the date specified in the Sub-grant Award Agreement, it must immediately notify the SHMO, and request a time extension. In its letter, the sub-grantee must explain why it will not be able to meet the completion deadline, what project work remains, and when it anticipates the project will be completed. Upon his/her review of the time extension request, the SHMO will notify the sub-grantee of the decision. Projects must be completed by the time a disaster is financially reconciled, usually 4 years after the date of the disaster or another schedule mutually agreeable to FEMA and the State.

G. *Goals of State Mitigation Program

GOAL 1.	**Maintain and enhance the Minnesota Division of Homeland Security and Emergency Management's capacity to continuously make Minnesota less vulnerable to all hazards.**

GOAL 2. Build and support local capacity and commitment to continuously become less vulnerable to natural hazards.

GOAL 3. Improve coordination and communication with other relevant entities.

GOAL 4. Increase public understanding, support, and demand for hazard mitigation.

***For complete discussion of goal setting and resulting objectives and strategies, see "Mitigation Strategy" at the end of Annex A.**

H. Mitigation Recommendations / Activities

The following are programmatic objectives and later, within Annexes A and B, there is a table outlining Goals, Objectvies and Strategies that addresses each hazard.

1. Hazard Mitigation and Risk Management

a) Integrate hazard mitigation activities in all pertinent agency programs.
b) Provide funding and technical assistance to help local governments conduct local mitigation plans.
c) Maximize the use of hazard mitigation funding to reduce the impact of future disasters. Develop a strategy for the utilization of all-hazards risk assessment.
d) Maintain collaborative and cooperative relationships with the scientific and technical communities for all-hazards.
e) Accelerate closeout of hazard mitigation claims of prior years.
f) Provide technical assistance and guidance to improve all-hazard risk assessments.
g) Improve communications with DHSEM stakeholders, legislators, and special interest groups.
h) Continue to enhance Regional capability.
i) Develop a risk-based approach to project management and grant payments.

2. Emergency Preparedness

a) Integrate Minnesota's Incident Management System (MIMS) structure into plans and operations at all levels of government in the state.
b) Enhance and coordinate mutual aid programs throughout the agency.
c) Integrate Lessons Learned from After Action Reports for disasters into documents, procedures, and processes.
d) Improve communications with DHSEM constituents, legislators, and special interest groups.
e) Continue to enhance Regional capability.
f) Ensure state agencies and allied agencies provide appropriate support to local jurisdictions.
g) Support and assist local jurisdictions and local state agencies in their planning efforts for hazardous material or radiological incidents.
h) Develop, update, and maintain the appropriate regulations for emergency management.

i) Upgrade existing equipment through the acquisition of new equipment to meet safety and liability concerns.
j) Institutionalize work plan processes throughout the agency.
k) Initiate and maintain the agency strategic planning process, including integration involving mitigation.
l) Ensure that DHSEM has a program and procedures to utilize volunteers and volunteered resources.

3. Warning

a) Increase the agency's capability to assess impending threats and issue warnings.

4.Emergency Response

b) Ensure timely response activities within DHSEM, including activation of Regional Emergency Operations Centers (REOCs) and State Operations Center (SEOC), to ensure coordination of mutual aid systems through REOC activations.
c) Ensure state agencies and other organizations provide appropriate support to local jurisdictions.
d) Ensure a smooth transition from Response to Recovery.
e) Improve communications with DHSEM constituents, legislators, and special interest groups.
f) Provide necessary equipment and resources to existing REOC's and development of alternate EOC location.

5. Recovery

a) Improve communications with DHSEM constituents, legislators, and special interest groups.
b) Provide advocacy and necessary training and information to those seeking disaster assistance.
c) Anticipate and address recovery issues with local governments, state agencies, private organizations, and the federal government in a timely and effective manner.
d) Establish programs and streamline processes to improve customer service.
e) Maintain work on current disasters.
f) Close out old disasters.

6. Administration, Information Management, and Program Support

a) Improve the agency's ability to maintain day-to-day operations during disaster response and recovery periods.
b) Streamline and standardize administrative and program procedures.
c) Identify opportunities for outsourcing and evaluate cost effectiveness.
d) Relocate Headquarters facilities to improve the agency's efficiency and safety.
e) Improve the scope, utilization, and functionality of the Minnesota's Incident Management System (MIMS), including the integration of geographic information management systems (GIS).
f) Automate Disaster Assistance Claims and Grants Processing.
g) Automate appropriate administrative procedures to facilitate budget management, reimbursements, contracts management, and inventory tracking.
h) Facilitate seamless electronic communication capabilities statewide.

i) Provide interactive internet access to DHSEM information.
j) Improve communications with DHSEM constituents, legislators, and special interest groups.
k) Continue to enhance Regional capability.
l) Improve administrative processes according to reports and recommendations from other sources.

7. Training and Exercises

a) Provide professional development training to DHSEM staff and essential emergency services training to DHSEM staff, state and local agencies, as well as other segments of the emergency management community.

b) Develop, implement, and document intra-agency training curricula for all specialized positions within the SEOC and REOC.

c) Exercise major response and recovery plans and planning guidance for Regions, other state agencies.

I. Implementation

Although most mitigation measures are implemented on a continual basis, the post-disaster period often presents special hazard mitigation opportunities. Because such mitigation opportunities may be more apparent immediately following a disaster, both public officials and the general public may be more willing to consider them, and special funding may be available to assist in their implementation.

In the event of a Presidential Disaster Declaration, one of the state's most notable mitigation activities involves the activation of the Minnesota Recovers Disaster Task Force (MRDTF). The task force is comprised of both state and federal agencies[2], and is chaired by HSEM. In the event of a Presidential Disaster Declaration, all or part of the task force is activated and normally meets on a weekly or monthly basis. The meetings facilitate a coordinated and timely distribution of state/federal post-disaster recovery/mitigation funds by establishing mutually agreed upon (project) priorities, identifying eligible projects, and mixing and maximizing available funds in order to be able to implement projects.

[2]The state and federal agencies requested to provide a representative for the Minnesota Recovers Disaster Task Force will generally include those that typically provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team and/or a damage survey team. These members include Minnesota Department of Public Safety's Homeland Security and Emergency Management, FEMA, Department of Natural Resources, Department of Trade and Economic Development, Housing Finance Agency, Pollution Control Agency, and the state Historic Preservation Office. In addition, other agencies that have applicable programs, regulations, and/or funding may be asked to provide a representative. The specific agencies selected will be determined by the nature of the disaster.

III DEVELOPING AND SUPPORTING LOCAL MITIGATION PLANNING

The Disaster Mitigation Act of 2000 required that state and local units of government have all-hazard mitigation plans in place by November 2004 prior to receiving Hazard Mitigation Grant Program (HMGP) funds. The state responded by updating its own plan to the new standards and by conducting an extensive outreach effort to encourage local units of government to complete plans as well.

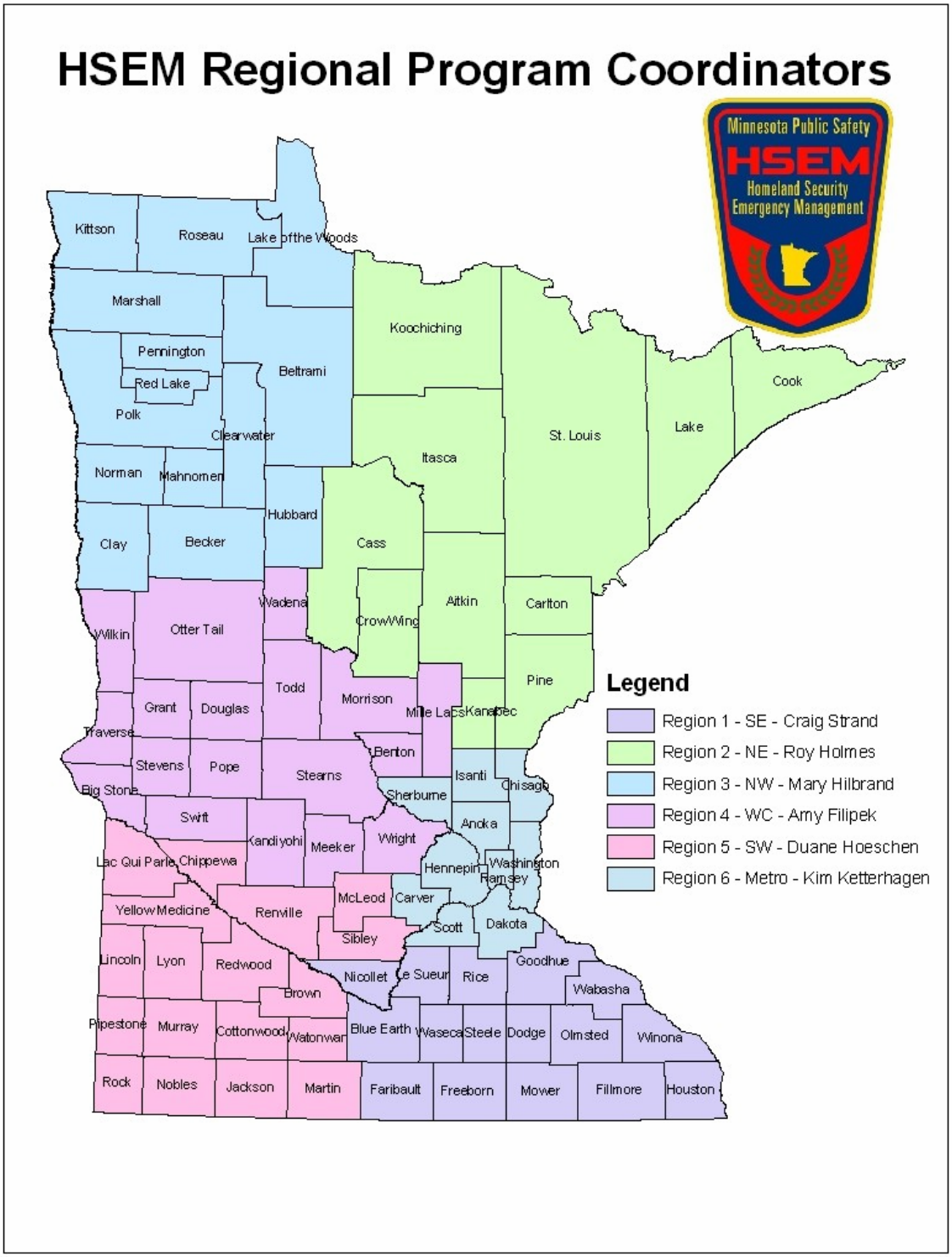
A. Outreach

State mitigation staff gave presentations at each of the six Regional Program Coordinator meetings, targeting the county emergency managers in attendance. The benefits of mitigation planning were presented and the incentives of future eligibility of HMGP and PDM funds were explained. Similarly, presentations and handouts were used to announce the program at several conferences. The Association of Minnesota Emergency Managers annual conference was an example of such outreach.

Letters of invite were sent directly to county emergency managers, planners, and tribal government leaders—inviting them to take advantage of current funding to complete an All-Hazard Mitigation Plan. Letters were sent on four separate occasions, one for each time funding became available under the PDM FY ’02, ‘03 and HMGP DR-1370; 1419 program funds.

Continued outreach was conducted during mitigation planning workshops and forums; attendees were encouraged to partake in the planning process.

State HSEM Staff—Regional Program Coordinators—were also instrumental in coordinating mitigation planning efforts. See map of Coordinators by region on following page.



B. Prioritizing Applicants

The outreach strategies used resulted in a large response from interested communities from across the state. Funding was available in four different intervals so those

candidates that met the selection criteria best were chosen first; then, those applicants that needed time to gather more resources were considered next.

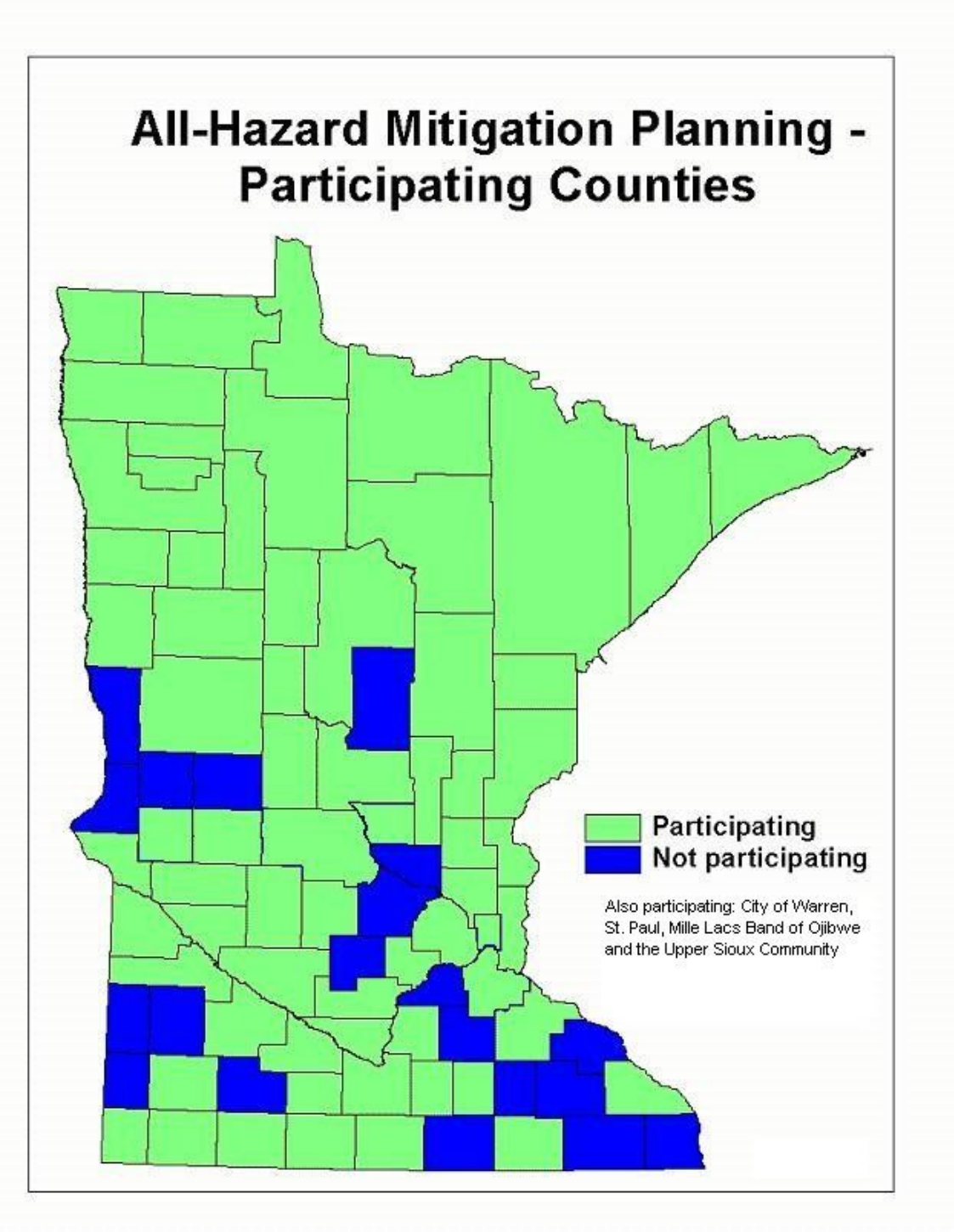
The state prioritized applicants based on statewide representation, proneness to hazards, and commitment and ability based on existing planning resources in the community (water plans, comp plans, etc.) and the availability of trained staff. The state's selection resulted in a wide geographic representation, inclusive of both large and small communities and a variety of hazard types. The state has identified and made planning funds (HMGP and PDM) available for 61 counties, one city, and one tribal government:

C. Local Plan Development Schedule

County / Planning Project	Grant Source	Final Plans Due
Cook County	PDM FY02	26-Mar-05
St. Louis County	PDM FY02	26-Mar-05
Lake County	PDM FY02	26-Mar-05
Beltrami County	PDM FY02	26-Mar-05
Hubbard County	PDM FY02	26-Mar-05
Clearwater County	PDM FY02	26-Mar-05
Nobles County	PDM FY02	26-Mar-05
Redwood County	PDM FY02	26-Mar-05
Murray County	PDM FY02	26-Mar-05
Todd County	PDM FY02	26-Mar-05
Goodhue County	PDM FY02	26-Mar-05
Carver County	PDM FY02	26-Mar-05
City of St. Paul	PDM FY02	26-Mar-05
Hennepin County	PDM FY02	26-Mar-04
Koochiching County	HMGP DR-1370	1-Nov-04
Itasca County	HMGP DR-1370	1-Nov-04
Aitkin County	HMGP DR-1370	1-Nov-04
Carlton County	HMGP DR-1370	1-Nov-04
Mower County	HMGP DR-1370	1-Nov-04
Winona County	HMGP DR-1370	1-Nov-04
Big Stone County	HMGP DR-1370	1-Nov-04
Chippewa County	HMGP DR-1370	1-Nov-04

County / Planning Project	Grant Source	Final Plans Due
Lac qui Parle County	HMGP DR-1370	1-Nov-04
Yellow Medicine County	HMGP DR-1370	1-Nov-04
Mahnomen County	HMGP DR-1370	1-Nov-04
Lake of the Woods County	HMGP DR-1370	1-Nov-04
Isanti County	HMGP DR-1370	1-Nov-04
Polk County	HMGP DR-1370	1-Nov-04
Kittson County	HMGP DR-1370	1-Nov-04
Marshall County	HMGP DR-1370	1-Nov-04
Roseau County	HMGP DR-1370	1-Nov-04
Blue Earth County	HMGP DR-1370	1-Nov-04
Sibley County	HMGP DR-1370	1-Nov-04
LeSueur County	HMGP DR-1370	1-Nov-04
Chisago County	HMGP DR-1419	1-Nov-05
Kanabec County	HMGP DR-1419	1-Nov-05
Mille Lacs County	HMGP DR-1419	1-Nov-05
Norman County	HMGP DR-1419	1-Nov-05
Pennington County	HMGP DR-1419	1-Nov-05
Red Lake County	HMGP DR-1419	1-Nov-05
Pope County	HMGP DR-1419	1-Nov-05
Meeker County	HMGP DR-1419	1-Nov-05
Kandiyohi County	HMGP DR-1419	1-Nov-05
Renville County	HMGP DR-1419	1-Nov-05
Anoka County	HMGP DR-1419	1-Nov-05
Mille Lacs Band of Ojibwe	HMGP DR-1419	1-Nov-05
Otter Tail County	HMGP DR-1419	1-Nov-05
Clay County	HMGP DR-1419	1-Nov-05

County / Planning Project	Grant Source	Final Plans Due
Rock County	HMGP DR-1419	1-Nov-05
Jackson County	HMGP DR-1419	1-Nov-05
Swift County	HMGP DR-1419	1-Nov-05
Becker County	HMGP DR-1419	1-Nov-05
Pine County	PDM FY03	1-Jun-05
Washington County	PDM FY03	1-Jun-05
Waseca County	PDM FY03	1-Jun-05
Nicollet County	PDM FY03	1-Jun-05
Brown County	PDM FY03	1-Jun-05
Watonwan County	PDM FY03	1-Jun-05
Martin County	PDM FY03	1-Jun-05
Faribault County	PDM FY03	1-Jun-05
Cass County	PDM FY03	1-Jun-05
Wadena County	PDM FY03	1-Jun-05
Morrison County	PDM FY03	1-Jun-05
*Newly added counties: Stevens, Stearns, Benton, Ramsey, Dakota and Steele; and city of Warren	Various Sources	2005



The state's goal is to ultimately have the entire state covered with hazard mitigation plans by the end of 2006; currently, 77% of the counties and their local units of government are working on all-hazard mitigation plans. The state will continue to work with the 20 counties that remain, particularly those counties that have been significantly impacted by past disasters. However, the willingness and ability to conduct a plan ultimately resides with a given community; at this time, not all communities are prepared to commit to the planning process.

D. Funding

The state made use of two FEMA funding sources for developing all-hazard mitigation plans: Pre-Disaster Mitigation (PDM) program and the Hazard Mitigation Grant Program (HMGP). HMGP funds become available with Presidential Disaster Declarations—DR 1370 and DR 1419. Both programs require a 25% non-federal match of which the local governments themselves must cover. Federal funds made available for planning thus far include:

- PDM FY 2002: $366,375 federal share
- PDM FY 2003: $248,361 federal share
- DR 1370: $393,779 federal share
- DR 1419: $410,181 federal share

The approach used was to fund county-level, multijurisdictional plans; this regional approach covers all local jurisdictions within the county. The plans were funded at an average of $22,500—federal share—per plan. This figure assumed a total planning project cost of $30,000. This figure was based on the average cost of conducting a county comprehensive plan.

The state recognized an approach that would expand the usefulness of available resources: to work with Regional Development Commissions (RDC) on conducting county-level plans for the regions they serve. These organizations are planning entities that work with several counties in a particular region. They serve most areas across the state and are currently working with 51 counties. Another ten counties have chosen to work with private consultants or to work independently on their own plan.

The benefits of using these existing, established regional planning organizations are:

- Serves larger number of counties and more cost-effectively
- Provides greater chance of jurisdictions meeting the FEMA deadline
- Covers large geographic area
- Brings plan components together through better networking and staffing
- Helps eliminate duplication of efforts by neighboring counties

E. Technical Assistance

DHSEM made use of $135,000 of PDM funds to form an interagency agreement with the Local Planning Assistance Center of the Department of Administration, to provide support in the following areas:

- Developing a prototype local hazard mitigation plan
- Assisting counties in plan development and maintenance
- Providing GIS maps, tables and text necessary to describe the community and assess risks

- Providing GIS software and data to participating local communities: Environmental Planning Programming Language (EPPL) and EPpl Interface Consortium (EPIC)
- Compiling statewide datasets
- Providing training opportunities through workshops and forums

This interagency agreement has allowed the state to gather and present planning resources more quickly and to provide local planning projects with data and technical assistance in a more efficient and comprehensive manor. One of the main products produced from this effort was a prototype mitigation plan—known as the Careful County All-Hazard Mitigation Plan—that will be used by current and future planning projects.

F. Local Capability Assessment

The following is a brief discussion of the state's local capabilities; a more complete analysis will be conducted once a significant number of plans become available. These plans will soon reveal a comprehensive view of the local hazards, strategies to address these hazards, and the capabilities needed to implement the strategies. Action 1.1.3.5 addresses the review of local plans to obtain the information to compile a more detailed local capability assessment and conduct an analysis of the effectiveness of local mitigation policies, programs, and capabilities.

An initial survey of county emergency managers was conducted in January 2003 in an attempt to reveal some basic capabilities—see Annex E, All-Hazard Mitigation Survey. This inquiry prompted communities to start thinking about its mitigation program. The survey found that staffing, training, funding, communications, and general support for conducting a hazard mitigation plan were just some of the concerns.

Since a lack of staffing was a main concern, this obviously reveals that mitigation planning needs and resulting projects themselves, will suffer as a result. Training of staff was also noted as a need. Particularly in light of limited staffing, such training is crucial in enabling existing staff to better handle given and increasing workloads—the use of volunteers could further bridge this gap.

Of course funding was found to be a primary concern—needed to support staffing, training, planning and mitigation project implementation. Fortunately most of the counties in Minnesota have received grants to complete mitigation plans; and with this, continued eligibility of HMGP and PDM funds will assist communities in completing mitigation projects. Local financing of mitigation projects can also come from within the community, during the course of normal operations—for example when completing capital improvement projects.

To maintain a strong level of mitigation capability, elected local officials and governing bodies must assure that resources are made available to commit to previously adopted long-term mitigation actions. Partnerships and memorandums of agreement (MOA) can help ease the financial burden to any one agency; here, cooperative input is given by each

participating entity, where human, technical, and financial resources are voluntarily shared.

Local governments have policies, programs and capabilities designed to mitigate, or assist in the mitigation of, impacts of hazard events on communities. The level of interest and ability to do such things is varied by community; again, this will be revealed through the development of local plans.

Local governments are given the freedom to plan for their physical environment—in addition to its social and economical functions—via a statewide Planning Enabling Act; similar freedoms are given by the state for local governments to conduct zoning; however, not all communities choose to conduct such a process due to political or economic reasons. For those that do, a wealth of information can be derived that will help communities visualize their land use practices and relate this to mitigation opportunities. Again, this level of detail will be more apparent once local plans become available.

The state has continually provided guidance and technical support to the local mitigation plans and has encouraged the sharing of information both between local planning projects and with the state. This state-local information sharing will make it easier to gather insights once the plans are completed.

Albeit the State of Minnesota has no comprehensive land use plan, the state is instrumental in many land use management aspects that aid mitigation efforts, either directly or indirectly.

Since these controls are ultimately implemented at the local level, then in essence they are in fact local capabilities. Minnesota Statutes contain a number of essential elements for the management of the state's resources –including land and water. The state preempts local land use decisions and authority, at least to some extent by:

Shoreland Management (Minn. Statutes § 105.485) Adopted in 1969. - Established regulations classifying shoreland based upon suitability for development and a classification of lakes, streams and rivers and establishing ordinances for permissible uses.

Water Quality (Minn. Statutes § 115.03, 105.38.) Enforcing the Federal Water Pollution Control Act of 1972 - Any project or development that pollutes state waters is required to meet the standards established for the receiving water.

Flood Plain Management (Minn. Statutes § 104.01 - 104.08) - All types of development having high flood damage potential are regulated by statewide standards to be enforced by conforming county and municipal ordinance.

Power Plant Siting (Minn. Statutes § 116.55) Adopted in 1973. - State approval required.

Critical Areas (Minn. Statutes § 116G.02) Adopted in 1973. - Addressed any development that would make a material change in the use or appearance of any structure or land within areas so designated.

Environmental Policy Act (Minn. Statutes § 116D.02) Adopted in 1973. - Stipulates when Environmental Impact Statements must be prepared for various types of private and government actions.

Wild and Scenic Rivers (Minn. Statutes § 104.32) Adopted in 1973. - Classifies and regulates designated rivers and the permitted and conditional uses and types of development in each class.

Solid Waste Management (Minn. Statutes § 116F.01) - Establishes statewide standards administered through the counties.

Air Quality (Minn. Statutes § 116.01.) Enforcing the Federal Clean Air Act. - Major air polluters regulated at point-of source. Also when area air quality standards are exceeded in an area, all growth and development contributing must be addressed.

Water Resources (Minn. Statutes § 36.25 - 36.26, Chapter 702 1973 Laws sub. 1, and 105.106) Adopted in 1973. - Applied to all types of residential, agricultural, and industrial development dependent on the appropriation of water or some action related to works on public waters.

An obvious choice for local communities to enhance their capabilities would be to adopt the State's building code: The Minnesota Department of Administration, Building Codes and Standards Division administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75); this outlines the construction standards to assure the health, safety, comfort and security of building occupants. One important planning document that comes out of this office is the Disaster Preparedness Manual, A Guidebook for Minnesota Building Officials produced by the Disaster Mitigation Committee of the North Star Chapter. Included in this document are creative mitigation measures that surround building code enforcement.

Unfortunately, not all counties choose to adopt the state's building code. However, the incorporated communities in Minnesota have the option to adopt the state's building code and most have chosen to do so. Insurance companies do take note of communities that do have an adopted and enforced building code and make insurance rate adjustments accordingly.

IV. PLANNING PROCESS

The actual measures taken to update the state plan will be emphasized here along with a general outline of what a mitigation planning process should include. A local planning process may differ slightly from that of the state's plan; however, the same plan content areas and risks will equally be addressed in the local plans.

The mitigation planning process allows us to identify where we are today, what we want the future to be and how we plan to get there—all in terms of protecting lives and property from potential disasters.

The following are the basic mitigation planning components:

Getting started
Commit to meeting the planning requirements of the federal DMA 2000
Marshall resources
Develop a public participation plan
Ensure governmental coordination

Assess risks
Identify and define hazards
Hazard profile (history)
Assess risk to communities and assets
Note what is currently being done to address hazards
Note the shortfalls and gaps
Estimate potential losses

Developing goals and strategies
Set goals
Identify alternative strategies
Evaluate alternatives
Select preferred strategies
Set priorities

Implementing the plan
Plan Adoption
Implement policy through administrative actions and programs
Monitor plan progress
Update plan as needed

Getting Started
The state had recognized the benefits of meeting the requirements set out in the Disaster Mitigation Act of 2000 (DMA 2000) and made the commitment to conduct an Enhanced All-Hazard Mitigation Plan. The Act amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act by adding section 322 - Mitigation Planning. One of the benefits of completing an enhanced, rather than a standard plan, is that an enhanced plan provides access to an increased level of mitigation funds—20 percent of HMGP.

This enhanced plan places an emphasis on plan coordination, and provides a broad look at mitigation activities among state, federal and local entities. This approach is hoped to lead to partnerships between these entities and promote a sense of awareness of mitigation possibilities.

Plan Coordination

A committee was formed to address the plan update, known as the State Hazard Mitigation Plan Review Team. Members of this committee were chosen from an exiting body, known as the Minnesota Recovers Disaster Task Force. Additional members were invited from outside this group, along with an extended invite given to the general public via a press release and posting on the state's web page. Not all members or extended parties were required to physically attend meetings: flexibility was given to allow input via telephone or e-mail correspondence.

Members of this group were invited from the following areas: State Division of Emergency Management Regional Coordinators, State Departments of Natural Resources, Minnesota Department of Health, Fire Marshall Office, Codes Department, Agriculture, Transportation, Trade and Economic Development, the Pollution Control Agency and the Historical Society. Federal agencies included the U.S. Department of Agriculture, Army Corps of Engineers, Housing and Urban Development, USDA Natural Resource Conservation Service, Occupational Safety & Health Administration and US Coast Guard. Associations included the Minnesota Association of Counties, League of Minnesota Cities, Business continuity Planners Association, and Minnesota Association of Townships. Others included Regional Development Commissions, Tribes, Insurance groups, Universities, County Emergency Managers, City Emergency Managers, County Planners, Board of Water and Soil Resources, Minneapolis St. Paul Airport, and the general public.

A series of three meetings were set for the review team. These meetings surrounded the updating of the plan itself: an initial meeting to communicate the level of input needed from the participants, a second meeting to incorporate initial findings, and a final meeting to bring together the plan components and for a discussion on the adoption and implementation process.

Meeting One:

- Overview of the state's hazard mitigation planning process and the role of local, state and federal agencies in this process.
- Identification of state agency plans, programs and policies that may be impacted by or have an impact on the state plan
- Assigned review tasks that focused on the capabilities assessment and updates to this or other portions of the plan.

Meeting Two:

- Finalized discussion of state programs and policies that might be affected by the state plan.
- Discussed draft changes to the state hazard mitigation plan.
- Assigned review tasks that focused on updating the Recommendations section
- Discussed review process, including public review and public participation strategies.

Meeting Three:

- Discussed review comments received and showed how comments had been incorporated into the final plan.
- Noted plan adoption process
- Discussed implementation and monitoring strategies including further state coordination.

Minnesota Recovers Disaster Task Force Member List

First Name	Last Name	Agency
John B.	Arnold III	U.S. Dept. of Commerce, Economic Development Administration
Britta	Bloomberg	Historical Society
John	Brach	USDA-Natural Resources and Conservation Service
Ruth	Drolsum	U.S. Dept. of Housing and Urban Development
Robert	Einweck	Department of Health
Chris	Eng	Dept. of Trade and Economic Development, Community Finance
Ed	Fick	Department of Natural Resources, Division of Waters
Kit	Hadley	Housing Finance Agency
Alan	Joles	U.S. Dept. of Housing and Urban Development
Jeanne	Kern	FEMA
Greg	Larson	Board of Water and Soil Resources
Tom	Lutgen	Department of Natural Resources, Division of Waters
Lois	Mack	Department of Public Service
Theresa	Mish	Division of Emergency Management
Glenn	Olson	Department of Human Services
Olin	Phillips	Department of Natural Resources, Division of Forestry
Steve	Prestin	Division of Emergency Management
Terri	Smith	Division of Emergency Management
Mary	Somnis	IRRRB
John	Stine	Department of Natural Resources, Division of Waters
James P.	Thomas	U.S. Forest Service
Randy	Thorson	Pollution Control Agency
Colleen	Tollefson	Department of Trade and Economic Development, Tourism
Susan	Ude	Division of Emergency Management

Inclusive Planning Process

Members of the committee were asked to share information not only within their own agency but with other agencies as well. A brainstorming session was held to identify outreach methods. Talk surrounded the development of a press release and distributing this piece to multiple sources via association newsletters, informational booths at conferences, and even at the State Fair where the State Department of Public Safety holds a variety of displays on public safety issues within one building.

All potential committee members were solicited to participate via an open invitation process. The purpose and focus of the committee was indicated on the meeting notices, and agendas were sent in advance. A draft plan was sent to all those who expressed a desire to participate, along with instructions on what the initial review would include: investigation of the existing capabilities of all agencies and a look at the recommendations to see if any have been put into use since the last plan update.

The comments received were addressed and discussed at the second committee meeting. Suggestions that the committee felt pertinent were then incorporated into the draft plan.

The committee evaluated mitigation activities of various agencies and attempted to identify areas of mutual interest. They also suggested strategies to improve the overall cooperation and coordination among local, state and federal agencies. The results of such efforts can be seen in the plan's Recommendations and Capabilities sections.

Public participation
Since this document is a revision of an existing state plan it is worthy to note that a thorough public participation process was already conducted: citizen input on identifying goals, policies, solutions, and mitigation strategies for the range of identified hazards. The state has since conducted additional public outreach for purposes of this update.

Public participation assures ongoing support of the plan and allows for the public to see what the plan will look like before it is put into use. This process also adds new talents and ideas to the review team's efforts. Public participation techniques include:

Identify who should participate
General public
Special interest groups
Education
Environmental organizations

Identify methods or techniques to involve the public
Internet
Meeting notices and agendas
Meeting summaries

Identify ways to educate and distribute information
Announcements in newsletters on the ongoing planning process
Newspapers
Website

Plan for continuing public participation during plan implementation
Continue yearly meetings of review committee

The state chose public participation methods that were effective and timely. The intent was to gain the public's viewpoint on various plan components—understandably, the focus was on perceived risks and relevant mitigation strategies that can be used to lesson their impact.

A press release was used to reach the broadest audience. This piece was distributed statewide in a variety of publications and directed persons on where they could view the plan and make comment:

FOR IMMEDIATE RELEASE

STATE PUBLIC SAFETY OFFICIALS SEEK MITIGATION PLANNING ASSISTANCE
Updated Approach to Hazard Mitigation Will Include Citizen Input

ST. PAUL — Hazard mitigation is a little like wearing a seat belt; the potential for disaster is there, so the smart thing to do is reduce the possibility of severe damage. Floodplain regulations and building codes are two examples of mitigation — ways in which government attempts to protect lives and property.

State officials are currently updating Minnesota's hazard mitigation plan, and they want input from state residents who have a stake in its effectiveness. In particular, they are interested in creative ideas to improve mitigation and enhance collaboration among the agencies involved. Some of these include the U.S. Army Corps of Engineers, the Minnesota Department of Natural Resources, U.S. Department of Agriculture, and the Minnesota Department of Administration.

"We have representatives from federal, state and local agencies working on this issue, says Jerry Rosendahl, acting director of the Minnesota Department of Public Safety Division of Homeland Security and Emergency Management. "We need input from citizens who know about specific risks in their part of the state and want to help in the process of mitigating potential damage."

The plan will be finalized by November 1. Public input is welcome through September 12. To view a copy of Minnesota's hazard mitigation plan, or to learn about the process, visit the DHSEM Web site at http://www.hsem.state.mn.us/. Citizens may contact Roy Murphy, Hazard Mitigation Planner, at 651-296-2007, or their local emergency manager to inquire about input procedures.
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Although this action resulted in only a handful of direct responses, it placed the idea of hazard mitigation in the minds of the public—where the final decision rests with how and

when mitigation measures will be developed. Calls came in from homeowners concerned about flooding and landslides; and a few students from universities called to learn more about the state's efforts and to look for potential study topics on mitigation.

Public outreach opportunities came during various forums, workshops, conferences, and even during the State Fair: informative flyers were either made available at booths or distributed to workshop participants. Staff were on hand to explain the state's mitigation program and state planning objectives. Examples include flyers in a booth at the League of Minnesota Cities annual conference; Association of Minnesota Emergency Managers (AMEM) presentation on the program; HSEM Regional Program Coordinator's quarterly meeting announcements; statewide workshops on mitigation planning directed at county planners and emergency managers; and inclusion in the Minnesota Association of Townships newsletter and conference presentation.

Additional outreach opportunities were taken during the state's work with the local mitigation plan development process. These projects were told to solicit input to the state plan during their public outreach efforts and during their work group meetings.

The state plan will soon incorporate the findings of the local mitigation plans once they become available; since these plans included a strong public participation component, so to the state plan will reflect this local voice.

Integrated Planning Efforts

Isolated planning efforts can result in redundancies and lost opportunities, not to mention the loss of valuable financial resources. This is why it is important to identify possible areas of overlap between agencies and groups that work directly or indirectly with mitigation. This recognition process can result in partnerships or at the very least, can lay the foundation for ideas to be shared.

The state chose the traditional framework of bringing all ideas to one table through the formation of a working group. Public participation, as part of the mitigation planning process, was also a catalyst to making multiple connections.

The State Hazard Mitigation Plan Review Team and the Minnesota Recovers Task Force (MNRTF) are two examples of multi-agency work groups that share ideas on mitigation. The MNRTF helps get funds and assistance directly to those areas most affected by a recent disaster. This approach is an example of how funds, ideas and resources can cross agency and political boundaries to accomplish mitigation actions.

Another planning link can be seen with the Minnesota Department of Administration, Building Codes and Standards Division who administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75) that sets construction standards to assure the health, safety, comfort and security of building occupants. One important planning document that comes out of this office is the Disaster Preparedness Manual, A Guidebook for Minnesota Building Officials produced by the Disaster Mitigation Committee of the North Star Chapter. Included in this document are creative mitigation measures that surround building code enforcement.

Unfortunately, not all counties have chosen to adopt the state's building code. However, the incorporated communities in Minnesota have the option to adopt the state's building code and most have chosen to do so. Insurance companies do take note of communities that do have an adopted and enforced building code and make insurance rate adjustments accordingly.

Every opportunity is taken by the state to coordinate mitigation ideals with other program processes or initiatives. Such an opportunity came with the recent State Homeland Security Assessment and Strategy initiative that is designed to get communities to assess their risk to possible terrorist threats. A key component of this effort is an online risk assessment tool. The state saw an opportunity here to ask those communities that are not currently conducting a mitigation plan to use the outcome from such an assessment to apply to a mitigation plan in the future. Even though this risk assessment only focused on one hazard—terrorism—communities could conduct a natural hazards risk assessment at the same time they conduct the terrorism risk assessment. Twenty-six counties were solicited to conduct such a process.

The State Emergency Operations plan is an obvious planning document that shares a similar interest with the State All-Hazard Mitigation Plan. Here, short-term recovery decision-making associated with emergency operations, can lead to implementing mitigation strategies aimed at reducing long-term risk to human life and property.

Another good example of an integrated planning effort is with the Minnesota Incident Command System (MNICS), where Minnesota cooperates with federal agencies such as the U.S. Department of Agriculture (USDA) Forest Service, National Park Service, Bureau of Indian Affairs and the U.S. Fish and Wildlife Service; and state agencies such as the Minnesota Department of Natural Resources and the Department of Public Safety, Division of Homeland Security and Emergency Management.

The primary mission of this group is to share resources to fight wildfires. The scope has recently broadened to include all-hazards. The sharing of federal and state resources has lowered the cost and increased the efficiency of incident response.

MINICS has a prevention working team that works on identify mitigation projects; Fire Wise is one of the programs that this team supports. The resulting mitigation projects, when implemented, work to enhance public awareness and provide tools for individuals to prepare for catastrophic incidents.

In terms of water conservation the State Department of Natural Resources (DNR) implements a state statute, M.S. 103G.261, that defines water use priorities for use when water supplies are limited. Similarly, M.S. 103G.291 has several subdivisions related to public water suppliers. For example, Subp.3 requires public water suppliers serving more than 1,000 people to have a "water emergency and conservation plan" approved by the DNR. Approximately 320 plans have been submitted. DNR has guidelines for developing plans and other materials that identify methods for reducing water use. Plans must include local water allocation priorities consistent with the priorities in M.S. 103G.261

along with triggers for implementing measures to reduce s for protection of higher priority essential water uses. Communities applying for projects under the State Drinking Water Revolving Fund must have and implement a DNR approved water emergency and conservation plan.

One of the most recent actions the state is considering to lesson the potential impacts from flooding can be seen in an Excerpt from the Oct. 13th 2003 Minnesota Governor Press Release:

> **"MN Proposes 42,500 Red River Acres for CREP"**
> Minnesota's Governor Tim Pawlenty today proposed a quarter billion dollar initiative to set aside 100,000 acres of land near environmentally sensitive waterways. The Governor's proposal, the centerpiece of his clean water initiative unveiled in June, would expand the Conservation Reserve Enhancement Program (CREP) in Minnesota to dramatically reduce runoff into the state's rivers, streams, wetlands and groundwater.
>
> The proposal — which will be submitted to U.S. Secretary of Agriculture Ann M. Veneman this week — focuses on restoring 42,500 acres in the Red River Watershed in the northwest, 42,500 acres in the Lower Mississippi Watershed in the southeast and 15,000 acres in the Missouri River Watershed in southwest Minnesota. CREP is a voluntary federal-state-local program that works with farmers and ranchers to set aside marginal agricultural lands along waterways to enhance wildlife habitats, improve water quality, reduce erosion and sedimentation and reduce the impacts of recurrent flooding.
>
> Once the U.S. Department of Agriculture (USDA) has received Minnesota's proposal, the final details will be negotiated and agreed upon by both the state and the USDA. Farmers can begin voluntarily signing up to put their land in the program as early as March 2004. Landowners will have the choice of a 35-year or perpetual easement. Nearly $200 million in federal money combined with $46 million from the state will fully fund the effort. Governor Pawlenty has committed to seeking $23 million in funding for the CREP program in both the 2004 and 2006 bonding bills.

It is sometimes hard to identify such integrated efforts as outlined here for the concept of mitigation still remains an elusive topic for many. An agency may in fact be involved in activities that support mitigation but they may not readily recognize, or place a label on their actions. This is why mitigation planning and outreach is so important: to get these isolated efforts going in the same direction so that combined benefits can be realized.

There are at least two other programs that should be integrated into the State plan. These programs are the FMA and CRS.

Integration of these plans into the State plan will be encouraged through outreach and communication. Both plans contain planning elements similar to those of the State mitigation plan. Notification to all communities throughout the State would be accomplished to encourage integration and coordination of all the planning efforts. Many

of the requirements are the same, so preparation of a plan that met the strictest requirements would assure compliance with all the planning requirements. This would also provide for the most comprehensive approach in reducing damages as a result of a disaster, no matter what the source.

With such a diversity of mitigation opportunities available, it is anticipated that participation in the development of this document will aid in encouraging other agencies to incorporate mitigation measures into their planning and activities.

Through the comprehensive state agency review and approval process, a request will be made that each agency attempts to incorporate mitigation opportunities into their own programs and activities.

Plan Adoption

The state will submit the plan to the FEMA Region V office for review and approval before a formal adoption process is pursued. Once approved, the plan will be adopted via signature: director of DHSEM, Governor, state agency commissioners involved with mitigation activities, and from those with shared interests in the plan.

Once the plan has been approved it will be announced via a statewide press release and posted on the DHSEM website. This step will inform stakeholders of the plans' success and encourage the implementation of mitigation strategies in the community and it will welcome ongoing feedback on the plan.

Monitoring, Evaluating, and Updating the Plan

To accomplish the monitoring and evaluation tasks, the state will make use of the FEMA planning guide series, State and Local Mitigation Planning How-To guide: Bringing the Plan to Life. The associated worksheets of this guide will be put to use on strategy progress reporting, evaluating the planning team, evaluating project results, revising the risk assessment, and on the general plan update itself.

Public participation strategies such as website postings, press releases and outreach through conferences and workshops will continue throughout the life of the plan. Opportunities for public review will be made possible through local contacts throughout the state—via local emergency managers, planners and State Regional Program Coordinators.

The State recognizes that the Minnesota State All-Hazard Mitigation Plan is a living document and requires regular monitoring, review and evaluation. Also, the Federal hazard mitigation planning regulations require the state plan to be updated and submitted for approval to the Regional Director of FEMA every three years. Monitoring of the Plan as a whole will occur during the Plan review which will begin approximately 12 months before FEMA approval is required.

The Minnesota Recovers Task force (MNRTF) will formerly meet on a yearly basis (approximately 12 months following the initial Plan approval) to conduct a review of the plan. If political or hazard events change and dictate an earlier review, then the members

will be solicited via telephone or e-mail contact for their input to these changes. The MNRTF will:

- Review the goals and action items to determine their relevance to changing situations in the state.
- Review the Risk Assessment as necessary to incorporate current information, including updated hazard profiles and any new data on vulnerable state facilities.
- Monitor progress on mitigation actions and projects in the Plan by reviewing quarterly progress reports. The database of all local plans and local action items will be reviewed as part of the process. (Refer to Local Plan Development Tracking Process for additional information.)
- Evaluate mitigation actions and projects in the Plan by reviewing the final quarterly progress report.
- Identify implementation problems (technical, political, legal and financial) based on quarterly progress reports and input by the public and partners.
- Evaluate the effectiveness of the planning effort by using Worksheet #2: Evaluate Your Planning Team.
- Consider recommendations by the MNRTF members to increase hazard mitigation involvement by state agencies and local jurisdictions.
- Discuss changes in policies, priorities, programs and funding that alter the Plan's goals and objectives, projects and timelines.

Should the Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management (HSEM) or the MNRTF determine during the annual meeting that the Plan should be updated, a meeting will be scheduled for updating the Plan. A list of recommendations or enhancements compiled during the annual MNRTF meeting will be used to update the Plan. The State will update its plan as necessary to reflect:

- Hazards addressed in the Plan – All of the natural and technological hazards that have been identified as posing a threat to the State of Minnesota have been included in the Plan. As situations change or new information becomes available 1) the hazards currently included in the Plan will be updated and 2) new hazards identified as a threat will be added to the Plan.
- State owned structures – A State owned and other Critical Facilities Database is referenced as Annex E. This database inventories all state owned structures and will be maintained, as necessary.
- HAZUS Analysis – HAZUS, the risk assessment software program, was attempted in the first edition of the Plan. The data was skewed and did not reveal the actual risk, vulnerability or costs. HSEM will attempt to utilize HAZUS for the three-year update.
- New mitigation actions and projects – Additional actions and projects may be identified during the Plan evaluation.
- Problem identification and resolution – Recommendations developed to overcome problems (technical, political, legal and financial) may affect the mitigation strategy.
- Incorporation of Local Plan Action Items – the Action Items listing will be updated within 180 days of the date of final approval of the local hazard

mitigation plan. The Action Items section of the State plan will be updated to reflect the new local plan information. As local action items are completed based on information provided by the PDM and HMGP program coordinators and county emergency managers, the mitigation planner will compile a list and insert it into the three year update as an appendix. The local jurisdiction is required to notify the HSEM Mitigation Branch within 90 days of completion of an action item.

Review and update will involve all of the original participants in the planning process and others identified as important for the Plan update (i.e., the State Hazard Mitigation Plan Review Team (SHMPRT) comprised of the MNRTF, other State and federal agencies, various associations from the State, business and public sectors). This process will occur, as needed, or at a minimum every three years. The Plan will be resubmitted to FEMA for their review as required by the federal DMA 2000 planning guidelines.

The State Hazard Mitigation Officer (SHMO) has the overall authority and responsibility for maintenance of the plan. The updated Plan will be submitted to FEMA for review. Once FEMA has determined the Plan is approval pending adoption, the updated Plan must be submitted for approval by the Governor and the SHMPRT no later than three months after the conclusion of the plan update meeting.

Disasters provide an opportunity to evaluate the effects of the disaster, to improve resistance to the hazard, review the accuracy of hazard specific sections and to determine if the planning efforts affected damage reduction**.** In the case of a disaster declaration in the State, the Minnesota State All-Hazard Mitigation Plan can be updated if the HSEM or the MNRTF believe this necessary. A post-disaster review may replace an annual review depending upon the severity of the disaster event.

The Mitigation Branch is responsible for reviewing all Local Mitigation Plans based on the criteria established in 44 CRF 201.6 within 30 days of the arrival date and either certify or supply comments, as needed. Upon the certification or approval of the Local Mitigation Plan, the Mitigation Branch has 180 days to update the Local Hazard Assessment, Local Capability Assessment, Actions items section and the database of the Action Item Listing sections of the Minnesota State All-Hazard Mitigation Plan with the new material from the Local Mitigation Plans.

Plan Distribution

The plan, and any changes to it, will be available in an electronic format on the Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management website. Revised portions of the plan will be annotated with the date of the revision. Hard copies of the plan will be distributed to State and Federal agencies as requested and required. HSEM will maintain a distribution list for hard copies provided to such agencies to facilitate the distribution of plan revisions.

Inquiries about the plan should be directed to:
State Hazard Mitigation Officer
444 Cedar Street, Suite 223

Saint Paul, MN 55101-6223
HSEM Phone: (651) 296-2233
E-Mail: dps.hsem@state.mn.us
www.hsem.state.mn.us/

Monitoring Progress of Mitigation Activities

The State Hazard Mitigation Officer (SHMO) is responsible for the monitoring and tracking of the progress of mitigation measures. Quarterly reports are submitted by the Project Manager for all grant projects (HMGP and PDM). These reports are reviewed by the SHMO to evaluate the measurable outcomes. Information from these reports is input into a data base accessible to all participating agencies.

FEMA requires that all disasters are closed and project activity terminated within four years of a disaster declaration. The Mitigation Branch of the Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management will ensure that all grant projects are closed after all approved work has been completed or within two years of the date of project approval, whichever comes first. The SHMO will monitor all project files and fiscal issues and perform an annual site visit to ensure the community's compliance. The Project Manager is responsible for notifying the SHMO within 10 days of completion of the project. The SHMO will schedule a final site visit to review all program and fiscal records related to the project and all unspent funds being held by the community must be returned.

A programmatic and fiscal closeout ensures that all claims and costs are eligible and in compliance with the Project Application and program requirements. At the time of the closeout, all files not previously reviewed or completed will be reviewed to ensure all necessary documents are included. If a file does not contain all required documentation, the Project Manager will be required to provide the information within 30 days of closeout. When all files are complete, the SHMO prepares a spreadsheet providing the total project costs and appropriate cost shares. The Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management and community will comply with the Single Audit Act. as amended, and maintain all project documentation for a period of three years following project or disaster closeouts.

The State Mitigation Branch will monitor, review and evaluate the deadlines for each project and assess the status of the goals and activities throughout the year. Any recommendations regarding actions necessary to assure a project's completion will be reported to the SHMO. The SHMO in coordination with the Minnesota Recovers Task Force (MNRFT) is responsible for monitoring and updating the plan.

The Minnesota Department of Natural Resources (MNDNR), Waters Division administers the FMA program. MNDNR monitors and performs the closeout process in accordance with FEMA guidelines described for the HMGP and PDM programs.

Once a year as part of the Plan review, the SHMPRT will meet to review the overall progress of achieving the plan's goals. During this meeting, the group will assess:

- Project outcomes (successes/difficulties/what could have been done better) using the last Quarterly Report as the final evaluation;
- Relevance of goals to changing situations;
- New information learned from disasters, studies or reports;
- Changes in State or federal policy;
- Risk assessment updates; and
- Level of coordination among agencies in the State.

The MNRTF will meet following each major disaster to review the Plan's goals and projects. Based on the current conditions, the goals and projects will be reevaluated to determine if there is a need to modify the Plan. If necessary, the SHMO will update the Plan based on the recommendations of the MNRTF.

V. PAST DISASTERS, MITIGATION PROJECTS AND CAPABILITIES

See the Minnesota Disaster Declaration Chart on the following pages for specific information on the 35 FEMA Presidential Disaster Declarations in Minnesota from 1965-2004:

Minnesota Presidential Disaster Declarations – 1965 – 2004

Disaster Number	Counties Declared	Action Date	Disaster Description	Action Assistance
1569	Dodge, Faribault, Freeborn, Mower, Steele	10/07/2004	Severe Storms, and Flooding	PA, IA, HM
1419	Kittson, Roseau, Lake of the Woods Koochiching, Marshall, Pennington, Red Lake, Polk, Norman, Clay, Becker Mahnomen, Clearwater, Hubbard, Beltrami, Itasca, Wright, McLeod, Goodhue	6/14/2002	Floods, Severe Storms, Tornadoes	PA, IA, HM
1370	66 Counties and 4 Tribal Governments: Aitkin, Anoka, Beltrami, Becker, Benton, Big Stone, Brown, Carlton, Carver, Chippewa, Chisago, Clay, Clearwater, Crow Wing, Dakota, Dodge, Douglas, Faribault, Freeborn, Goodhue, Grant, Hennepin, Houston, Isanti, Kanabec, Kandiyohi, Kittson, Koochiching, Lac Qui Parle, Lake, Lake of the Woods, Le Sueur, Marshall, McLeod, Meeker, Mille Lacs, Morrison, Mower, Nicollet, Nobles, Norman, Olmstead, Otter Tail, Pine, Polk, Pope, Ramsey, Red Lake, Redwood, Renville, Rice, Roseau, St. Louis, Scott, Sibley, Stearns, Stevens, Swift, Todd, Traverse, Wabasha, Washington, Wilikin, Winona, Wright, Yellow Medicine and the Tribal Governments of Prairie Island, Red Lake, Upper Sioux, and White Earth	5/16/2001	Severe Winter Storms, Flooding & Tornadoes	PA, IA, HM
1333	15 Counties and 1 Tribal Government: Becker, Chippewa, Clay, Clearwater, Dakota, Dodge, Faribault, Fillmore, Freeborn, Houston, Mahnomen, Mower, Norman, Roseau, , Winona, Yellow Medicine	6/27/2000	Severe Storms, Flooding & Tornadoes	PA, IA, HM

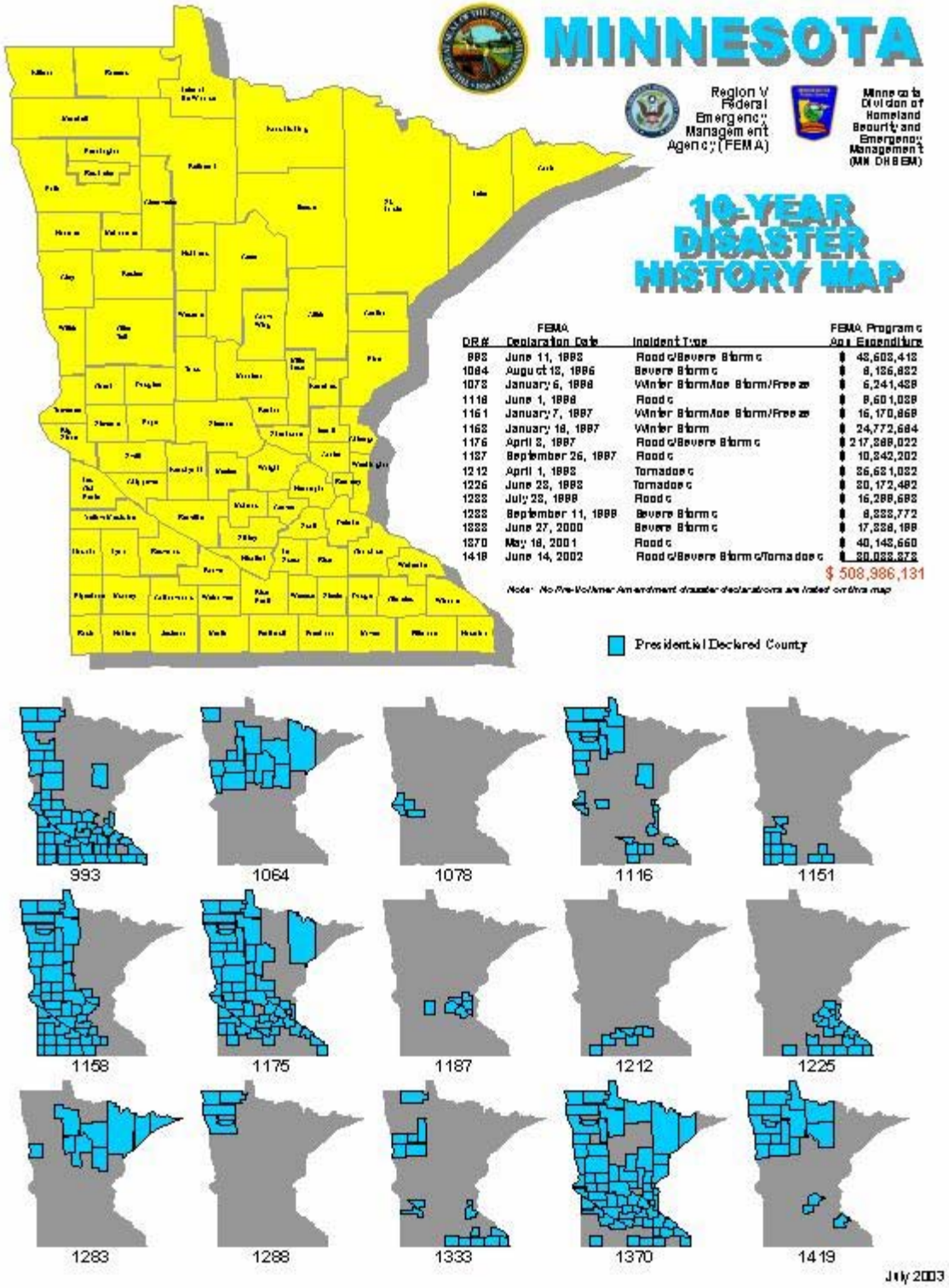
Disaster Number	Counties Declared	Action Date	Disaster Description	Action Assistance
	and the Tribal Government of White Earth			
1288	6 Counties: Kittson, Marshall, Pennington, Polk, Red Lake, Roseau	8/26/1999	Severe Ice Storms, Flooding, & Heavy Rain	PA, HM
1283	9 Counties: Aitkin, Beltrami, Cass, Clay, Cook, Hubbard, Itasca, Lake, St. Louis	7/28/1999	Severe Storms, Winds, & Flooding	PA, IA, HM
1225	19 Counties: Anoka, Blue Earth, Carver, Dakota, Faribault, Fillmore, Freeborn, Goodhue, Hennepin, Houston, Jackson, Mower, Olmsted, Ramsey, Rice, Scott, Wabasha, Washington, Winona	7/20/1998	Severe Storms, Straight Line Winds & Tornadoes	PA, HM
1212	7 Counties: Blue Earth, Brown, Cottonwood, Le Sueur, Nicollet, Nobles, Rice	4/1/1998	Severe Storms & Tornadoes	PA, IA, HM
1187	7 Counties: Anoka, Hennepin, Isanti, Kandiyohi, Ramsey, Sherburne, Wright	8/25/1997	Severe Storms, High Winds, Tornadoes, & Flooding	PA, IA, HM
1175	58 Counties: Anoka, Becker, Beltrami, Benton, Big Stone, Blue Earth, Brown, Carver, Cass, Chippewa, Clay, Clearwater, Dakota, Douglas, Goodhue, Grant, Hennepin, Houston, Hubbard, Kandiyohi, Kittson, Lac Qui Parle, Lake of the Woods, Le Sueur, Lincoln, Lyon, Mahnomen, Marshall, McLeod, Morrison, Murray, Nicollet, Norman, Otter Tail, Pennington, Polk, Pope, Ramsey, Red Lake, Redwood, Renville, Roseau, Scott, Sherburne, Sibley, St. Louis, Stearns, Stevens, Swift, Todd, Traverse, Wabasha, Wadena, Washington, Wilkin, Winona, Wright, Yellow Medicine	4/8/1997	Severe Flooding, High Winds, & Severe Storms	PA, IA, HM

Disaster Number	Counties Declared	Action Date	Disaster Description	Action Assistance
1158	40 Counties: Blue Earth, Brown, Chippewa, Clay, Clearwater, Cottonwood, Douglas, Faribault, Grant, Jackson, Kandiyohi, Kittson, Lac Qui Parle, Lincoln, Lyon, Mahnomen, Marshall, Martin, Murray, Nicollet, Nobles, Norman, Otter Tail, Pennington, Pipestone, Polk, Pope, Red Lake, Redwood, Renville, Rock, Roseau, Stevens, Swift, Traverse, Watonwan, Wilkin, Yellow Medicine.	1/16/1997	Severe Winter Storms & Blizzards Snow Emergency Declaration	PA
1151	12 Counties: Cottonwood, Faribault, Freeborn, Jackson, Lincoln, Lyon, Murray, Nobles, Pipestone, Rock, Waseca, Yellow Medicine	1/7/1997	Severe Ice Storm	PA, HM
1116	26 Counties: Aitkin, Beltrami, Big Stone, Blue Earth, Chisago, Clearwater, Clay, Dakota, Faribault, Freeborn, Kittson, Koochiching, Lake of the Woods, Marshall, Nicollet, Norman, Pennington, Polk, Pope, Red Lake, Roseau, Steele, Traverse, Wabasha, Waseca, Washington	6/1/1996	Flooding	PA, HM
1078	4 Counties: Big Stone, Stevens, Swift, Traverse	1/5/1996	High Winds, Freezing Rain, & Heavy Snow	PA, HM

Disaster Number	Counties Declared	Action Date	Disaster Description	Action Assistance
1064	15 Counties plus 1 Tribal Government: Aitkin, Becker, Beltrami, Cass, Clay, Clearwater, Crow Wing, Hubbard, Itasca, Kittson, Mahomen, Otter Tail, St. Louis, Wadena, , Wilkin, and the Tribal Government of White Earth	8/18/1995	Severe Thunderstorms, Straight Line Winds, Tornadoes, & Flooding	PA, HM
993	57 Counties: Aitkin, Becker, Big Stone, Blue Earth, Brown, Carver, Chippewa, Clay, Cottonwood, Dakota, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Grant, Houston, Jackson, Kandiyohi, Kittson, Lac Qui Parle, Le Sueur, Lincoln, Lyon, Mahnomen, Marshall, Martin, McLeod, Meeker, Mower, Murray, Nicollet, Nobles, Norman, Otter Tail, Pipestone, Polk, Pope, Ramsey, Redwood, Renville, Rice, Rock, Roseau, Scott, Sibley, Steele, Stevens, Swift, Traverse, Wabasha, Waseca, Washington, Watonwan, Winona, Wright, Yellow Medicine	6/11/1993	Severe Storms, Tornadoes & Flooding	PA, IA, HM
946	10 Counties: Chippewa, Kandiyohi, Lac Qui Parle, Lyon, Murray, Nobles, Redwood, Renville, Wright, Yellow Medicine	6/26/1992	Severe Storms, Tornadoes & Flooding	PA, IA,HM
929	12 Counties: Blue Earth, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Martin, Mower, Olmsted, Rice, Steele, Waseca	12/26/1991	Ice Storm	PA, HM
824	8 Counties: Clay, Kittson, Marshall, Norman, Pennington, Polk, Traverse, Wilkin	5/8/1989	Flooding	PA, IA,HM
797	10 Counties: Anoka, Beltrami, Carver, Dakota, Hennepin, Norman, Polk, Ramsey, Scott, Washington	8/6/1987	Severe Storms, Tornadoes & Flooding	PA, IA
582	11 Counties: Aitkin, Clay, Itasca, Kittson, Lake of the Woods, Marshall, Norman, Polk, Red Lake, Roseau, Wilkin	4/30/1979	Severe Storms & Flooding	PA, IA
560	17 Counties: Benton, Clearwater, Dakota, Dodge, Fillmore, Goodhue, Hennepin, Houston, Mahnomen, Mower, Norman, Olmsted, Polk, Ramsey, Wabasha, Washington, Winona	7/8/1978	Severe Storms, Flooding, Hail & Tornadoes	PA, IA
555	10 Counties: Becker, Clay, Kittson, Marshall, Norman, Pennington, Polk, Red Lake, Traverse, Wilkin	4/22/1978	Storms, Ice Jams, Snowmelt & Flooding	PA, IA
476	17 Counties: Becker, Beltrami, Chisago, Clay, Grant, Itasca, Kittson, Mahnomen, Marshall, Norman, Otter Tail, Pennington, Polk, Red Lake, Roseau, Wilkin, Winona	7/17/1975	Severe Storms, Tornadoes & Flooding	PA, IA
473	1 County: Aitkin	7/5/1975	Flooding	PA, IA
446	6 Counties: Dodge, Fillmore, Houston, Olmsted, Wabasha, Winona	7/13/1974	Severe Storms & Flooding	PA, IA
440	12 Counties: Becker, Clay, Clearwater, Kittson, Koochiching, Lake of the Woods, Mahnomen, Marshall, Norman, Pennington, Red Lake, Roseau	6/10/1974	Heavy Rains & Flooding	PA, IA

Disaster Number	Counties Declared	Action Date	Disaster Description	Action Assistance
350	5 Counties: Carlton, Itasca, Lake, Pine, St. Louis	8/25/1972	Severe Storms & Flooding	PA, IA
347	13 Counties: Aitkin, Benton, Carlton, Chisago, Crow Wing, Douglas, Isanti, Kanabec, Mille Lacs, Morrison, Otter Tail, Pine, Todd	8/1/1972	Severe Storms & Flooding	PA, IA
291	11 Counties: Beltrami, Kittson, Koochiching, Lake of the Woods, Marshall, Norman, Pennington, Polk, Red Lake, Roseau, St. Louis	7/22/1970	Heavy Rains & Flooding	PA, IA
268	4 Counties: Jackson, Murray, Nobles, Rock	8/5/1969	Heavy Rains & Flooding	PA, IA
255	70 Counties: Aitkin, Anoka, Becker, Beltrami, Benton, Big Stone, Blue Earth, Brown, Carver, Chippewa, Chisago, Clay, Cottonwood, Crow Wing, Dakota, Douglas, Faribault, Fillmore, Goodhue, Grant, Hennepin, Houston, Isanti, Jackson, Kanabec, Kandiyohi, Kittson, Lac Qui Parle, Lake of the Woods, Le Sueur, Lincoln, Lyon, Mahnomen, Marshall, Martin, McLeod, Meeker, Mille Lacs, Morrison, Murray, Nicollet, Nobles, Norman, Otter Tail, Pennington, Pine, Pipestone, Polk, Pope, Ramsey, Red Lake, Redwood, Renville, Rock, Roseau, Scott, Sherburne, Sibley, Stearns, Stevens, Swift, Traverse, Wabasha, Wadena, Washington, Watonwan, Wilkin, Winona, Wright, Yellow Medicine	4/18/1969	Flooding	PA, IA
250	1 County: Roseau	9/9/1968	Heavy Rains & Flooding	PA, IA
249	5 Counties: Blue Earth, Faribault, Freeborn, Le Sueur, Nicollet	8/15/1968	Heavy Rains & Flooding	PA, IA
215	25 Counties: Aitkin, Becker, Beltrami, Benton, Cass, Clay, Crow Wing, Itasca, Kittson, Lake of the Woods, Mahnomen, Marshall, Morrison, Norman, Otter Tail, Pennington, Polk, Red Lake, Roseau, Sherburne, Stearns, Todd, Wadena, Wilkin, Wright	3/22/1966	Flooding	PA, IA
188	65 Counties: Aitkin, Anoka, Benton, Blue Earth, Brown, Carver, Cass, Chippewa, Chisago, Cottonwood, Crow Wing, Dakota, Dodge, Douglas, Faribault, Fillmore, Freeborn, Goodhue, Grant, Hennepin, Houston, Isanti, Jackson, Kanabec, Kandiyohi, Kittson, Lac Qui Parle, Lake of the Woods, Le Sueur, Mahnomen, Marshall, Martin, McLeod, Meeker, Mille Lacs, Morrison, Mower, Nicollet, Norman, Olmsted, Otter Tail, Pine, Polk, Pope, Ramsey, Redwood, Renville, Rice, Roseau, Scott, Sherburne, Sibley, Stearns, Steele, Swift, Todd, Traverse, Wabasha, Wadena, Waseca, Washington, Watonwan, Winona, Wright, Yellow Medicine	4/11/1965	Flooding	PA, IA

Key: PA = Public Assistance Program (formerly Infrastructure Support Program)
IA = Individual Assistance
HM = Hazard Mitigation Grant Program


MINNESOTA
Region V Federal Emergency Management Agency (FEMA)
Minnesota Division of Homeland Security and Emergency Management (MN DHSEM)
10-YEAR DISASTER HISTORY MAP
DR # | FEMA Declaration Date | Incident Type | FEMA Program Approved Expenditure
993 | June 11, 1993 | Flood/Severe Storms | $ 43,603,413
1064 | August 12, 1996 | Severe Storms | $ 8,126,832
1078 | January 6, 1998 | Winter Storm/Ice Storm/Freeze | $ 6,241,439
1116 | June 1, 1998 | Floods | $ 8,601,039
1151 | January 7, 1997 | Winter Storm/Ice Storm/Freeze | $ 16,170,869
1163 | January 18, 1997 | Winter Storm | $ 24,772,684
1176 | April 8, 1997 | Flood/Severe Storms | $ 217,388,022
1187 | September 26, 1997 | Floods | $ 10,242,202
1212 | April 1, 1998 | Tornadoes | $ 26,621,032
1225 | June 23, 1998 | Tornadoes | $ 20,172,482
1233 | July 23, 1998 | Floods | $ 16,288,683
1283 | September 11, 1999 | Severe Storms | $ 8,333,772
1288 | June 27, 2000 | Severe Storms | $ 17,338,188
1370 | May 16, 2001 | Floods | $ 40,143,660
1419 | June 14, 2002 | Flood/Severe Storms/Tornadoes | $ 20,088,378
$ 508,986,131
Presidential Declared County
993
1064
1078
1116
1151
1158
1175
1187
1212
1225
1283
1288
1333
1370
1419
July 2003

VI. MITIGATION ACTIVITIES IMPLEMENTED STATEWIDE

The following are Hazard Mitigation Grant Program (HMGP) projects that are in progress or have been completed since 1988.

A. Disaster Declaration 1419 (2001, Heavy Rains & Flooding)

Projects are pending:

1. Acquisition/Elevation/Flood Proofing

   a. City of Hugo
   Acquisition of 1Home

   b. Roseau County
   Acquisition of 4Homes
   Elevation of 2 Homes

   c. Stearns County
   Acquisition of 3 Homes

2. Drainage Improvements/ Infrastructure

   a. City of Ada
   Instillation of Strom Sewer Upgrade

   b. City of Delano
   Elm Street Diversion

   c. City of Delano
   Instillation of East Side Lift Station

   d. City of Delano
   Alley Resurfacing Project

   e. City of Delano
   Instillation of West Side Lift Station

   f. City of Roseau
   Instillation of Pumping Station

   g. City of Twin Valley
   Storm Sewer Upgrade

   h. City of Warroad
   Storm Sewer Upgrade

3. Electrical Distribution

   a. City of Bagley Public Utilities
      Conversion of Overhead Power Lines

   b. BENCO Electric Cooperative
      Conversion of Overhead Power Lines

   c. Wright-Hennepin Cooperative
      Conversion of Overhead Power Lines

   d. Minnesota Valley Electric
      Conversion of Overhead Power Lines

   e. Redwood Electric Cooperative
      Conversion of Overhead Power Lines

4. Other

   a. City of Winstead
      Instillation of a Back up Generator

B. Disaster Declaration 1370 (2001, Heavy Rains, Flooding & Tornadoes)

Projects are pending

5. Acquisition/Elevation/Flood Proofing

   a. City of Afton
      Elevation of 5 Homes
      Elevation of 2 Commercial Properties

   b. City of Granite Falls
      Acquisition of 16 Homes

   c. City of Lake Saint Croix Beach
      Acquisition of 7 Homes
      Elevation of 10 Homes

   d. Mahnomen County
      Acquisition of 13Homes
      Elevation of 4 Homes

   e. City of Moorhead
      Acquisition of 3 Homes

f. Wild Rice Watershed District
Acquisition of 14Homes

g. Yellow Medicine County
Acquisition of 2 Homes
Elevation of 1 Home

6. Drainage Improvements/ Infrastructure

a. City of La Crescent
Instillation of 17 Grinder Pumps

b. City of Watertown
Elevated 8 Manhole covers

7. Electrical Distribution

a. Brown County Rural Electric
Conversion of Old Overhead Power Lines to New T2 Overhead Lines

b. Clearwater Polk Electrical Cooperative
Conversion of Overhead Power Lines to Underground Lines

8. Other

a. City of Warba
Instillation of a Community Tornado Shelter

C. Disaster Declaration 1333 (2000, Heavy Rains, Flooding, & Tornadoes)

Projects are pending

1. Acquisition/Relocation Projects

   a. City of Austin
   Acquire and remove 6 homes

   b. Mower County
   Acquire and remove 6 homes

   c. City of Spring Valley
   Acquire and remove 9 homes

   d. Wild Rice Watershed
   Acquire and remove 4 homes

2. Drainage Improvement/Infrastructure Projects

Minnesota Public Radio
5% project to purchase a backup generator for EMS services.

3. NOAA Transmitter Projects

MN/DOT-NOAA
Purchase and install National Weather Service weather radio-transmitting equipment

D. Disaster Declaration 1288 (1999, Severe Ice Storms, Flooding, & Heavy Rains)

1. Electrical Distribution Projects

a. Brown County
Conversion of overhead lines to underground lines

b. PKM Electric-2 projects
Conversion of overhead lines to underground lines

2. Four projects are pending FEMA approval

D. Disaster Declaration 1283 (1999, Severe Storms, Winds, and Flooding)

1. Acquisition/Relocation Projects

Houston County
Acquire and remove 1 floodprone home

2. Drainage Improvement/Infrastructure Projects

a. Red Lake County Highway Department
Stabilize bank of Red Lake River along county highway

b. City of Biwabik, St. Louis County
Replace sanitary sewer mains

c. Two Rivers Watershed District

3. NOAA Transmitter Projects

St. Louis County
Purchase and install National Weather Service weather radio-transmitting equipment

4. Electrical Distribution Projects

a. Arrowhead Electric Cooperative
Conversion of overhead lines to underground lines

b. Lake County Light & Power Association
Conversion of overhead lines to underground lines

c. Meeker Cooperative Light & Power Association – 2 projects
Conversion of overhead lines to underground lines

5. Fire Prevention/Mitigation Projects

a. Cook County – Defensible Space

b. Cook County – Permanent Sprinklers

c. Cook County – Portable Sprinklers

d. DNR, Division of Forestry – Safe Areas

e. Lake County – Defensible Space

F. Disaster Declaration 1225 (1998, Severe Storms, Straight-line Winds, & Tornadoes)

1. Acquisition/Relocation Projects

a. Mower County
Acquire and remove 1 floodprone home

b. Marshall County
Acquire and remove 3 floodprone homes

2. Electrical Distribution Projects

a. Freeborn-Mower Electric Cooperative
Conversion of overhead line to underground line.

b. City of New Ulm, Brown County
Conversion of overhead lines to underground lines

c. Square Butte Electric Cooperative
Replace guy wire clips on 250kV DC transmission line

d. Lyon Lincoln Electric Cooperative – 2 projects
Conversion of overhead lines to underground lines

e. Itasca – Mantrap Cooperative Electric
Conversion of overhead lines to underground lines

f. Meeker Cooperative Light & Power Association – 2 projects
Conversion of overhead lines to underground lines

g. Tri County Electric Cooperative
Conversion of overhead lines to underground lines

h. City of Blooming Prairie, Steele County
Coversion of overhead lines to underground lines

i. BENCO Electric Cooperative
Conversion of overhead lines to T2 lines

j. City of North St. Paul, Ramsey County
Conversion of overhead lines to underground lines

3. Drainage Improvement/Infrastructure Projects

a. City of Hibbing, St. Louis County: 2 projects
Replace existing storm sewers and catch basins

b. St. Louis County
Replacing and upsizing culverts

4. NOAA Transmitter Projects

Itasca County
Purchase and install National Weather Service weather radio-transmitting equipment

5. Other

a. City of Comfrey
Incorporate a tornado-resistant storm shelter into the design of a new municipal facility.

b. HSEM
Mitigation Education Trailer

G. Disaster Declaration 1212 (1998, Severe Storms and Tornadoes)

1. Electrical Distribution Projects

a. City of St. Peter, Nicollet County
Conversion of overhead line to underground line.

b. BENCO Electric Cooperative
Rebuild overhead distribution lines using T-2 cable, new poles, and shorter spans.

c. BENCO Electric Cooperative
Convert existing conductor to T-2

d. North Itasca Electric Cooperative - 2 projects
Conversion of overhead lines to underground lines

2. Drainage Improvement/Infrastructure Projects

a. City of Hibbing, St. Louis County – 5 projects

1) Purchase of backup generator to provide emergency power to a sewage lift station
2) Clean and grade ditches, replace driveway and centerline culverts and establish offtake ditches
3) Build additional storm sewer catch basins
4) Replace a sanitary sewer and construct a bypass sanitary sewer
5) Replace storm sewer pipes and catch basins

b. City of Hill City, Aitkin County
Replace storm sewer, catch basin and pipes

c. Lake County – 2 projects
Replace and upsize culverts

d. Two Rivers Watershed District
Install 5 grade stabilization structures to reduce bank erosion, prevent washout of road crossings and restore channel dimensions

e. City of Keewatin, Itasca County
Install anti-backflow valves in the sewer lines of residences to prevent basement flooding.

f. City of Virginia, St. Louis County
Install two concrete pipes to divert excess storm water runoff from an existing ditch into an abandoned open-pit iron ore mine to prevent downstream flooding in the city.

3. NOAA Transmitter Projects

a. Winona County
Purchase and installation of National Weather Service radio transmitters, redundant transmitters, and related hardware

b. Murray County
Purchase and installation of National Weather Service radio transmitters, redundant transmitters, and related hardware

H. Disaster Declaration 1187 (1997, Severe Storms, High Winds, Tornadoes, and Flooding)

1. Acquisition/Relocation Projects

    a. City of St. Anthony, Hennepin County
    Acquire and remove 5 floodprone homes

    b. City of St. Paul, Ramsey County
    Acquire and remove 7 floodprone homes

2. Electrical Distribution Projects

    a. City of Waseca, Waseca County
    Conversion of overhead line to underground line.

    b. City of Fairmont, Martin County
    Conversion of overhead line to underground line.

    c. City of Austin, Mower County
    Install 3-phase main feeder lines

3. NOAA Transmitter Projects

    Aitkin County

I. Disaster Declaration 1175 (1997, Severe Flooding, Severe Winter Storms, Snowmelt, High Winds, Rain, and Ice)

1. Acquisition/Relocation Projects

    a. Wild Rice Watershed District
    Acquire and remove 15 flood prone homes.

    b. Kittson County
    Acquire and remove 24 floodprone homes.

    c. City of Warren, Marshall County
    Acquire and remove 3 floodprone homes.

    d. Kittson County
    Acquire and remove 4 floodprone homes.

    e. Chippewa County
    Acquire and remove 13 floodprone homes.

f. City of Dawson, Lac Qui Parle County
Acquire and remove 15 floodprone homes.

g. Clay County
Acquire and remove 16 flood prone homes.

h. City of Moorhead, Clay County
Acquire and remove 16 flood prone homes.

i. Marshall County
Acquire and remove 20 floodprone structures.

j. Polk County
Acquire and remove 25 flood prone homes.

k. Brown County
Acquire and remove 3 floodprone homes.

l. Goodhue County
Acquire and remove 4 floodprone homes.

m. City of East Grand Forks, Polk County
Acquire and remove 385 substantially damaged buildings and adjacent lots.

n. City of Montevideo, Chippewa County
Acquire and remove 42 floodprone structures

o. City of Breckenridge, Wilkin County
Acquire and remove 43 floodprone homes.

p. City of Cannon Falls, Goodhue County
Acquire and remove 7 floodprone homes.

q. City of Zumbrota, Goodhue County
Acquire and remove 8 floodprone homes.

r. Yellow Medicine County
Acquire and remove 9 floodprone homes.

2. Electrical Distribution Projects

a. Steele-Waseca Electric Cooperative
Conversion of overhead line to underground

b. Minnesota Valley Electric Cooperative
Conversion of overhead line to underground

3. Drainage Improvement/Infrastructure Projects

    a. City of Breckenridge, Wilkin County
    Installation of stormwater lift stations.

    b. City of Jordan, Scott County
    Install a flood control drainage structure with a sluice gate.

    c. City of Warren, Marshall County
    Install 12 storm sewer outfall valves.

    d. City of Ada, Norman County
    Installation of second sewer line from cities main lift station to lagoon.
    Installation of emergency back-up generators at the cities seven lift stations.
    Istallation of second storm sewer line.

    e. Marshall County
    Floodproof Courthouse Basement.

4. Living Snow Fence/Community Shelter Belt Projects
    a. Lac Qui Parle County
    b. Yellow Medicine Soil and Water Conservation District
    c. Mn/DOT – District 3B
    d. Kandiyohi Soil and Water Conservation District
    e. Blue Earth River Basin Initiative (BERBI)
    f. City of Marshall
    g. Redwood Soil and Water Conservation District
    h. Mn/DOT – District 8
    i. West Polk Soil and Water Conservation District
    j. Mn/DOT – District 6A
    k. Scott Soil and Water Conservation District
    l. Wilkin Soil and Water Conservation District
    m. Mn/DOT – District 7
    n. City of Stephen, Marshall County
    o. Pipestone County Soil and Water Conservation District
    p. Lyon Soil and Water Conservation District
    q. City of Warroad, Roseau County
    r. Mn/DOT, District 1
    s. Grant County Soil and Water Conservation District
    t. Stevens County Soil and Water Conservation District
    u. Rock County
    v. City of Franklin, Renville County
    w. City of Clinton, Big Stone County
    x. Board of Water and Soil Resources

5. NOAA Transmitter Projects

a. City of Dawson
Purchase and installation of National Weather Service radio transmitters, redundant transmitters, and related hardware

b. Brown County
Purchase and installation of National Weather Service radio transmitters, redundant transmitters, and related hardware

c. Cass County
Purchase and installation of National Weather Service radio transmitters, redundant transmitters, and related hardware

6. Other

a. City of Goodview, Winona County
Acquire and construct emergency power sources for city water and sanitary sewer system

b. HSEM
Ice dusting project for Red River basin

c. City of Breckenridge, Wilkin County
Aerial digital photography and topographic mapping.

J. Disaster Declaration 1151 (1996, Ice Storm)

1. Electrical Distribution Projects

a. Marshall Municipal Utilities, Lyon County
Conversion of overhead line to underground line.

b. Minnesota Valley Cooperative Light & Power
Replacement of three miles of electric distributor line described as three phase #4 ACSR, with T2, #1/0 conductor.

c. City of Adrian Public Utilities, Nobles County
Replace electrical distribution circuit that supplies power to city wells and lift stations.

d. Frost-BENCO-Wells Electric Cooperative
Replace existing overhead line with 3 phase T2#1/0 ACSR overhead line.

e. Lyon - Lincoln Electric Cooperative
Conversion of overhead line to underground line.

f. Federated Rural Electric Cooperative
Convert overhead line to T2 and intersetting of poles.

g. South Central Electric Association
Conversion of overhead line to underground line.

h. Nobles Cooperative Electric
Conversion of overhead line to underground line.

2. Living Snow Fence/Community Shelter Belt Projects

a. Board of Water and Soil Resources (conference)

b. Board of Water and Soil Resources (research)

3. Other

DNR/Division of Forestry
Community Forest Storm Damage Reduction.

K. Disaster Declaration 1116 (1996, Flooding and Severe Storms)

1. Acquisition/Relocation Projects

Kittson County
Acquire and remove 12 flood-prone homes.

2. Electrical Distribution Projects

a. Steele-Waseca Cooperative Electric
Replace power lines with aluminum, shorten spans, and install heavier poles.

b. Aitkin Public Utilities Commission, Aitkin County
Construct dike/floodwall system around 115kv substations.

3. Drainage Improvement/Infrastructure Projects

a. City of Taylors Falls, Chisago County
Improve downtown drainage system to prevent flooding.

b. City of North Mankato, Blue Earth County
Install back flow valves on branch main storm sewer.

c. Wild Rice Watershed District
Install and evaluate effectiveness of ice control structures.

4. Living Snow Fence/Community Shelter Belt Projects

a. Minnesota Department of Transportation (Mn/DOT) – Metro District
Minneapolis/St.Paul Metropolitan Area

b. Mn/DOT – District 6
Southeast Minnesota Rochester/Owatonna

c. Mn/DOT – District 2
Northwest Minnesota Bemidji/Crookston

d. Mn/DOT – District 7
Southwest Minnesota Mankato/Windom

L. Disaster Declaration 1078 (1995, Severe Ice Storm)

Electrical Distribution Projects

1. Agralite Electric Cooperative
Conversion of Copper Conductor to T-2.

2. Traverse Electric Cooperative
Conversion of overhead line to underground line.

M. Disaster Declaration 1064 (1995, Severe Storms, Straight Line Winds, and Tornadoes)

1. Electrical Distribution Projects

a. Clearwater-Polk Electric Co-op
Conversion of overhead Line to underground line.

b. North Itasca Electric Co-op
Conversion of overhead line to underground line.

c. Crow Wing Co-op Power
Conversion of overhead line to underground line.

d. Beltrami Electric Co-op
Conversion of overhead line to underground line.

e. Red River Valley Co-op
Conversion of overhead line to underground line.

f. City of Detroit Lakes, Becker County
Conversion of overhead line to underground line.

2. Fire Prevention/Mitigation Projects

Clearwater County Fire Suppression/Public Education
Provide public education on fire suppression in the Western blowdown area

3. Other

   a. DNR - Division of Parks
      Trapping of Pine Bark Beetles.

   b. Board of Water & Soil Resources
      Living snow fence research.

N. Disaster Declaration 993 (1993, Severe Storms, Tornadoes, and Flooding)

1. Acquisition/Relocation Projects

   a. City of Austin, Mower County: Acquisition of 77 flood-prone homes.
   b. Mower County: Acquisition of 15 flood-prone homes
   c. Chippewa County: Acquisition of 3 flood-prone homes
   d. City of Montevideo, Chippewa County: Acquisition of 18 flood-prone homes
   e. LeSueur County: Acquisition of 20 homes/businesses
   f. City of Adrian, Nobles County: Acquisition of 1 flood-prone home/business.
   g. City of Moorhead, Clay County: Acquisition of 8 flood-prone homes
   h. City of Rockford, Wright County: Acquisition of 11 flood-prone homes.
   i. Sibley County: Acquisition of 3 flood-prone homes/businesses
   j. City of Springfield, Brown County: Acquisition of 14 flood-prone homes
   k. City of Waterville, LeSueur County: Acquisition of 11 flood-prone homes/adjacent lots
   l. City of Browns Valley, Traverse County: Acquisition/elevation of 24 flood-prone homes.
   m. Wild Rice: Watershed District: Acquisition of 4 flood-prone homes.

2. Drainage Improvement/Infrastructure Projects

   a. City of Fergus Falls, Otter Tail County
   b. City of Marshall, Lyon County
   c. Renville County/City of Olivia
   d. Rock County

3. Other

   DNR- Division of Waters
   Establishment of a Statewide Flood Forecast/Warning System.

O. Disaster Declaration 946 (1992 Severe Storms, Tornadoes, and Flooding)

No projects were funded by this declaration, as projects proposed were not cost-effective.

P. Disaster Declaration 929 (1991, Ice Storm)

1. Electrical Distribution Projects

   a. Freeborn-Mower Cooperative Electric
   Conversion of overhead line to underground line.

   b. Goodhue County Cooperative Electric
   Conversion of overhead line to underground line and replacement of overhead lines with T-2.

   c. Steele-Waseca Cooperative Electric
   Replacement of overhead lines with T-2.

2. Other

   a. Board of Water & Soil Resources
   Red River basin planning.

   b. Department of Natural Resources (DNR) Division of Waters
   Lake Superior Hazard Mitigation Plan.

Q. Disaster Declaration 824 (1989, Flooding)

1. Acquisition/Relocation Projects

   City of East Grand Forks, Polk County
   Acquisition of 7 homes to improve the effectiveness of an emergency levee.

2. Drainage Improvement/Infrastructure Projects

   City of Breckenridge, Wilkin County
   Floodproofing of water treatment plant and lift station.

3. Other

   Norman County
   Establishment of a warning system.

VII. HAZARD MITIGATION RECOMMENDATIONS

The hierarchy of actions—past or future mitigation measures—approved by the state, are accepted and prioritized based on a ranking and scoring of mitigation project applications:

It is the responsibility of the State to identify and select hazard mitigation projects to be recommended to the Federal Emergency Management Agency (FEMA) for final approval

and funding of the Hazard Mitigation Grant Program (HMGP) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988.

In order to do this, the Minnesota Recovers Taskforce (MNRTF) will review, evaluate, and rank eligible pre-applications and present the findings to the Division of Homeland Security and Emergency Management (HSEM) Mitigation staff for further review and discussion of funding options among the programs available through the various agencies represented. The MNRTF members include representatives from State and Federal agencies.

Before an applicant will be considered for HMGP funding, it must meet minimum criteria set by FEMA and the State. This criteria includes:

1. The proposed project must conform with the goals of the State Hazard Mitigation Program.

2. The proposed project must not encourage development in Special Flood Hazard Areas.

3. Communities that have mapped flood hazard areas must participate in the National Flood Insurance Program and be in good standing.

4. The proposed project must be in conformance with the community's comprehensive land use plan, hazard mitigation plan, or capital improvements program where such plans and programs exist.

Procedures: The MNRTF will review HMGP pre-applications and ensure that the proposed projects are eligible, meet the minimum above criteria, and rank the pre-applications. A list of recommended projects, based on ranking and funding availability, will be submitted to HSEM Hazard Mitigation Administrator for approval. Some projects may be referred to other agencies for appropriate funding. In addition, the MNRTF will "package" funding for projects where possible to maximize the funding that is available. Those proposed projects with the highest priority and based on funding availability would be invited to complete the formal application for HMGP funding. Priority/Ranking System: Proposed projects will be evaluated based on Project Type, Site Vulnerability, Project Benefits, and other considerations. Non-Structural projects will receive top priority for funding and include projects that involve acquisition, relocation, and floodproofing. All projects of this type will receive the highest ranking and the greatest consideration for funding.

Linking to Local Plans:

A greater picture of local mitigation measures--proposed and implemented via local mitigation actions--will come into view from the completion of statewide mitigation plans. The state hazard mitigation planner will continue to work closely with the development of these local plans and incorporate the findings into the state mitigation plan.

The state has continually provided guidance and technical support to the local mitigation plans and has encouraged the sharing of information both between local planning projects and with the state.

Once local planning data and information is compiled and analyzed in a comprehensive manner the state will then be better prepared to select and plan mitigation projects more effectively. These separate actions contribute to the protection of the entire state and help meet the goals and objectives of the state's plan. For example, multiple flood protection measures implemented on several tributaries within a watershed will provide greater geographical coverage, beyond local needs. This concept of regional risk reduction can be applied to all other hazards, such as fire; and with infectious diseases that requires containment measures over a larger, geographical area--foot and mouth disease.

The hazard mitigation recommendations contained in this section were derived from hazard mitigation recommendations from the previous version of the Minnesota Hazard Mitigation Plan, responses to a statewide survey of emergency management and response organizations, and recommendations expressed during a series of public meetings and workshops.

A. Equipment

1. Recommendation: Encourage local jurisdictions to establish and maintain a warning system capable of alerting residents in a timely manner.

2. Recommendation: Work to improve capability to warn people with handicaps, particularly those with hearing or visual impairments.

3. Recommendation: Continue to pursue the state and/or federal funding necessary to upgrade the NOAA Weather Radio System in the state of Minnesota. Promote the expansion of the NOAA Weather Radio System through meetings with HSEM Regional Program Coordinators, coordination with the NWS, and various organizations with an interest in expanding warning system coverage areas in the state.

4. Recommendation: Continue to participate in the Minnesota Emergency Alert System (EAS) Committee that is involved in the development of communication links, procedures, testing, and the exercising of the system. The EAS replaced the Emergency Broadcast System because the EAS is more efficient and is capable of providing emergency notifications to the general public using multiple communication links. Assist local jurisdictions in developing their area plans for the new EAS. Continue to maintain the Minnesota Department of Health's Health Alert Network that allows state and local public health agencies to issue alerts to clinics, hospitals, laboratories, veterinarians, emergency management, law enforcement, and elected officials. With the assistance of the Homeland Security and Emergency Management, add after-hours capability to the network.

5. Recommendation: Upgrade communication systems, including web-based interagency communication systems that could be linked with police, fire, emergency

response community, hospitals, public health agencies, etc. in order to more readily share information.

6. Recommendation: Ensure that there are duplicative or redundant means of communication during emergencies. Reliance on one form of communication is ineffective.

7. Recommendation: Develop a Geographic Information System (GIS) based system to provide emergency responders with building plans. These plans should be linked to photos of rooms and routes that provide access to the utility shut-offs, particularly for structures, public or private, that are potential terrorist targets or contain hazardous materials. Building plans could be available to emergency responders on-site through Internet links or laptop computers and compact disc.

8. Recommendation: Continually upgrade the quality and quantity of equipment for the local emergency response community, including electronic communication hardware and connections public health agencies use for receiving and issuing health alerts.

9. Recommendation: Develop statewide support for advanced, specialized equipment for technical response groups, such as bomb squads, hazardous materials (HAZMAT) teams, search and rescue teams, radiological support teams, and law enforcement tactical teams.

10. Recommendation: Purchase a helicopter capable of transporting equipment and response teams in an efficient manner to areas of need.

11. Recommendation: Develop a Memorandum of Agreement with phone services, which are able to simultaneously accommodate large groups of people during an emergency situation.

Progress Made on Equipment Recommendations:

- Recommendation number 1: Northeast Minnesota, and other local jurisdictions across the state, are promoting the use of weather radios and EAS through presentations to public and private groups to provide timely warning to local residents.
- Recommendation number 4: the Northeast Local Emergency Alert System Team (LEAST) has developed an EAS plan for northeastern Minnesot, promotes its use and maintains the plan.

B. Response Planning

1. Recommendation: Integrate the following items into the State emergency planning process.

- Long-term commitment for sustaining programs.
- Commitment to share information within and between agencies and organizations.

- Greater state support for local planning and zoning to guide future community development.
- Integrate community development and emergency management with public health and other partners.
- Commitment to maintain a single point of contact for emergency support requests.
- Arrangements or requirements for cell phone providers to provide priority to the emergency response community during disaster situations. This may require legislation if it is not done on a voluntary basis.

2. Recommendation: Develop a statewide communications system for emergency responders.

3. Recommendation: Encourage county and local level planners to include a master list of resource agencies and people in their Emergency Operation Plans (EOPs). Include this master list at the state level as well.

4. Recommendation: Regularly remind, through training and guidance materials, state and local governments to document disaster-related damages and expenses, as they occur. By maintaining this historical information, local government should: (1) improve the accuracy of a benefit/cost analysis associated with HMGP and Public Assistance Program mitigation projects; and (2) be better able to develop a comprehensive local hazard analysis.

5. Recommendation: Identify those jurisdictions that lack an adequate all-hazard EOP. Encourage such jurisdictions to "upgrade" or "update" their EOP in accordance with the four-year planning/exercising schedule described in the HSEM Local Emergency Operations Planning Policy. In conjunction with this, maintain a dedicated full time staff person for response plan exercises. Encourage all county public health agencies—and pertinent county agencies—to annually review, and update as needed the health annex to the county's EOP.

6. Recommendation: Encourage communities without notification and warning annexes / standard operating procedures (SOPs) to develop such documents. Furthermore, work with communities to ensure that existing notification and warning annexes/SOPs be kept current.

7. Recommendation: Develop an inter-agency plan to deal with "pet" issues during a disaster.

8. Recommendation: Maintain a single point of contact for emergency support requests.

9. Recommendation: Use an inter-agency task force to develop plans for the public health community to be an integral part of the response team for a biological or chemical incident, regardless of whether it results from a natural or terrorist event.

10. Recommendation: Develop a checklist of "no cost or low cost" preparedness and mitigation activities that can be implemented at county or local level to reduce risks.

11. Recommendation: Improve coordination between emergency management and emergency response agencies and organizations. There is a strong sense of political mistrust between organizations that still persists in pockets of the state and local government.

12. Recommendation: Develop strong partnerships between the public and the private sector through the former Project Impact program that could also improve emergency response programs.

13. Recommendation: Develop state agency plans for continuity of their own operations if facilities are impacted.

14. Recommendation: Develop boilerplate strategies to coordinate efforts among communities to share resources.

Progress Made on Response Planning Recommendations:

- Recommendation number 7: the State Animal Emergency Operations Guidelines have been developed and added to the State Emergency Operations Plan.
- Recommendation number 3: A master list of resources is a part of each County emergency management plan.
- Recommendation number 5: The Minnesota Department of Health Regional Planners and the DHSEM RPC's work with county emergency management and public health to update county health annexes.
- Recommendation number 12: Project Impact no longer exists, but hopefully its benefits remain active; also, the PDM program has picked-up where Project Impact had left off.

C. Mitigation Planning

1. Recommendation: Require applicants for state or federal monies such as HMGP, Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), Flood Damage Reduction (FDR), or state-administered Community Development Block Grant (CDBG), for projects in which hazard mitigation as a principal objective, to have and maintain a hazard mitigation plan. If such a plan does not exist at the time at which a grant is awarded, require the applicant to develop it within one year of the awarding of the grant. Such projects should have to (a) meet the normal requirements associated with the (funding) programs, and (b) be approved by the agency that administers the program.

2. Recommendation: Develop one or more prototype hazard mitigation plan(s). The prototype(s) should contain a minimal number of required content items, as well as other suggested (i.e., optional) items.

3. Recommendation: Investigate the feasibility of establishing incentives (e.g., tax credits, etc.) to encourage local business and industry to develop and maintain hazard

mitigation plans.

4. Recommendation: Encourage state support for local planning and zoning to guide future community development.

Progress Made on Mitigation Planning Recommendations:

- Recommendation number 1: The federal Disaster Mitigation Act of 2000 requires a All-Hazard Mitigation Plan for HMGP and PDM funding.
- Recommendation number 2: The state has developed a prototype hazard mitigation plan, entitled "Careful County All-Hazard Mitigation Plan." This was developed by the Local Planning Assistance Center of the Department of Administration, http://www.lpa.state.mn.us/index.html.
- Recommendation number 4: the state DHSEM has initiated 63 county plans, one Tribal plan, and one city plan through the use of HMGP and PDM funds.

D. Public Awareness

1. Recommendation: Increase, through various education and awareness efforts, the promotion of the concept of personal responsibility for hazard mitigation, preparedness, response, and recovery.

2. Recommendation: Encourage, through training and guidance materials, local emergency managers to include business and industry in severe weather awareness campaigns and other educational activities in order to expose local business and industry to the same important information as individuals and families regarding hazard mitigation, preparedness, response, and recovery.

3. Recommendation: Improve the education of elected officials at state and local levels to understand the significance of the programs and benefits that are derived.

4. Recommendation: Prepare informational materials covering a broad range of topics (e.g., "Before You Buy, Own, or Build In a Floodplain...").

5. Recommendation: Continue to emphasize to local emergency managers, through training and guidance materials, the importance of developing and maintaining partnerships with local business and industry (e.g., encourage the formation of emergency management planning groups such as Community Awareness Emergency Response groups).

6. Recommendation: Encourage, through training and guidance materials, local emergency managers to utilize the resources of universities, business and industry to enhance state and local governments' delivery of hazard mitigation education.

7. Recommendation: Encourage statewide partners to work together to utilize the annual state tornado and severe summer weather awareness campaigns as a forum to disseminate specific safety information.

8. Recommendation: Develop a "hazard mitigation fact sheet" in order to increase awareness of hazard mitigation amongst local governments and other potential applicants for state-administered CDBG monies. Make this information available to all applicants (for state-administered CDBG monies), grantees, and interested parties.

Progress Made on Public Awareness Recommendations:

- Recommendation number 1: Firewise and Storm Ready programs promote personal responsibility and hazard mitigation.
- Recommendation number 8: this information has been distributed freely at statewide workshops, forums, and conferences; the information is also available on the State's HSEM website, http://www.hsem.state.mn.us/
- Recommendation number 7: the state's "Severe Storms Awareness Week" addresses summer awareness campaigns.

E. Training

1. Recommendation: Encourage FEMA to (1) update the current emergency management training curriculum to address hazard mitigation in a more comprehensive manner; and (2) give priority time to hazard mitigation in the context of (most) required courses.

   FEMA should develop a course dealing specifically with substantial damage determinations. This course should emphasis how to determine actual damages and related repair costs for individual structural elements of a damaged structure. This course would supplement FEMA's "Substantial Damage Estimator Program." This course would train people on how to determine the percentage of structural damage by major building components that are critical for using FEMA's "Substantial Damage Estimator Program."

2. Recommendation: Develop the ability to maintain and keep current the records and paperwork to Demonstrate that responder training has been completed and is maintained Occupational Safety and Health Administration (OSHA) certification.

3. Recommendation: Develop funding strategies to provide sufficient funds to enable emergency responders to attend training classes.

4. Recommendation: Develop a cadre of qualified instructors to go into the field and provide quality training at the local level for:

   - All Emergency Management courses
   - WMD training for local fire departments.
   - WMD training in the rural areas of the state.
   - Sheriffs, who are most frequently incident commanders, need to be thoroughly trained in disaster response of all types and OSHA certified.

F. Legislation and Codes

1. Recommendation: Continue to encourage communities that have not adopted building codes to do so through the following methods: (1) Regular visits to municipalities by regional Department of Administration (DOA), Building Codes and Standards Division (BC&SD) staff; (2) Responding to municipalities' requests to attend public information meetings regarding the state building code, and (3) Making communities aware of the Insurance Service Office rating.

2. Recommendation: Codify the legal authority to quarantine people or areas of communities.

3. Recommendation: Improve regulations dealing with development adjacent to areas subject to wildland fires to require clearings and space separation between buildings and potential fire hazards.

4. Recommendation: Establish initiatives at the state level to ensure and encourage appropriate zoning in the vicinity of industrial plants that may store hazardous materials or chemicals, particularly to preclude these types of facilities from being located near hospitals or other sensitive structures.

5. Recommendation: Support legislative efforts to increase staff levels that are devoted to emergency preparedness and develop a staff of “subject matter experts” that can be deployed as part of the tactical response team.

6. Recommendation: Increase, through the following methods, efforts to educate local officials about their responsibilities regarding building code enforcement: (1) a new emphasis should be placed on existing state and federal educational outreach programs which address this issue (i.e., regional workshops and individual, on-site community assessments); and (2) educational outreach to communities which do not have a designated building code or building official should be considered a priority.

7. Recommendation: Develop a statewide database of available or existing resources.

8. Recommendation: Develop lab capabilities for chemical and biological analysis with the capability to maintain chain of custody and evidence preservation policies.

9. Recommendation: Coordinate volunteer building inspectors with communities that need to increase efforts in enforcing building code requirements in post-disaster scenarios. These volunteer teams should have the responsibility to provide construction guidance and assistance to local officials and victims according to the following priority: (1) protection of life and property; (2) dissemination of permit, licensing and inspection information and materials; (3) survey construction that is already in progress and provide remedial action/advice to victims not rebuilding according to state code; and (4) collect and disseminate lists of available competent contractors. Establish a process by which potential contractors of all types may be screened and, in turn, placed on a list of recommended, available competent contractors in order to help ensure that state licensing requirements for contractors/workers are enforced (especially in post-disaster scenarios.

10. Recommendation: Establish the Minnesota State Building Code as the recognized post-presidential disaster reconstruction standard for general public and private buildings Provide guidance and materials to such communities.

11. Recommendation: Revise building codes to require sprinkler systems in every new commercial, residential, or industrial building.

12. Recommendation: Develop design standards for landscaping, building design, etc. to reduce the fire risks.

13. Recommendation: Update the State Building Code with "Floodproofing Regulations," as promulgated by the U.S. Army Corps of Engineers, as soon as the documents are available in adequate quantities. The Department of Natural Resources has had ongoing meetings with the Department of Administration, Building Codes and Standards Division staff to incorporate the U.S. Army Corps of Engineers' current "Flood Proofing Regulations" into the State Building Code.

G. Funding

1. Recommendation: Obtain recognition by the Internal Revenue Service that hazard mitigation activities should be eligible for tax credits.

2. Recommendation: Utilize, when possible, non-disaster-specific sources of federal and state funds (e.g., portions of FDR, state-administered CDBG) for projects that have hazard mitigation as a principal objective, so that such projects may be implemented on an on-going basis. Such projects should have to (1) meet the normal requirements associated with the (funding) programs, and (2) be approved by the agency that administers the program.

3. Recommendation: Raise the base level of funding for emergency response programs.

4. Recommendation: Improve access to technical guidance at all levels – federal, state, and local government.

5. Recommendation: Provide financial assistance to replace old and antiquated equipment, as well as funds to help pay for emergency response volunteers.

6. Recommendation: Assure continued state funding for Emergency Medical Services programs. Pursue commitments from state and local officials to continue to support programs that may be initiated but based on federal funds.

7. Recommendation: Work, through a legislative initiative, to establish a single state mitigation fund that can be drawn upon to provide supplemental funding for state/local hazard mitigation projects.

VIII. CAPABILITIES ASSESSMENT OVERVIEW

A. Introduction

This section provides information on capabilities and resources available to assist with hazard mitigation planning. It provides a listing of capabilities that are common to other sections of this plan as a single reference location. Annex A of this plan also includes a discussion of capabilities by hazard area.

The following capabilities have been segregated into two major areas: capabilities available from federal and state agencies and related organizations, indexed by agency/organization beginning with federal agencies; and funding sources, indexed by Federal Domestic Assistance Number.

A section containing an assessment of the State's Mitigation capability can be found following the listing of all the various Federal, State, and related organizations, their general functions and contact information. This section includes an evaluation of State laws, regulations, policies and programs related to mitigation.

B. Capabilities Available from Federal and State Agencies and Related Organizations

The following is an inventory of existing local, state, and federal hazard mitigation programs, policies, and funding sources:

1. Federal Agencies

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
Federal Emergency Management Agency (FEMA) (http://www.fema.gov)		
U.S. Department of Homeland Security FEMA	General information on mitigation planning, hazards, disaster assistance programs, current disasters, etc.	Http://www.fema.gov/
FEMA, National Flood Insurance Program (NFIP)	Detailed information on the National Flood Insurance Program and other mitigation activities.	Http://www.fema.gov/nfip/
FEMA	FEMA extreme heat fact sheet.	Http://www.fema.gov/library/heatf.htm
FEMA	Search on "heat" or "cold" for detailed information.	http://www.fema.gov/
FEMA, Radiological Emergency Preparedness Program (REP)	Summary of the national Radiological Emergency Preparedness Program	http://www.fema.gov/pte/rep

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
FEMA, U.S. Fire Administration (USFA)	To reduce life and economic loss due to fire and related emergencies, through leadership, advocacy, and coordination.	http://www.usfa.fema.gov/
U.S. Department of Agriculture (USDA) (http://www.usda.gov)		
National Drought Policy Commission	The National Drought Policy Commission was formed in response to the National Drought Policy Act (signed July 16, 1998). This site links to their final report published May 2000.	http://www.fsa.usda.gov/drought/finalreport/accesstoreports.htm
Natural Resources Conservation Service (NRCS)	To provide leadership in a partnership effort to help conserve, improve, and sustain our natural resources and environment.	http://www.nrcs.usda.gov/
Farm Service Agency	Emergency Conservation Program shares the cost of rehabilitating eligible farmlands damaged by natural disaster. Provides emergency water assistance during drought.	http://www.fsa.usda.gov/pas/disaster/ecp.htm
U.S. Department of Commerce (DOC) (http://www.doc.gov)		
Economic Development Administration (EDA)	To generate jobs, help retain existing jobs, and stimulate industrial and commercial growth in economically distressed areas of the U.S.	http://www.doc.gov/eda
U.S. Census Bureau	Profile of Minnesota and each Minnesota county.	http://www.census.gov/datamap/www/27.html
National Oceanic and Atmospheric Administration (NOAA)	Provides detailed information on coastal water issues, including the Great Lakes.	http://www.noaa.gov/coasts.html
NOAA, National Climatic Data Center (NCDC)	Current and historical archive of climatic data and information.	http://www.ncdc.noaa.gov/ncdc.html
NOAA, Drought Information Center	NOAA Drought Information Center.	http://www.drought.noaa.gov/
NOAA, National Severe Storms Laboratory	Comprehensive information on severe weather research.	http://www.nssl.noaa.gov/
NOAA, National	Provides all available weather	http://www.nws.noaa.gov/

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
Weather Service (NWS)	information including warning updates.	
NOAA and USDA	Weekly Weather and Crop Bulletin posting.	http://www.usda.gov/agency/oce/waob/jawf/wwcb.html
U.S. Department of Defense (DOD) (http://www.defenselink.mil/)		
U.S. Department of Homeland Security, Coast Guard, National Response Center	Point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment of the United States.	http://www.nrc.uscg.mil/index.htm
U.S. Department of Homeland Security, Coast Guard, National Response Center	Provides technical advice on dealing with weapons of mass destruction.	http://www.nrc.uscg.mil/terrorism.htm
U.S. Army Corps of Engineers (USACE)	Provides information on assistance available for planning, engineering and design of permanent flood control projects, and assistance to communities during flood emergency operations.	http://www.usace.army.mil/
Cold Regions Research and Engineering Laboratory (CRREL)	Engineering and technology for use in cold regions.	http://www.crrel.usace.army.mil/
U.S. Department of Energy (DOE) (http://www.energy.gov)		
Federal Energy Regulatory Commission (FERC)	Regulates the transmission of energy sources interstate commerce and oversees environmental matters.	http://www.ferc.gov
U.S. Department of Health and Human Services (HHS) (http://www.hhs.gov)		
Agency for Toxic Substances and Disease Registry	Detailed information on toxic substances and disease.	http://www.atsdr.cdc.gov/
Centers for Disease Control and Prevention – Bioterrorism Preparedness and Response	Provides information about biological agents and other aspects of bioterrorism preparedness and response.	http://www.bt.cdc.gov/

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
U.S. Department of the Interior (DOI) (http://www.doi.gov)		
U.S. Geologic Survey (USGS)	Excellent source of natural disaster information (earthquakes, drought, floods, etc.).	http://www.usgs.gov/
USGS Programs in Minnesota	USGS activities in Minnesota.	http://mn.water.usgs.gov/stsheet/
National Earthquake Information Center (NEIC)	Up to date information on world seismicity.	http://wwwneic.cr.usgs.gov/
U.S. Department of Justice (DOJ) (http://www.usdoj.gov)		
Federal Bureau of Investigation (FBI)	Programs and initiatives page.	http://www.fbi.gov/programs.htm
Office of Justice Programs, Office for State and Local Domestic Preparedness Support	Assists state and local response agencies throughout the United States prepare for incidents of domestic terrorism.	http://www.ojp.usdoj.gov/osldps
U.S. Department of State (DOS) (http://www.state.gov)		
Office of the Coordinator for Counter Terrorism	Coordinates all U.S. Government efforts to improve counterterrorism cooperation with foreign governments. Provides information on terrorism and national security.	http://www.state.gov/www/global/terrorism/index.html
U.S. Department of Transportation (DOT) (http://www.dot.gov)		
Emergency Response Guide (ERG2000)	A guide to aid first responders during the initial response phase of an incident.	http://hazmat.dot.gov/gydebook.htm
Federal Highway Administration (FHWA)	Responsible for improving the quality of the Nation's highway systems and its intermodal connections.	http://www.fhwa.dot.gov
National Transportation Safety Board (NTSB)	Information on transportation safety.	http://www.ntsb.gov/
DOT, Office of Hazardous Material Safety	National safety program for the transportation of hazardous materials by air, rail, highway and	http://hazmat.dot.gov/

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
	water.	
DOT, Office of Pipeline Safety	Information on pipeline safety and regulations.	http://ops.dot.gov/
U.S. Environmental Protection Agency (EPA) (http://www.epa.gov)		
EPA, Office of Solid Waste and Emergency Response	Provides guidance and direction for solid waste and emergency response programs.	http://www.epa.gov/swerrims/
U.S. Nuclear Regulatory Commission (NRC) (http://www.nrc.gov)		
U.S. Nuclear Regulatory Commission (NRC)	Detailed information on nuclear power plants, nuclear waste, and the national Radiological Emergency Preparedness program.	http://www.nrc.gov/
U.S. Small Business Administration (SBA) (http://www.sba.gov)		
Small Business Administration	Provides training and advocacy for small firms.	http://www.sba.gov/

2. State Agencies

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
Minnesota Board of Animal Health	Information regarding livestock and animal diseases, as well as reporting requirements.	90 West Plato Boulevard West, St. Paul, Minnesota 55107 (651) 296-2942 http://www.bah.state.mn.us/
Minnesota Board of Water and Soil Resources	To assist local governments to manage and conserve water and soil resources.	One Water Street West #200, St. Paul, Minnesota 55107 (651) 296-2942 http://www.bwsr.state.mn.us/
Minnesota Department of Administration	Provides services to government agencies: information technology, facilities and property management, statewide building codes and construction oversight; and local planning assistance, HSEMographic and geographic information systems data and software.	200 Administration Building St. Paul, Minnesota 55155 (651) 296-1424 http://www.admin.state.mn.us/

Minnesota Department of Agriculture	Responsible for the regulation of pesticides, fertilizers, food safety and feed including emergency response, state Superfund authority and financial assistance for agricultural entities.	90 West Plato Boulevard, St. Paul Minnesota 55107 (651) 297-2414 http://www.mda.state.mn.us/
Minnesota Department of Children, Families & Learning	Improve the well being of children through programs that focus on education, community services, and prevention.	1500 West Highway 36, Roseville, Minnesota 55113 (651) 582-8200 http://children.state.mn.us/
Minnesota Department of Commerce	A guide to Minnesota's regulated businesses and industries.	85 7th Place East, Suite 500, St. Paul, Minnesota 55101 (651) 296-6319 http://www.commerce.state.mn.us/
Minnesota Department of Economic Security	Employer and labor market information.	390 N. Robert St., St. Paul, Minnesota 55101 (651) 296-2919 http://www.mnworkforcecenter.org/index.htm
Minnesota Department of Finance	Expedite fiscal management during a state disaster. Assist with funding issues when federal assistance is not provided.	400 Centennial Office Building, 658 Cedar Street, St. Paul, Minnesota 55155 (651) 296-5900 http://www.finance.state.mn.us/
Minnesota Association of Flood Plain Managers	Inform stakeholders of pending legislation; Study and support needed legislation; Provide a method for disseminating information; Promote public awareness of proper management	Minnesota Association of Floodplain Managers P.O. Box 385134 Minneapolis, MN 55438 http://www.mnafpm.org/
Minnesota Department of Health (MDH)	Detailed information on services and current events affecting the citizens of Minnesota.	P.O Box 64975, St. Paul, MN 55164-0975 (651) 215-5800 http://www.health.state.mn.us/
Minnesota Department of Human Services	Provides health care, economic assistance, and other services for those in need.	444 Lafayette Rd. St. Paul, Minnesota 55155 (651) 297-3933 http://www.dhs.state.mn.us/
Minnesota Department of Labor and Industry	Assist with investigations when workers are injured, and detect air contaminants caused by chemical or geological agents, and assessing hazards.	443 Lafayette Rd. North, St. Paul, Minnesota 55155 (651) 296-6107 http://www.doli.state.mn.us/

Minnesota Department of Military Affairs (DMA) -National Guard	Information on the capabilities of the Minnesota National Guard.	20 West 12th St. Veterans Service Building, St. Paul, MN 55155-2098 (651) 282-4662 http://www.dma.state.mn.us/index.htm
Minnesota Department of Natural Resources (DNR)	The conservation of natural systems and the maintenance of biodiversity. Water education information is available on the Division of Waters' Home Page that discusses floodplain management, flood mitigation, drought/water supply, dam safety, flood warning, climatology, and lake and stream gauging.	500 Lafayette Rd., St. Paul, Minnesota 55155 (651) 296-6157 http://www.dnr.state.mn.us/ or http://www.dnr.state.mn.us/waters/index.html
Minnesota Homeland Security and Emergency Management (HSEM)	This site contains information on Emergency Management.	444 Cedar Street, Suite 223 St. Paul, Minnesota 55101 (651) 296-2233 http://www.hsem.state.mn.us//.
Minnesota Department of Public Safety (DPS)	Information on Fire Marshal's Office and Pipeline Safety, State Patrol, Drug Policy and Violence Prevention, Bureau of Criminal Apprehension, Alcohol and Gambling, and highway and traffic safety.	Central Office Town Square 444 Cedar Street, St. Paul, Minnesota 55101 (651) 282-6565 http://www.dps.state.mn.us/
Minnesota Department of Employment and Economic Development	To advance the economic vitality of Minnesota through trade and economic development, including the provision of employer and labor market information.	500 Metro Square 121 Seventh Place East, St., St. Paul, Minnesota 55101-2146 (651) 297-1291 http://www.deed.state.mn.us/index.html
Minnesota Department of Transportation	Comprehensive transportation issues in Minnesota.	395 John Ireland Boulevard, St. Paul, MN 55155 (651) 296-3000 http://www.dot.state.mn.us/
Minnesota Emergency Medical Services Regulatory Board	Provides leadership for emergency medical care for the people of Minnesota.	2829 University Avenue Southeast, Suite 310, Minneapolis, Minnesota 55414 (612) 627-6000 http://www.emsrb.state.mn.us/
Minnesota Emergency Response Commission	Responsible for coordinating information about hazardous chemicals at state facilities.	444 Cedar St., Suite 223, St. Paul, MN 55101 (651) 297-7372 http://www.erc.state.mn.us/

Minnesota Housing Finance Agency	Provides low- and moderate-income housing and resources.	400 Sibley St., Suite 300, St. Paul MN 55101 (651)296-7608 http://www.mhfa.state.mn.us/
Minnesota Office of Environmental Assistance	Information related to the environment.	520 Lafayette Rd. North, Floor 2, St. Paul, MN (651) 296- 3417 http://www.moea.state.mn.us/
Minnesota Office of the State Archaeologist	Conduct research into the prehistoric and historic archaeology of Minnesota.	Ft. Snelling History Center, St. Paul, Minnesota 55111 (612) 725-2411 http://www.admin.state.mn.us/osa/
Minnesota Pollution Control Agency	Provides pollution control information for Minnesota.	520 Lafayette Rd. St. Paul, MN 55155 (651) 296-6300 http://www.pca.state.mn.us/
Minnesota State Colleges and Universities (MNSCU)	Provide information about Higher education in Minnesota	500 World Trade Center, 30 East 7th St., St. Paul, Minnesota 55101 (651) 296-8012 http://www.mnscu.edu

3. Related Organizations

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
American Red Cross (ARC)	Provide relief to victims of disasters and help people prevent, prepare for, and respond to emergencies.	http://www.redcross.org
American Water Works Association (AWWA)	American Water Works Association information on water conservation.	http://www.awwa.org/asp/default_conservation.asp
AWWA, Water Wiser Organization	Comprehensive listing of water conservation and water related sites.	http://www.waterwiser.org/frameset.cfm?b=5
Association of State Dam Safety Officials (ASDSO)	General Information about dams and dam safety in the US.	http://www.damsafety.org/
Association of State Floodplain Managers (ASFPM)	Information on floodplain management, flood hazard mitigation, the National Flood Insurance Program, and flood preparedness, warning and recovery.	http://www.floods.org/
Mid-America Earthquake Center (MAE)	One of three national earthquake engineering research centers established by the National Science Foundation.	http://mae.ce.uiuc.edu/

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
MILNET-Nuclear Weapons Frequently Asked Questions	Good overview on nuclear weapons.	http://www.milnet.com/milnet/nukeweap/
Minnesota Geological Survey (MGS)	The University outreach center for the science and technology of earth resources in Minnesota.	http://www.geo.umn.edu/mgs/
Minnesota Seismicity	Minnesota seismicity information.	http://wwwneic.cr.usgs.gov/neis/states/minnesota/minnesota.html
National Association of Counties (NACo)	NACo is the only nation-wide organization representing county governments.	http://www.naco.org/index.cfm
National Drought Mitigation Center (NDMC)	Information on drought preparation and risk management.	http://enso.unl.edu/ndmc/
National Emergency Management Association (NEMA)	NEMA is the professional association of state, pacific, and Caribbean insular state emergency management directors.	http://www.nemaweb.org/
National Energy Foundation	This is site for kids, parents and teachers, with a focus on water conservation in the home.	http://www.getwise.org/
National Fire Protection Association (NFPA)	Provides scientifically based fire codes and standards, research, training, and education.	http://www.nfpa.org/
National Lightning Safety Institute (NLSI)	Independent, non-profit consulting, education and research organization focusing on lightning safety.	http://www.lightningsafety.com/
Natural Hazards Center at the University of Colorado	Clearinghouse for natural hazards information.	http://www.colorado.edu/hazards/
Project Safeside (The Weather Channel & American Red Cross)	The goal of Project Safeside is to raise national awareness of the need to prepare for severe weather.	http://www.weather.com/safeside/
Societal Aspects of Weather-Injury and Damage Statistics	Contains societal impact data for weather related disasters.	http://www.esig.ucar.edu/socasp/stats.html

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
The Disaster Center	Provides news and information on current disasters, and the emergency management field. Links to each state included.	http://www.disastercenter.com/
The Disaster Research Center (University of Delaware)	Research center for the preparation and mitigation of natural and technological disaster for groups, organizations and communities.	http://www.udel.edu/DRC/
The National Wildland/Urban Interface Fire Protection Program	Site information to help to become a “firewise” individual.	http://firewise.org/
The Terrorism Research Center	The Terrorism Research Center is dedicated to informing the public of the phenomena of terrorism and information warfare.	http://www.terrorism.com/index.shtml
The Texas Agricultural Extension Service and the Texas A&M University System	Links to the 1998 report: Texas Drought Management Strategies, prepared by the Texas Agricultural Extensions Service and the Texas A&M University.	http://agnews.tamu.edu/drought/drghtpak98/
The Tornado Project	Offers tornado books, posters, and videos. Many links.	http://www.tornadoproject.com/
United Nations International Strategy for Disaster Reduction (ISDR)	Increase public awareness of hazard and risk issues for the reduction of disasters in modern societies, motivate public administration policies and measures to reduce risks, and improve access of science and technology for risk reduction in local communities.	http://www.unisdr.org/
University of Wisconsin Disaster Management Center	The center's goal is to help improve the emergency management performance of non-governmental organizations, local and national governments, and international organizations, through a comprehensive professional development	http://epdweb.engr.wisc.edu/dmc/

ORGANIZATION	***SITE SUMMARY***	***CONTACT***
	program in disaster management.	
USA Today Weather	Good overview of current weather and additional weather related data.	http://www.usatoday.com/weather/wfront.htm
Worldwide Disaster Aid and Information	Provides general information regarding relief agencies and available assistance.	http://www.disasterrelief.org/

C. Financial Assistance – By Codes of Federal Domestic Assistance Numbers

TOPIC/CODE	***DESCRIPTION***	***INTERNET ADDRESS***
93.003 Public Health and Social Services Emergency Fund	Funds are available for public health and social service emergencies. Funds are initially appropriated to the Office of the Secretary, but virtually all funding is allocated to HHS agencies for award and use in disaster areas.	http://www.cfda.gov/public/viewprog.asp?progid=1112
93.113 Biological Response to Environmental Health Hazards	To focus on understanding how chemical and physical agents cause pathological changes in molecules, cells, tissues, and organs and become manifested as respiratory disease, neurological, behavioral and developmental abnormalities, cancer, and other disorders.	http://www.cfda.gov/public/viewprog.asp?progid=1136

TOPIC/CODE	***DESCRIPTION***	***INTERNET ADDRESS***
93.114 Applied Toxicological Research and Testing	To develop scientific information about potentially toxic and hazardous chemicals by concentrating on toxicological research, testing and test development, and validation efforts. Specific goals of the program include the determination of the toxicological profiles of chemicals, and the development and validation of existing and emerging methodologies that can be successfully employed for predicting the human response to toxic agents.	http://www.cfda.gov/public/viewprog.asp?progid=1137
93.116 Project Grants and Cooperative Agree-ments for Tuberculosis Control Programs	To assist State and local health agencies in carrying out tuberculosis control activities designed to prevent transmission of infection and disease.	http://www.cfda.gov/public/viewprog.asp?progid=1139
93.127 Emergency Medical Services for Children	To support HSEMonstration projects for the expansion and improvement of emergency medical services for children who need treatment for trauma or critical care. It is expected that maximum distribution of projects among the States will be made and that priority will be given to projects targeted toward populations with special needs, including Native Americans, minorities, and the disabled.	http://www.cfda.gov/public/viewprog.asp?progid=1147

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
93.143 NIEHS Superfund Hazardous Substances-Basic Research and Education	To establish a unique program linking biomedical research with engineering, geoscience, and ecological research. The goals of the program are to establish and support an innovative program of basic research and training consisting of multi-project, interdisciplinary efforts.	http://www.cfda.gov/public/viewprog.asp?progid=1158
93.161 Health Program for Toxic Substances and Disease Registry	To work closely with State, local, and other Federal agencies to reduce or eliminate illness, disability, and death resulting from exposure of the public and workers to toxic substances at spill and waste disposal sites.	http://www.cfda.gov/public/viewprog.asp?progid=1168
93.204 Surveillance of Hazardous Substance Emergency Events	To assist State health departments in developing a State-based surveillance system for monitoring hazardous substance emergency events. This surveillance system will allow the State health department to better understand the public health impact of hazardous substance emergencies by developing, implementing, and evaluating a State-based surveillance system.	http://www.cfda.gov/public/viewprog.asp?progid=1190

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
93.208 Great Lakes Human Health Effects Research	To Build and amplify results from past and on-going research in the Great Lakes basin; develop information, databases and research methodology to provide long-term benefit to human health effects research in the Great Lakes basin	http://www.cfda.gov/public/viewprog.asp?progid=1192
93.268 Immunization Grants	To assist States and communities in establishing and maintaining preventive health service programs to immunize individuals against vaccine-preventable diseases (including measles, rubella, poliomyelitis, diphtheria, pertussis, tetanus, hepatitis B, hepatitis A, varicella, mumps, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1227
93.283 Centers for Disease Control and Prevention (CDC), Investigations and Technical Assistance	To assist State and local health authorities and other health related organizations in controlling communicable diseases, chronic diseases, and other preventable health conditions.	http://www.cfda.gov/public/viewprog.asp?progid=1237
93.944 HIV / Acquired Immunodeficiency Syndrome (AIDS) Surveillance	To continue and strengthen effective HIV and AIDS surveillance programs and to effect, maintain, measure and evaluate the extent of HIV / AIDS incidence and prevalence throughout the United States and its territories.	http://www.cfda.gov/public/viewprog.asp?progid=1381

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
83.007 Reimbursement for Fire Fighting on Federal Property	To provide that each fire service organization, which engages in fire fighting operations on Federal property, may be reimbursed for their direct expenses and direct losses.	http://www.cfda.gov/public/viewprog.asp?progid=915
83.011 Superfund Amendments Reauthorization Act (SARA), Title III Training Program	Hazardous Materials Training.	http://www.cfda.gov/public/viewprog.asp?progid=918
83.012 Hazardous Materials Assistance Program	Training for emergency planning, preparedness, mitigation, and response capabilities.	http://www.cfda.gov/public/viewprog.asp?progid=1468
83.100 Flood Insurance	To enable persons to purchase insurance against physical damage to or loss of buildings and/or contents caused by floods, mudslide (i.e., mudflow), or flood-related erosion.	http://www.cfda.gov/public/viewprog.asp?progid=919
83.105 Community Assistance Program (CAP)	Prevent and resolve floodplain management issues in participating communities.	http://www.cfda.gov/public/viewprog.asp?progid=920
83.523 Emergency Food and Shelter National Board Program	To supplement and expand ongoing efforts to provide shelter, food, and supportive services for needy families and individuals. To strengthen efforts to create more effective.	http://www.cfda.gov/public/viewprog.asp?progid=922

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
83.527 FEMA, Emergency Management Institute (EMI), Training Assistance	To defray travel and per diem expenses of State and local emergency management personnel who attend training courses conducted by EMI.	http://www.cfda.gov/public/viewprog.asp?progid=924
83.536 Flood Mitigation Assistance	Planning Grants used to assist States and communities in developing Flood Mitigation Plans.	http://www.cfda.gov/public/viewprog.asp?progid=929
83.537 Community Disaster Loans	To provide loans, subject to Congressional loan authority, to any local government that has suffered substantial loss of tax and other revenue in an area in which the President designates a major disaster exists.	http://www.cfda.gov/public/viewprog.asp?progid=930
83.538 Cora Brown Fund	To use funds made possible by a bequest of funds from the late Cora C. Brown of Kansas City, Missouri, who left a portion of her estate to the United States for the purpose of helping victims of natural disasters not caused by or attributed to war.	http://www.cfda.gov/public/viewprog.asp?progid=931
83.539 Crisis Counseling	To provide immediate crisis counseling services, when required, to victims of a major Federally-declared disaster for the purpose of relieving mental health problems caused or aggravated by a major disaster or its aftermath. Assistance	http://www.cfda.gov/public/viewprog.asp?progid=932

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
	provided is short-term in nature and provided at no cost to the disaster victims.	
83.540 Disaster Legal Services	To provide legal assistance to individuals affected by a major Federal disaster.	http://www.cfda.gov/public/viewprog.asp?progid=933
83.541 Disaster Unemployment Assistance (DUA)	To provide DUA weekly benefits to help individuals who are left jobless in the wake of a Federally-declared major disaster, and are not eligible for regular Unemployment Insurance benefits.	http://www.cfda.gov/public/viewprog.asp?progid=934
83.542 Fire Suppression Assistance	To provide grants to States for the suppression of any fire on public (nonfederal) or privately owned forest or grassland that threatens to become a major disaster.	http://www.cfda.gov/public/viewprog.asp?progid=935
83.543 Individual and Family Grants	To provide funds for the necessary expenses and serious needs of disaster victims which cannot be met through other forms of disaster assistance or through other means such as insurance.	http://www.cfda.gov/public/viewprog.asp?progid=936
83.544 Public Assistance Grants	Removal of debris from public lands; emergency protective measures; restoration of eligible facilities.	http://www.cfda.gov/public/viewprog.asp?progid=937
83.545 Disaster Housing Program	Home Repair Assistance.	http://www.cfda.gov/public/viewprog.asp?progid=938
83.547 First Responder Counter-Terrorism Training Assistance	To enhance the capabilities of first responders in managing the consequences of terrorist	http://www.cfda.gov/public/viewprog.asp?progid=939

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
	acts.	
83.548 Hazard Mitigation Grant Program (HMGP)	To provide States and local governments financial assistance to implement measures that will permanently reduce or eliminate future damages and losses from natural hazards through safer building practices and improving existing structures and supporting infrastructure.	http://www.cfda.gov/public/viewprog.asp?progid=940
83.550 National Dam Safety Program	Ensure dam safety, to protect human life and property, and to improve State dam safety programs.	http://www.cfda.gov/public/viewprog.asp?progid=942
83.551 Project Impact--Building Disaster Resistant Communities	Reduce the existing risk of natural hazard losses within the geographic location of the designated communities.	http://www.cfda.gov/public/viewprog.asp?progid=943
83.552 Emergency Management Performance Grants	Improve emergency planning, preparedness, mitigation, response, and recovery capabilities.	http://www.cfda.gov/public/viewprog.asp?progid=944
66.701 Toxic Substances Compliance Monitoring Cooperative Agreements	To (a) assist States in developing and enhancing comprehensive toxic substance enforcement programs including PCB, asbestos, lead-based paint, and sector specific multi-media enforcement efforts, (b) sponsor cooperative surveillance, monitoring, compliance assistance, and analytical procedures; and (c)	http://www.cfda.gov/public/viewprog.asp?progid=1381

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
	encourage regulatory activities within the States.	
66.714 Pesticide Environmental Stewardship-Regional Grants	To provide risk reduction from the use of pesticides in agricultural and non-agricultural settings in the United States.	http://www.cfda.gov/public/viewprog.asp?progid=848
66.801 Hazardous Waste Management State Program Support	To assist state governments in the development and implementation of an authorized hazardous waste management program for the purpose of controlling the generation, transportation, treatment, storage and disposal of hazardous wastes.	http://www.cfda.gov/public/viewprog.asp?progid=849
66.805 Leaking Underground Storage Tank Trust Fund Program	To support State and Tribal corrective action and enforcement programs that address releases from underground storage tanks containing petroleum.	http://www.cfda.gov/public/viewprog.asp?progid=852
66.809 Superfund State Core Program Cooperative Agreements	To effectively implement the statutory requirements of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(f) for State involvement.	http://www.cfda.gov/public/viewprog.asp?progid=856
66.810 Chemical Emergency Preparedness and Prevention (CEPP) Technical Assistance Grants Program	To provide for chemical accident prevention activities that relate to the Risk Management Program under the Clean Air Act.	http://www.cfda.gov/public/viewprog.asp?progid=857

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
59.002 Economic Injury Disaster Loans	To assist business concerns suffering economic injury as a result of Presidential, Small Business Administration, and/or Secretary of Agriculture declared disasters.	http://www.cfda.gov/public/viewprog.asp?progid=756
59.008 Physical Disaster Loans	To provide loans to the victims of declared physical- type disasters for uninsured losses.	http://www.cfda.gov/public/viewprog.asp?progid=760
47.041 Engineering Grants	Earthquake Hazard Mitigation; Natural and Technological Hazard Mitigation; (among many others).	http://www.cfda.gov/public/viewprog.asp?progid=745
39.003 Donation of Federal Surplus Personal Property	To transfer surplus personal property to the States for donation to State and local public agencies.	http://www.cfda.gov/public/viewprog.asp?progid=706
21.052 Alcohol, Tobacco and Firearms (ATF) - Training Assistance	To help the participant identify the laws relating to alcohol, tobacco, firearms and explosives, and provide training in specific investigative skills and techniques, and to help State, county, and local law enforcement officers improve their law enforcement capabilities in the organized crime area, including arson, undercover, firearms and explosives investigations.	http://www.cfda.gov/public/viewprog.asp?progid=676
20.006 State Access to the Oil Spill Liability Trust Fund	To encourage greater State participation in response to actual or threatened discharges of oil.	http://www.cfda.gov/public/viewprog.asp?progid=620
20.303 Grants-in-Aid	To promote safety in all areas	http://www.cfda.gov/public/viewprog.a

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
for Railroad Safety-State Participation	of railroad operations; reduce railroad related accidents and casualties; and to reduce damage to property caused by accidents involving any carrier of hazardous materials by providing State participation in the enforcement and promotion of safety practices.	sp?progid=633
20.700 Pipeline Safety	To develop and maintain State natural gas, liquefied natural gas, and hazardous liquid pipeline safety programs.	http://www.cfda.gov/public/viewprog.asp?progid=649
20.703 Interagency Hazardous Materials Public Sector Training and Planning	To improve the capability of communities to plan for and respond to risks posed by incidents involving hazardous materials.	http://www.cfda.gov/public/viewprog.asp?progid=651
16.006 County and Municipal Agency Domestic Preparedness Equipment	The funds may be used to procure equipment to meet the basic defensive capabilities needs of first responders.	http://www.cfda.gov/public/viewprog.asp?progid=485
16.007 State Domestic Preparedness Equipment Support Program	Procure equipment subsequent to the findings that are developed in the statewide threat and needs assessment.	http://www.cfda.gov/public/viewprog.asp?progid=486
16.309 Law Enforcement Assistance-National Instant Criminal Background Check	To provide a system so that any Federal Firearm Licensee (FFL) could gain information, by telephone or by other electronic means, on whether receipt of a	http://www.cfda.gov/public/viewprog.asp?progid=1439

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
System	firearm by a prospective buyer would violate Federal or State laws through the proper completion of ATF Form 4473.	
16.565 National Institute of Justice Domestic and Terrorism Technology Development Program	To support the development of counter terrorism technologies, assist in the development of standards for those technologies, and work with state and local jurisdictions to identify particular areas of vulnerability to terrorist acts and be better prepared to respond if such acts occur.	http://www.cfda.gov/public/viewprog.asp?progid=523
16.579 Byrne Formula Grant Program	To reduce and prevent illegal drug activity, crime, and violence and to improve the functioning of the criminal justice system.	http://www.cfda.gov/public/viewprog.asp?progid=530
16.580 Edward Byrne Memorial State and Local Discretionary Grants	Programs for FY 2000 Demonstrate comprehensive, and integrated multi-agency approaches to violent crime control.	http://www.cfda.gov/public/viewprog.asp?progid=531
16.732 National Evaluation of the Safe Schools/Healthy Students Initiative	To conduct an evaluation of the Safe Schools.	http://www.cfda.gov/public/viewprog.asp?progid=568
15.031 Indian Community Fire Protection	To provide funds to perform fire protection services for Indian Tribal Governments that	http://www.cfda.gov/public/viewprog.asp?progid=393

93.142 National Institute of Environmental Health Services (NIEHS) Hazardous Waste Worker Health and Safety Training	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste, etc.	http://www.cfda.gov/public/viewprog.asp?progid=1157
	do not receive fire protection support from State or local government.	
15.064 Structural Fire Protection-Bureau of Indian Affairs (BIA) Facilities	To provide for the installation of fire protection and prevention equipment in schools, dormitories, detention centers and other BIA facilities.	http://www.cfda.gov/public/viewprog.asp?progid=424
15.065 Safety of Dams on Indian Lands	To improve the structural integ-rity of dams on Indian lands.	http://www.cfda.gov/public/viewprog.asp?progid=425

TOPIC/CODE	***DESCRIPTION***	***INTERNET ADDRESS***
15.807 Earthquake Hazards Reduction Program	Specific objectives are identified in the annual program announcement.	http://www.cfda.gov/public/viewprog.asp?progid=459
14.119 Mortgage Insurance-Homes for Disaster Victims	To help victims of a major disaster undertake homeownership on a sound basis.	http://www.cfda.gov/public/viewprog.asp?progid=285
14.120 Mortgage Insurance-Homes for Low and Moderate Income Families	To make homeownership more readily available to families displaced by a natural disaster, urban renewal, or other government actions and to increase homeownership opportunities for low income and moderate income families.	http://www.cfda.gov/public/viewprog.asp?progid=286
14.228 Community Development Block Grants/State's Program	Grant funds include acquisition of real property, relocation and Demolition, rehabilitation for low income areas.	http://www.cfda.gov/public/viewprog.asp?progid=334
12.101 Beach Erosion Control Projects	To control beach and shore erosion to public shores through projects not	http://www.cfda.gov/public/viewprog.asp?progid=241

	specifically authorized by Congress.	
12.102 Emergency Rehabilitation of Flood Control Works, Coastal Protection Works	To assist in the repair and restoration of flood control works damaged by flood, or federally authorized hurricane protection.	http://www.cfda.gov/public/viewprog.asp?progid=242
12.103 Emergency Operations Flood Response and Post Flood Response	To provide emergency flood response and post flood response assistance as required to supplement State and local efforts.	http://www.cfda.gov/public/viewprog.asp?progid=243
12.104 Flood Plain Management Services	To promote recognition of flood hazards in land and water use planning.	http://www.cfda.gov/public/viewprog.asp?progid=244
12.105 Protection of Essential Highways, Highway Bridge Approaches	To provide bank protection of highways, highway bridges, essential public works, churches, hospitals, schools.	http://www.cfda.gov/public/viewprog.asp?progid=245
12.106 Flood Control Projects	To reduce flood damages through projects not specifically authorized by Congress.	http://www.cfda.gov/public/viewprog.asp?progid=246
12.108 Snagging and Clearing for Flood Control	To reduce flood damage.	http://www.cfda.gov/public/viewprog.asp?progid=248
12.110 Planning Assistance to States	To cooperate with any state in the preparation of comprehensive plans for the utilization and conservation of water.	http://www.cfda.gov/public/viewprog.asp?progid=250
12.111 Emergency Advance Measures for Flood Prevention	To perform activities prior to flooding that would assist in protecting against loss of life and damages to property due to flood.	http://www.cfda.gov/public/viewprog.asp?progid=251
10.054 Emergency Conservation Program	Enable farmers to perform emergency measures to control wind erosion, to rehabilitate farmlands damaged natural disasters.	http://www.cfda.gov/public/viewprog.asp?progid=16
10.069 Conservation Reserve Program	To protect the Nation's long-term capability to produce food and fiber; to reduce soil erosion and sedimentation, improve water quality, and create a better habitat for wildlife.	http://www.cfda.gov/public/viewprog.asp?progid=20

10.404 Emergency Loans	To assist established (owner or tenant) family farmers, ranchers and aquaculture operators with loans to cover losses resulting from major and/or natural disasters.	http://www.cfda.gov/public/viewprog.asp?progid=56
10.417 Very Low-Income Housing Repair Loans and Grants	Grant funds may only be used by senior citizens to make such dwellings safe and to remove health and safety hazards.	http://www.cfda.gov/public/viewprog.asp?progid=63
10.444 Direct Housing-Natural Disaster Loans and Grants	To assist qualified recipients to meet emergency assistance needs resulting from natural disaster. Funds are only available to the extent that funds are not provided by the FEMA. For the purpose of administering these funds, natural disaster will only include those counties identified by a Presidential declaration.	http://www.cfda.gov/public/viewprog.asp?progid=74
10.445 Direct Housing-Natural Disaster	To assist qualified lower income rural families to meet emergency assistance needs resulting from natural disaster to buy, build, rehabilitate, or improve dwellings in rural areas.	http://www.cfda.gov/public/viewprog.asp?progid=75
10.451 Noninsured Crop Disaster Assistance	To provide eligible producers of eligible crops with protection comparable to the catastrophic risk protection plan of crop insurance.	http://www.cfda.gov/public/viewprog.asp?progid=77
10.452 Disaster Reserve Assistance	To provide emergency assistance to eligible livestock owners, a livestock emergency has been determined to exist.	http://www.cfda.gov/public/viewprog.asp?progid=78
10.763 Emergency Community Water Assistance Grants	Through the Emergency Community Water Assistance Grant Program, the Rural Utilities Service (RUS) is authorized to help rural residents who have experienced a significant decline in quantity	http://www.cfda.gov/public/viewprog.asp?progid=117

	or quality of water to obtain adequate quantities of water that meet the standards of the Safe Drinking Water Act.	

C. State Mitigation Capability Assessment

This section will assess the capability of some State Mitigation programs. Agencies with programs that may impact mitigation efforts are listed with applicable programs, funding sources and levels, and the effect on loss reduction that the program may offer.

The following definitions will be used with respect to the effect on loss reduction.
Support: Programs, plans, policies regulations, funding, or practices that directly help the implementation of mitigation actions.
Facilitate: Programs, plans, and policies that make implementing mitigation actions easier.

Minnesota Board of Water and Soil Resources

Conservation Reserve Enhancement Program (CREP)

Designed to set aside marginal agricultural land and environmentally sensitive land along waterways to enhance wildlife habitat, improve water quality, reduce erosion and sedimentation and reduce the impacts of recurrent flooding.

Federal (80%) and State (20%) funding. Provides funds to local government to administer state policies and programs for which the agency is responsible.

Effect on Loss Reduction: **Support**

Minnesota Department of Natural Resources (DNR)

(wildfires, flood, tornado,windstorm,hail)

Flood Hazard Mitigation Grant Assistance

To provide technical and financial assistance tolocal governmental units for conducting flood damage reduction studies and for planning and implementing flood damage reduction measures.

A maximum of 50% of total eligible project costs up to $150,000 with grants more than $150,000 requiring approval by the Legislature.

Effect on Loss Reduction: **Support**

Stream Bank Maintenance Grants

The removal of brush, dead or downed trees and other debris from stream channels and floodplains.

A maximum of 75% of eligible project costs, typically from $5,000 - $15,000. Created in 1972 to help county governments respond to flood damaged streams and floodplains.

Effect on Loss Reduction: **Facilitate**

Dam Safety Grants

To improve the safety and condition of publicly owned dams and water level control structures.

Reimbursement of costs, up to 50% for repairs, up to 100% for removals. Grants ranged from $25,000 to $1,000,000

Effect on loss reduction: **Support**

Wetland Tax Exemption Program

To provide a financial incentive to maintain wetlands in their natural state and to promote an awarness of wetland values.

Qualifying areas are exempt from property taxes that remain in effect as long as wetland meets the requirements set forth in the statutes.

Effect on loss reduction: **Support**

Wild and Scenic Rivers-Acquisition Program

To implement the Wild and Scenic Rivers System which preserves and protects the outstanding scenic, recureational, natural, historical and scientific values of certain Minnesota rivers and adjacent lands.

Project is currently not funded. Last funded for payments in 1989.

Effect on loss reduction: **N/A since not funded.**

Minnesota Homeland Security and Emergency Management

Hazard Mitigation Grant Program (HMGP)

Program funded by the Federal Emergency Management Agency to assit States and local communities in implementing long-term hazard mitigation measures following a major disaster declaration.

Federal funding for HMGP projects can be up to 75% of the projects total eligible costs. Remaining 25% must be local or State funding.

Effect on Loss Reduction: **Support**

Hazard Mitigation Planning Grant Program

Homeland Security and Emergency Management (HWEM) and Minesota Planning have partnered to assist communities with devleopoing hazard mitigation plans. The basis for these plans is found in the Disaster Mitigation Act of 2000.

FEMA provides HMGP grants to states that, in turn, provide sub-grants to local governments for mitigation activities such as planning. Federal funding for HMGP projects can be up to 75% of the project's total eligible costs with 25% local match.

Effect on Loss Reduction: **Support**

Minnesota Department of Employment and Economic Development

Small Cities Development Program

Purpose is to provide decent housing, a suitable living environment and expanding economic opportunities, principally for persons of low-and-moderate income to cities and townships with populations under 50,000 and counties with populations under 200,000.

Provides federal grants from the U.S. Department of Housing and Urban Development (HUD) to local units of government. State program rules subdivide grant funds into three general categories: Housing Grants, Poject Facility Grants, and Comprehensive Grants. Public Facility Grants could include projects involving storm sewer projects and flood control projects.

Effect on Loss Reduction: **Facilitate**

Greater Minnesota Business Development Public Infrastructure Grant Program

Program purpose is to stimulate new economic development, or creats or retain jobs in Greater Minnesota, through public infrastructure investments.

Provides grants to cities of up to 50% of the capital costs of the public infrastructure necessary, which expand or retain jobs in the area, increase the tax base, or which expand or create new economic development. Eligible projects include, but not limited to wastewater collection and treatment, drinking water, storm sewers, utility extensions, and streets.

Effect on Loss Reduction: **Facilitate**; however, depends on whether or not invesements encourage development in flood hazard areas.

Greater Minesota Redevelopment Grant Program

Purpose is to provide grants to assist development authorities with costs related to redeveloping blighted industrial, residential or commercial properties.

Grants pay up to 50% of eligible redevelopment costs for a qualifying site, with a 50% local match. Grants can pay for land acquisition, demolition, infrastructure

improvements, stabilizing unstable soils, ponding, environmental infrastructure, building construction, design and engineering and adaptive reuse of buildings.

Effect on Loss Reduction: **Facilitate**; however, depends on whether or not investments encourage redevelopment in flood hazard areas.

Minnesota Pollution Control Agency

Stormwater Program

Minnesota Pollution Control Agency (MPCA) is the delegated permitting authority for Minnesota of the U.S. Environmental Protection Agency's (EPA) National Polutant Discharge Elimination System (NPDES). Per mits are required formost construction activities designed to limit polluted discharges and implement best management practices.

The budget for the Storm Water Program in FY03 was approximately $1.5 million and include administrative and management support in eight Minnesota locations.

Effect on Loss Reduction: **Support**

Metropolitan Council

Livable Communities Grant Program

The Council awards grants to participating communities in the seven-county area to help them, amontg other things, create development or redevelopment that demonstrates efficient and cost-effective use of land and infrastructure, a range of housing types and costs, commercial and community uses, walkable neighborhoods and easy access to transit and open space.

Funding is in three different accounts to enable communities throught he region to carryout their development plans, and leverage millions of dolloars in private and public invesetment while providing jobs and business growth.

Effect on Loss Reduction: **Facilitate**, depending on location of invesement and whether or not it is in a flood hazard area.

ANNEX A:
NATURAL HAZARDS CAPABILITIES

ANNEX A1: WILDLAND FIRE CAPABILITIES

A. General

1. The Minnesota Department of Natural Resources (DNR), Division of Forestry has primary responsibility for wildland fire protection on 22.8 million acres of public and private land. Its total responsibility encompasses 45.5 million acres or 89 percent of the total land base.

2. The following web sites provide current wildfire risk information in Minnesota:

   - See http://www.dnr.state.mn.us/forestry/fire/, which provides state fire danger rating and burning restrictions from the Wildfire Information Center.

B. Minnesota Agency Capabilities

WILDFIRES	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Health		X						X			X
Department of Natural Resources	X		X	X	X	X	X	X	X	X	X
Department of Public Safety, Homeland Security and Emergency Management	X				X	X		X	X	X	X
Department of Public Safety, Office of Pipeline Safety					X						X
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

1. Minnesota Department of Natural Resources (DNR), Division of Forestry

   a. Weather Stations – Weather conditions play a major role in fire occurrence and behavior. For this reason, Division of Forestry offices operate and maintain weather stations as part of their pre-suppression duties The DNR Forestry offices collect weather data on a daily basis. This data is input into an U.S. Department of Agriculture (USDA) Forest Service computer, which uses the National Fire Danger

Rating System to determine daily and forecasted fire danger indices. The indices are combined with specially tailored fire weather forecasts from the National Weather Service (NWS) to develop short-range guidelines for scheduling detection, equipment standby, and personnel.

b. Wildland Fire Detection – Discovering and locating a fire as soon as possible after ignition helps to minimize suppression costs and losses. . The Division of Forestry utilizes aerial detection, lookout towers and public reporting to accomplish wildland fire detection. The public reports the majority of the wildland fires that occur in the state through the 911 emergency response system.

2. U.S. Department of Agriculture (USDA) Forest Service and other federal agencies located in Minnesota

As a result of the National Fire Plan, the USDA Forest Service (USFS) and other federal agencies located in Minnesota including; the National Park Service (NPS), Bureau of Indian Affairs (BIA), US Fish and Wildlife Service (USFWS), received an increase in funds to increase fire response personnel, equipment, and facilities through out the state. These additional assets are available through the Minnesota Incident Command System (MNICS) to respond to wildfires and other incidents in Minnesota and nationally.

The USFS is the agency responsible for wildland fire response on the state's two national forests, the Superior National Forest in northeastern Minnesota and the Chippewa National Forest in north-central Minnesota. The USFS coordinates wildland fire protection and preparedness in these areas with the MN DNR Division of Forestry and local fire departments.

D. Response Plans

1. Great Lakes Forest Fire Compact (GLFFC)
The GLFFC and related plan is comprised of the DNR from the States of Minnesota, Wisconsin, and Michigan and the Ministry of Natural Resources from the Provinces of Ontario and Manitoba.

2. Minnesota Emergency Operations Plan (MEOP)
The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants. See http://www.hsem.state.mn.us/

3. Minnesota Incident Command System (MNICS)
In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, U.S. Fish and Wildlife Service, and the Minnesota State Fire Chiefs Association. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and

federal agencies to share equipment resources, personnel, and knowledge.

4. NE Minnesota Integrated Response Plan
   Developed to address the inter-agency emergency response actions that may result from a wildfire in the 1999 blow down area of northeastern Minnesota.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/.

F. Mitigation Plans/Projects

USDA Forest Service maintains the National Fire Plan that is updated annually for effective use of national resources to combat wildfires in the United States.

G. Public Awareness

1. Wildland Fire Public Education
   A major public education effort, which uses "Smokey Bear" appearances and materials, continues in the elementary schools.

   Public service announcements are distributed to print and broadcast media. These announcements provide information on burning regulations and methods to property owners and outdoor enthusiasts.

   In addition a separate public education and awareness effort has taken place each year since the July 4, 1999 blowdown storm in the BWCAW. The effort here has included information on the results of the storm, efforts to mitigate fire danger in the area through fuel reduction and prescribed burning, a blowdown hotline phone number (1-888-422-3505) giving updated information, and several websites which include current and updated fire information.

2. Wildland Fire/Urban Interface Education
   Publications and educational outreach activities provide general guidance about the actions that fire fighting agencies, design professionals, and homeowners can take to reduce the potential for disaster.

3. Governor's Council on Fire Prevention and Control
   Its mission is to provide a focal point for the exchange of information; to develop the best possible fire education, protection, and prevention services for the people of Minnesota; and, to coordinate the delivery of information. See http://www.dps.state.mn.us/fmarshal

4. Minnesota Fire Incident Reporting System
   The system provides information to the State Fire Service. It also gives the public insight into the risks and issues facing the fire service and the community in general

from the threat of fire. . In addition, the agencies involved in wildland fire suppression in Minnesota report wildland fires to the MNICS which summarizes and distributes wildland fire data through it's partner agencies and the MNICS website.

H. Training

The following web sites maintain training that includes general and specific response and mitigation training:

4. Wildfire training calendars www.ndr.state.mn.us/forestry/fire/training /index.html

Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

5. Minnesota State Colleges and Universities: http://www.mnscu.edu/Home.html

6. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://training.fema.gov/EMIWeb/

I. Legislation and Codes

1. Federal

Congressional legislation authorizes the U.S. Department of Agriculture (USDA), Forest Service to protect federal lands.

a. Prescribed Burning Program – Authorizes *intentionally set fires* in order to specifically improve land, manage vegetation, and improve wildlife habitat. Prescribed burning naturally manages the overgrowth of trees and over mature shrubs, which, if left unattended, can enable a wildland fire to burn more rapidly and more extensively.

b. Wildfire Disaster Recovery Act of 1989 – Establishes a National Commission of Wildfire Disasters and provides for increased planning, cooperation, and support among federal agencies and local fire fighting services in the event of forest fires. The Commission is studying the effects of wildfires and developing recommendations concerning the steps necessary for a recovery from the loss of natural resources from wildfires. The Act also calls for reports from the Secretaries of Agriculture and Interior on the rehabilitation needs of the various lands under their jurisdictions. The Secretaries are also to establish training programs to certify volunteers for suppressing forest fires on public lands and to submit mobilization plans for using fire fighting equipment.

2. State

   Minnesota Statutes 2000 Table of Chapters includes all state regulations. See http://www.leg.state.mn.us/leg/statutes.htm. Regulations that pertain to wildfire mitigation are found within the sections of Chapter 88, "Division of Lands and Forestry," of the State Code Repealed, Renumbered, etc. Sections.

J. Funding Sources

1. A partial list of fire fighting funding sources can be found at http://www.dps.state.mn.us/fmarshal/FundingSources.html.

2. See Section IX of this plan for Federal and other funding sources.

ANNEX A2: FLOOD CAPABILITIES

A. General

1. Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP): FEMA is the lead agency in providing emergency assistance immediately following a Presidential Disaster Declaration (See http://www.fema.gov/). FEMA administers the NFIP. The NFIP requires local government to adopt floodplain management controls meeting federal and state standards. In exchange FEMA provides flood insurance to public and private property owners. NFIP provides highly favorable rates for those structures that pre-date a FEMA Flood Insurance Rate Map. FEMA also administers a Flood Mitigation Assistance Grant Program, available to state and local governments, that funds flood mitigation projects and also funds the development of comprehensive community pre-disaster mitigation plans. FEMA provides Flood Insurance Rate Maps depicting areas susceptible to the 100-year frequency flood to be used by communities for floodplain zoning ordinances. FEMA can provide information on non-structural flood management measures to those communities seeking a preventative approach in dealing with flood problems.

   The Community Rating System (CRS) of the National Flood Insurance Program (NFIP) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

   Hazard Mitigation Grant Program (HMGP) Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.

   Pre-Disaster Mitigation (PDM) Program (PDM) provides technical and financial assistance to States and local governments for cost-effective pre-disaster hazard mitigation activities that complement a comprehensive mitigation program, and reduce injuries, loss of life, and damage and destruction of property.

2. U.S. Department of Agriculture (USDA), Natural Resources Conservation Services (NRCS): NRCS provides technical and financial assistance to individual landowners, groups of landowners, and communities through several programs involving water and related land resources. The Small Watershed Program works through local government sponsors and helps participants solve natural resource and related economic problems on a watershed basis. Projects include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and public recreation in watersheds of 250,000 or fewer acres. Both technical and financial assistance are available. See http://www.mn.nrcs.usda.gov .

The purpose of the Emergency Watershed Protection (EWP) Program is to relieve imminent hazards to life and property cause by natural disasters. This program may include the purschase of flood plain easements as well as repairs.

It is not necessary for a national emergency to be declared for an area to be eligible for assistance. The EWP program provides financial and technical assistance for sites ravaged by a natural disaster. Recent EWP activities in Minnesota have included removal of debris and sediment from streams, stabilization of stream banks, establishment of cover on critically eroding lands, repair of conservation practices, and purchase of flood plain easements.

3. U.S. Department of Commerce, Economic Development Administration (EDA): EDA was created to generate jobs, help retain existing jobs, and stimulate industrial and commercial growth in rural and urban areas of the United States experiencing high unemployment, low income, or severe economic distress. EDA works in partnership with state and local governments, regional economic development districts, public and private nonprofit organizations, and Indian tribes to empower communities to plan and implement locally and regionally-developed economic development and revitalization strategies. EDA assistance is available in rural and urban areas experiencing high unemployment, low-income levels, or sudden and severe economic distress. See http://www.doc.gov/eda/.

4. National Weather Service (NWS): NWS provides hydrological services including, river, flood and water supply forecasts and warnings for the entire State of Minnesota. More generally, for the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/.

5. U.S. Army Corps of Engineers (USACE): USACE is a major Army command with a broad set of missions and capabilities. USACE is subdivided into divisions and then into districts. The St. Paul District covers an area of approximately 139,000 square miles that includes most of Minnesota, the western half of Wisconsin, the northeastern half of North Dakota, and small portions of South Dakota and northern Iowa. The St. Paul District is one of six USACE districts that make up the Mississippi Valley Division.

   USACE flood-related responsibilities include:

   - helping local communities reduce damages caused by flooding
   - operating reservoirs for flood damage reduction, recreation, fish and wildlife habitat and water supply
   - emergency response operations prior to, during, and immediately following natural disasters.

During flood emergencies, USACE can assist communities by providing materials, equipment, and personnel for flood fighting and can construct temporary flood structures, such as levees. Assistance is also available after a flood emergency for rehabilitating damaged flood control works.

The Corps of Engineers has a range of short and long term capabilities, including technical assistance, planning, design and construction. The Floodplain Management Services Program (FMSP) maintains extensive data on flood hazards, hydraulic and hydrologic information, develops/disseminates data on nonstructural options, and determines structures flood susceptibility. USACE also has information on stream flow data such as flood frequency, depth, inundated areas, and flood duration. The Planning Assistance to States Program allows USACE to work with States on developing plans for the conservation of water resources. Permanent flood protection projects, planning, design and construction may be undertaken by the USACE in cooperation with a local entity.

The St. Paul District includes those portions of Minnesota that drain to the Mississippi River, Red River of the North and Rainy Rivers. Seehttp://www.mvp.USACE.army.mil/. The Detroit District includes those portions of Minnesota that drain to Lake Superior.

The Omaha District includes those portions of Minnesota that drain to the Missouri River basin. See http://www.lre.mvp.usace.army.mil .

6. U.S. Department of Interior, U.S. Geological Survey (USGS): The primary responsibilities of USGS are:

   - investigating and assessing the United States' land, water, energy, and mineral resources
   - conducting research on global change
   - investigating natural hazards such as earthquakes, volcanoes, landslides, floods, and droughts
   - conducting the National Mapping Program.

   USGS maintains an extensive data collection and interpretation program on land and water resources. Information available from USGS includes records of stream gauge heights, discharge run-off, time of travel, sediment discharge, historic flood peaks, and inundated areas. Reports of magnitude, frequency, and duration of flood flows are also maintained. See http://www.usgs.gov/.

7. U.S. Department of Transportation, Federal Highway Administration (FHWA): FHWA encompasses highway transportation in its broadest scope. FHWA is concerned with the total operation and environment of highway systems. FHWA provides highway construction grants to the State and directs federal highway construction appropriations. FHWA insures that the construction and maintenance of highways built with federal aid complies with existing regulations and directives. These regulations provide for the design of roadway embankments and bridge structures as they affect flooding in floodplains. FHWA is also concerned with stream channel changes in rural areas and

detention facilities in urban areas that affect highway routes. The design of bridge projects occasionally involve reshaping channels for short distances upstream and downstream.

FHWA is involved with debris removal and erosion control during the construction stage, as well as channel cleaning as part of the maintenance of projects.

FHWA also provides funds to aid in the cost of maintaining traffic and rebuilding flood damaged highway facilities using the federal aid system, when such work is beyond the capability of the owner of the highway. FHWA will also assist in surveying roadway damage in flood stricken areas. See http://www.fhwa.dot.gov/.

8. Minnesota Board of Water and Soil Resources (BWSR): BWSR is a state agency dedicated to helping local governments manage natural resources. BWSR aims to improve local capability through providing technical, financial, and administrative assistance.

   The Comprehensive Local Water Planning Program empowers counties outside the Seven-County Metro Area with the authority to develop local comprehensive water management plans that deal with both surface and ground water management. All 80 Greater Minnesota counties have State-approved and locally adopted comprehensive local water management plans. These plans are revised and updated approximately every five years. Technical assistance from state agencies to the counties is coordinated through BWSR. Plans are required to identify flood-prone areas and assess the adequacy of local floodplain regulations. See http://www.bwsr.state.mn.us/.

9. Minnesota Department of Natural Resources (DNR), Division of Waters: Under the Flood Hazard Mitigation Grant Assistance Program, Flood Damage Reduction (FDR), the Commissioner of DNR makes grants to local governments to:

   - conduct floodplain damage reduction studies to determine the most feasible, practical, and effective methods and programs for mitigating the damages due to flooding within flood prone rural and urban areas and their watersheds
   - plan and implement flood mitigation measures.

Flood Warning Gages

Thirty-eight new stream gages have been installed statewide, and five gages of the U.S. Geological Survey (USGS) have been upgraded as a result of a federal/state grant that was obtained by the Minnesota Division of Homeland Security and Emergency Management (DHSEM in response to extreme flooding events in the 1990's. Each gage is equipped with satellite telemetry to provide real-time information to the NWS, local officials, DHSEM, DNR, USGS, and the U.S. Army Corps of Engineers. The optional telephone lines would allow the gage to call predesignated local officials of impending flooding conditions.

An interagency task force, which primarily consisted of DHSEM, the Minnesota Department of Natural Resources (DNR), the National Weather Service (NWS), and the

USGS, surveyed flood-prone communities to determine their willingness to participate in improving their response to flooding. The task force then prioritized the potential sites based on the need for more data in specific watersheds.

DNR also administers the state Floodplain Management Program. Sound floodplain management principles stress the need for a comprehensive approach to solving flood problems by emphasizing nonstructural measures, such as floodplain zoning regulations, flood insurance, flood proofing, and flood warning and response planning. New construction and reconstruction of substantially damaged structures need to be built so that they will not be damaged by the 100-year flood. See http://www.dnr.state.mn.us/waters/.

The Department of Natural Resources, Division of Waters completed a two-year statewide training effort in winter of 2003 for local floodplain ordinance administrators. Thirteen workshops were conducted around the state with approximately 400 local officials in attendance. These workshops will be given in an ongoing, as needed basis, as well as day-to-day technical assistance to local officials will continue as in the past.

They have also prepared flood-specific informational brochures on what to do "before," "during," and "after" a flood. These publications will be reformatted in the future and made available in electronic format. The Department of Natural Resources, Division of Waters has also made significant enhancements to its home page by including substantial information on various flood, flood warning, drought/water supply, dam safety and related water resource issues.

10. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): The mission of the HSEM is to reduce the threat posed by hazards that can affect the State, plan ways to cope with disasters when they occur, coordinate the response of state and federal agencies in assisting local government when disasters occur, and coordinate the recovery efforts of state and federal agencies in conjunction with local governments when disaster strikes. See http://www.hsem.state.mn.us//.

B. Minnesota Agency Capabilities

STORM FLOOD	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Building Codes & Standards											X

Department of Agriculture				X	X			X			
Department of Health		X		X	X			X			X
Department of Human Services								X			
Department of Natural Resources	X	X	X	X	X	X	X	X		X	X
Department of Public Safety, Homeland Security and Emergency Management		X	X	X		X		X	X		
Department of Public Safety, Office of Pipeline Safety					X				X		
Department of Transportation	X			X	X	X				X	
Housing Finance Agency			X							X	
Metropolitan Airports Commission			X		X				X		
Minnesota National Guard	X	X	X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

RIVER FLOOD	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Building Codes & Standards											X
Department of Agriculture				X	X			X			
Department of Commerce					X			X			
Department of Health		X		X	X			X			X
Department of Natural Resources	X	X	X	X	X	X	X	X		X	X
Department of Public Safety, Homeland Security and Emergency Management		X	X			X			X		
Department of Public Safety, Office of Pipeline Safety					X						X
Department of Transportation	X			X	X	X				X	
Housing Finance Agency			X							X	
Minnesota National Guard	X	X	X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

1. U.S. Army Corps of Engineers (USACE): Prior to disasters occurring USACE provides advanced measures planning, technical assistance, and construction of flood reduction facilities. During flood disasters USACE provides these same services as well as

disseminating pumps, sandbags, and poly as requested by local communities. Following natural disasters and other emergencies, provides drinking water and ice, cleans up debris, provides auxiliary power, provides temporary housing and temporary roofing, and makes repairs to flood control structures. USACE provides technical advice to state and federal officials, inspecting and assessing damaged areas. See http://www.mvp.USACE.army.mil/disaster_response/.

2. National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), Weather Radio Alert Program: NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby NWS office. NOAA Weather Radio broadcasts NWS warnings, watches, forecasts, and other hazard information 24 hours a day. See http://www.nws.noaa.gov/nwr/index.html.

3. River gauges are maintained at strategic locations along rivers to monitor water levels.

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored mitigation programs and activities. See http://www.fema.gov/mit/.

2. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program was to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide. There are five in Minnesota.

3. U.S. Army Corps of Engineers (USACE): USACE administers the specifically authorized and small flood control projects (Section 205) programs. These programs allow for the planning, design and construction of flood damage reduction projects, both structural and non-structural. These projects are cost shared between the Federal and non-Federal sponsors.

3. Minnesota Department of Natural Resources (DNR), Division of Waters: Division of Waters administers the Flood Hazard Mitigation Grant Assistance Program, a state-local cost-sharing program for structural and non-structural flood mitigation projects. See http://www.dnr.state.mn.us/waters/.

5. Metropolitan Airports Commission: The St. Paul Downtown Airport (STP) was shut down due to river flooding on two occasions in the past decade; the MAC is currently seeking funding to build a levee at the airport.

G. Public Awareness

1. Minnesota Emergency Alert System (EAS): EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy. See http://www.hsem.state.mn.us//eas/.

2. National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

3. National Weather Service (NWS), Weather Alert Transmitters: Weather alert radios are effective only within their broadcast range. The broadcast range of NWS weather alert transmitters serving the state is shown on the map at http://www.crh.noaa.gov/mpx/images/webeffective

4. Federal Emergency Management Agency (FEMA): FEMA administers the NFIP. The following publications describing the program are available at http://www.fema.gov/nfip/libfacts.htm

   Answers to Questions about the NFIP:

   - Checklist for Consumers
   - Coping with a Flood - Before, During & After
   - Flood: Are You Protected from the Next Disaster?
   - Guide to Flood Maps
   - Here's What to Tell Your Clients About the Benefits of Flood Insurance
   - How the NFIP Works

- How You Can Benefit from the New ICC Endorsement
- Mandatory Purchase of Flood Insurance Guidelines
- Myths & Facts
- Nothing Could Dampen the Joy of Home Ownership
- Preferred Risk Policy
- Resources for Lenders, Services & Examiners
- Things You Should Know About Flood Insurance
- Tips on Handling Your Flood Insurance Claim
- Top 10 Facts Every Agent Needs to Know About the NFIP
- Top 10 Facts Every Consumer Needs to Know About the NFIP

5. Minnesota Department of Natural Resources (DNR), Division of Waters: The following publications are available from Division of Waters at http://www.dnr.state.mn.us/waters/:

   - Flood Insurance in Minnesota, January 1998
   - Flood Plain Management: A Handbook for Local Officials, October 1993
   - Flood Reduction Program Grant Assistance Program Guidebook
   - Managing Minnesota's Floodplain for the Future of our Communities, August 1997
   - Minnesota Public Drainage Manual, September 1991

6. Minnesota Department of Health (MDH), Division of Environmental Health: The following publications are available from the MDH. See http://www.health.state.mn.us/divs/eh/floodinfo.html:

   - Cleaning up After A Disaster
   - Public Health Concerns Related to Current Flooding
   - Cleaning up Your Business After a Flood
   - Disinfecting Flooded Wells
   - Health and Safety Tips for Flood Volunteers
   - Mass Feeding for Emergency Operations
   - Preventing and Solving Sewage Treatment Problem During a Flood
   - Protecting Your Health During a Flood

H. Training

1. Association of State Floodplain Managers (ASFPM): ASFPM sponsors national and regional conferences and workshops for local and state floodplain managers.

2. National Association for Flood and Stormwater Management (NAFSMA): NAFSMA sponsors a national conference each year for local officials involved in floodplain and storm-water management. See http://www.nafsma.org/

3. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

4. Federal Emergency Management Agency (FEMA), Emergency Management Institute

(EMI)**:** EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

5. Minnesota Department of Natural Resources (DNR), Division of Waters: They work with local units of government by providing financial, planning, and technical assistance to reduce recurring flood damages by promoting the sound management and appropriate use of floodplain and riparian areas. See http://www.dnr.state.mn.us/waters/.

I. Legislation and Codes

1. Federal
   a. Federal Emergency Management Agency (FEMA):

      1) PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP).

         Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

      2) PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

      3) PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved enhanced mitigation plans.

   b. U.S. Department of Agriculture (USDA), Natural Resources Conservation Services (NRCS), Emergency Watershed Protection Program: The purpose of the Emergency Watershed Protection Program is to undertake emergency measures, including the purchase of flood plain easements, for runoff retardation and soil erosion prevention to safeguard lives and property from floods, drought, and the products of erosion on any watershed whenever fire, flood or any other natural occurrence is causing or has caused a sudden impairment of the watershed. Authorized by section 216, P.L. 81-516, (33 U.S.C. 701b1) and Sections 403-405, P.L. 95-334, (16 U.S.C. 2203-2205).

   c. U.S. Army Corps of Engineers (USACE): Emergency Assistance authorized by PL 84-99. During flood emergencies, the USACE can assist communities by providing

materials, equipment and personnel for flood fighting and can construct temporary flood structures, such as levees Assistance is also available for rehabilitating damaged flood control works. Technical assistance available from the USACE is specifically oriented toward the needs of communities subject to floods. The USACE has an extensive amount of floodplain mapping and maintains a collection of flood-related information that can be furnished through the Floodplain Management Services Program. The information available from the USACE includes stream flow data such as flood frequency, depth, inundated areas and flood duration. Information on the operation of flood control structures is also available.

2. State

   a. Minnesota Department of Natural Resources (DNR), Division of Waters

      1) Flood Hazard Mitigation Grant Assistance Program: Minnesota Statutes Section 103F.161: Under the Flood Hazard Mitigation Grant Assistance Program FDR, the commissioner of DNR makes grants to local governments to: 1) conduct floodplain damage reduction studies to determine the most feasible, practical, and effective methods and programs for mitigating the damages due to flooding within flood prone rural and urban areas and their watersheds and 2) plan and implement flood mitigation measures.

      2) Floodplain Management Program: Minnesota Statutes Section 103F.165; E.O. 96-16, Section 1510; 1969, Minnesota Statutes, Chapter 103F: Division of Waters also administers the Flood Plain Management program. Sound floodplain management principles stress the need for a comprehensive approach to solving flood problems by emphasizing nonstructural measures, such as floodplain zoning regulations, flood insurance, floodproofing, and flood warning and response planning. New construction and reconstruction of substantially damaged structures must be built so as not to be damaged by the 100-year flood.

   b. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM):

      Minnesota Statutes, Section 12.04, subdivision 1G; E.0. 99-20.
      The mission of the HSEM is to reduce the threat posed by hazards that can affect the state, plan ways to cope with disasters when they occur, coordinate the response of state and federal agencies in assisting local government when disasters occur, and coordinate the recovery efforts of state and federal agencies in conjunction with local governments when disaster strikes.

J. Funding Sources

1. Federal Emergency Management Agency (FEMA): FEMA offers an array of programs to assist communities and individuals that have suffered flood damages. Details of the following programs can be found at http://www.fema.gov/

a. Hazard Mitigation Grant Program (HMGP): HMGP is established by Section 404 of the Stafford Act. Section 404 allows funding of most measures that will reduce the potential for disaster damages to improved property within the community in general.

   HMPG funding may be used to acquire disaster prone property to create a buffer against future disasters, construct new facilities, or even non-structural measures such as development of floodplain management regulations. HMGP hazard mitigation is often called 404 mitigation.

b. Pre-Disaster Mitigation (PDM) Program (PDM) provides technical and financial assistance to States and local governments for cost-effective pre-disaster hazard mitigation activities that complement a comprehensive mitigation program, and reduce injuries, loss of life, and damage and destruction of property.

c. Flood Mitigation Assistance Program(FMA) This FEMA program provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP.

d. Project Impact Community Grants Although the program is no longer in existence, the goal of Project Impact was to bring communities together to take actions that prepare for-- and protect themselves against--natural disasters in a collaborative effort. Experience has shown again and again that lives can be saved, damage to property can be reduced significantly, and economic recovery can be accelerated by consistently building safer and stronger buildings, strengthening existing infrastructures, enforcing building codes, and making the proper preparations before a disaster occurs.

2. U.S. Department of Commerce, Small Business Administration (SBA): The purpose of the SBA's Disaster Loan Program is to offer financial assistance to those who are trying to rebuild their homes and businesses in the aftermath of a disaster. By offering low-interest loans, the SBA is committed to long-term recovery efforts. The agency will do everything possible to meet the needs of those otherwise unable to put their lives back together. See http://www.sbaonline.sba.gov/disaster/

3. U.S. Army Corps of Engineers (USACE):

   a. Civil Works Program (congressionally authorized flood control projects)

   b. USACE has the authority, provided by Section 205 of the 1948 Flood Control Act, amended, to plan, design and construct certain small flood control projects that have not already been specifically authorized by Congress. There is no limitation as to the type of improvement, which may be used. Both structural (levees, channels, or dams, for instance) and nonstructural (floodproofing or evacuation, for example) solutions are considered. A project may also include features for other purposes such as water supply, provided local interests indicate a need and are willing to contribute the

amount representing the added costs incurred as a result of the addition. See http://www.mvp.USACE.army.mil/

4. See Cababilities Assessment section of this plan for Federal and other funding sources

ANNEX A3: TORNADO CAPABILITIES

A. General

1. U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS), Electric Program: The RUS is a credit agency that assists rural electric and telephone utilities in obtaining financing. This program provides and improves electric service to persons in rural areas. With RUS assistance, rural electric utilities have obtained financing to construct electric generating plants and transmission lines to provide initial and continued reliable electric service. See http://www.usda.gov/rus/electric/index.htm.

2. The Tornado Project: The Tornado Project is a small company that gathers, compiles, and makes tornado information available to weather enthusiasts, the meteorological community and emergency management officials in the form of tornado books, posters, and videos. There are many sites with tornado data, so this site gives the subject a little different twist, with tornado myths, tornado oddities, personal experiences, tornado chasing, tornado safety, and tornadoes in the past as well as more recent tornadoes. See http://www.tornadoproject.com/

3. U.S Army Corps of Engineers (USACE): USACE has capability to provide assessment of structural integrity following a tornado. See: http//mvp.usace.army.mil

B. Minnesota Agency Capabilities

TORNADO	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture				X	X			X			
Department of Commerce					X			X			
Department of Health		X		X	X			X			X
Department of Human Services								X			
Department of Natural Resources	X	X		X	X					X	
Department of Public Safety, Homeland Security and Emergency Management		X		X		X					
Department of Public Safety, Office of Pipeline Safety					X						X

Department of Transportation	X			X	X					X	
Housing Finance Agency			X							X	
Minnesota National Guard	X	X	X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) Weather Radio Alert Program: NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby NWS office. NOAA Weather Radio broadcasts NWS warnings, watches, forecasts and other hazard information 24 hours a day. See http://www.nws.noaa.gov/nwr/index.html

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System. MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. Federal Emergency Management Agency (FEMA), Project Impact: Although this program is now complete, the goal of this very successful FEMA pre-disaster mitigation program had been to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

3. Minnesota Department of Health (MDH), Manufactured Home Park Evacuation Plans and Storm Shelters: Minnesota Statutes Chapter 327, enumerates rules in section 327.20 which state "A manufactured home park with ten or more manufactured

homes shall provide a safe place of shelter for park residents or a plan for the evacuation of park residents to a safe place of shelter within a reasonable distance of the park for use by park residents in times of severe weather, including tornadoes and high winds. The municipality must approve the shelter or evacuation plan. The municipality may require the park owner to construct a shelter if it determines that a safe place of shelter is not available within a reasonable distance from the park. A copy of the municipal approval and the plan shall be submitted by the park owner to the MDH."

4. U.S. Department of Housing and Urban Development (HUD): In coordination with FEMA's "safe room" initiative, HUD is providing mortgage insurance to enable homeowners to borrow up to $5,000 to build an in-home shelter.

G. Public Awareness

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM), Severe Weather Awareness Week and Tornado Drill :Every spring the Minnesota HSEM sponsors a statewide Severe Weather Awareness Week. Throughout the week all forms of severe weather that commonly occur during the spring, summer, and fall are topics. Tornado safety is addressed through a statewide tornado drill, which focuses on tornado warnings and proper sheltering at work, home and play. See http://www.hsem.state.mn.us/

2. Minnesota Emergency Alert System (EAS): The EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. The EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy. See http://www.hsem.state.mn.us//eas

3. National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

4. National Weather Service (NWS), Weather Alert Transmitters: Weather alert radios are effective only within their broadcast range. The broadcast range of NWS weather alert transmitters serving the state is shown on the map at http://www.crh.noaa.gov/mpx/images/webeffectiverange430x540.gif

5. Federal Emergency Management Agency (FEMA): FEMA’s newly revised booklet for homeowners on evaluating the risk and building an in-home shelter is now available to the public. This information is also available on-line for downloading at http://www.fema.gov/library/npc_ts.htm

H. Training

1. International Conference of Building Officials (ICBO): ICBO provides training seminars regarding tornadoes and other natural hazards as they apply to building construction. See http://www.icbo.org/.

2. Minnesota Department of Administration, Building Codes and Standards Division : Building Codes and Standards Division administers the State Building Code, certifies local building officials, and collects surcharges on municipal issued permits. Promulgates the Manufactured Home "Tie Down" and "Anchoring" Standards (see Minnesota Administrative Rules Chapter 1350, 2000). Some municipalities have tie down/anchoring requirements in their ordinances, as do some insurance companies and producers of manufactured homes. See http://www.admin.state.mn.us/buildingcodes/.

3. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

4. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi.

I. Legislation and Codes

1. Federal: Federal Emergency Management Agency (FEMA)

   a. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program).

   b. Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

   c. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; funding for HMGP at 7 1/2 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

   d. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to

apply for self-administration of the HMGP. Increases percent to 20 for those with approved enhanced mitigation plans.

2. State
Department of Administration, Building Codes and Standards Division: administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75), that sets construction standards to assure the health, safety, comfort and security of building occupants. The division provides interpretations on the adopted codes, gives information regarding building materials and consults with municipal officials, design professionals and the general public relating to all types of projects. See http://www.admin.state.mn.us/buildingcodes/. Minnesota Statute defines building standards. See http://www.revisor.leg.state.mn.us/stats/327A/01.html

J. Funding Sources

1. U.S. Small Business Administration (SBA): Homeowners who receive a disaster assistance loan from the U.S. SBA to repair or rebuild a damaged or destroyed home may use some of the loan proceeds to construct a safe room. The SBA can also increase the approved disaster loan by up to 20 percent to cover the cost of adding a safe room. See http://www.sba.gov/gopher/Disaster/Disaster-Home-Loans/homeall.txt

2. U.S. Department of Housing and Urban Development (HUD): In coordination with FEMA's "safe room" initiative, HUD is providing mortgage insurance to enable homeowners to borrow up to $5,000 to build an in-home shelter.

3. See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX A4: LIGHTNING CAPABILITIES

A. General

1. Lightning Storm.com: Specific lightning conditions within the United States can be accessed at this web site. See http://lightningstorm.com/lightningstorm/gpg/lex1/mapdisplay_free.jsp

2. National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

B. Minnesota Agency Capabilities

LIGHTNING	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Public Safety, Homeland Security and Emergency Management					X			X			
Department of Public Safety, Office of Pipeline Safety					X						X
Metropolitan Airports Commission	X					X		X			
Minnesota National Guard			X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

1. Contractors Register, Inc.: For lightning mitigation equipment including lightning arrestors, air terminals, industrial surge suppressors, and grounding equipment, on the site below, search under keyword: Lightning Protection and Lightning Rods. See http://www.thebluebook.com/

2. Metropolitan Airports Commission: has two warning sirens for severe weather and a severe weather plan is a part of the Minneapolis St. Paul (MSP) main airport's EOP.

Safe areas have also been identified within terminal complexes. Lightning detection equipment triggers ramp evacuation during lightning storms. Emergency power is available for airfield lighting, signs and for critical functions and these needs are periodically reviewed by the utility providers, airport tenants, and the MAC.

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service.

   The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

National Lightning Safety Institute (NLSI): This site provides information on lightning mitigation plans that can be found under the Facility and Structure Safety Section. Information on Codes and Standards on Lightning Safety can be found under the Documents on Lightning Safety section. See http://www.lightningsafety.com/

G. Public Awareness

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM), Severe Weather Awareness Week.: Every spring the Minnesota HSEM sponsors a statewide Severe Weather Awareness Week. Throughout the week all forms of severe weather that commonly occur during the spring, summer and fall are topics.

2. Minnesota Emergency Alert System (EAS): The EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. The EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy.

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute

(EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

3. National Lightning Safety Institute (NSLI): Specific training on lightning related issues is offered by NLSI. For specific courses see http://www.lightningsafety.com/contents.html

I. Legislation and Codes

1. Minnesota Department of Administration, Building Codes and Standards Division Building Codes and Standards Division administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75) that sets construction standards to assure the health, safety, comfort and security of building occupants. The division provides interpretations on the adopted codes, gives information regarding building materials and consults with municipal officials, design professionals and the general public relating to all types of projects. See http://www.admin.state.mn.us/buildingcodes/. Minnesota Statute defines building standards. See http://www.revisor.leg.state.mn.us/stats/327A/01.html

2. NFPA-780 Standard for the Installation of Lightning Protection Systems (1997) (780) is the twenty-sixth revision of a revision of the British Lightning Code. NFPA-780 is widely held to be the primary lightning protection document in the United States. See http://www.lightningsafety.com/nlsi_lhm/NFP_780.html

J. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX A5: WINDSTORM CAPABILITIES

A. General

Texas Tech University (TTU), Lubbock, Texas: The TTU Wind Engineering Research Center web site is an excellent source for information about windstorms. See http://www.wind.ttu.edu/index

B. Minnesota Agency Capabilities

WINDSTORMS	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture				X	X			X			
Department of Commerce					X			X			
Department of Human Services								X			
Department of Natural Resources	X			X	X	X		X		X	
Department of Public Safety, Homeland Security and Emergency Management		X		X		X					
Department of Public Safety, Office of Pipeline Safety					X						X
Department of Transportation	X			X	X					X	
Minnesota National Guard	X	X	X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

1. U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS), Electric Program: RUS is a credit agency that assists rural electric and telephone utilities in obtaining financing. This program provides and improves electric service to persons in rural areas. With RUS assistance, rural electric utilities have obtained financing to construct electric generating plants and transmission lines to provide initial and continued reliable electric service. See http://www.usda.gov/rus/electric/index.htm.

2. National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), Weather Radio Alert Program: NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information directly from a nearby NWS office. See http://www.nws.noaa.gov/nwr/index.html.

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service.

   The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA program had been to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

3. Federal Emergency Management Agency (FEMA), Safe Room Initiative: States such as Iowa, Oklahoma, and Arkansas, in accordance with FEMA's "safe room" initiative, have programs described on their respective web sites: http://www.state.ia.us/emergencymanagement/saferoom.htm, http://www.onenet.net/~odcem/saferoom.htm and http://www.aHSEM.state.ar.us/.

4. Minnesota Department of Administration, Building Codes and Standards Division: The Building Codes and Standards Division administers the State Building Code, certifies local building officials and collects surcharges on municipal issued permits. Promulgates the Manufactured Home "Tie Down" and "Anchoring" Standards (see Minnesota Administrative Rules Chapter 1350, 2000). Some municipalities have tie down/anchoring requirements in their ordinances, as do some insurance companies and producers of manufactured homes. See http://www.admin.state.mn.us/buildingcodes/.

5. U.S. Small Business Administration (SBA): Homeowners who receive a disaster assistance loan from the SBA to repair or rebuild a damaged or destroyed home may use some of the loan proceeds to construct a safe room. SBA can also increase the

approved disaster loan by up to 20 percent to cover the cost of adding a safe room. See http://www.sba.gov/gopher/Disaster/Disaster-Home-Loans/homeall.txt

6. U.S. Department of Housing and Urban Development (HUD): In coordination with FEMA's "safe room" initiative, HUD is providing mortgage insurance to enable homeowners to borrow up to $5,000 to build an in-home shelter.

7. Minnesota Department of Health (MDH), Manufactured Home Park Evacuation Plans and Storm Shelters: Minnesota Statutes Chapter 327, enumerates rules in section 327.20 which state "A manufactured home park with ten or more manufactured homes . . . shall provide a safe place of shelter for park residents or a plan for the evacuation of park residents to a safe place of shelter within a reasonable distance of the park for use by park residents in times of severe weather, including tornadoes and high winds. The shelter or evacuation plan must be approved by the municipality . . . The municipality may require the park owner to construct a shelter if it determines that a safe place of shelter is not available within a reasonable distance from the park. A copy of the municipal approval and the plan shall be submitted by the park owner to the MDH."

G. Public Awareness

1. National Weather Service (NWS): To access NWS offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html. The broadcast range of NWS weather alert transmitters serving the state is shown on the map at http://www.crh.noaa.gov/mpx/images/webeffective. Weather alert radios are effective only within their broadcast range.

2. Federal Emergency Management Agency (FEMA): A newly revised booklet for homeowners on evaluating the risk and building an in-home shelter is now available to the public. This information is also available on-line for downloading at http://www.fema.gov/mit/tsfs/02.htm.

3. Avoiding Wind Damage: A Checklist for Homeowners, Federal Emergency Management Agency (FEMA) See http://www.fema.gov/library/windam.pdf.

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

I. Legislation and Codes

1. Federal: Federal Emergency Management Agency (FEMA)

a. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

b. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

c. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved enhanced mitigation plans.

2. State
Department of Administration, Building Codes and Standards Division
Building Codes and Standards Division administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75) that sets construction standards to assure the health, safety, comfort and security of building occupants.

The division provides interpretations on the adopted codes, gives information regarding building materials and consults with municipal officials, design professionals and the general public relating to all types of projects. See http://www.admin.state.mn.us/buildingcodes/. Minnesota Statute defines building standards. See http://www.revisor.leg.state.mn.us/stats/327A/01.html

J. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX A6: HAILSTORM CAPABILITIES

A. General

For general hail information and pictures of hailstones and hailstorms, see http://www.chaseday.com/hail.htm

B. Minnesota Agency Capabilities

HAILSTORM	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Natural Resources				X	X						
Department of Public Safety, Homeland Security and Emergency Management					X			X			
Minnesota National Guard	X	X	X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), Weather Radio Alert Program: NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby NWS office. NOAA Weather Radio broadcasts NWS warnings, watches, forecasts and other hazard information 24 hours a day. See http://www.nws.noaa.gov/nwr/index.html

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP):
   The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program had been to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

G. Public Awareness

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM) , Severe Weather Awareness Week: Every spring HSEM sponsors a statewide Severe Weather Awareness Week. Throughout the week all forms of severe weather that commonly occur during the spring, summer and fall are covered, including hail.

2. Minnesota Emergency Alert System (EAS): The EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. The EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy.

3. National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

   The NWS considers a thunderstorm severe if it produces:
   - Damaging wind gusts – 58 miles per hour (50 knots) or higher
   - Large hail – ¾ inch in diameter (penny size) or larger
   - Tornadoes

   NWS issues severe thunderstorm watches and warnings. For severe weather conditions in Minnesota statewide, see http://iwin.nws.noaa.gov/iwin/mn/severestatement.html or http://iwin.nws.noaa.gov/iwin/mn/warnings.html

For a specific city, see http://www.wx.com/wxforecast/

Weather alert radios are effective only within their broadcast range. The broadcast range of NWS weather alert transmitters serving the State is shown on the map at http://www.crh.noaa.gov/mpx/images/webeffectiverange430x540.gif

4. Institute for Business and Home Safety (IBHS): IBHS has a number of hail-related publications including:

   - "Is Your Home Protected From Hail Damage? A Homeowner's Guide to Roofing and Hail," which provides general roofing information and tips for selecting impact-resistant roof coverings and contractors. See http://www.ibhs.net/ibhsdocuments/pdf/hail.pdf
   - "Open for Business: A Disaster Planning Toolkit for the Small Business Owner," which provides information to the small business owner in planning for and reducing the impact of disasters including hailstorms. See http://www.ibhs.net/ibhsdocuments/pdf/smallbus.pdf

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

I. Legislation and Codes

1. Federal: Federal Emergency Management Agency (FEMA)

   a. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

   b. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

c. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved enhanced mitigation plans.

2. State
Minnesota Department of Administration, Building Codes and Standards Building Codes and Standards Division administers the Minnesota State BuildingCode - Statutory Authority (16B.59 - 16B.75) that sets construction standards to assure the health, safety, comfort and security of building occupants. The division provides interpretations on the adopted codes, gives information regarding building materials and consults with municipal officials, design professionals and the general public relating to all types of projects. See: http://www.admin.state.mn.us/buildingcodes/. Minnesota Statute defines building standards. See: http://www.revisor.leg.state.mn.us/stats/327A/01.html

J. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX A7: EXTREME TEMPERATURE CAPABILITIES

A. General

National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

B. Preparedness/Equipment

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): Through the Minnesota Duty Officer (MDO), HSEM is authorized to activate the Minnesota National Guard or other state-level resources as requested. For severe winter weather events, they can usually gear-up for such deployments in advance.

2. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has manpower and equipment resources to remove snow and ice and to maintain primary roads except under the most extreme conditions. See http://www.dot.state.mn.us/

3. Minnesota Department of Military Affairs (National Guard): Through contact with the MDO, the National Guard may be able to provide blankets, other camping/survival gear, and generators.

4. Minnesota Department of Public Safety (DPS), State Fire Marshal Division (SFMD): Equipment available from the SFMD includes small generators and lighting

equipment.

C. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

D. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

E. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. FEMA, Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program was to help localities and businesses to cost-effectively reduce potential disaster damage. There were approximately 250 communities participating nationwide, and five in Minnesota. http://www.fema.gov/impact

F. Public Awareness

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM), Winter Hazard Awareness Week: Every winter HSEM sponsors a statewide Winter Hazard Awareness Week to increase awareness of winter hazards and to encourage people to take appropriate actions to eliminate or reduce their vulnerability to winter dangers.

2. American Red Cross, Heat Wave Preparedness: The American Red Cross has prepared a checklist of preparedness safety tips for extreme heat events. See http://www.redcross.org/disaster/safety/heat.html#When

G. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI) : EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

H. Legislation and Codes

Federal: Federal Emergency Management Agency (FEMA):

1.. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

2.. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

3. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved mitigation plans.

I. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

3. Design and implement a variety of natural hazard scenarios through state agencies and local jurisdiction collaboration.
4. Exercise the MEOP on a regular basis and specifically after any disaster declaration.

ANNEX A8: BLIZZARD CAPABILITIES

A. General

1. National Snow and Ice Data Center (NSIDC): NSIDC is an information and referral center that distributes data and maintains information about snow cover, avalanches, glaciers, ice sheets, freshwater ice, sea ice, ground ice, permafrost, atmospheric ice, paleoglaciology, and ice cores. See http://nsidc.org/index.html

2. U.S. Army Corps of Engineers (USACE), Cold Regions Research and Engineering Laboratory (CRREL): CRREL is a research and engineering facility that is part of the Engineer Research and Development Center. CRREL seeks to gain knowledge of cold regions through scientific and engineering research, including mitigative measures on the impact of human activity on the environment in cold regions. See http://www.crrel.USACE.army.mil/

B. Minnesota Agency Capabilities

BLIZZARD	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Commerce					X			X			
Department of Human Services								X			
Department of Natural Resources	X			X	X	X				X	
Department of Public Safety, Homeland Security and Emergency Management	X	X		X		X		X	X		
Department of Public Safety, Office of Pipeline Safety					X						X
Department of Transportation	X	X		X	X	X		X	X	X	
Minnesota National Guard	X	X	X	X	X			X	X	X	
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

1. National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), Weather Radio Alert Program: NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby NWS office. NOAA Weather Radio broadcasts NWS warnings, watches, forecasts and other hazard information 24 hours a day. See http://www.nws.noaa.gov/nwr/index.html

2. Minnesota Department of Transportation (Mn/DOT): Mn/DOT maintains a fleet of approximately 850 plow trucks, motor graders, and other heavy equipment for snow and ice removal and anti-icing of the state highways. Many "Truck Stations" also have generators and portable lighting systems for emergency operations and night maintenance operations. Road closure mechanisms are also in place on some controlled access highways to prevent travel in severe conditions. In addition public information on state highway road conditions, construction projects, permit information and weather information is available via the Mn/DOT website. See http://www.511mn.org or call 511 .

3. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has implemened a statewide network of Environmental Sensing Stations for collection of atmospheric and road condition data. That data is combined with customized weather and road condition forecasts for use by Mn/DOT maintenance staff in operational decision making. The weather forecasts for specific areas are available to the public at http://www.511mn.org or by calling 511.

4. Minnesota Department of Commerce: The Minnesota Department of Commerce has five 15KW truck-mounted mobile generators, which can be made available upon request during a major emergency. The generators are normally located in the following five Minnesota cities:
   Raymond – 15kW generator, diesel engine
   Lakeville – 15kW generator, gasoline engine
   Perham – 17kW generator, diesel engine
   Mapleton – 15kW generator, gasoline engine
   Monticello – 15kW generator, diesel engine

5. Minnesota Department of Military Affairs (National Guard): Through contact with the Minnesota Duty Officer, the National Guard may be able to provide blankets, other camping/survival gear, and generators.

6. Minnesota Department of Public Safety (DPS), State Fire Marshal Division (SFMD): Equipment available from the SFMD includes small generators and lighting equipment.

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an

incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Minnesota Department of Transportation (Mn/DOT), Living Snow Fence Program: Mn/DOT's living snow fence program aims at improving winter driving conditions, reducing accidents caused by blowing and drifting snow, and minimizing snow removal costs. Farmers assist Mn/DOT in reducing snowdrifts by allowing corn stalks to stand through the winter months. See http://www.dot.state.mn.us/environment/programs/living_snow_fence_program.html and http://www.dot.state.mn.us/newsrels/990907corn.html

2. Minnesota Department of Transportation (Mn/DOT) and The University of Minnesota: These organizations have partnered to complete a climatological characterization of snowfall and snowdrift in Minnesota that might serve as a basis for using computer-based prediction models to assess road design aspects, particularly options for snowdrift control (Mn/DOT Agreement No. 74708, Work Order No. 117).

3. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has implemented statewide road condition, construction information, permit information and weather information internet and telephone systems. The systems allow motorists access to route specific road condition, construction information, permit information and weather information via the internet and phones. See http://www.511mn.org or call 511.

4. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

5. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program was to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

G. Public Awareness

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM) , Winter Hazard Awareness Week: Every winter HSEM sponsors a statewide Winter Hazard Awareness Week to increase awareness of winter hazards and to encourage people to take appropriate actions to eliminate or reduce their vulnerability to winter dangers.

2. Minnesota Department of Transportation (Mn/DOT), Road Condition Information:

Mn/DOT and other state transportation departments provide road condition information that is updated as road conditions change. The Mn/DOT data is also forwarded to the NWS and is posted on their web site. Mn/DOT has implemented statewide road condition, construction information, permit information and weather information internet and telephone systems. The systems allow motorists access to route specific road condition, construction information, permit information and weather information via the internet and phones. See http://www.511mn.org or call 511.

3. Minnesota Department of Transportation (Mn/DOT), Winter Work Zone Safety: Mn/DOT provides safety tips for driving near snowplows. See http://www.dot.state.mn.us/metro/safety/winter.html

4. Minnesota Department of Public Safety (DPS), Winter Survival In Your Car: An information guide including survival tips, winter driving suggestions, survival kit recommendations, and emergency phone numbers.

5. Minnesota Department of Public Safety (DPS), Generator Safety Tips: Information on generator safety developed by the U.S. Consumer Product Safety Commission.

6. Minnesota Emergency Alert System (EAS): The EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. The EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy. See http://www.dps.state.mn.us/emermgt/eas/eas_plan/basic.htm

7. Federal Emergency Management Agency (FEMA): FEMA for Kids: Winter Storms web site provides information for children about winter weather and safety tips. See http://www.fema.gov/kids/wntstrm.htm

8. Federal Emergency Management Agency (FEMA): Provides a fact sheet related to winter storm preparedness and safety tips. See http://www.fema.gov/library/stormsf.htm

9. National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

10. National Weather Services (NWS), The Warning and Forecast Branch: Winter storm safety information and statistics: "National winter storms…the Deceptive Killers - A Guide to Survival". See http://www.nws.noaa.gov/om/wntrstm.htm

11. National Weather Service (NWS), Weather Alert Transmitters: Weather alert radios

are effective only within their broadcast range. The broadcast range of NWS weather alert transmitters serving the State is shown on the map at http://www.crh.noaa.gov/mpx/images/webeffectiverange430x540.gif

12. American Red Cross: Winter storm safety information: "Are You Ready for a Winter Storm?" See http://www.redcross.org/disaster/safety/index.html

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

I Legislation and Codes

Federal: Federal Emergency Management Agency (FEMA)

1. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

2. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

3. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved mitigation plans.

J. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX A9: DROUGHT CAPABILITIES

A. General

National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html

B. Minnesota Agency Capabilities

DROUGHT	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Natural Resources				X	X	X				X	
Department of Public Safety, Homeland Security and Emergency Management				X							
Department of Administration, Local Planning Assistance Center						X				X	
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

U.S. Army Corps of Engineers (USACE), Institute of Water Resources (IWR): IWR managed the National Drought Study (1989-1993) and has numerous reports available on line for preparedness strategies. See http://www.wrsc.USACE.army.mil/iwr/Drought/DroughtIntro.htm

D. Response Plans

1. Minnesota Department of Natural Resources (DNR), Division of Waters: Division of Waters has primary statewide responsibility for water supply allocation and management. This agency has prepared a Drought Response Plan, June 1993. See http://www.files.dnr.state.mn.us/natural_resuorces/climate/drought/droughtp.pdf

2. The University of Minnesota, College of Agricultural, Food, and Environmental Sciences, Department of Soil, Water, and Climate: The Department of Natural Resources hosts this site which provides links in the categories of Drought

Mitigation, General Drought Information and Planning for Drought. Some of the sites include "Weekly Precipitation and Seasonal Departure Maps"; "Latest Minnesota State Climatology Office HydroClim Newsletter"; and "Streamflow Conditions for Minnesota". See http://climate.umn.edu/doc/drought_2000.htm

3. Contact the Director of DNR Waters for drought issues for the State of Minnesota.

4. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge

5. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program is to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

3. State Department of Natural Resources, DNR: The "System-Wide Low-Flow Management Plan, Mississippi River above St. Paul, Minnesota" was finalized in September, 1996. The purpose of this low-flow plan is to help ensure that "run-of-river" hydropower operations are maintained during periods of low flow to minimize artificial flow fluctuations and protect the aquatic resources and other values of this nationally important river. The plan will be available on the DNR Waters web site and will be found at http://www.dnr.state.mn.us/climate/drought/index.html .

G. Public Awareness

Minnesota Department of Natural Resources (DNR), Drought web site

This site gives an explanation of drought conditions and provides monitoring of water resources and climate anomalies. See http://www.dnr.state.mn.us/waters/climate/drought.html

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html
2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

I. Legislation and Codes

1. Minnesota Statutes 2000, 103G.293 Statewide Drought Plan
   The commissioner of Natural Resources shall establish a plan to respond to drought-related emergencies and to prepare a statewide framework for drought response. The plan must consider metropolitan water supply plans of the metropolitan council prepared under section 473.156. The plan must provide a framework for implementing drought response actions in a staged approach related to decreasing levels of flows. Permits issued under section 103G.271 must provide conditions on water appropriation consistent with the drought response plan established by this section.
2. Minnesota Statutes 2000, 473.156 Metropolitan water use and supply plan.
   The metropolitan council shall develop a short-term and long-term plan for existing and expected water use and supply in the metropolitan area. The plan shall be submitted to and reviewed by the commissioner of natural resources for consistency with the statewide drought plan under section 103G.293.

J. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX A10: ICE AND SLEET CAPABILITIES

A. General

1. National Snow and Ice Data Center (NSIDC)U: NSIDC is an information and referral center that distributes data and maintains information about snow cover, avalanches, glaciers, ice sheets, freshwater ice, sea ice, ground ice, permafrost, atmospheric ice, paleoglaciology, and ice cores. See http://nsidc.org/index.html

2. The Great Lakes Environmental Research Laboratory (GLERL): GLERL is a U.S. Department of Commerce facility operated by the National Oceanic and Atmospheric Administration (NOAA), Office of Oceanic and Atmospheric Research, through the NOAA Environmental Research Laboratories. GLERL conducts research in support of resource management and environmental services in coastal and estuarine water, with special emphasis on the Great Lakes. This research provides a scientific understanding of natural hazards such as severe waves, storm surges, and ice, including snow, ice storm, and ice concentration data. See http://www.glerl.noaa.gov/

3. U.S. Army Corps of Engineers (USACE), Cold Regions Research and Engineering Laboratory (CRREL): CRREL is a research and engineering facility that is part of the Engineer Research and Development Center. CRREL seeks to gain knowledge of cold regions through scientific and engineering research, including mitigative measures on the impact of human activity on the environment in cold regions. http://www.crrel.USACE.army.mil/, including various fact sheets on ice related topic, such as deicing techniques: http://www.crrel.USACE.army.mil/icestorms/

Minnesota Agency Capabilities

ICE STORM	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Commerce					X			X			
Department of Natural Resources	X	X		X	X					X	
Department of Public Safety, Homeland Security and Emergency Management				X		X					
Department of Public Safety, Office of Pipeline Safety					X						X
Department of Transportation	X	X	X	X	X	X		X		X	X

Minnesota National Guard	X	X	X	X	X			X	X	X	
Pollution Control Agency				X				X	X	X	

B. Preparedness/Equipment

1. National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) Weather Radio Alert Program
   NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby NWS office. NOAA Weather Radio broadcasts NWS warnings, watches, forecasts and other hazard information 24 hours a day. See **http://www.nws.noaa.gov/nwr/index.html**

2. Minnesota Department of Transportation (Mn/DOT): Mn/DOT maintains a fleet of approximately 850 plow trucks, motor graders, and other heavy equipment for snow and ice removal and anti-icing of the state highways. Many "Truck Stations" also have generators and portable lighting systems for emergency operations and night maintenance operations. Road closure mechanisms are also in place on some controlled access highways to prevent travel in severe conditions. In addition public information on state highway road conditions, construction projects, permit information and weather information is available via the Mn/DOT website. See http://www.511mn.org or call 511 .

3. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has implemented a statewide network of Environmental Sensing Stations for collection of atmospheric and road condition data. That data is combined with customized weather and road condition forecasts for use by Mn/DOT maintenance staff in operational decision making. The weather forecasts for specific areas are available to the public at http://www.511mn.org or by calling 511.

4. Minnesota Department of Commerce: Department of Commerce has five 15KW truck-mounted mobile generators, which can be made available upon request during a major emergency. The generators are normally located in the following five Minnesota cities:

   Raymond 15 kW generator, diesel engine
   Lakeville 15 kW generator, gasoline engine
   Perham 17 kW generator, diesel engine
   Mapleton 15 kW generator, gasoline engine
   Monticello 15kW generator, diesel engine

5. Minnesota Department of Military Affairs (National Guard): Through contact with the Minnesota Duty Officer, the National Guard may be able to provide blankets, other camping/survival gear; and generators.

6. Minnesota Department of Public Safety (DPS), State Fire Marshal Division (SFMD) : Equipment available from the SFMD includes small generators and lighting equipment.

C. Response Plans

1. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has standard procedures for responding to any snow and ice event, which includes a "bare lanes" target level of service.
2. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.
3. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

D. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

E. Mitigation Plans/Projects

1. Minnesota Department of Transportation (Mn/DOT): Mn/DOT is expanding the use of anti-icing procedures/technology and is continually investigating new deicing/anti-icing materials, equipment, and procedures.

2. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has implemented statewide road condition, construction information, permit information and weather information Internet and telephone systems. The systems allow motorists access to route specific road condition, construction information, permit information and weather information via the Internet and phones. See http://www.511mn.org or call 511.

3. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

4. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program is to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

F. Public Awareness

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM), Winter Hazard Awareness Week: Every winter HSEM sponsors a statewide Winter Hazard Awareness Week to increase awareness of winter hazards and to encourage people to take appropriate actions to eliminate or reduce

their vulnerability to winter dangers.

2. Minnesota Department of Transportation (Mn/DOT), Road Condition Information: Mn/DOT and other state transportation departments provide road condition information that is updated as road conditions change. The Mn/DOT data is also forwarded to the NWS and is posted on their web site. Mn/DOT has implemented statewide road condition, construction information, permit information and weather information internet and telephone systems. The systems allow motorists access to route specific road condition, construction information, permit information and weather information via the internet and phones. See http://www.511mn.org or call 511.

3. Minnesota Department of Transportation (Mn/DOT), Winter Work Zone Safety: Mn/DOT provides safety tips for driving near snowplows. See http://511mn.org or http://www.dot.state.mn.us/metro/safety/winter.html

4. Minnesota Department of Public Safety (DPS), Winter Survival In Your Car: An information guide including survival tips, winter driving suggestions, survival kit recommendations, and emergency phone numbers.

5. Minnesota Department of Public Safety (DPS), Generator Safety Tips: Information on generator safety developed by the U.S. Consumer Product Safety Commission.

6. Minnesota Emergency Alert System (EAS): The EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. The EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy.

7. Federal Emergency Management Agency (FEMA): FEMA for Kids: Winter Storms web site provides information for children about winter weather and safety tips. See http://www.fema.gov/kids/wntstrm.htm

8. National Weather Service (NWS): For the protection of life and property and the enhancement of the national economy, NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas. NWS data and products form a national information database and infrastructure that can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, see http://www.crh.noaa.gov/fldof.html.

9. National Weather Service (NWS) Weather Alert Transmitters: Weather alert radios are effective only within their broadcast range. The broadcast range of NWS weather alert transmitters serving the State is shown on the map at http://www.crh.noaa.gov/mpx/images/webeffectiverange430x540.gif

G. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

3. Minnesota Department of Transportation (Mn/DOT): Mn/DOT has on ongoing training program for internal maintenance personnel, which includes snow and ice control.

H. Legislation and Codes

Federal: Federal Emergency Management Agency (FEMA)

1. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

2. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

3. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved enhanced mitigation plans.

I. Funding Sources

See Cababilities Assessment section of this plan for Federal grants and funding sources.

ANNEX A11: EARTHQUAKE CAPABILITIES

A. General

1. U.S. Geological Survey (USGS), National Earthquake Information Center (NEIC): The NEIC has three main missions. First, the NEIC determines, as rapidly and as accurately as possible, the location and size of all destructive earthquakes that occur worldwide. The NEIC disseminates this information immediately to concerned national and international agencies, scientists, and the general public.

   Second, the NEIC collects and provides to scientists and to the public an extensive seismic database that serves as a solid foundation for scientific research, principally through the operation of modern digital national and global seismograph networks and through cooperative international agreements. The NEIC is *the* national data center and archive for earthquake information. Third, the NEIC pursues an active research program to improve its ability to locate earthquakes and to understand the earthquake mechanism. These efforts are all aimed at mitigating the risks of earthquakes to mankind; and they are made possible by the fine international cooperation that has long characterized the science of seismology. See http://neic.usgs.gov/neis/general/handouts/who_we_are.html

2. U.S Army Corps of Engineers (USACE): USACE has capability to provide assessment of structural integrity following an earthquake. See: http//mvp.usace.army.mil .

3. Minnesota Geological Survey: Minnesota Geological Survey focuses solely on the State of Minnesota and is operated by the University of Minnesota. See http://www.geo.umn.edu/mgs/

B. Minnesota Agency Capabilities

EARTHQUAKE	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Public Safety, Homeland Security and Emergency Management	X				X			X			
Department of Public Safety, Office of Pipeline Safety					X						X

Department of Transportation	X			X	X					X	
Minnesota National Guard	X	X	X	X	X			X	X	X	
Minnesota State Colleges and Universities			X								
Pollution Control Agency				X				X	X	X	

C. Preparedness/Equipment

U.S. Geological Survey (USGS), United States National Seismograph Network (USNSN): The USNSN operates stations located around the country and provides constant information on seismic activity to the NEIC in Golden, Colorado. See http://wwwneic.cr.usgs.gov/neis/usnsn/usnsn_home.html

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the USDA Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System (NIIMS). MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program was to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

3. Federal Emergency Management Agency (FEMA), Earthquake Program: FEMA's Earthquake Program has four basic goals directly related to the mitigation of hazards caused by earthquake. They are to:

   - Promote understanding of earthquakes and their effects
   - Work to better identify earthquake risk
   - Improve earthquake-resistant design and construction techniques

- Encourage the use of earthquake-safe policies and planning practices. See http://www.fema.gov/mit/eqmit.htm

4. U.S. Geological Survey (USGS), Earthquake Hazards Program: This program is designed to provide and apply relevant earthquake science information and knowledge for reducing deaths, injuries, and property damage from earthquakes through understanding of their characteristics and effects and by providing the information and knowledge needed to mitigate these losses. See http://earthquake.usgs.gov/

5. Earthquake Engineering Research Institute (EERI): EERI is a national, nonprofit, technical society of engineers, geoscientists, architects, planners, public officials, and social scientists. See http://www.eeri.org/

G. Public Awareness

1. American Red Cross, Earthquake Preparedness Checklist: This site contains a checklist of what to do in the event of an earthquake. It is a resource for earthquake mitigation and safety tips. See: http://www.redcross.org/disaster/safety/earth.html

2. U.S. Geological Survey (USGS), Earthquake Hazards Program, Educational Programs: This site is a useful source for public awareness and a very good educational resource for children. See http://pasadena.wr.usgs.gov/eqhaz/4kids/

3. Earthquake Information Network (EQNET): EQNET is a cooperative effort among volunteer earthquake hazard information providers throughout the United States. EQNET links to sources of information on earthquake hazards and related topics. See http://www.eqnet.org/.

4. Multidisciplinary Center for Earthquake Engineering Research **(**MCEER): MCEER is a national center of excellence in advanced technology applications. It seeks the reduction of earthquake damage and losses through research, development and application of new knowledge and advanced technologies. See http://mceer.buffalo.edu/

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

3. International Conference of Building Officials (ICBO): ICBO provides training seminars regarding earthquakes and other natural hazards as they apply to building construction. See http://www.icbo.org/

I. Legislation and Codes

1. Federal

   a. Federal Emergency Management Agency (FEMA)

      1) PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]) amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

      2) PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

      3) PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP. Increases percent to 20 for those with approved enhanced mitigation plans.

   b. The National Earthquake Hazard Reduction Program was established by the Earthquake Hazards Reduction Act of 1977, Public Law 95-124, bringing many different efforts together into a cohesive national program.

2. State

   Minnesota Department of Administration, Building Codes and Standards Division Building Codes and Standards Division administers the Minnesota State Building Code - Statutory Authority (16B.59 - 16B.75), that sets construction standards to assure the health, safety, comfort and security of building occupants.

   The division provides interpretations on the adopted codes, gives information regarding building materials and consults with municipal officials, design professionals and the general public relating to all types of projects. See http://www.admin.state.mn.us/buildingcodes/. Minnesota Statute defines building standards.

ANNEX A12: INFECTIOUS DISEASE / ENVIRONMENTAL OUTBREAK CAPABILITIES

A. General

1. Center for Disease Control (CDC), National Center for Infectious Diseases
   In 1999, CDC published a five-year plan, *Preventing Emerging Infectious Diseases: A Strategy for the 21st Century.* To implement this plan, CDC will coordinate with state and local health departments, acaHSEMic centers and other federal agencies, health care providers and health care networks, international organizations, and other partners. See http://www.cdc.gov/ncidod/publicat.htm

2. West Nile virus encephalitis has been in the news recently. Over the past two years, 89 severe cases and 8 deaths due to this mosquito-borne disease have been documented in the United States, mostly in the New York City area. As an example of the plan at work, the CDC has been encouraging active sampling in selected eastern states and, when virus activity is detected, the spraying of pesticides and other mosquito control measures. See http://www.cdc.gov/ncidod/dvbid/westnile/q&a.htm

B. Minnesota Agency Capabilities

NFECTIOUS DISEASE	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Board of Animal Health	X			X						X	
Department of Agriculture		X	X	X	X	X		X	X		X
Department of Health		X		X	X	X		X		X	X
Department of Natural Resources	X										
Department of Public Safety, Homeland Security and Emergency Management	X	X						X	X		
Minnesota National Guard	X	X	X	X	X			X	X		
Pollution Control Agency				X				X	X	X	

C. Response Plans

Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

D. Plan Exercises

1. The Minnesota Department of Health (MDH), Acute Disease Epidemiology Section, in conjunction with the Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM), devised a disaster scenario for an influenza pandemic and conducted a tabletop exercise to test the State's capabilities in the fall of 1999.

2. State agencies and local jurisdictions work together to design and implement a variety of natural hazard scenarios. See http://www.hsem.state.mn.us/

E. Mitigation Plans/Projects

1. Minnesota Department of Health (MDH), Division of Disease Prevention and Control: Division of Disease Prevention and Control has prepared a draft report "*Minnesota Pandemic Influenza Control and Prevention Guidelines*" in the event of an influenza pandemic. See http://www.health.state.mn.us/divs/dpc/ades/ades.htm

2. Minnesota Department of Health (MDH), Division of Disease Prevention and Control: Division of Disease Prevention and Control also has several programs in place to mitigate the spread of infectious diseases. See http://www.health.state.mn.us/divs/dpc/dpc.html.

3. Minnesota Department of Agriculture (MDA), Dairy and Food Division: The Dairy and Food Division is responsible for ensuring the safe production, processing, packaging, labeling, transportation and sale of dairy, food and meat products. See http://www.mda.state.mn.us/foodsafe.htm

F. Public Awareness

1. Regional Epidemiology Program, Bureau of Communicable Disease Control (BCDC), New York State Department of Health: The BCDC has created a web site for the general public listing communicable disease fact sheets. See http://www.health.state.ny.us/nysdoh/consumer/commun.htm

2. Minnesota Department of Health (MDH), Immunization web site: This web site, hosted by the MDH, is a good source of childhood, adolescent, and adult

immunization information and hepatitis B educational materials. See http://www.immunize.org/

G. Legislation and Codes

State

1. Chapter 4605.7030 Persons Required to Report Disease: This statute requires the following to report certain infectious disease cases (some listed below) within one day of determining the symptoms: physicians, health care facilities, medical laboratories, veterinarians (when the disease can be communicated to humans) and other licensed health care providers to the Commissioner of Health.

2. Chapter 4605.7040 Disease and Reports; Isolate Submissions: Cases, suspected carriers and deaths due to the following shall be reported to the Commissioner of Heath within one day: Dengue virus infection, Diphtheria, Encephalitis, Hepatitis, influenza (unusual case or confirmed by laboratory), Legionellosis (Legionnaire's Disease), Meningococcemia, Rheumatic Fever, Tuberculosis, Typhus, and Yellow Fever.

   Indications of some of the following shall be reported immediately by telephone to the Commissioner of Health: Anthrax, Botulism, Cholera, Measles, Mumps, Pertussis, Poliomyelitis, Rabies, and Syphilis.

3. Chapter 4605.7050 Unusual Case Incidence: Any pattern of cases, suspected cases, or increased incidence of any illness beyond the expected number of cases in a given period, which may indicate a newly recognized infectious agent, an outbreak, epidemic, or related public health hazard, including suspected or confirmed outbreaks of food or waterborne disease, epidemic viral gastroenteritis, and any disease known or presumed to be transmitted by transfusion of blood or blood products, must be reported immediately by telephone, by the person having knowledge, to the commissioner. Any unexplained death which may be caused by an infectious agent must be reported by the attending physician, medical examiner or coroner, or by the person having knowledge about the death to the commissioner within one day.

4. Chapter 4605.7075 Tuberculosis; Special Reporting: A physician must immediately report to the commissioner of health the name, address, and essential facts of the case if the physician has reason to believe that a person with active pulmonary tuberculosis that refuses treatment for tuberculosis or has not complied with prescribed therapy for tuberculosis.

5. Chapter 4605.7400 Prevention of Disease Spread: Subpart 1. Isolation. The

physician attending a case, suspected case, or carrier (or in the absence of a physician, the commissioner) shall make certain that isolation precautions are taken to prevent spread of disease to others.

6. Subpart. 2. Report of noncompliance: Physicians shall report immediately to the commissioner the name, address, and other pertinent information for all cases, suspected cases, and carriers who refuse to comply with prescribed isolation precautions. The commissioner shall then seek injunctive relief under Minnesota Statutes, section 145.075, if the person represents a public health hazard.

H. Funding Sources

1. Grants for infectious disease program design are available through the Council of State and Territorial Epidemiologist
2. See Cababilities Assessment section of this plan for Federal and other funding sources.

A13- NATURAL HAZARD MITIGATION STRATEGIES

April 15, 2005

Revision 1

MITIGATION STRATEGY

The Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management (HSEM) mitigation division is dedicated to the ongoing implementation of mitigation concepts, planning and action items to reduce the exposure of the State's population to natural hazards. The Minnesota State All-Hazard Mitigation Plan is the central document to direct the implementation of the mitigation programs statewide.

The State Hazard Mitigation Plan Review Team (SHMPRT) which included the Minnesota Recovers Task Force (MNRTF) met to develop this Plan. The planning process involved:

- Presentations and discussions on natural hazards and their impact on the state (the risk assessment of this plan).

- Review and discussion of previous mitigation planning initiatives.

- Review and discussion of the mitigation goals, objectives and strategies of the state agencies participating in the development of this plan.

- Evaluation and discussion of the mitigation goals and objectives from the local plans for Minnesota jurisdictions.

The goals and objectives guided development of the mitigation activities in this plan, and they will provide a vision for hazard mitigation and disaster resistance throughout the State of Minnesota. The State's goals are long-term general guidelines to establish and direct hazard mitigation and loss reduction measures. The overriding strategy is to reduce the damages to people and property from all hazards. Mitigation actions in the mitigation strategy may fall under one or more of the following six broad categories:

- Prevention – Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include:
    - Planning and zoning
    - Building codes
    - Capital improvement programs
    - Open space preservation
    - Storm water management regulations

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

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

- Public Education and Awareness – Actions to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them. Such actions include:
  Outreach projects
  - Real estate disclosure
  - Hazard information centers
  - School-age and adult education programs

- Natural Resource Protection – Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. These actions include:
  - Sediment and erosion control
  - Stream corridor restoration
  - Watershed management
  - Forest and vegetation management
  - Wetland restoration and preservation

- Emergency Services – Actions that protect people and property during and immediately after a disaster or hazard event. Services include:
  - Warning systems
  - Emergency response services
  - Protection of critical facilities

- Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include:
  - Dams
  - Levees
  - Floodwalls
  - Retaining walls
  - Channel modifications
  - Storm sewers
  - Safe rooms

Consistent with Minnesota's all-hazard philosophy, we have chosen not to make separate goals for each hazard, since most of the activities apply to all hazards. Instead we have chosen to organize the goals by the entities (individuals, agencies, jurisdictions, etc.) that are affected by disasters and who play a role in mitigating them. For instance, goal one involves HSEM and the

administration of mitigation programs. The second goal is for local jurisdictions and how the mitigation partners can work with them to strengthen mitigation. The third goal is the interaction among agencies for the purpose of mitigation. The final goal is focused on individuals and how we can educate and involve them in mitigating their hazards.

Under each objective is a list of specific mitigation actions to accomplish or support the objectives and ultimately the goals. Each action was identified by the MNRTF or the State Hazard Mitigation Officer (SHMO). The MNRTF evaluated the identified actions by considering three basic criteria: cost-effectiveness, environmental soundness and technically feasibility. As local plans are reviewed a list will be compiled and the state mitigation actions/projects will be expanded reflecting the projects identified by the local jurisdictions (see Action 1.1.3.4.).

Proposed state projects must compete with projects proposed by eligible local governments; this ensures that federal grant-funded state and local projects address state hazard mitigation priorities. Any state government construction project—regardless of potential funding source—has to be cost-effective, technically feasible and meet all appropriate federal, state and local environmental laws and regulations before it is started.

State government projects funded by federal hazard mitigation grant programs administered by HSEM have to meet specific criteria related to cost-effectiveness, environmental soundness and technical feasibility. These criteria are established in the state's hazard mitigation programs Administrative Plan.

The MNRFT prioritized the action items by dividing them into four categories: ongoing, annually, within three years, and in the event of a disaster. The ongoing category is the largest group and covers the activities that are necessary to maintain a quality state-run hazard mitigation program. These activities take priority as they are the activities that need to be done on a regular basis, which are done as requested, or are ongoing projects that are worked on as time allows. Most of these projects have no cost beyond staff time.

The actions that are labeled "annually" are projects that should be completed once a year. Most of these are associated with events, such as conferences, that only occur once a year. The rest are projects that are not worked on a regular basis but need to be updated or redone once a year. Some of these actions are associated with funding that is available through an annual grant cycle.

The third category is items to be completed within three years. These actions involve the gathering of data that is to be completed by the time of the next State All-Hazard Mitigation Plan update.

The final category is the actions that occur in the event of a disaster. These are actions that do not occur on a regular basis but that need to take place if a disaster is declared. Some of these involve providing information in the aftermath of a disaster, others are associated with funding that becomes available in the event of a disaster.

There are several common themes to the action items. Building a team of people from agencies outside HSEM which support and promote mitigation is essential. The mitigation staff is limited and for mitigation to take root and grow it must do so by forming partnerships with groups outside of HSEM. To maximize the mitigation resources it is important to run the program as efficiently as possible with as little wasted effort as possible and with an emphasis on minimizing expenditures.

Another major theme is that developing a positive view of mitigation is vital to its growth. People that work with mitigation projects need to come away with a positive experience and the successes of the program must be promoted. One of the ironies of a successful mitigation program is that when a disaster occurs nothing happens. Implementation of the projects must be made as trouble free as possible to provide the programs with a positive reputation. Successful projects which are difficult to administer limit the number of jurisdictions willing to attempt projects. Efforts must be made to promote the success stories so the public, policy makers, and elected officials view mitigation as a worthwhile and cost beneficial program.

The other major theme is the role of education in promoting mitigation. We have to make people understand what mitigation is and how they can use it to lessen the impact of hazards in their lives. There are finite funds that are insufficient for mitigating hazards that affect millions of people. The most effective tool we have is to educate people on the risks they face and the proper techniques to mitigate the risks. We are trying to reach a wide variety of people with the mitigation message, so we need to use a variety of methods. To ensure that the public absorbs the message the mitigation message must be repeated again and again. We must expose the public to mitigation concepts as many different ways and as many times as possible. This is how businesses promote products and how we must promote mitigation. We cannot demand that people mitigate so we must educate the
people to demand mitigation.

Strategies are identified for the objectives. For each strategy, the format below has four columns to lists the actions, projected resources, rational for action and how the action contributes to the mitigation strategy. The tentative timeframe for implementing these actions is shown in bold at the bottom of the column for each action. The responsible department(s) is listed at the end of each strategy in bold. If necessary, more specific information to identify the responsible department is provided in bold for the action before the projected timeline.

A. Goals, Objectives, Actions and Funding

GOAL 1. Maintain and enhance the Minnesota Division of Homeland Security and Emergency Management's capacity to continuously make Minnesota less vulnerable to all hazards.

Objective 1.1. Institutionalize Hazard Mitigation.

Strategy 1.1.1. Attract and retain qualified, professional and experienced Hazard Mitigation staff**. (HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.1.1.1. Provide high quality in-house training. **(ongoing)**	EMPG Funds	Training will increase the skills of the mitigation staff.	A well-trained staff can more effectively manage mitigation programs.
Action 1.1.1.2. Encourage professional development and certification through outside continuing education courses. **(ongoing)**	EMPG Funds	Continuing education increases the skills of the mitigation staff.	Professional development improves the execution of mitigation programs.
Action 1.1.1.3. Allow staff members to travel and attend relevant conferences and workshops. **(ongoing)**	Admin Funds and EMPG Funds	Conferences and workshops increase the knowledge base of the mitigation staff and provide networking that can form relationships and provide ideas.	Conferences and workshops provide opportunities to spread mitigation ideas and to get ideas that make the staff more effective.

Action 1.1.1.4. When appropriate, provide membership fees for professional organizations. **(ongoing)**	EMPG Funds	It is important for staff members to be involved with their professional organizations.	Professional organizations provide training, information, and connections that improve the abilities of the staff to execute the programs.

Strategy 1.1.2. Expand Mitigation Opportunities**. (HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.1.2.1. Publicize program successes through news media or on the web. **(ongoing**)	Existing Staff Resources	By promoting positive mitigation stories to the media and promoting them on our website we can educate the public on how mitigation works. The biggest obstacle to promoting mitigation is that when it works, nothing happens.	By understanding the positive ramifications of mitigation, the public is more likely to support it.
Action 1.1.2.2. Promote the mitigation House for local use. **(ongoing)**	Existing Staff Resources	Having the mitigation House available for agencies and local entities to checkout for events.	Getting the mitigation House out to the public to view shows mitigation ideas and demonstrates how the public can protect their own house.

Strategy 1.1.3. Maintain and implement a State All-Hazard Mitigation Plan that fosters innovation, advances public support, and gains long-term commitments for pre-disaster mitigation from the State of Minnesota. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.1.3.1. Closely follow FEMA's development of the new rules and regulations for implementing Section 322 of the Disaster Mitigation Act of 2000. **(ongoing)**	Existing Staff Resources	By following FEMA's guidance the State can develop a DMA2k approved plan and updates. The process of developing a plan strengthens mitigation in the State by forming connections with numerous agencies.	An approved DMA2k plan and additional updates are required for future mitigation funds. The plan and the process guides the mitigation programs of the State.
Action 1.1.3.2. Using FEMA's revitalized "criteria indicators for State Mitigation Plans," work with the planning committee to develop and maintain a State All-Hazard Mitigation Plan that remains a functional document to guide all Mitigation Section activities. **(annually)**	Existing Staff Resources and FEMA DAE Assistance	The mitigation planning process allows for a variety of interested parties to work together to develop the most effective strategies to guide the State's mitigation policies.	A functional plan is necessary to guide State's mitigation activities.
Action 1.1.3.3. Review and incorporate the completed CMS	Existing Staff	It is important to identify all of the State facilities to be aware of their	When the risk factors of State facilities are known, the proper mitigation steps

state owned/operated facility inventory list. **(within three years)**	Resources FEMA HMTAP Contract	risk factors.	can be taken.
Action 1.1.3.4. When local jurisdiction's mitigation plans are approved, incorporate the hazards, risk assessments and projects into our database. **(ongoing)**	Existing Staff Resources	The locals are doing the most detailed analysis of the risks they face.	The more detailed analysis of risks improves the ability of the State to mitigate those risks.
Action 1.1.3.5. When local jurisdiction's mitigation plans are approved, review their mitigation policies, programs and capabilities and provide a general analysis of their effectiveness. **(ongoing)**	Existing Staff Resources	When the plans are approved they provide HSEM with the information on what locals are doing to mitigate and how they are doing it.	Best practices can be learned from local governments and shared with others. It can also guide the assistance the State provides.
Action 1.1.3.6. Establish criteria to guide the approval of planning and project grants. **(complete)**	Existing Staff Resources	By establishing criteria it assists in making logical determinations and minimizes personal preferences.	To determine the priorities for spending is one of the cornerstones of a mitigation strategy.

Objective 1.2. Improve organizational efficiency.

Strategy 1.2.1. Coordinate and communicate with other Sub-Divisions within the Division to support mitigation efforts. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.2.1.1. Jointly develop procedures with the Public Assistance Section to maximize the use of Section 406 Mitigation Funding following a declared disaster event. **(ongoing)**	Existing Staff Resources	Infrastructure should be mitigated to prevent future damages, but it is often too costly for 404 projects. 406 funds are a potential large source of funds for mitigation.	It is in the interests of mitigation to protect the State's infrastructure and maximize the dollars spent on mitigation in the State.
Action 1.2.1.2. Coordinate with the Public Information Officer (PIO) to publicize success stories. **(annually or when damages were averted)**	Existing Staff Resources and FEMA DAE's	The PIO has the skills and resources to publicize success stories.	Success stories build support for mitigation among the public, policymakers and elected officials.
Action 1.2.1.3. Improve coordination and communication with Regional Program Coordinators by consulting them in the application process and notifying them of grant approval. **(ongoing)**	Existing Staff Resources	Regional Coordinators are links to local governments. Consulting them in the process and notifying them of the results keeps them involved with mitigation.	By involving Regional Coordinators it builds the team that is working on mitigation and increases the chance of mitigation ideas being applied as a solution.

Strategy 1.2.2. Improve Communication with HMGP and PDM applicants and subgrantees. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.2.2.1. Make regular phone calls to subgrantees to disseminate policies and provide training. **(ongoing)**	Existing Staff Resources	Correct actions come from the people implementing projects being well informed and trained.	If we expect locals to follow the policies we must keep them updated on what they are.
Action 1.2.2.2. Maintain consistency between policies and procedures, and create an e-mail group to allow for routine dissemination of policies and procedures. **(ongoing)**	Existing Staff Resources	Disseminating information through email groups is the cheapest most effective method. Everyone is told the same thing and it is in writing for future reference.	If we expect locals to follow the policies we must keep them updated on what they are.
Action 1.2.2.3. Maintain the same Project Manager for consistency. **(ongoing)**	No resources required	By maintaining the same project manager it enables HSEM to have a better understanding of the project and assists the local by developing a relationship with the project manager.	Consistency in the guidance of projects minimizes dissatisfaction with the process. Knowledge of projects can take awhile and it helps ensure that the correct policies are implemented.
Action 1.2.2.4. Maintain and update a contact log. **(ongoing)**	Existing Staff Resources	This serves to document that information was conveyed to the local government.	This helps ensure an informed subgrantee.

Strategy 1.2.3. Streamline Grant Management Process and Procedures. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.2.3.1. Maintain an uniform 6-part standardized filing system. **(ongoing)**	Existing Staff Resources	Filing must occur and by having a standardized system it prevents information from being lost.	Efficient management of mitigation requires that the documents are easily found.
Action 1.2.3.2. Assure staff documents all contact, visits, etc. with community in a contact log**. (ongoing)**	Existing Staff Resources	This serves to document that information was conveyed to the local government.	This helps ensure an informed subgrantee.
Action 1.2.3.3. An updated POC group will be set up on the e-mail system to facilitate POC's receiving policies promptly. POC's who do not have e-mail will be set up as a group on the fax system and information faxed to them. **(ongoing)**	Existing Staff Resources	Disseminating information through email groups is the cheapest most effective method. Everyone is told the same thing and it is in writing for future reference.	If we expect locals to follow the policies we must keep them updated on what they are.
Action 1.2.3.4. Minimize paperwork and reporting requirements where possible. **(ongoing)**	Existing Staff Resources	Unnecessary paperwork is a burden, creates dissatisfaction, and takes time away from other areas.	A positive experience in implementing projects improves the image of the mitigation program.

Strategy 1.2.4. Improve Management. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.2.4.1. Task assignment-use a weekly task assignment sheet and help staff prioritize assignments. **(ongoing)**	Existing Staff Resources	Weekly prioritization of tasks ensures that the priorities get accomplished and limited resources are used correctly.	The mitigation staff has limited resources and decisions must be made on priorities to ensure the most important work is completed.

Strategy 1.2.5. Ensure Timely Process. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.2.5.1. Complete Local Mitigation Plan reviews within 30 days. **(ongoing)**	Existing Staff Resources and FEMA DAE's	If reviews are not timely it hinders the efforts of locals to make the necessary changes.	Timely review improves satisfaction and prevents the plans from stagnating.

Objective 1.3. Maximize the utilization of best technology.

Strategy 1.3.1. Incorporate geographic information system (GIS) as a tool in decision making. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.3.1.1. Continually upgrade statewide spatial data maintained in-house through multiple data sources. **(ongoing)**	Existing Staff Resources	Current data improves the use of technology. Technology is only as good as the data put into it.	Using the best data leads to making the best decisions.
Action 1.3.1.2. Evaluate emerging technologies and upgrade through hardware/software acquisition and training where appropriate and feasible. **(ongoing)**	Existing Staff Resources	Improved technologies can assist in risk assessment which enables us to better understand the risk factors.	Upgraded technology improves the ability to assess risks and to maximize the resources of the mitigation section.
Action 1.3.1.3. Maintain capability of GIS specialists and technicians through classroom education and distance learning. **(ongoing)**	Existing Staff Resources	Continuing education increases the skills of the GIS staff. It is especially important for them to learn how to apply their skills for mitigation purposes.	A well-trained staff can more effectively assist with mitigation programs.
Action 1.3.1.4. Make spatial data with viewing and mapping capability available to all staff in hazard mitigation section, creating	Existing Staff Resources	The more effectively HSEM can use available data, the more effectively we can implement the programs.	Using the best data leads to making the best decisions.

a scaled section-wide geographic information system. **(ongoing)**			

Strategy 1.3.2. Cooperate and coordinate with partners at all government levels in planning and use of best technology. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.3.2.1. Develop working relationships with other state agencies for mutual assistance in technologies. **(ongoing)**	Existing Staff Resources	Other agencies are already gathering information that can be useful to HSEM.	Limited mitigation resources make building partnerships and using existing data essential.
Action 1.3.2.2. Work with State and federal agencies to ensure all current risk data bases are utilized (i.e., weather studies and rainfall data). **(ongoing)**	Existing Staff Resources	Other agencies are already gathering information that can be useful to HSEM. We need to ensure we are using the best data possible.	Limited mitigation resources make building partnerships and using existing data essential. Using the best data leads to making the best decisions.
Action 1.3.2.3. Develop working relationship with federal agencies with interests related to emergency management and hazard mitigation, with technologies from which we can benefit. **(ongoing)**	Existing Staff Resources	Other agencies are already gathering information that can be useful to HSEM. We need to ensure we are using the best data possible	Limited mitigation resources make building partnerships and using existing data essential. Using the best data leads to making the best decisions.

Strategy 1.3.3. Increase the use of best technology in Grants Management. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 1.3.3.1. Use GIS for project identification, application development and project implementation. **(ongoing)**	Existing Staff Resources	Improved technologies can assist in risk assessment which enables us to better understand the risk factors.	Using the best data leads to making the best decisions.

GOAL 2. Build and support local capacity and commitment to continuously become less vulnerable to natural hazards.

Objective 2.1. Increase awareness and knowledge of hazard mitigation principles and practice among local public officials.

Strategy 2.1.1. Conduct mitigation presentations for local public officials. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.1.1.1. Develop and maintain a variety of adaptable mitigation Power Point presentations for local officials upon request. **(ongoing)**	Existing Staff Resources	Previously developed presentations allow for a minimum of preparation time for speaking engagements and helps ensure everything is covered.	Prepared presentations optimize the opportunity to educate officials.
Action 2.1.1.2. Contact associations for zoning officials to present mitigation ideas to their membership. **(annually)**	Existing Staff Resources	Zoning officials are an important ally in mitigation and we need to form a better relationship with them.	This builds partnerships and provides support for the mission of zoning officials.

Strategy 2.1.2. Conduct training courses for local public officials. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.1.2.1. Conduct interactive "Mitigation Planning Workshops." **(ongoing)**	Existing Staff Resources	Locals must be educated on why and how to do mitigation plans.	Local mitigation plans will form the foundation for future state plans.
Action 2.1.2.2. Educate HSEM Regional Program Coordinators and local coordinators in coordination with the Training Officer. **(ongoing)**	Existing Staff Resources	Regional Program Coordinators are links to local governments. We need to educate them on all of the mitigation tools available.	By involving Regional Program Coordinators it builds the team that is working on mitigation and increases the chance of mitigation ideas being applied as a solution.

Strategy 2.1.3. Provide jurisdictions with the necessary resources to evaluate their community building codes highlighting the impact of safe buildings on local residents. **(Building Code and Standards)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.1.3.1. Creation of a website to provide informational resources regarding building codes administered in Minnesota. **(ongoing)**	Existing Staff Resources	Educates individuals and contractors on building codes in force in their jurisdiction.	Ensures that construction complies with the existing laws and regulations.

Objective 2.2. Provide direct technical assistance to local public officials and help communities obtain funding for mitigation planning and project activities.

Strategy 2.2.1. Provide information on available mitigation funds to jurisdictions. **(HSEM and MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.2.1.1. Improve the HSEM mitigation website to provide the latest mitigation information on funding sources and planning instructions to the local jurisdictions. **(ongoing)**	Existing Staff Resources	This is the cheapest most efficient method of making information available to all interested jurisdictions.	It provides information to local jurisdictions.
Action 2.2.1.2. Following any major disaster, send a letter to the local jurisdictions explaining the mitigation assistance that is available. **(ongoing)**	Existing Staff Resources	This targets the affected jurisdictions to let them know about potential mitigation assistance.	This educates the jurisdictions with potentially the highest level of interest in mitigation about available programs.
Action 2.2.1.3. Provide presentations to local jurisdictions explaining all types of mitigation funding sources that are or might become available. **(ongoing)**	Existing Staff Resources	Mitigation is not an area familiar to many people. Local jurisdictions might not be aware of the potential funds for projects that would serve their interests.	This educates jurisdictions on what tools might be available to them to minimize the risks their jurisdiction faces.

Strategy 2.2.2. Publicize and provide risk assessment products and planning services to assist local officials throughout the local mitigation planning process. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.2.2.1. Distribute FEMA's mitigation planning documents (State and Local Mitigation Planning how-to guides) to interested jurisdictions. **(ongoing)**	Existing Staff Resources	Following FEMA guidance increases the chance of approval.	Local mitigation plans will form the foundation for future State Plans.

Objective 2.3. Encourage communities to develop, adopt, and implement local hazard mitigation plans.

Strategy 2.3.1. Continuously demonstrate the importance of pre-disaster mitigation planning to local public officials and promote the availability of PreDisaster Mitigation (PDM) resources. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.3.1.1. Send updated information on the PDM initiative to all eligible municipal and county managers, along with local planners and floodplain administrators. **(annually)**	Existing Staff Resources	Local jurisdictions need to be made aware of this program. PDM is a competitive program. It is in the State's interest to attract as many applications as possible.	Any projects approved provide funds for mitigation activities in the State.
Action 2.3.1.2. Publicize Section 322 of the Disaster Mitigation Act of 2000 to local public officials in all outreach activities. **(ongoing)**	Existing Staff Resources	Local public officials need to be aware of the DMA2k planning requirements to encourage them to begin work on a plan.	The local plans serve as the foundation for the State plan and make the locals eligible for mitigation funds.

Objective 2.4. Improve compliance with State floodplain regulations and encourage participation in the National Flood Insurance Program (NFIP).

Strategy 2.4.1. Promote NFIP compliance as a prerequisite for all communities with an identified Special Flood Hazard Zone considering hazard mitigation projects. **(HSEM and MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.4.1.1. Ensure that Mitigation section staff routinely identify and communicate potential compliance issues. **(ongoing)**	Existing Staff Resources	The mitigation staff travels to many floodprone locations. This provides the opportunity to refer potential violations to HSEM and MNDNR as we work together to ensure jurisdictions are compliant with NFIP regulations.	Preventing structures from being built in harm's way is the first step in mitigation.
Action 2.4.1.2. Ensure communities not in good standing with the NFIP understand that they will remain ineligible for any mitigation funding. **(ongoing)**	No Resources Required	Requiring good standing in the NFIP for mitigation funds serves as an incentive for jurisdictions to come into compliance.	Preventing structures from being built in harm's way is the first step in mitigation.

Strategy 2.4.2. Encourage communities to adopt strong local floodplain regulations to reduce future flood losses. **(HSEM and MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.4.2.1. Work with HSEM and MNDNR to identify flood prone areas and incorporated municipalities where stronger regulations would be appropriate. **(HSEM) (ongoing)**	Existing Staff Resources	The mitigation staff travels to many floodprone locations. This provides the opportunity to identify areas where stronger floodplain regulations can serve as an effective tool.	Preventing structures from being built in harm's way is the first step in mitigation.
Action 2.4.2.2. Maintain awareness of new incorporations and encourage participation in the NFIP. **(MNDNR) (ongoing)**	Existing Staff Resources	Jurisdictions complying with the NFIP rules prevent structures from being built in harm's way.	Preventing structures from being built in harm's way is the first step in mitigation.
Action 2.4.2.3. Continue to work with MNDNR to conduct floodplain management and flood mitigation workshops. **(HSEM) (ongoing)**	Existing Staff Resources	This is a long standing partnership that benefits both partners by educating the locals on flood mitigation.	Preventing structures from being built in harm's way is the first step in mitigation. These workshops educate jurisdictions on tools available to minimize the flood risk.

Strategy 2.4.3. Encourage participation in Community Rating System (CRS) and improve ratings of communities. **(HSEM and MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.4.3.1. Identify potential CRS communities and notify MNDNR to encourage enrollment. **(ongoing)**	Existing Staff Resources	CRS communities go beyond the minimum standards required by the NFIP. Many of these activities are mitigation based.	CRS is a mitigation tool that rewards mitigation activities.

Strategy 2.4.4. Use new technologies such as Map Modernization and digital floodplain mapping (DFIRM) as a tool to increase flood hazard awareness and risk reduction. **(HSEM and MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.4.4.1. Use DFIRM data to identify newly mapped flood hazard areas. **(MNDNR) (annually)**	CAP funds	Improved technologies can assist in risk assessment which enables us to better understand the risk factors.	Using the best data leads to making the best decisions.
Action 2.4.4.2. Notify communities with new flood risks and encourage them to adopt local floodplain regulations and seek mitigation alternatives. **(ongoing)**	CAP funds	NFIP regulations are the first step in mitigating flooding.	Mitigation begins prior to construction with appropriate land use.
Action 2.4.4.3. Encourage and assist communities to develop GIS parcel maps and DFIRMs to identify at-risk properties in flood hazard areas. **(ongoing)**	CAP funds	Improved technologies can assist in risk assessment which enables us to better understand the risk factors.	Using the best data leads to making the best decisions.
Action 2.4.4.4. Work with communities with identified flood risks to establish flood gauging and early warning systems. **(ongoing)**	CAP funds	Improved data can assist in risk assessment which enables a better response.	Using the best data leads to making the best decisions.

Strategy 2.4.5. Support the Minnesota Association of Floodplain Managers (MNAFPM) programs, including education and communication. **(HSEM, MNDNR and MNAFPM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.4.5.1. Support IAFSM administration of the Certified Floodplain Manager (CFM) program. **(MNDNR) (ongoing)**	Existing Staff Resources	This is a method of professionalizing floodplain management.	Professional development improves the execution of floodplain management.
Action 2.4.5.2. Support and submit information to the MNAFPM newsletter for communication. **(ongoing)**	Existing Staff Resources	The MNAFPM newsletter reaches a target audience of people interested in floodplain issues. This is a free way to educate people that execute policies.	This provides information on mitigation to interested parties.
Action 2.4.5.3. Coordinate education activities with MNAFPM. **(ongoing)**	Existing Staff Resources	MNAFPM is a valuable partner for reaching a target audience interested in floodplain issues.	This provides information on mitigation to interested parties.
Action 2.4.5.4. Support annual MNAFPM conference. SHMO is on the committee. **(annually)**	Existing Staff Resources	MNAFPM is a valuable partner for reaching a target audience interested in floodplain issues. The conference provides an opportunity to convey best practices and network.	This provides information on mitigation to interested parties.

Strategy 2.4.6. Assure minimum flood protection standards are met and promote higher floodplain management standards in all jurisdictions. **(MNDNR and HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.4.6.1. Update and distribute model Flood Damage Prevention Ordinance. **(MNDNR) (ongoing)**	CAP funds	This assists jurisdictions in utilizing the best ordinance possible.	Mitigation begins prior to construction with appropriate land use.
Action 2.4.6.2. Develop and maintain community floodplain management information database. **(MNDNR) (ongoing)**	CAP funds	This assists the State in identifying jurisdictions that need assistance in managing the floodplain.	Mitigation begins prior to construction with appropriate land use.
Action 2.4.6.3. Develop state incentives for minimum compliance and for higher floodplain management standards. **(ongoing)**	CAP funds	The model ordinance provides a minimum standard, mitigation can be furthered by adopting more stringent regulations.	Incentives would cause greater compliance by giving locals a reason to make mitigation a higher priority.

Objective 2.5. To assist jurisdictions in developing mitigation projects and identifying funding for cost-beneficial mitigation projects.

Strategy 2.5.1. Identify and assess repetitive loss properties for possible projects. **(MNDNR and HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.5.1.1. Verify repetitive loss database. **(ongoing)**	CAP funds potentially HMGP funds	The repetitive loss database has errors. We need to work with correct data.	Acquiring repetitive loss properties is one of the State's highest priorities.
Action 2.5.1.2. Collect digital pictures of rep loss properties. **(ongoing)**	CAP funds potentially HMGP funds	This is part of the process of building a data base on repetitive loss properties. They can also be used for future success stories.	Acquiring repetitive loss properties is one of the State's highest priorities.
Action 2.5.1.3. Gather GPS latitude/longitude coordinates and first floor elevations of repetitive loss properties. **(ongoing)**	CAP funds potentially HMGP funds	This is the most important part of the process of building a data base on repetitive loss properties. They can be used for B/C's and success stories.	Acquiring repetitive loss properties is one of the State's highest priorities. The best data leads to the best decisions.
Action 2.5.1.4. Take field inspection comments on repetitive loss properties. **(ongoing)**	CAP funds potentially HMGP funds	This is part of the process of building a data base on repetitive loss properties. They can also be used for future success stories.	Acquiring repetitive loss properties is one of the State's highest priorities.

Strategy 2.5.2. When available, allocate federal and state grant funding to local governments (or other eligible recipient) for the purposes of developing local mitigation plans. **(HSEM)**

Actions	Projected Resources	Rational for Action	How Action Contributes to Mitigation Strategy
Action 2.5.2.1. Provide federal HMGP, FMA and PDM Planning Grants to communities willing to provide a 25% local match, and based upon established criteria. **(HMGP/ongoing and FMA and PDM) (annually)**	HMGP, FMA, PDM	Many jurisdictions do not have the resources available to develop a plan. The State wants as many local jurisdictions as possible to be covered by DMA2k mitigation plans.	The local plans serve as the foundation for the State All-Hazard Mitigation Plan and make the locals eligible for mitigation funds.

Strategy 2.5.3. When available, allocate federal and state grant funding to local governments (or other eligible recipient) for the purposes of implementing eligible hazard mitigation projects using adopted plans as guides. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.5.3.1. Provide federal Flood Mitigation Assistance (FMA) and Pre-Disaster Mitigation (PDM) Project Grants to communities willing to make a 25% local match and with an adopted and federally approved local mitigation plan, and based upon criteria established through a competitive grant cycle. **(annually)**	FMA, PDM	The State wants to maximize the Federal dollars available to assist local jurisdictions in implementing hazard mitigation projects. Very few jurisdictions have the funds to finance mitigation projects on their own.	The highest priority mitigation projects for the State are the acquisition of substantially damaged structures and repetitive loss properties. These are expensive projects and Federal funds greatly expand the amount of work that can be accomplished.
Action 2.5.3.2. Provide federal Hazard Mitigation Grant Program (HMGP) Project Grants to communities, who are completing within one year an adopted and federally approved local mitigation plan or currently have such an existing plan, based upon criteria established through a competitive grant cycle. **(In the event of a Federal Disaster)**	HMGP	The State wants to maximize the Federal dollars available to assist local jurisdictions in implementing hazard mitigation projects. Very few jurisdictions have the funds to finance mitigation projects on their own.	The highest priority mitigation projects for the State are the acquisition of substantially damaged structures and repetitive loss properties. These are expensive projects and Federal funds greatly expand the amount of work that can be accomplished

Objective 2.6. Continuously demonstrate and capitalize upon the connection between hazard mitigation and sustainable development.

Strategy 2.6.1. Actively participate in all State-level sustainable development initiatives. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.6.1.1. Establish two-way links between the Mitigation Section's website and those of other State agencies or other groups that promote sustainable development. **(ongoing)**	Existing Staff Resources	This is a free way to promote the ideas of sustainable development, which overlap with the ideas of mitigation.	This distributes mitigation ideas and reinforces them with the concept of sustainable development.

Strategy 2.6.2. Coordinate with non-profit organizations that are responsible for promoting and/or implementing sustainable development or "smart growth" initiatives. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.6.2.1. Identify all non-profit organizations that are responsible for promoting and/or implementing sustainable development or "smart growth" initiatives. **(ongoing)**	Existing Staff Resources	The mitigation staff is always looking for other entities that share our mission to develop partnerships.	Limited mitigation resources make building partnerships essential.
Action 2.6.2.2. Identify specific opportunities for future collaboration and/or partnerships and develop methods to ensure continued coordination. **(ongoing)**	Existing Staff Resources	The potential partnerships can be strengthened by sharing projects that serve our common interests..	Limited mitigation resources make building partnerships essential.

Strategy 2.6.3. Ensure that hazard mitigation is recognized in any state-level programs or proposed legislation packages that target "smart growth" or sustainable development practices. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.6.3.1. Work to amend the "smart growth" legislation to include hazard mitigation. **(ongoing)**	Existing Staff Resources	There is "smart growth" legislation that has been approved but that did not include mitigation as a factor.	Inclusion would help institutionalize mitigation as a factor in smart growth.

Strategy 2.6.4. Work in coordination with other organizations to acquire and connect hazard-prone or environmentally sensitive lands throughout the State. **(MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 2.6.4.1. Work in developing and maintaining a database on all protected lands, identifying possible partners in the acquisition and maintenance of hazard prone lands contiguous to protected lands. **(ongoing)**	Existing Staff Resources	Partnerships can be developed that serve common interests. Identifying the protected lands will help to identify organizations with common interests and put acquired properties to the best use.	The acquisition of substantially damaged and repetitive loss properties is a State priority. The State is always looking for organizations that can contribute matching funds and potentially maintain acquired properties. Assistance in maintenance makes projects more attractive to locals.
Action 2.6.4.2. Use MNDNR Flood Mitigation Assistance Program funds to acquire flood prone property. **(ongoing)**	FMA	The State allocates funds to acquire flood prone properties. These funds are frequently used to provide the local match.	The acquisition of substantially damaged and repetitive loss properties is a State priority. Many jurisdictions would be unable to participate without using these funds for matching funds.

GOAL 3. Improve coordination and communication with other relevant entities.

Objective 3.1. Establish and maintain lasting partnerships.

Strategy 3.1.1. Distribute Minnesota publications to State Hazard Mitigation Officers and State Emergency Management Directors. **(HSEM)**

Actions	Projected Resources	Rational for Action	How Action Contributes to Mitigation Strategy
Action 3.1.1.1. Share new hazard mitigation-related publications with others. **(ongoing)**	Existing Staff Resources	The states work together to further mitigation. We share our publications with them and they share their publications with us.	Limited mitigation resources make building partnerships essential.

Objective 3.2. Streamline policies to eliminate conflicts and duplication of effort.

Strategy 3.2.1. Coordinate efforts with other agencies to ensure National Environmental Policy Act (NEPA) compliance. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 3.2.1.1. Prior to submission of application to FEMA, advising letters will be sent to the consulting agencies. **(ongoing)**	Existing Staff Resources	Letters advising consulting agencies on potential projects is the first step in the required NEPA process.	NEPA compliance is a prerequisite for FEMA approval and the process produces better projects.
Action 3.2.1.2. All of the consulting agencies will be called to review all active projects to ensure that they are still in compliance. **(annually)**	Existing Staff Resources	FEMA has advised us that the consulting agencies need to be consulted once a year to ensure projects remain in compliance.	NEPA compliance is a prerequisite for FEMA approval and the process produces better projects.

Objective 3.3. Incorporate hazard mitigation into the activities of other organizations.

Strategy 3.3.1. Assist other state agencies in identifying structures located in hazardous areas. **(HSEM and MNIDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 3.3.1.1. Work with SHPO to identify elevations of historic structures in the floodplain. **(within three years)**	Existing Staff Resources	GIS allows us to efficiently identify at risk properties and we can then decide the appropriate mitigation action.	Historic structures are important to the fabric of life. Part of preservation is minimizing the risks from hazards.
Action 3.3.1.2. Work with CMS to identify the elevations of state owned/operated facilities in the floodplain. **(within three years)**	Existing Staff Resources	GIS allows us to efficiently identify at risk properties and we can then decide the appropriate mitigation action.	State facilities serve the public and to ensure continuity of service we need to minimize the risks from hazards.
Action 3.3.1.3. Provide workshops on wind refuge areas for local EM staff, CMS building managers and university safety officers. **(ongoing)**	Existing Staff Resources	The risk of tornadoes makes this important for public safety. The EM's could advise anyone interested at a local level.	This is an educational program that works with partners to educate them on appropriate mitigation measures.
Action 3.3.1.4. Make presentations on the importance of and available funding for hazard resistant construction to Park District Associations. **(annually)**	Existing Staff Resources	The lack of structures in parks make people especially vulnerable to natural hazards. We need to ensure that the available shelters are disaster resistant.	This is an educational program that works with partners to educate them on methods to protect vulnerable populations.

GOAL 4. Increase public understanding, support, and demand for hazard mitigation.

Objective 4.1. Identify hazard-specific issues and needs.

Strategy 4.1.1. Coordinate with key local officials to determine local issues and concerns as well as local, state and federal actions previously taken. **(HSEM)**

Actions	Projected Resources	Rational for Action	How Action Contributes to Mitigation Strategy
Action 4.1.1.1. Attend and make presentations at the annual MNAFPM conference. **(annually)**	Existing Staff Resources	This is a free way to present mitigation ideas to an audience interested in mitigation.	By involving local coordinators it builds the team that is working on mitigation and increases the chance of mitigation ideas being applied as a solution.
Action 4.1.1.2. Hold meetings with Key Elected Officials, as requested. **(ongoing)**	Existing Staff Resources	This is a method to explain in detail the benefits of mitigation to people in a position to promote projects.	This educates people on the risks they face and the proper techniques to mitigate the risks.

Objective 4.2. Heighten public awareness of natural hazards.

Strategy 4.2.1. Launch or participate in awareness campaigns and special events. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.2.1.1. Participate in Severe Winter Storms Awareness Week. **(annually)**	Existing Staff Resources	This is a method to partner with media outlets to educate the public on risks and how to mitigate them.	This educates the public on risks and the tools to mitigate the risks.
Action 4.2.1.2. Participate in Tornado Awareness Week. **(annually)**	Existing Staff Resources	This is a method to partner with media outlets to educate the public on risks and how to mitigate them.	This educates the public on risks and the tools to mitigate the risks.
Action 4.2.1.3. Promote the National Weather Service (NWS) Storm Ready Program. **(ongoing)**	Existing Staff Resources	This program promotes safety from severe weather. It is essentially a mitigation program.	This educates the public on risks and the tools to mitigate the risks. This is a worthwhile program that needs promotion.

Strategy 4.2.2. Encourage the use of classroom curriculum to educate students on natural hazards. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.2.2.1. Inform people about the "Project Wet" curriculum and encourage its use. **(ongoing)**	Existing Staff Resources	This is a well-developed program that provides curriculum to students on the water cycle.	This educates children on risks and the tools to mitigate the risks. This is a worthwhile program that needs promotion.

Strategy 4.2.3. Publicize and encourage the use of warning systems. **(NWS and HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.2.3.1. Promote the advantages of weather radios to the general public. **(ongoing)**	Existing Staff Resources	Weather radios can serve multiple functions and provide the best method of providing warnings to the public.	Adequate warning is necessary to avert loss of life. The public needs to be educated on the most effective warning systems.
Action 4.2.3.2. Encourage jurisdictions to keep outdoor warning sirens in good condition. **(ongoing)**	Existing Staff Resources	There are not state funds available to install outdoor warning sirens, so it is important that existing ones are maintained.	Adequate warning is necessary to avert loss of life. Locals need to be encouraged to maintain their systems.
Action 4.2.3.3. Publicize the use and limitations of outdoor warning sirens. **(ongoing)**	Existing Staff Resources	Most people misunderstand the purpose of warning sirens and need to be educated that they are not meant to warn people indoors.	Adequate warning is necessary to avert loss of life. The public needs to be educated on the most effective warning systems.
Action 4.2.3.4. Encourage jurisdictions to warn at-risk population groups of the dangers of heat waves and ways to avoid the danger. **(ongoing)**	Existing Staff Resources	Heat waves are generally unrecognized as a natural disaster. Mitigation steps by local jurisdictions can reduce the causalities.	Education of the public on the risks and the tools to mitigate the risks can prevent harm to numerous people.

Objective 4.3. Publicize and encourage the adoption of appropriate hazard mitigation measures.

Strategy 4.3.1. Provide information on mitigation techniques in the aftermath of disasters. **(HSEM)**

Actions	Projected Resources	Rational for Action	How Action Contributes to Mitigation Strategy
Action 4.3.1.1. Attend public meetings to discuss mitigation programs. **(ongoing)**	Existing Staff Resources	This is an opportunity to explain in detail the benefits of mitigation to people in a position to participate in projects.	This educates people on the risks they face and the proper techniques to mitigate the risks.
Action 4.3.1.2. Ensure mitigation is represented in the Joint Field Offices (JFOs). **(ongoing)**	Existing Staff Resources	People affected by disaster are the most likely to take steps to ensure they avoid future losses.	This educates people on the risks they face and the proper techniques to mitigate the risks.
Action 4.3.1.3. Organize wind-resistant construction and/or safe room workshops in the aftermath of tornadoes. **(ongoing)**	Existing Staff Resources	People affected by disaster are the most likely to take steps to ensure they avoid future losses.	This educates people on the risks they face and the proper techniques to mitigate the risks.

Strategy 4.3.2. Increase the public's exposure to hazard mitigation issues. **(MNDNR)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.3.2.1. Ensure mitigation is represented at the State Fair. **(annually)**	Existing Staff Resources	This is a low cost way of promoting mitigation to a new audience and questions can be	This educates people on the risks they face and the proper techniques to mitigate the risks..

		answered in an informal setting..	

Objective 4.4. Educate the public on the benefits of mitigation measures.

Strategy 4.4.1. To utilize different methods to deliver the mitigation message to the public. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.4.1.1. Continue to develop success stories for the FEMA website. Provide a link from the HSEM website. **(ongoing)**	Existing Staff Resources	By promoting positive mitigation on the FEMA web site we can educate the public on how mitigation works.	By understanding the positive ramifications of mitigation, the public and public officials are more likely to support it.
Action 4.4.1.2. Provide information to any media reporting on past disasters and mitigation in the aftermath of a disaster. **(in the event of a disaster)**	Existing Staff Resources	Interest is highest in mitigation following a disaster and on the anniversaries of disasters. This is an opportunity to reach the public with a mitigation message.	By understanding the positive ramifications of mitigation, the public and public officials are more likely to support it.
Action 4.4.1.3. Distribute mitigation materials to all of the libraries in the State. **(annually)**	HMGP 5% funds	It is important to make mitigation information available to the public. Many people prefer libraries to the internet.	To reach the largest audience and to repeat the message, we need to utilize as many outreach methods as possible.

Objective 4.5. Help educate the public on the benefits of hazard-resistant construction and site planning .

Strategy 4.5.1. To provide the public with information on building codes to enable them to make informed decisions. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.5.1.1. Provide links on the HSEM mitigation website to sites where individuals can learn more about building codes. **(ongoing)**	Existing Staff Resources	Correct building techniques are an important mitigation tool. The codes are the best source for these techniques.	To reach the largest audience and to repeat the message, we need to utilize as many outreach methods as possible.

Objective 4.6. Maximize available post-disaster "windows of opportunity" to implement major mitigation outreach initiatives.

Strategy 4.6.1. Participate in PDA activities immediately following a disaster. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.6.1.1. Assign staff to mitigation outreach teams. **(in the event of a disaster)**	Existing Staff Resources	Personally seeing the hazard and its effects educates the mitigation staff on effective mitigation solutions.	The better the understanding of the hazards the better the choice of solutions.

Strategy 4.6.2. Document and disseminate information on losses avoided. **(HSEM)**

Actions	**Projected Resources**	**Rational for Action**	**How Action Contributes to Mitigation Strategy**
Action 4.6.2.1. Coordinate with local officials to collect digital pictures and field reports. **(ongoing)**	Existing Staff Resources	The locals are on the scene and can tell us when losses are avoided and can provide us with the information at no cost.	It provides us with information to inform people of mitigation successes and reinforces the success of the program for the locals.
Action 4.6.2.2. Incorporate findings into future volumes of success story documents. **(ongoing)**	Existing Staff Resources	This provides a source for best practices and is used to promote mitigation.	Success stories are often used to sell other jurisdictions on the need for mitigation.
Action 4.6.2.3. Post success story articles on the mitigation website. **(ongoing)**	Existing Staff Resources	By promoting positive mitigation on our website we can educate the public on how mitigation works.	By understanding the positive ramifications of mitigation, the public is more likely to support it.
Action 4.6.2.4. Present information to the policy makers. **(ongoing)**	Existing Staff Resources	It is important for the policy makers to understand how mitigation works.	By understanding the positive ramifications of mitigation, policy makers are more likely to support it.

Strategy 4.6.3. Maximize available Federal resources. **(MNRTF and HSEM)**

tions	Projected Resources	Rational for Action	How Action Contributes to Mitigation Strategy
tion 4.6.3.1. Assist colleges and versities in applying for eDisaster University funds. **SEM) (ongoing)**	Existing Staff Resources	Universities shelter numerous students and important research materials. It is important to ensure the safety of both.	This can help protect people and critica facilities and maximizes the dollars spe on mitigation in the State.
tion 4.6.3.2. Work toward an proved enhanced state mitigation n. **(within three years)**	Existing Staff Resources	Enhanced plans improve the delivery of mitigation services and increase the HMGP allocations.	It is in the interest of mitigation to run the programs as effectively as possible and to maximize the dollars spent on mitigation in the State.

ANNEX B:
TECHNOLOGICAL HAZARDS CAPABILITIES / and STRATEGIES

ANNEX B1: FIRE CAPABILITIES

A. General

Minnesota Department of Public Safety (DPS), State Fire Marshal Division (SFMD): SFMD has the most recent information on fire in the State of Minnesota. See http://www.dps.state.mn.us/fmarshal/fmarshal.html

B. Minnesota Agency Capabilities

URBAN FIRES	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture			X	X	X			X			
Department of Public Safety, Homeland Security and Emergency Management	X	X	X		X	X		X	X	X	X
Department of Public Safety, State Fire Marshal Division	X	X	X	X	X	X	X	X	X	X	X
Department of Public Safety, Office of Pipeline Safety	X	X	X	X	X	X	X	X	X	X	X
Department of Transportation	X			X	X			X			
Housing Finance Agency	X	X									
Metropolitan Airports Commission	X	X	X	X	X			X	X	X	X
Minnesota State Colleges and Universities			X								
Pollution Control Agency	X	X	X	X	X	X	X	X	X	X	X

C. Preparedness/Equipment

1. Residential: Available and/or mandated fire detection, suppression and preparedness equipment.

   - Fire extinguishers
   - Smoke and heat detectors
   - Escape ladders

- Fire sprinkler systems

2. Industrial/Commercial: Available and/or mandated fire detection, suppression and preparedness equipment.

   - Emergency evacuation signs/plans
   - Fire extinguishers
   - Smoke and heat detectors
   - Fire sprinkler systems

3. State/Private

   - Emergency Response Teams for fires involving hazardous material
   - Chemical Assessment Teams for fires involving hazardous material
   - Department of Natural Resources (DNR), Division of Forestry
   - DPS, SFMD

4. Local Jurisdictions

   Career and volunteer firefighters
   Career and volunteer emergency medical services personnel

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the U.S. Department of Agriculture Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System is Minnesota's application of the National Interagency Incident Management System. MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural and technological hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Programs: The State Fire Marshal manages a variety of fire prevention and enforcement programs intended to reduce the likelihood and impact of fires. These programs include development of fire codes, fire safety inspections, public education and maintenance of statistical fire data from which fire prevention and response plans

are developed. See http://www.dps.state.mn.us/fmarshal/fmarshal.html

2. Minnesota Arson Reward Project: Incendiary and arson fires continue to be a very large threat throughout the state. The Minnesota Arson Reward Project was developed to deter the crime of arson in the state of Minnesota. For information on this project and to obtain the Arson Hotline number, See http://mniaai.org/arson%20reward%20rules.htm

3. Fire Protection Systems Program: The mission is to save life and property through effective licensing, plan review, and inspection of fire protection sprinkler systems; to work together with government, industry, and the public to improve the quality of installation of fire protection sprinkler systems; and, to regulate the fire protection sprinkler industry in a fair, consistent, and equitable way to achieve effective enforcement and administration of statutory obligations. See http://www.dps.state.mn.us/fmarshal/firesprink.html

4. Public School Inspection Program: The primary focus of this program is to eliminate the fire and safety violations in public school buildings that have historically contributed to disastrous events.

5. Hazardous Materials Program: The Hazardous Materials Regional Response Team Program utilizes local public and private sector organizations, under contract with the Minnesota Department of Public Safety, to provide specially trained and equipped personnel who respond to support local authorities during hazardous materials incidents.

6. Fire Data Analysis Team: The Fire Data Analysis Team collects and analyzes approximately 150, 000 incident reports annually. The team also provides technical assistance to all of Minnesota's fire departments. Duties include the tracking of major incidents as they occur and providing data and information to local fire service leaders regarding trend development.

7. Minnesota Juvenile Firesetter Program: This program developed regional task forces responsible for providing the necessary components for successful interventions to continued juvenile firesetting. Task forces are comprised of agencies that include the fire service, juvenile justice system, police departments, mental health agencies, and various social service divisions.

8. Fire and Life Safety Inspection Teams: *The residential fire safety inspection team* inspects all licensed hotels, motels and resorts throughout the State and conducts inspections of family/group child care, family/group foster care, child care centers, complaints and other special request inspections. *The health care fire safety inspection team* is responsible for conducting annual fire and life safety inspections in health care facilities licensed by the Minnesota Department of Health and residential group homes licensed by the Minnesota Department of Human Services.

9. Code Development/Plan Review: The goal of this initiative is to provide consultation

and technical assistance in matters related to fire safety to local/state fire and building officials, property owners/managers, architects, engineers, contractors and the general public.

10. Fire/Arson Investigation Team: This unit is comprised of eleven investigators and one trainer. The team assists fire officials and law enforcement by investigating large numbers of fires per year that are determined to be suspicious.

G. Public Awareness

1. Governor's Council on Fire Prevention and Control: The council's mission is to provide a focal point for the exchange of information; to develop the best possible fire education, protection and prevention services for the people of Minnesota and to coordinate the delivery of information. See http://www.dps.state.mn.us/fmarshal/GovernorsCouncil/GovernorsCouncil.html

2. Minnesota State Fire Marshal Division, Fire Education, Safety, and Training Program: This site provides information on fire education and safety. See http://www.dps.state.mn.us/fmarshal/firesafe.html

3. Minnesota Fire Incident Reporting System (MFIRS): MFIRS provides information to the state fire service. Also, it gives the public insight into risks and issues facing the fire service and community in general from the threat of fire. See http://www.dps.state.mn.us/fmarshal/firemfirs.html

4. Minnesota Office of Pipeline Safety: The Office of Pipeline Safety manages a variety of public awareness and compliance programs, such as the Gopher State One Call (GSOC) “Call Before You Dig” program to ensure the safe operations and maintenance of natural gas and hazardous liquid pipeline systems and facilities in Minnesota. See http://www.dps.state.mn.us/pipeline/index.html

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), U.S. Fire Administration (USFA): USFA provides training to reduce life and economic loss due to fire and related emergencies. See http://www.usfa.fema.gov/

3. Minnesota Department of Public Safety (DPS), State Fire Marshal Division, Fire Education, Safety, and Training Program: The State Fire Marshal provides a variety of fire service and fire protection system training opportunities. See http://www.dps.state.mn.us/fmarshal/FireTraining.htm

I. Legislation and Codes

1. Federal: Federal Emergency Management Agency (FEMA)

   a. PL 100-707 (Robert T. Stafford Disaster Relief and Emergency Assistance Act [Stafford Act]): amended the Disaster Relief Act of 1974. The Stafford Act created several changes in FEMA's hazard mitigation program. Most importantly, it established the Hazard Mitigation Grant Program (HMGP). Other changes affecting hazard mitigation included sections making hazard mitigation an eligible expense under the Infrastructure Support Program (the former Public Assistance Program). Section 409 of the Stafford Act requires state and local governments to evaluate and mitigate natural hazards in order to qualify for disaster assistance.

   b. PL 103-181 (Hazard Mitigation and Relocation Assistance Act) amended the Stafford Act to increase the federal contribution for eligible HMGP projects to 75 percent; increase funding for HMGP to 15 percent of the total estimated federal grant assistance (excluding administrative costs) provided as part of a Presidential Disaster Declaration; and restrict the eligibility of projects involving property acquisition and relocation assistance for property owners and structures.

   c. PL 106-390, cited as the *Disaster Mitigation Act of 2000*, amended the Stafford Act to authorize a program for pre-disaster mitigation, and allow the states to apply for self-administration of the HMGP.

2. State

   a. Department of Public Safety, Fire Marshal Division

      1) Fire Works Operator Certification – Since January 1, 1996, fireworks display operators are required to be certified by the State.

      2) Minnesota Uniform Fire Code – Minnesota maintains a Fire Code staff to assist building officials, contractors, architects, engineers and the general public for information.

   b. Minnesota Department of Administration, Building Codes and Standards Division (BC&SD): BC&SD administers the Minnesota State Building Code – Statutory Authority (16B.59-16B.75) that sets construction standards to assure the health, safety, comfort and security of building occupants. The division provides interpretations on the adopted codes, gives information regarding building materials and consults with municipal officials, design professionals and the general public relating to all types of projects. See http://www.admin.state.mn.us/buildingcodes/

J. Funding Sources

1. A partial list of funding sources can be found at the following hyperlink, See http://www.dps.state.mn.us/fmarshal/FundingSources.html

2. See Cababilities Assessment section of this plan for Federal and other funding sources.

MITIGATION RECOMMENDATIONS/ACTIVITIES

A. General

1. Encourage all Minnesotans to access free Internet service at their local libraries and local/state offices in order for them to access emergency preparedness information.

2. Provide software and hardware as incentives to encourage an even higher percentage of Minnesota fire departments to use the Minnesota Fire Incident Reporting System (MFIRS).

3. Expand publication of the Arson Hotline.

4. Offer incentives to recruit more volunteer firefighters, especially in the rural areas. This might include educational assistance or tax credits.

B. Preparedness/Equipment

1. Provide additional state-of-the-art equipment to the First Responder community, particularly in the more rural areas of Minnesota.

2. Investigate if there is legislation to protect those fire departments that "donate" equipment to other fire departments from future liability regarding the donated materials and hold them harmless. If legislation does not exist, initiate process to sponsor appropriate legislation.

3. Provide information to the public on how to check and maintain their smoke detectors and fire extinguishers in the home.

4. Provide statewide support for additional advanced specialized services, such as bomb squads, Hazardous Materials (HAZMAT) teams, urban search and rescue teams, and radiological support teams.

C. Response Plans

1. Update the Minnesota Emergency Operations Plan (MEOP) on a regular basis, and specifically after any disaster declarations.

2. Continue and expand use of mutual aid agreements.

3. Ensure that the Minnesota Incident Command System (MNICS) is used for all incidents throughout the state, whether on public or private land.

D. Plan Exercises

Design and implement a variety of natural and technological hazard scenarios through state agencies and local jurisdiction collaboration.

E. Mitigation Plans/Projects

1. Encourage local jurisdictions to adopt all-hazard mitigation plans, and ensure they are coordinated with surrounding jurisdictions. Use the State All-Hazard Mitigation Plan as the model.

2. Ensure local fire departments have an inspection program so that all commercial and multi-resident structures are inspected once per year.

3. Offer rewards for information leading to the arrest and conviction of arsonists.

F. Public Awareness

1. Expand current emergency preparedness and fire prevention programs to reach more Minnesotans.

2. Establish emergency preparedness and fire prevention programs to be conducted at all levels of education (K-12).

3. Encourage courtesy home fire inspections to be offered by all Minnesota fire departments.

4. Acquire and train more petrochemical detection canines.

5. Promote home fire safety by a continuing statewide awareness program. Expand the web site below and develop more publicity for home fire safety: See http://www.dps.state.mn.us/fmarshal/PublicEducation/HomeFireSafety.html

6. Continue efforts undertaken by the Governor's Council on Fire Prevention and Control. See http://www.dps.state.mn.us/fmarshal/GovernorsCouncil/GovernorsCouncil.html

7. Improve programs that provide the public with information regarding the causes of fire in the residential setting, and suggest ways to reduce the number of residential fires.

8. Obtain and utilize educational materials available from the National Catalog Center at the Northeast Interagency Fire Center in Grand Rapids, Minnesota. See http://www.symbols.gov/catalog/welcome.html

G. Training

1. Refer to the State of Minnesota's Emergency Management Training on the Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM) web site.

2. Refer to the USFA for courses to reduce life and economic loss due to fire and related emergencies.

3. Ensure the First Responder community conducts the required Occupational Safety and Health Administration training and maintains current records on all completed training.

4. Encourage all Fire Responders to be trained at least to the HAZMAT Awareness level.

5. Ensure every First Responder group has a minimum number (e.g., 3-5) of personnel trained to the HAZMAT Operations level.

6. Encourage more joint training among First Responder agencies regardless of existing formal mutual aid agreement.

H. Legislation and Codes

1. Encourage all Minnesota jurisdictions to enact a standard set of codes, covering at a minimum building, plumbing, electrical, and fire.

2. Promote and enforce building codes that require fire sprinkler systems in every new commercial, residential or industrial building.

I. Funding Sources

See Cababilities Assessment, Sections VIII and Annex A of this plan for other funding sources.

ANNEX B2: HAZARDOUS MATERIALS / FIXED FACILITIES AND TRANSPORT CAPABILITIES

A. General

1. U.S. Army Corps of Engineers (USACE): USACE can respond on USACE property to any spill to protect USACE facilities, whether the USACE or another party caused the spill. The USACE is responsible for responding to an The District can respond on Corps property to any spill to protect Corps facilities, whether the Corps caused the spill or if another party caused the spill. The District is responsible for responding to any Corps-caused spill whether on a Corps facility or not.

   They also provide assistance with District equipment, under AR500-60 where there is an imminent threat to life and/or property.

   The District can also provide assistance during a spill response if requested by the Federal On Scene Coordinator (FEMA, EPA, CG). USACE-caused spill whether on a USACE facility or not. USACE can also provide assistance under Army Regulation 500-60 with USACE equipment where there is an imminent threat to life and/or property. USACE can also provide assistance during a spill response if requested by the Federal On Scene Coordinator (FEMA, EPA, CG).

2. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM), Hazardous Materials Program: The Hazardous Materials Program coordinates state agency activities for hazardous materials response. Minnesota Statutes Chapter 115E, the Oil and Hazardous Substance Discharge Preparedness Act, passed by the Minnesota Legislature in 1992, outlines part of the duties of the program.

   HSEM administers the financial/administrative and logistical components of the DPS' Hazardous Materials Regional Response Team Program. Division Hazardous Materials Program staff provide on-call technical assistance and response.

   The State Fire Marshal Division (SFMD), in a joint effort with HSEM, responds to hazardous material incidents.

3. Minnesota Department of Public Safety, Hazardous Materials Contacts: DPS provides a contact list of key agencies, which can provide information regarding hazardous materials.

4. Minnesota Department of Health (MDH), Environmental Health Division (EHD): The mission of EHD is to reduce and prevent the occurrence of environmentally induced disease and injury. In this regard, EHD acts as an advocate and protector of public health. EHD is the principal agency of state government charged with responsibility for protecting the public health from exposures to environmental hazards. See http://www.health.state.mn.us/divs/eh/esa/hra/mehp97/

5. Regional Hazardous Materials Response Team Management: The Regional Hazardous Materials Response Teams are under the direction of the Commissioner of DPS, collaboratively managed by the HSEM, and SFMD. The Commissioner believes that it is important to maintain a collaborative dialogue between the customers serviced by these two divisions. Teams are available for, and dispatched to assist local units of government in response to hazardous materials incidents that exceed local government response capabilities.

B. Minnesota Agency Capabilities

TRANSPORTATION OF HAZARDOUS WASTE INCIDENTS	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture			X	X	X			X	X		
Department of Public Safety, Homeland Security and Emergency Management	X		X		X			X	X	X	X
Department of Public Safety, State Fire Marshal Division	X		X		X			X	X	X	
Department of Transportation	X	X	X		X			X			
Metropolitan Airports Commission	X	X	X	X	X		X	X	X		X
Minnesota State Colleges and Universities			X								
Pollution Control Agency		X		X				X	X	X	X

PIPELINE INCIDENTS	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Natural Resources											
Department of Public Safety,		X			X			X		X	

Homeland Security and Emergency Management											
Department of Public Safety, State Fire Marshal Division	X	X	X	X	X	X	X	X	X	X	X
Department of Public Safety, Office of Pipeline Safety	X	X	X	X	X	X	X	X	X	X	X
Metropolitan Airports Commission	X	X	X	X	X			X	X	X	X
Minnesota State Colleges and Universities			X								
Pollution Control Agency		X		X				X	X	X	X

FIXED FACILITY HAZMAT RELEASE	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture	X	X	X	X	X	X	X	X	X	X	X
Department of Natural Resources		X	X		X			X	X	X	
Department of Public Safety, Homeland Security and Emergency Management	X		X		X			X	X	X	X
Department of Public Safety, State Fire Marshal Division	X				X			X		X	
Department of Public Safety, Office of Pipeline Safety					X						
Housing Finance Agency		X									
Metropolitan Airports Commission	X	X	X	X	X			X	X	X	X
Minnesota National Guard	X				X			X			
Minnesota State Colleges and Universities			X								
Pollution Control Agency		X		X				X	X	X	X

UNKNOWN / RESEARCH DEVELOPED HAZMAT INCIDENT	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture			X	X	X			X	X		
Department of Health	X				X						
Department of Natural Resources					X			X	X	X	
Department of Public Safety, Homeland Security and Emergency Management	X		X		X			X	X		
Department of Public Safety, State Fire Marshal Division	X		X					X		X	
Metropolitan Airports Commission	X	X	X	X	X			X	X	X	
Minnesota National Guard	X	X	X	X	X			X	X	X	
Minnesota State Colleges and Universities			X								
Pollution Control Agency		X		X				X	X	X	X

C. Preparedness/Equipment

1. Minnesota Pollution Control Agency (MPCA): MPCA identifies, regulates, and cleans up spills, leaks, and other hazardous materials that can affect our health and our environment. See http://blue.pca.state.mn.us/cleanup/

2. Minnesota Department of Agriculture (MDA): MDA identifies, regulates and cleans up agricultural chemical spills, leaks and releases that can affect human health, and/or the environment. See http://www.mda.state.mn.us/incidentresponse/default.htm

D. Response Plans

1. Minnesota Incident Command System (MNICS): In addition to cooperating with other states, Minnesota cooperates with federal agencies such as the United States Department of Agriculture (USDA) Forest Service, National Park Service, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service. The Minnesota Incident Management System (MIMS) is Minnesota's application of the National Interagency Incident Management System. MNICS allows state and federal agencies to share equipment resources, personnel, and knowledge.

2. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response

plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural and technological hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

DPS, Minnesota Emergency Response Commission (ERC): ERC is responsible for coordinating information about hazardous chemicals at facilities around the state so that local emergency officials can prepare for emergencies. See http://www.erc.state.mn.us/

G. Public Awareness

1. National Transportation Safety Board (NTSB): NTSB investigates significant transportation incidents involving hazardous materials and produces in-depth reports. See www.ntsb.gov/Publictn/P_Acc.htm

2. Minnesota Office of Environmental Assistance (OEA): OEA offers public education in improving the environment, including hazardous materials information. See http://www.moea.state.mn.us/ee/greenprint.cfm

3. Great Lakes Commission (GLC): GLC offers educational materials about spill prevention and management in waterways. See http://www.glc.org/

4. North American Association for Environmental Education (NAAEE): NAAEE is a network of professionals, students, and volunteers working in the field of environmental education throughout North America and in over 55 countries around the world. See http://www.nceet.snre.umich.edu/state-mn.html

H. Training

1. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI): EMI has a course catalog for a variety of courses in general mitigation and emergency management. See http://www.fema.gov/emi

I. Legislation and Codes

1. Federal

a. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): CERCLA, commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment

b. Superfund Amendments and Reauthorization Act (SARA): SARA amended the CERCLA on October 17, 1986. SARA reflected EPA's experience in administering the complex Superfund program during its first six years and made several important changes and additions to the program.

c. Resource Conservation and Recovery Act (RCRA): RCRA gave EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous wastes.

d. Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA): EPCRA, also known as Title III of SARA, was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards.

e. Occupational Safety and Health Administration (OSHA): Congress authorized the OSHA to establish rules and regulations to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions.

f. Toxic Substances Control Act (TSCA): TSCA of 1976 was enacted by Congress to give EPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. EPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

g. Clean Air Act (CAA): CAA is the comprehensive federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes the EPA to establish National Ambient Air Quality Standards to protect public health and the environment.

h. Clean Water Act (CWA): CWA is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States.

i. Oil Pollution Act (OPA): OPA of 1990 streamlined and strengthened EPA's ability to prevent and respond to catastrophic oil spills. A trust fund financed by a tax on oil is available to clean up spills when the responsible party is incapable or unwilling to do so. OPA requires oil storage facilities and vessels to submit to the Federal government plans detailing how they will respond to large discharges. EPA has published regulations for aboveground storage facilities; the Coast Guard has done so for oil tankers. OPA also requires the development of Area Contingency Plans to prepare and plan for oil spill response on a regional scale. See http://www.epa.gov/cgibin/r5disclaimer.cgi?exit=http://www.dot.gov/dotinfo/uscg/welcome.html

2. State

Minnesota Toxic Pollution Prevention Act: The 1990 Minnesota Legislature passed the Minnesota Toxic Pollution Prevention Act. The legislation includes these major features:

- Establishes state policy encouraging the prevention of toxic pollution.
- Provides technical assistance to help companies prevent toxic pollution by expanding the responsibilities and staff of the Minnesota Technical Assistance Program.
- Provides matching grants to help companies study or demonstrate the feasibility of applying specific technologies and methods to prevent pollution.
- Requires each facility reporting toxic chemical releases to develop a toxic pollution prevention plan establishing goals for reducing or eliminating these releases. In addition, these facilities must submit annual progress reports to the ERC. See http://www.erc.state.mn.us/mntapp/index.html

J. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

MITIGATION RECOMMENDATIONS/ACTIVITIES

A. General

1. Establish a centralized statewide database that will allow collection, retrieval, and analysis of information on hazardous materials incidents. This information is critical in identifying problems, establishing priorities, and evaluating the effectiveness of solutions that are implemented.

2. Strengthen the ability of the Minnesota Homeland Security and Emergency Management (HSEM) Hazardous Materials Program to plan for, respond to, and mitigate the effects of hazardous materials incidents.

3. Periodically update the Minnesota Department of Public Safety (DPS) Hazardous

Materials Contacts list.

4. Strengthen the ability of the Minnesota Department of Health (MDH), Environmental Health (EH) to protect the public health from exposures to environmental hazards.

B. Preparedness/Equipment

1. Evaluate and implement new technology to improve information and data exchange during emergency response and recovery to:

   - Provide timely information and supporting decision-making.
   - Provide service through on-scene assistance immediately following a request for assistance.
   - Notify responders on a 24-hour-a-day basis.
   - Maintain continuous communication with responders.
   - Inform the public.
   - Coordinate the response of federal, state and local resources.

2. Make Geographic Information Systems (GIS) capability available to map locations of hazardous materials fixed facilities and transportation corridors and estimate the degree of risk based on analysis of populations and property exposed.

3. Provide additional statewide support for advanced hazardous materials response services.

4. Provide software and hardware as incentives to encourage Minnesota fire departments to use the Minnesota Fire Incident Reporting System (MFIRS) Hazardous Materials Incident Report.

5. Offer incentives to recruit more volunteer firefighters to provide first response to hazardous materials emergencies, especially in the rural areas. This might include educational assistance, tax credits, or the statewide Length of Service Awards Program.

C. Response Plans

1. Map each extremely hazardous fixed facility and major transportation corridor vulnerability zone. Perform a GIS analysis of potential life and property risks to determine the scope of likely incidents as a method of prioritizing planning and exercise efforts.

2. Continue and expand use of mutual aid agreements and memoranda of understanding to improve coordination of state, local, and federal agencies and private sector entities.

3. Ensure that the Minnesota Incident Command System (MNICS) is used for all hazardous materials incidents throughout the state.

4. Update the Minnesota Emergency Operations Plan (MEOP) on a regular basis, and specifically after any disaster declarations.

D. Plan Exercises

1. State agency specific and joint exercises should be held based on the priorities set using the analysis of hazards.

2. Regional exercises that test local plans and mutual aid agreements between local jurisdictions should be held based on the priorities set using the analysis of hazards for the region.

3. Local exercises that test local plans and interaction between local agencies should be held based on the priorities set using the analysis of hazards for the region.

4. Design and implement a variety of natural and technological hazard scenarios through state agencies and local jurisdiction collaboration.

E. Mitigation Plans/Projects

1. Develop the capability to integrate plume modeling software with GIS technology to model the potential hazards created by releases of liquid, gaseous, or airborne solid hazardous materials for use in identifying and prioritizing needed mitigation projects.

2. Provide assistance to local public safety organizations in response to explosive devices.

3. Develop increased capabilities of local agencies to respond on behalf of the state to collapse rescue emergencies in Minnesota.

4. Establish a contingency fund for each year of the biennium to create and administer a state disaster program.

5. Review the vulnerability of domestic water supplies and other critical infrastructure to contamination or disruption from hazardous materials releases and develop proposals to improve protection where appropriate.

F. Public Awareness

1. Encourage all Minnesotans to become aware of and prepare for hazardous materials emergencies likely to occur in their communities.

2. Encourage all Minnesotans to participate in the local emergency planning process.

3. Encourage all Minnesotans to utilize free Internet access through their local public library to obtain hazardous materials emergency preparedness information.

G. Training

1. Train staff to utilize improved information technology.

2. Continue emergency response teams training and develop more joint agency training activities.

3. Ensure the first responder community conducts the required Occupational Health and Safety Administration (OSHA) training and maintains current records on all completed training.

4. Ensure all fire responders are trained to at least the Hazardous Materials (HAZMAT) Awareness level and the Terrorism - Weapons of Mass Destruction Awareness level. See http://www.usfa.fema.gov/pdf/cwmdc.pdf

5. Encourage every member of first responder groups to achieve training to the HAZMAT Operations level and to become aware of Chemical Assessment Teams/Emergency Response Teams and their capabilities.

6. Encourage more joint hazardous materials training among first responder agencies, whether or not they have a formal mutual aid agreement.

7. Refer to the State of Minnesota's Emergency Management Training on HSEM's web site.

8. Refer to the Emergency Management Institute's (EMI) course catalog for a variety of courses in general mitigation and emergency management.

H. Legislation and Codes

1. Periodically review and recommend changes to state and federal laws and regulations affecting technological hazards.

2. Promote and enforce building codes that improve protection from technological hazards.

3. Urge state and local legislators to enact legislation providing tax credits for emergency preparedness activities undertaken by the private sector and individual citizens.

4. Urge the Minnesota Congressional Delegation to support federal legislation that provides financial assistance to state and local responders.

I. Funding Sources

See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX B3: DAM and LEVEE FAILURE CAPABILITIES

A. General

1. Federal Emergency Management Agency (FEMA), National Dam Safety Program: This program is intended to help states bring the necessary resources to bear on inspection, classification, and emergency planning for dam safety. See http://www.fema.gov/mit/damsafe/

2. National Inventory of Dams (NID): NID is a computer database used to track information on the nation's water control infrastructure. Information from the NID is used in the development of water resource management, land use management, flood plain management, risk management, and emergency action planning. See http://npdp.stanford.edu/front.html

3. U.S. Department of Agriculture (USDA), National Resource Conservation Service (NRCS): NRCS provides technical and financial assistance to individual landowners, groups of landowners and communities through several programs involving water and related land resources. NRCS provides technical support to owners of dams constructed under Public Law 566. The NRCS Minnesota dam inventory has over 300 dams, which are also included in the state dam inventory. See http://www.nrcs.usda.gov or http://www.mn.nrcs.usda.gov

4. U.S. Army Corps of Engineers (USACE): USACE owns, operates, and maintains the Lock and Dams on the Mississippi River that are exempt from state rules and inspections. At the direction of Congress in 2002-2003 USACE undertook an inventory and evaluation of all the dams in Minnesota constructed by the Civilian Conservation Corps and Works Project. The resulting report as f June 2003 was under review at the Assistant Secretary of the Army for Civil Works office. Under the Floodplain Management Services Program, USACE, St. Paul District published the "Inventory of Minnesota Levees" in October 1994. It was most recently updated in 1996. The inventory of permanent and emergency flood barriers within the state of Minnesota includes only those barriers with which the USACE has, in some way, been involved. The primary purpose of the inventory is to provide a comprehensive listing and background information on flood barriers constructed within the State of Minnesota for urban flood control protection. It is intended to aid the state in its evaluation of potential flood threats at affected communities and in its planning for effective flood fight and disaster relief activities. See http://www.mvp.usace.army.mil/

5. Federal Energy Regulatory Commission (FERC): FERC regulates and licenses non-federally owned hydroelectric dams that are exempt from state rules and regulations. See http://www.ferc.fed.us/hydro/hydro2.htm

6. Minnesota Department of Natural Resources (DNR), Division of Waters: An existing dam safety program and current dam safety regulations require the safe design, construction, operation, and maintenance of dams in Minnesota. Non-federal dams

are under the regulatory jurisdiction of the DNR, Division of Waters. Hydropower dams are under the jurisdiction of the FERC. The state program includes review of designs and plans for proposed dams, safety inspections of existing dams, and repair of dams. See http://www.dnr.state.mn.us/waters/surfacewater_section/damsafety/index.html

7. Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): The mission of HSEM is to reduce the threat posed by hazards that can affect the state, plan ways to cope with disasters when they occur, coordinate the response of state and federal agencies in assisting local government when disasters occur, and coordinate the recovery efforts of state and federal agencies in conjunction with local governments when disaster strikes. See http://www.hsem.state.mn.us//

B. Minnesota Agency Capabilities

DAM SAFETY	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture				X	X			X			
Department of Natural Resources	X		X	X	X	X	X	X	X	X	X
Department of Public Safety, Homeland Security and Emergency Management								X	X		
Pollution Control Agency				X			X	X	X	X	X

C. Preparedness/Equipment

1. U.S. Army Corps of Engineers (USACE): During natural disaster and other emergencies, provides drinking water and ice, cleans up debris, provides auxiliary power, and makes repairs. The Corps provides technical advice to state and federal officials, inspecting and assessing damaged areas. See http://www.mvp.usace.army.mil/disaster_response/

2. National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) Weather Radio Alert Program: NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a

nearby NWS office. NOAA Weather Radio broadcasts NWS warnings, watches, forecasts and other hazard information 24 hours a day. See http://www.nws.noaa.gov/nwr/index.html

D. Response Plans

1. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island nuclear power plants.

2. Emergency Action Plans (EAPs): Dam-specific action plans for all high-hazard dams developed and maintained by the dam operator to respond to an emergency.

E. Plan Exercises

State agencies and local jurisdictions work together to design and implement a variety of natural and technological hazard scenarios. See http://www.hsem.state.mn.us/

F. Mitigation Plans/Projects

1. Federal Emergency Management Agency (FEMA), Mitigation Program: This site contains FEMA sponsored Mitigation Programs and Activities. See http://www.fema.gov/mit/

2. Federal Emergency Management Agency (FEMA), Project Impact: Although the program is closed, the goal of this very successful FEMA pre-disaster mitigation program was to help localities and businesses to cost-effectively reduce potential disaster damage. There are approximately 250 communities participating nationwide, and five in Minnesota. See http://www.fema.gov/impact

3. Minnesota Department of Natural Resources, Division of Waters: The DNR, Division of Waters administers a program to provide grants to local units of government to help pay the cost of dam repair. They also administer the Hazard Mitigation Grant Program, which can be used to repair and upgrade levees. See http://www.dnr.state.mn.us/waters/index.html

G. Public Awareness

1. Minnesota Emergency Alert System (EAS): EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy.

2. National Weather Service (NWS): NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and

infrastructure, which can be used by other governmental agencies, the private sector, the public, and the global community. See http://www.nws.noaa.gov/. To access NWS Central Region Field Offices serving Minnesota, See http://www.crh.noaa.gov/fldof.html.

3. National Weather Service, Weather Alert Transmitters: Weather alert radios are effective only within their broadcast range. The broadcast range of NWS weather alert transmitters serving the State on their web site. See http://www.crh.noaa.gov/mpx/images/webeffective

4. Minnesota Department of Natural Resources, Division of Waters: The following publications are available from the Division of Waters:

   - Dam Safety In Minnesota (DNR Dam Safety Program), May 1996
   - Dam Safety Permit Guidelines for Dam, 1996
   - Lake Outlet Dams
     See http://www.dnr.state.mn.us/waters/

H. Training

Department of Natural Resources, Division of Waters: Division of Waters sponsors conferences and regional workshops for engineers and dam owners in cooperation with the Association of State Dam Safety Officials (ASDSO). Information about conferences and workshops can be obtained through ASDSO's web site. See http://www.damsafety.org/

I. Legislation and Codes

1. Federal: Federal Emergency Management Agency

   The National Dam Safety Program Act, part of the Water Resources Development Act of 1996, is administered by FEMA. See http://www.fema.gov/MIT/damsafe/program.htm

2. State

   Department of Natural Resources, Division of Waters

   a. Minnesota Laws of 1978, Chapter 779 provides authority to DNR, Division of Waters to inspect, order repairs, and review plans for repair of dams.

   b. Minnesota Statutes Section 103G.511 provides authority to DNR, Division of Waters to administer a program to provide grants to local units of government to repair or remove dams.
      See http://www.dnr.state.mn.us/waters/

J. Funding Sources

1. Federal

   a. Federal Emergency Management Agency: The National Dam Safety Program State Assistance Program is intended to help states bring the necessary resources to bear on inspection, classification, and emergency planning for dam safety. Public Law 104-303 provides financial assistance to states. See http://www.fema.gov/MIT/damsafe/program.htm

   b. USDA, NRCS: H.R. 728 authorizes $100 million over five years for rehabilitating aging dams constructed under NRCS watershed programs. See http://www.nrcs.usda.gov

   c. U.S. Army Corps of Engineers (USACE): USACE has the authority, provided by Section 205 of the 1948 Flood Control Act (amended) to plan, design and construct certain small flood control projects that have not already been specifically authorized by Congress. There is no limitation as to the type of improvement that may be used. Both structural (levees, channels, or dams, for instance) and nonstructural (floodproofing or evacuation, for example) solutions are considered. A project may also include features for other purposes such as water supply, provided local interests indicate a need and are willing to contribute the amount representing the added costs incurred as a result of the addition.

      The Corps also administers the Planning Assistance to States program, known as Section 22. This cost shared program allows for the development of plans for the use and conservation of water and related land resources, which can include dam failure analysis and flood emergency planning

      The Floodplain Management Services Program (FMSP) allows the Corps to undertake a full range of technical services and planning guidance on floods and floodplain issues, which can include developing emergency evacuation plans and comprehensive flood warning systems. See http://www.mvp.usace.army.mil/

2. State

   a. Department of Natural Resources, Division of Waters: Division of Waters has two funding sources for dam-related projects:
      - Grants under Minnesota Statutes 103G.511
      - State Emergency Fund to react to an imminent failure where the owner is unable to take action.

      See http://www.dnr.state.mn.us/waters/

   b. Department of Natural Resources, Division of Waters: The Flood Damage Reduction (FDR) Minnesota Statutes Section 103F.161, provides authority to help pay the cost of improvements to levees. See http://www.dnr.state.mn.us/waters/

FDR Minnesota Statutes Section 103F.161 also authorizes the commissioner of DNR to make grants to local governments to: (1) Conduct floodplain damage reduction studies to determine the most feasible, practical, and effective methods and programs for mitigating the damages due to flooding within flood prone rural and urban areas and their watersheds; and (2) Plan and implement flood mitigation measures. Under this program several levees have been upgraded to provide improved protection against flooding. In addition, non-structural flood proofing measures, such as acquisition/relocation or individual floodproofing of structures has been accomplished.

MITIGATION RECOMMENDATIONS/ACTIVITIES

A. General

1. Encourage or require all dam owners to prepare an Operation and Maintenance Manual to assure the proper operation and maintenance of dams.

2. Encourage or require all owners of levees to prepare an Operation and Maintenance Manual to assure proper operation and maintenance of levees.

3. Encourage regular inspection of all dams in Minnesota by responsible and knowledgeable parties. Inspection is particularly encouraged after larger rainfall or runoff events.

B. Preparedness/Equipment

Encourage placement of National Oceanic and Atmospheric Administration (NOAA) Weather Alert Radios in schools, day care centers, shopping malls, sports stadiums, and other buildings/facilities where people congregate.

C. Response Plans

1. Continue to require owners of high-hazard dams to prepare and/or maintain Emergency Action Plans (EAPs).

2. Encourage communities with emergency levees that lack an emergency action plan to prepare an EAP.

3. Continue and expand use of mutual aid agreements.

4. Ensure that the Minnesota Incident Command System (MNICS) is used for all incidents throughout the state, whether on public or private land.

5. Update the Minnesota Emergency Operations Plan (MEOP) on a regular basis.

6. Encourage all local emergency operations plans to contain functions necessary to respond to a dam or levee failure.

7. Evaluate the need to require significant hazard dams to develop EAPs.

D. Plan Exercises

1. Ensure periodic exercising of mutual aid plans and agreements.
2. Design and implement a variety of natural and technological hazard scenarios through state agencies and local jurisdiction collaboration.
3. Exercise EAPs on a periodic basis.

E. Mitigation Plans/Projects

1. Continue the Flood Damage Reduction (FDR) program to improve levees and other flood mitigation activities.
2. Conduct studies in communities where a dam or levee failure would result in flooding beyond that depicted on the Flood Insurance Rate Map (FIRM) in order to determine the extent of additional flooding. Revise maps to reflect the potential increased flooding.

F. Public Awareness

Improve the public awareness of the Minnesota Emergency Alert System (EAS)

G. Training

Encourage engineers and dam owners to attend conferences and workshops. The Association of State Dam Safety Officials (ASDSO) sponsors a national conference annually, and periodic regional technical workshops for engineers, inspectors and owners. See http://www.damsafety.org/

H. Legislation and Codes

Seek authority and resources to investigate and report on the condition of all non-federal levees to determine their adequacy.

I. Funding Sources

1. Seek dedicated funding for emergency training, repair and preventive maintenance for dams.

2. See Cababilities Assessment section of this plan for Federal grants and funding sources.

3.Support state bonding to keep dams in repair, or to remove them, in order to minimize the hazards associated with dam failure.

ANNEX B4: RADIOLOGICAL CAPABILITIES

A. General

1. U.S. Department of Energy (DOE): DOE owns and operates a variety of radiological activities throughout the United States that include: fixed nuclear sites the use, storage, and shipment of a variety of radioactive materials the shipment of spent reactor fuel the production, assembly, and shipment of nuclear weapons and special nuclear materials the production and shipment of radioactive sources for space ventures and the storage and shipment of radioactive and mixed waste.

   DOE may perform other roles within the Federal response to a radiological emergency. With extensive, field-based radiological resources throughout the United States available for emergency deployment, DOE responds to requests for offsite radiological monitoring and assessment assistance and serves as the initial coordinator of all such Federal assistance to State and local governments.

   DOE has initial management responsibility for the Federal Radiological Monitoring and Assistance Center when responding to a radiological incident. DOE maintains Radiological Assistance Program teams located at DOE operations offices and national laboratories that can be dispatched by DOE regional offices in response to a radiological incident. DOE also has responsibility for the Nuclear Emergency Search Teams to provide the ability to search for radiological materials through a wide variety of radiological detection and monitoring systems.

2. Nuclear Regulatory Commission (NRC): NRC is an independent agency established by the U.S. Congress under the *Energy Reorganization Act of 1974* to ensure adequate protection of the public health and safety, the common defense and security and the environment in the use of nuclear materials in the United States. NRC's scope of responsibility includes regulation of: commercial nuclear power reactors; non-power research, test, and training reactors; fuel cycle facilities; medical, acaHSEMic, and industrial uses of nuclear materials; and the transport, storage, and disposal of nuclear materials and waste. See http://www.nrc.gov/NRC/about.html

3. Federal Emergency Management Agency (FEMA): FEMA is the lead Federal agency for planning and preparedness for all types of peacetime radiological emergencies. This includes planning and preparedness for accidents at commercial nuclear power plants. In accordance with a Presidential Directive and Federal mandates, FEMA issues policy and guidance to assist State and local governments in developing and implementing their radiological emergency response plans and procedures. Much of this guidance is developed with the assistance of the Federal Radiological Preparedness Coordinating Committee and its member agencies.

4. U.S. Department of Transportation (DOT): DOT, Research and Special Programs Administration (RSPA) oversees rules governing the safe transportation and packaging of hazardous materials, including radiological materials, by all modes of transportation, excluding bulk transportation by water. RSPA also assists local and state authorities with training for hazardous materials emergencies. RSPA's Office of

Hazardous Materials has the mission to promulgate a national safety program that will minimize the risks to life and property inherent in commercial transportation of hazardous materials. This program includes regulatory development, enforcement, training and information dissemination, domestic and international standards, and inter-agency cooperative activities.

5. American Nuclear Society (ANS): ANS is a not-for-profit, international, scientific and educational organization. It was established by a group of individuals who recognized the need to unify the professional activities within the diverse fields of nuclear science and technology. December 11, 1954 marks the Society's historic beginning at the National Academy of Sciences in Washington, DC. ANS has since developed a multifarious membership composed of approximately 11,000 engineers, scientists, administrators, and educators representing 1,600 plus corporations, educational institutions, and government agencies. ANS provides information in the form of newsletters, journals, textbooks, and special publications, to inform the public about nuclear power. See http://www.ans.org/

B. Minnesota Agency Capabilities

RADIOLOGICAL	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture	X	X	X	X	X	X		X	X	X	X
Department of Commerce	X	X	X	X	X	X	X	X	X	X	X
Department of Health	X	X	X	X	X			X	X		X
Department of Human Services	X	X	X	X	X			X	X		
Department of Natural Resources	X	X	X	X	X			X	X	X	
Department of Public Safety, Homeland Security and Emergency Management	X	X	X	X	X	X		X	X	X	
Department of Transportation	X	X		X	X			X	X		
Housing Finance Agency		X									
Metropolitan Airports Commission	X	X		X				X		X	
Minnesota National Guard	X	X	X	X	X			X	X	X	
Minnesota State Colleges and Universities	X		X		X						

C. Preparedness/Equipment

1. Department of Public Safety (DPS), Homeland Security and Emergency Management (HSEM): HSEM has response equipment and capabilities related to radiological incidents. In addition, HSEM shall assess the need for protective actions in the event

of a radiological incident at a nuclear power plant.

2. Department of Health (MDH): MDH has response and laboratory equipment capabilities related to radiological incidents.

3. Department of Health, Environmental Health (EH), Asbestos, Indoor Air, Lead, and Radiation Program: The Section of Asbestos, Indoor Air, Lead and Radiation regulates radioactive materials under letter agreement with the NRC and is prepared to provide accident assessment and advisory support in the event of a nuclear power plant emergency. See http://www.health.state.mn.us/divs/eh/about.html#programs

4. State Hazardous Materials (HAZMAT) teams have equipment to respond to a radiological incident.

5. Monticello and Prairie Island Nuclear Power Plants have equipment to respond to a radiological incident at their facilities.

D. Response Plans

1. Federal Radiological Emergency Response Plan (FRERP): The objective of the FRERP is to establish an organized and integrated capability for timely, coordinated response by Federal agencies to peacetime radiological emergencies.

   FRERP provides the Federal government's concept of operations based on specific authorities for responding to radiological emergencies, outlines Federal policies and planning considerations on which the concept of operations of this Plan and Federal agency specific response plans are based and, specifies authorities and responsibilities of each Federal agency that may have a significant role in such emergencies.

2. Minnesota Department of Health: MDH has a plan for response to radiological incidents.

3. Minnesota Emergency Operations Plan (MEOP): The all-hazards emergency response plan for the State of Minnesota government agencies, including response plans for an incident at either the Monticello or Prairie Island Nuclear Power Plants.

4. Dakota County Emergency Response Plan: Dakota County has an all-hazards emergency response plan, including response plans for an incident at the Prairie Island Nuclear Power Plant. See Dakota County Emergency Response Plan

5. Red Wing/Goodhue County Emergency Response Plan for the Prairie Island Nuclear Power Plant: The city of Red Wing and Goodhue County have an emergency response plan for use in the event of a radiological incident at the Prairie Island Nuclear Power Plant. See Red Wing/Goodhue County Emergency Response Plan for the Prairie Island Nuclear Power Plant

6. Sherburne County Emergency Response Plan for the Monticello Nuclear Power Plant: Sherburne County has an emergency response plan for use in the event of a

radiological incident at the Monticello Nuclear Power Plant. See Sherburne County Emergency Response Plan for the Monticello Nuclear Power Plant

7. Wright County Emergency Response Plan for the Monticello Nuclear Power Plant: Wright County has an emergency response plan for use in the event of a radiological incident at the Monticello Nuclear Power Plant. See Wright County Emergency Response Plan for the Monticello Nuclear Power Plant

E. Plan Exercises

Coordinate annual Radiological Emergency Preparedness (REP) exercises that include Federal and State agencies, local jurisdictions and the Monticello and Prairie Island Nuclear Power Plants.

F. Mitigation Plans/Projects

Federal Emergency Management Agency, Radiological Emergency Preparedness Program: The REP program coordinates planning, preparedness, and response for all types of peacetime radiological emergencies with Federal, State, and local governments and the private sector. As well, REP ensures that adequate offsite emergency plans and preparedness are in place and can be implemented by State and local governments to protect the health and safety of the public living in the vicinity of commercial nuclear power plants through the evaluation of scheduled biennial exercises. See http://www.fema.gov/pte/rep/mission.htm

G. Public Awareness

1. Minnesota Emergency Alert System (EAS): EAS was developed by the Federal Communications Commission to replace the Emergency Broadcast System. EAS is capable of alerting the general public more effectively, reliably, and with built-in redundancy.

2. Media Training

3. Utility: calendars, brochures

H. Training

1. Department of Public Ssfety (DPS), Homeland Security and Emergency Management (HSEM): HSEM provides emergency management training. See http://www.hsem.state.mn.us//training/index.html

2. Federal Emergency Management Agency, Emergency Management Institute (EMI): Refer to the EMI course catalog for a variety of courses in general mitigation and emergency management as well as radiological-specific courses. See http://www.fema.gov/emi

3. State Emergency Operations Plan: The MEOP includes a list of REP courses available from HSEM.

I. Legislation and Codes

1. Federal: Nuclear Regulatory Commission (NRC**)**:

   NRC is an independent agency established by the U.S. Congress, under the *Energy Reorganization Act of 1974*, to ensure adequate protection of the public health and safety, the common defense and security, and the environment in the use of nuclear materials in the United States. NRC's scope of responsibility includes regulation of: commercial nuclear power reactors; non-power research, test, and training reactors; fuel cycle facilities; medical, acaHSEMic, and industrial uses of nuclear materials; and the transport, storage, and disposal of nuclear materials and waste. See http://www.nrc.gov/NRC/about.html

2. State: Minnesota State Legislature:

   The Minnesota State Legislature provides a web site which can be searched for all state legislation pertaining to nuclear facilities and/or radioactive materials. See www.revisor.leg.state.mn.us

J. Funding Sources

See section IV of this plan for Federal grants and funding sources.

MITIGATION RECOMMENDATIONS/ACTIVITIES

A. General

1. Encourage all Minnesotans to access free Internet service at their local libraries and local/state offices in order for them to access radiological specific mitigation information.

2. Encourage all Minnesotans to obtain information on radiological preparedness through the Radiological Emergency Preparedness section of the Minnesota Department of Public Safety (DPS), Homeland Security and Emergency Management web site.

3. Improve public awareness and response plans for non-nuclear power plant radiological incidents such as responding to transportation accidents involving radiological materials.

B. Preparedness/Equipment

1. Recommend that the Minnesota Department of Health (MDH), Environmental Health (EH), maintain the continued function of the Asbestos, Indoor Air, Lead, and Radiation Program, in order to provide accident assessment and advisory support in the event of a nuclear power plant emergency.

2. Ensure that State Hazardous Materials (HAZMAT) teams maintain appropriate training and equipment levels.

C. Response Plans

1. Nuclear Power Plant Incident Response Plans: Maintain and update the radiological hazard-specific portions of the Minnesota Emergency Operations Plan (MEOP) and county-level response plans for an incident at either the Monticello or Prairie Island Nuclear Power Plants.

2. High Level Radioactive Waste (HLRW) Response Plan: Begin development of a response plan for the proposed HLRW transportation program.

3. Complete development of the MDH and HSEM response plan and standard operating procedures for non-nuclear power plant radiological incidents.

D. Plan Exercises

1. Exercise the radiological hazard-specific portions of the MEOP and county-level response plans.

2. Develop an exercise program for the proposed HLRW transportation program.

3. Develop an exercise program for non-nuclear incident response.

E. Mitigation Plans/Projects

Maintain cooperation between the Federal Emergency Management Agency's (FEMA) REP program and state and local agencies, and to maintain scheduled biennial exercises. Ensure that off-site emergency plans and preparedness initiatives are in place and can be implemented.

F. Public Awareness

1. Evaluate the need for public awareness capabilities in addition to the Minnesota Emergency Alert System (EAS).

2. Develop a public awareness campaign for the HLRW transportation program.

G. Training

1. Develop a training program for the HLRW transportation program that includes State Agencies, rail operators, State HAZMAT teams, and emergency response services along the transportation route(s).

2. Assess additional training needs and opportunities for State HAZMAT teams. Maximize the use of training funding sources.

H. Legislation and Codes

1. Review existing legislation and continue to update regulations as necessary.

2. Recommend update to statutes to ensure appropriate responsibilities and funding for the HLRW transportation program.

3. Maintain cooperation between state and federal regulatory and legislative entities and private nuclear power and use facilities

I. Funding Sources

1. Maximize the use of funding sources, such as Domestic Preparedness program grants, to meet radiological incident response planning, equipment and training needs.

2. Develop a supplemental funding source for HLRW planning, training and response.

3. See Cababilities Assessment section of this plan for Federal and other funding sources.

ANNEX B-5: WATER SUPPLY CONTAMINATION CAPABILITIES

A. General

1. U.S. Army Corps of Engineers (USACE): The Corps administers the Planning Assistance to States program, known as Section 22. This cost shared program allows for the development of plans for the use and conservation of water and related land resources, which can include water quality and water supply.

Minnesota Agency Capabilities

WATER CONTAMINATIONS	Response & Mitigation Equipment	Plans	Training	Public Information	Trained Personnel	Projects to Reduce Impact	Legislation to Reduce Impact	Response Procedures	Exercise Capabilities	Data Collection	Codes and Policies to Reduce Impact
Department of Agriculture		X	X	X	X	X	X	X		X	X
Department of Health		X		X	X			X			X
Department of Public Safety, Homeland Security and Emergency Management				X							
Pollution Control Agency				X				X	X	X	

Local governments, public water systems, the states, and Environmental Protection Agency (EPA) work together towards the goal of ensuring that all public water supplies are safe. The Minnesota Department of Health (MDH), Environmental Health Division is responsible for safe drinking water programs. See http://www.health.state.mn.us/divs/eh/eh.html. EPA also has state-specific information on their web site. See http://www.epa.gov/safewater/dwinfo/mn.htm .

Nationwide, drinking water systems have spent hundreds of millions of dollars to build drinking water treatment and distribution systems, and they spend an additional $22 billion per year to operate and maintain them. Currently, the nation's approximately 55,000 community water systems must test for more than 80 contaminants and for any violations of water treatment standards.

Water suppliers use a variety of treatment processes to remove contaminants from drinking water. The most commonly used processes include filtration, flocculation and sedimentation, and disinfection. A typical water treatment plant would have only the combination of

processes needed to treat the contaminants known to exist in the source water supply used by the facility.

An ongoing water quality monitoring program is also required. One primary test is to measure the level of coliform bacteria from human and animal wastes. If found to exceed the standard, it is an indicator that the water has not been properly treated or disinfected and that other harmful contaminants may be in the water as well. All violations must be reported and corrective actions must be implemented in accordance with the Safe Drinking Water Act.

Water suppliers must promptly inform the public if their supply becomes contaminated by something that can cause immediate illness. A public service announcement must be provided explaining the potential adverse effects on human health, the steps they are taking to correct the violation, and the need to use bottled water or other alternative water supplies until the problem is corrected.

For households on private wells, state and local health departments usually test and enforce standards, but maintenance and associated costs are generally borne by the homeowner. Once a year, private wells should be (1) tested for coliform bacteria, nitrates, and other potential problems and (2) disinfected with bleach or hyporchlorite granules in accordance with manufacturer's instructions. The EPA web site has additional guidance on the maintenance of private wells. See http://www.epa.gov/safewater/pwells1.html .

MITIGATION RECOMMENDATIONS

A. State and local health departments, as required by the Safe Drinking Water Act, have strong programs in place for developing and maintaining the drinking water infrastructure and for the ongoing monitoring of drinking water quality.

B. Minnesota Department of Health (MDH), Environmental and Health Division should be an active member of the state's mitigation planning team. Mutually beneficial opportunities to combine mitigation strategies and elements of existing safe drinking water programs may become apparent during the planning process. Examples: (1) flood control dams may also create a water supply reservoir; (2) expensive equipment in a soon-to-be-built water treatment plant may be designed in such a way that it can be quickly disconnected and elevated out of harm's way in advance of rising floodwaters; (3) monitoring equipment at flood gauging stations upstream could alert the water plant to close intake valves if the water source becomes contaminated; and (4) the replacement of combined storm and sewer outflow systems may have short-term disaster mitigation benefits as well as longer-term environmental ones.

VI. REFERENCES

A. Environmental Protection Agency (EPA), Office of Water. See http://www.epa.gov/safewater/

B. EPA, Office of Water, Minnesota's Drinking Water See http://www.epa.gov/safewater/dwinfo/mn.htm

C. Water on Tap: A Consumer's Guide to the Nation's Drinking Water. EPA, Office of Water, Washington, DC, July 1997

D. EPA, Office of Water, Private Drinking Water Wells, See http://www.epa.gov/safewater/pwells1.html

E. Minnesota Department of Health (MDH), Environmental Health Division http://www.health.state.mn.us/divs/eh/eh.html

F. U. S. Department of Agriculture, Water and Environmental Home Page, See http://www.usda.gov/rus/water/index.htm

G. University of Nebraska, Lincoln. Water Center, Publications, See http://watercenter.unl.edu/wcpubs.html

H. The Groundwater Foundation. See http://groundwater.org/

I. Environmental Working Group - What's in Your Tapwater? See http://www.ewg.org/tapwater/

J. Minnesota Department of Agriculture (MDA), Agronomy and Plant Protection, See http://www.mda.state.mn.us

*ANNEX C:

STATE RISK ASSESSMENT

*Not available via web posting copy; for distribution policy and reference to full document contact:

State Hazard Mitigation Officer
Minnesota Department of Public Safety
Division of Homeland Security and Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101-6223

Office: 651/296-2233
Fax: 651/296-0459
Internet: http://www.hsem.state.mn.us/

ANNEX D:
DOMESTIC PREPAREDNESS

Annex D is not available for viewing via the web; for distribution policy and reference to full document contact:

State Hazard Mitigation Officer
Minnesota Department of Public Safety
Division of Homeland Security and Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101-6223

Office: 651/296-2233
Fax: 651/296-0459
Internet: http://www.hsem.state.mn.us/

ANNEX E:

STATE OWNED AND OTHER CRITICAL FACILITIES DATABASE

The database of state-owned facilities is not available for viewing via the web; for distribution policy and reference to full database contact:

State Hazard Mitigation Officer
Minnesota Department of Public Safety
Division of Homeland Security and Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101-6223

Office: 651/296-2233
Fax: 651/296-0459
Internet: http://www.hsem.state.mn.us/

ANNEX F:

ALL-HAZARD MITIGATION SURVEY

All-Hazard Mitigation Survey

January 2003
Prepared by the Local Planning Assistance Team of the State Department of Administration

The State Division of Homeland Security and Emergency Management (DHSEM) has created a joint partnership with the Department of Administration, Local Planning Assistance Team to assist counties with all-hazard mitigation plans. As part of this overall effort, a survey was sent in October of 2002 to all county emergency managers to assess their needs with hazard mitigation planning.

The survey included 17 questions addressing planning concerns at the county level, primary hazard identification and previous hazard mitigation planning efforts. Results were collected from 82 of Minnesota's 87 counties, and entered into a spreadsheet. This report provides an overview of the results obtained from the All-Hazard Mitigation Survey. It notes primary concerns, secondary concerns, primary hazards and previous hazard mitigation efforts.

Primary concerns identified by survey

One purpose of the survey was to determine emergency managers main concerns. These fell into four primary areas: staffing, equipment, training and funding.

Staffing was a primary concern Almost 60 counties identified staffing as their primary concern, while more than 20 additional counties identified staffing issues as a secondary issue. Emergency managers throughout Minnesota identified both staffing limitations and a lack of staff as a concern when responding to the changing nature of disasters, their magnitude and the work required to prepare for a potential event. Many respondents stated they were overwhelmed just dealing with day-to-day activities of emergency management, partially because of multiple unrelated responsibilities.

Primary staffing comments related to the overall preparedness of a county, or coordination of duties during an actual hazard event. Staffing comments included:

- Public officials need to understand the work involved in preparing a community for a disaster.
- Counties should maintain enough staff who are trained for disaster relief.
- More volunteer responders are needed.
- Each emergency region should have hazard-specific staff as part of a response effort.

Inadequate equipment – More than half of all respondents stated that lack of equipment or inadequate equipment is a high concern. Many of the respondents stated that their county is not prepared to handle a large-scale event with current equipment. Equipment concerns revolved around three specific areas: vehicles for responding to a disaster, warning devices and office equipment. While some respondents stated they personally needed a vehicle, many felt their county did not have the specialized equipment to handle various technological hazards.

Key comments were mainly related to location of equipment, age of equipment and personnel to handle equipment. Equipment comments included:

- Getting equipment to the site and in a timely manner is a key concern.
- Many counties maintain a resource list of personnel, but not locations of specialized equipment.
- Equipment for handling specialized incidents could be shared if a regional approach was used.
- Specialized equipment needs to be housed throughout the state.
- Specialized equipment for handling hazardous materials is limited at the county level.
- Using technology such as Global Positioning Systems and Geographic Information Systems can be very useful in both developing plans and responding to emergency situations.
- Equipment is not just needed to respond but also to plan and protect the community.

Staff need additional training – Training can be directly linked to the staffing concerns reported in this survey. Almost half of those surveyed stated that training needs to be ongoing and cover a variety of topics. Specific concerns were directed at working with and using volunteers. Hazardous materials training is also a concern. Many emergency managers feel that training can also provide key opportunities for public awareness, and minimizes the impact from hazards.

Key comments included:

- Staff needs to have more specific training in dealing with terrorism and hazardous incidents.
- Staff needs effective training on volunteer use during disasters.
- MIMS training is a concern.
- Training opportunities should extend to all county and city staff involved in hazard events.
- Training is needed on how to coordinate with other county department staff for emergency planning and response.
- Demonstrations provided by local staff enhance the learning of others.
- More effective training opportunities for volunteers are needed.
- Hazard response training from federal and state agencies is highly desired.

Funding is limited for county hazard planning – Funding is a primary concern of many emergency managers throughout Minnesota. Funding is important because it provides support for necessary staff, equipment and training opportunities. Most of the respondents to this survey were also concerned about funding for hazard response and mitigation.

Key comments related to funding included:

- Local governments must have competitive pay structures in order to maintain critical emergency management and response personnel.
- Maintaining equipment and sharing resources should be a high priority for counties.
- The state or federal governments should assist in funding local emergency personnel, equipment and training.
- County officials should put more emphasis on funding emergency management efforts.

Secondary concerns identified by survey

The survey also revealed two secondary concerns that should be considered as all-hazard mitigation plans are being developed: better communication and additional state assistance with hazard mitigation planning.

Communication is very important – The survey identified the need to improve communication in numerous areas. Many respondents felt better communication and coordination among federal, state and local government agencies could improve the overall response to hazard occurrences. Also, communication systems between emergency officials and the general public should be improved.

Key comments included:

- Overall communication needs to improve among the federal, state and local government agencies.
- Local communication systems need to be improved, including sirens, local radio broadcasts and web-based communications that link emergency responders together.
- Master lists of resource locations and emergency responders should be available for state, local and regional use.
- Community warning systems need to be a priority for rural Minnesota, including ways to contact handicapped or non-English speaking populations.
- A common method of data collection for all-hazard mitigation planning should be created. Data should also be shared between state and local officials.
- The public should be informed about resources around them, as well as the potential risks of hazards in specific areas.

State departments must help counties create all-hazard mitigation plans – Local emergency managers appear overwhelmed with the all-hazard mitigation planning process. They will need guidance, training and mitigation ideas.

Key comments included:

- The all-hazardous mitigation process is confusing. The process would be easier if there was a guide to follow.
- Local emergency managers need training to show how local plans, including the comprehensive plan, can be tied together.
- Mitigation activities for counties should be identified by the state.
- Adequate time is needed to review, write and study all of these “required” plans.
- Many rural counties have limited resources and staff.
- State and federal officials will need to provide additional information on hazardous materials and disease outbreaks in order for those hazards to be addressed in all-hazard mitigation plans.

Primary hazards

Local emergency managers were asked to identify natural, technological and human-induced hazards that were of most concern in their counties. Identifying primary hazards will help create tools necessary to minimize the impact of these hazards.

Predominate natural hazards identified by counties – The survey shows a split on concern for natural hazards. More than 40 counties responded that floods are a primary concern; the other half identified some type of severe weather as their primary concern. Flooding was a particular concern in the Red River Valley and along both the Minnesota and Mississippi Rivers. Severe weather primarily related to summer and spring storm events that usually involved rain, high winds or tornadoes. Counties all identified both severe storm events and flooding in the current emergency operation plans, but were less clear if they were addressed in their comprehensive plans.

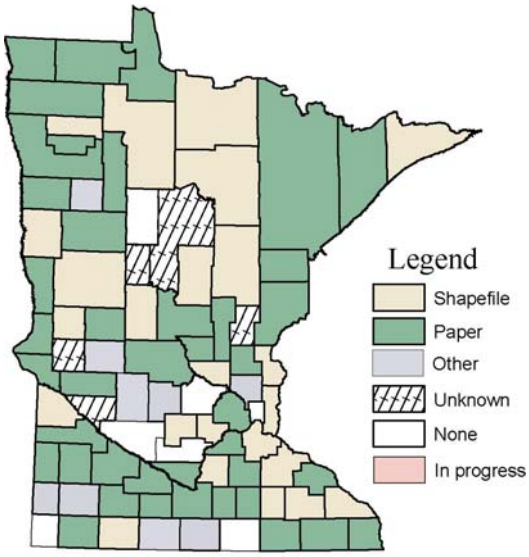
Predominate technological hazards affecting counties – The transportation of hazardous materials through either pipeline, rail or highway was the primary concern for more than 70 of the emergency managers that responded to the survey. Accidental spills or releases during transportation and the county's ability to respond to them were a concern of respondents. Many voiced concerns about need for training for both emergency responders and volunteers in the event of a catastrophic incident. Respondents reported that the majority of their emergency operations plans currently deal with hazardous materials situations. Other hazards related to human error where based on local concerns, such as a nuclear accident and methamphetamine labs in central and southern Minnesota.

Predominate human-induced hazards affecting counties – Human-induced hazards seemed less of a threat for most counties in Minnesota, with the exception of counties with heavy populations or those located near international borders. Specific hazards were difficult to identify, although acts of terrorism or arson were concerns. Further study regarding this particular area is warranted as the state updates its all-hazard mitigation plan.

Previous hazard mitigation efforts

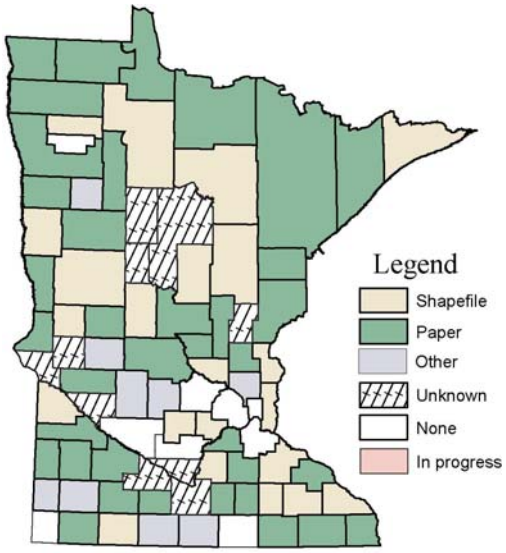
Local emergency managers were asked to identify past hazard mitigation efforts at the county level. They were asked questions regarding data collection, hazard planning and local coordination efforts.

Maps and information previously collected by counties – Four primary sets of information related to emergency response are maintained at the county level: ambulance service areas, emergency response districts, fire districts and driveway locations for E911. Through this survey, counties identified available maps in various formats. Almost half of the surveyed counties have information in paper format. About a quarter of those surveyed have information in some type of digital format that could be imported into a GIS system.



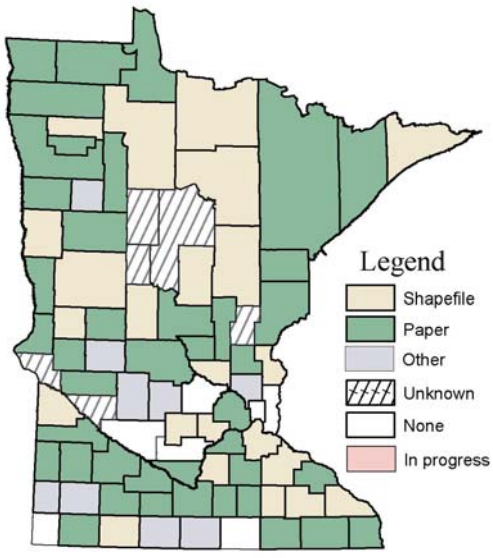
Ambulance Service Areas

Minnesota counties have a map showing county ambulance service areas. Forty-one counties had this map only in a paper format, while 24 respondents indicated having this map in an ArcView GIS shapefile format.



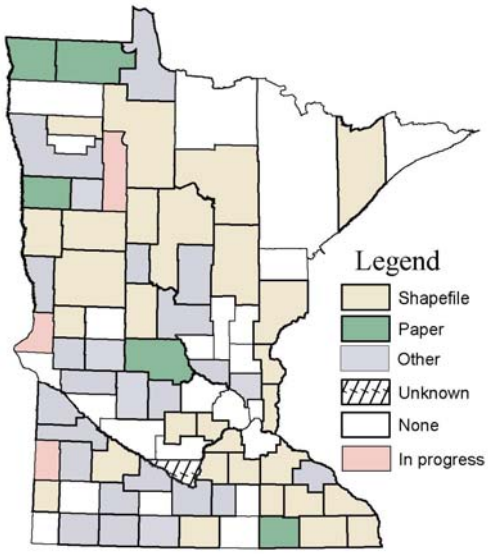
Emergency First Response Areas

Most Minnesota counties have maps of emergency first response areas. Twenty-two counties indicated having this map in an ArcView GIS shapefile format. Thirty-seven counties indicated having this map in paper format, while five indicated having this map in CAD format. CAD maps can be converted to GIS format.



Fire Districts

Most Minnesota counties have maps of fire districts. Twenty-three counties indicated having maps in an ArcView GIS shapefile format, while 42 counties have this map in paper format. Five counties also indicated having this map in CAD format.



E911 Driveway Locations

Most Minnesota counties have maps of emergency E911 driveway locations. Twenty-nine counties indicated having maps in ArcView GIS shapefile format. Twenty other counties indicated collecting driveway locations with GPS, which can be downloaded into GIS format. One county indicated mapping this information in CAD.

Non-spatial information collected – More than one-third of survey respondents stated that they only collect information that is required by the state. Many of the respondents stated that they have little time for this type of effort and limited staff to assist them. Non-spatial information that is collected varied from county to county. It was difficult to assess what information is commonly collected because of the lack of consistency in data collection and data formats. The most common information included lists of emergency contacts and the location of hazardous materials, warning systems, fire hydrants and churches.

Spatial data – The survey also identified that more than one-third of emergency managers were unsure of the information needed in order to adequately map hazards. Respondents consistently asked for information that was already available such as roads, elevations and hydrological features. Many expressed a need for mapping information quickly, but were not familiar with tools or resources available to them at the county, state or regional level.

Respondents would like to map utility-based information that is unavailable statewide. Other information requested was predominantly point data. Point data most requested included public buildings, churches, hospitals, fire departments, emergency responder homes and E911 driveway locations. Parcels were another source of information requested by emergency responders.

GIS usage – Of those surveyed, more than half of the emergency managers stated that they did not have access to any type of GIS software or information. Many of those respondents also stated they were novice GIS users. In addition, approximately one-third of the respondents stated that they have access to GIS software through some other department within the county. The most commonly used GIS software by emergency managers was ESRI's ArcView 3x.

GPS technology – More than half of all those surveyed indicated that they did not have access to, or own a Global Positioning Unit (GPS). The remaining respondents identified more than 20 different brands of GPS units used within their county. The most common brand of GPS receivers were Garmin and Trimble. Most respondents were not adequately trained in GPS data collection, mainly because of lack of funding needed to purchase a receiver.

Emergency operation plans – The survey also found that 72 of the counties have updated and adopted new emergency operations plan since 2000. The information contained in these plans will be critical for developing all-hazard mitigation plans, and can serve as a base for future planning programs.

Hazards identified by county emergency operation plans – Respondents were asked to identify what types of hazards were in their current emergency operations plans. More than half of the respondents stated that their emergency operations plan were hazard specific and dealt with those hazards that are most likely to impact the county. More than 30 were identified as all-hazard plans and adopted in 2002.

Comprehensive plans and hazards – The results of this question are open to some interpretation. More than 50 of the respondents stated that their comprehensive plans deal with all kinds of hazards in their county. Many of the respondents, however, seemed to identify portions of their emergency operations plan rather that the comprehensive plan. It would be difficult to address this situation without further analysis and comparison of plans that are currently completed for each county.

Number of emergency managers – More than 50 counties in Minnesota are staffed by an emergency manager who works less than full-time. Almost two-thirds of these positions are considered half-time or less because of split job duties at the county level. Only two counties have more than two employees that are considered full-time emergency management positions. Many emergency managers must do all types of mitigation, response and planning activities, leaving little time or opportunity for more outreach to the community other than after a disaster.

Items for developing an all-hazard mitigation plan – More than half of all respondents stated that the most useful tool for developing a local all-hazard mitigation plan would be for a mock plan or prototype plan which provides a format to follow. In addition to a mock plan, many respondents also stressed the need for financial assistance in order to complete the plans in a timely fashion.

Information for developing an all-hazard mitigation plan – The information needed to develop a local all-hazard mitigation plan varied from county to county. Most requests were in the areas of mapping, data collection and hazard specific information for mitigation. The amount of assistance also seemed to depend on local resources that were available.

Coordination with planning efforts – When asked to describe their working relationship with the planning community almost one-third of all emergency managers do not have any type of relationship with their county or city planning departments. Only 10 emergency managers

identified having direct ties to any planning effort at the county level. The remaining ties to planning were through working with the various responder groups.

Coordination with the public – More than one third of those surveyed stated that they have little or no formal contact with the public they serve other than through the county boards. Many stated that the contact only occurs after a disaster has occurred and during recovery.

Conclusion

The all-hazard mitigation survey collected valuable information from the county emergency managers. The Local Planning Assistance Team can now focus its planning assistance for counties in specific areas, as identified by the survey. Assistance will include providing necessary data and information for all-hazard mitigation planning, creating a mock plan and other guidance materials for creating county all-hazard mitigation plans and developing tools for mapping and GIS.

ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANS	American Nuclear Society
ARC	American Red Cross
ASDSO	Association of State Dam Safety Officials
ASFPM	Association of State Floodplain Managers
ATF	Bureau of Alcohol, Tobacco, and Firearms
AWWA	American Water Works Association
BCA	Bureau of Criminal Apprehension
BCDC	Bureau of Communicable Disease Control
BC&SD	Building Codes and Standards Division
BERBI	Blue Earth River Basin Initiative
BIA	Bureau of Indian Affairs
BSSC	Building Seismic Safety Council
BWAT	Biological Weapons Anti-Terrorism Act of 1989
BWSR	Board of Water and Soil Resources
CAA	Clean Air Act
CAP	Community Assistance Program
CDBG	Community Development Block Grant
CDC	Center for Disease Control
CEPP	Chemical Emergency Preparedness and Prevention
CEPPO	Chemical Emergency Preparedness and Prevention Office
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Critical Infrastructure Protection
CRREL	Cold Regions Research and Engineering Laboratory
CST	Civil Support Team
CTC	Cooperating Technical Community
CWA	Clean Water Act
DDP&C	Division of Disease Prevention and Control
HMTAP	Hazard Mitigation Technical Assistance Program / FEMA

HSEM	Homeland Security and Emergency Management
DHS	Minnesota Department of Human Services
DMA	Minnesota Department of Military Affairs
DMA 2000	Federal Disaster Mitigation Act of 2000
DNR	Minnesota Department of Natural Resources
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOJ	U.S. Department of Justice
DOS	U.S. Department of State
DOT	U.S. Department of Transportation
DPS	Minnesota Department of Public Safety
DT-CMAC	Domestic Terrorism Consequence Management Advisory Committee
DUA	Disaster Unemployment Assistance
EACC	Eastern Area Coordination Center
EAP	Emergency Action Plan
EAS	Emergency Alert System
EDA	Economic Development Administration
EERI	Earthquake Engineering Research Institute
EMI	Emergency Management Institute
EMSRB	Minnesota Emergency Medical Services Regulatory Board
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-know Act
EQNET	Earthquake Information Network
ERG2000	Emergency Response Guide
FBI	Federal Bureau of Investigation
FDR	Flood Damage Reduction
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FFL	Federal Firearms License

FHWA	Federal Highway Administration
FMA	Flood Mitigation Assistance
FRERP	Federal Radiological Emergency Response Plan
GIS	Geographic Information Systems
GLC	Great Lakes Commission
GLERL	Great Lakes Environmental Research Laboratory
GLFFC	Great Lakes Forest Fire Compact
GLIN	Great Lakes Information Network
HAZMAT	Hazardous Materials
HSS	U.S. Department of Health and Human Services
HIV	Human Immunodeficiency Virus
HLRW	High-Level Radioactive Waste
HMGP	Hazard Mitigation Grant Program
HUD	U.S. Department of Housing and Urban Development
IAEM	International Association of Emergency Managers
IBC	International Building Code
IBHS	Institute of Business and Home Safety
ICBO	International Conference of Building Officials
IRT	Inspectors Response Team
ISDR	United Nations International Strategy for Disaster Reduction
ISP	Infrastructure Support Program
IWR	Institute of Water Resources
LEPC	Local Emergency Planning Committee
MAE	Mid-America Earthquake Center
MCEER	Multidisciplinary Center for Earthquake Engineering Research
MDH	Minnesota Department of Health
MDO	Minnesota Duty Officer
MEOP	Minnesota Emergency Operations Plan
MFIRS	Minnesota Fire Incident Reporting System
MGS	Minnesota Geological Survey
MHIRA	Multi-Hazard Identification and Risk Assessment (FEMA Publication)

MIMS	Minnesota Incident Management System
MNICS	Minnesota Incident Command System
MRDTF	Minnesota Recovers Disaster Task Force
NAAEE	North American Association for Environmental Education
NACo	National Association of Counties
NAFSMA	National Association for Flood and Stormwater Management
NASA	National Aeronautics Space Administration
NCDC	National Climatic Data Center
NDMC	National Drought Mitigation Center
NEIC	National Earthquake Information Center
NEMA	National Emergency Management Association
NFDRS	National Fire Danger Rating System
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NID	National Inventory of Dams
NIEHS	National Institute of Environmental Health Services
NIIMS	National Interagency Incident Management System
NLSI	National Lightning Safety Institute
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission
NRCS	Natural Resources Conservation Service
NSIDC	National Snow and Ice Data Center
NTSB	National Transportation Safety Board
NWS	National Weather Service
OEA	Office of Environmental Assistance
OPA	Oil Pollution Act
OSHA	Occupational Safety and Health Administration
PDM	Pre-Disaster Mitigation
PDSI	Palmer Drought Severity Index
RAD	Radiation Absorbed Dose
RCRA	Resource Conservation and Recovery Act

RDC	Regional Development Commission
REM	Roentgen Equivalent Man
REP	Radiological Emergency Preparedness Program
RHMRT	Regional Hazardous Materials Response Unit
RMP	Risk Management Plan
RPC	State Regional Program Coordinator - HSEM
RSPA	Research and Special Programs Administration
RUS	Rural Utilities Service
SARA	Superfund Amendments Reauthorization Act
SBA	Small Business Administration
SEOC	State Emergency Operations Center
SERC	State Emergency Response Commission
SFMD	State Fire Marshal Division
SHMO	State Hazard Mitigation Officer
SOP	Standard Operating Procedures
TESSA	Texas Severe Storms Association
TSCA	Toxic Substances Control Act
TTU	Texas Tech University
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFA	U.S. Fire Administration
USGS	U.S. Geological Survey
USNSN	United States National Seismographic Network
WMD	Weapons of Mass Destruction