

# Todd County

## *Hazard Mitigation Plan*





# **Acknowledgements**

## **Hazard Mitigation Team**

Dave Kircher, Todd County Sheriff  
Gloria Stevens, Todd County GIS  
Kitty Tepley, SWCD  
Cheryl Schneider, Todd County Public Health  
Tim Cadwallader, Todd County Solid Waste  
Ben Oleson, (former) Planning & Zoning Administrator

## **Todd County Staff**

Andrew Dahlgren, Planning & Zoning Administrator  
Bob Blessing, Emergency Management Director

## **Consultants**

Region Five Development Commission  
403 Prairie Ave NE  
Staples, MN 56479

Brenton Holper, Regional Planner II  
&  
Chris Etzler, Transportation Planner



1.0	PURPOSE AND INTRODUCTION .....	3
1.1	Purpose.....	3
1.2	Background.....	3
1.3	Definition of Mitigation.....	3
1.4	The Planning Process.....	4
1.4.1	Data Collection .....	5
1.4.2	Public and Local Government Participation Component.....	6
1.4.3	Development of Goals, Objectives and Strategies (Subcommittee Meeting).....	8
1.4.4	Drafting and Development.....	8
1.4.5	Public Review, County Adoption, State and FEMA Review.....	9
1.5	Plan Implementation and Maintenance.....	9
2.0	COMMUNITY PROFILE .....	13
2.1	General Overview .....	13
2.2	General County History .....	13
2.3	Local Government Information .....	13
2.6.2	Geology.....	23
2.6.3	Hydrology.....	24
2.6.4	Landform Descriptions .....	28
2.6.5	Topography and Drainage.....	29
2.7	Facilities.....	30
2.7.1	Emergency Response Facilities .....	30
2.7.3	Hazardous Material Facilities .....	32
2.8	Infrastructure.....	32
2.8.1	Pipelines.....	32
2.8.2	Solid Waste.....	32
2.8.3	Public Transit.....	33
2.8.4	Waterworks.....	34
SECTION 3.0	HAZARD ASSESSMENT AND HISTORICAL DATA.....	37
3.1	Hazard Overview .....	37
3.2	Natural Hazards .....	39
3.2.1	Severe Summer Storms.....	39
3.2.2	Tornadoes.....	43
3.2.3	Flooding and Flash Flooding .....	47
3.2.4	Drought .....	49
3.2.5	Windstorms.....	50
3.2.6	Extreme Heat .....	52
3.2.7	Wildfire.....	52
3.2.8	Earthquake .....	54
3.2.9	Winter Storms and Events .....	54
3.2.10	Infectious Diseases.....	56
3.3	Human Caused/Technological Hazards.....	61
3.3.1	Structural Fire .....	61
3.3.2	Hazardous Material Transportation .....	61
3.3.4	Hazardous Material (Fixed).....	63
3.3.4	Groundwater Contamination and Depletion.....	65
3.3.5	Terrorism and Civil Disorder.....	66

3.3.6	Power Grid Failure.....	67
3.3.7	Computer Viruses .....	68
3.3.8	Railroad Interference with Emergency Response.....	69
4.0	ACTION PLAN [GOALS, OBJECTIVES, AND STRATEGIES].....	71
4.1	Natural Hazard Goals, Objectives and Strategies .....	73
4.1.1	Tornado Mitigation .....	73
4.1.2	Flooding and Flash Flooding .....	75
4.1.3	Winter Storms .....	78
4.1.4	Drought .....	80
4.1.5	Severe Summer Storms.....	81
4.1.6	Windstorms .....	83
4.1.7	Extreme Heat .....	84
4.1.8	Wildfire .....	85
4.1.9	Infectious Disease .....	87
4.2	Human Cause/Technological Goals, Objectives, and Strategies .....	88
4.2.1	Groundwater Depletion.....	88
4.2.2	Groundwater Contamination.....	89
4.2.3	Hazardous Material Transportation .....	90
4.2.4	Hazardous Material (Fixed) .....	92
4.2.5	Power Grid Failure.....	93
4.2.6	Computer Viruses .....	95
4.2.7	Terrorism.....	95
4.2.8	Railroad Interference with Emergency Response.....	96
4.3	Potential Funding Sources .....	97
5.0	APPENDIX.....	99

## **1.0 PURPOSE AND INTRODUCTION**

### 1.1 Purpose

This plan is intended to reduce the threat of natural, human induced and technological hazards through the assessment of these hazards and through the development of an action plan specifying goals, objectives and strategies. Through these advances in planning, Todd County will continue to be a leader in ensuring the safety and public protection of the entire countywide community. The purpose for the creation of this plan is to:

1. Foster communication between cities, townships, businesses, community organizations, public and private facilities, organizations, and similar entities throughout the County
2. Promote sound public policy designed to protect life and property from natural, human caused and technological hazards
3. Develop and implement educational programs to increase public awareness of the risks associated with all hazards
4. Provide for a safer and more enjoyable countywide community

### 1.2 Background

The Todd County All Hazard Mitigation Plan was funded through the Pre-Disaster Mitigation (PDM) Program established by the Disaster Mitigation Act of 2000 and through in-kind contributions on behalf of Todd County and Region Five Development Commission. Intended to break the cycle of disaster and rebuild, assistance to local governments to prepare and implement their local all hazard mitigation plans. More information on the PDM program can be found through the Federal Emergency Management Agency, and the Minnesota Department of Homeland Security and Emergency Management.

### 1.3 Definition of Mitigation

Hazard Mitigation is defined as any action taken to eliminate or lessen the risk of natural and human caused or technological hazards to life and property. Mitigation measures might include public education, development of regulations, or public policy, structural hazard control or protection projects, altering or retrofitting facilities, acquisitions or relocation of structures, or the development of improved or increased warning systems.

## 1.4 The Planning Process

Multiple steps were taken in the approach of the Todd County Hazard Mitigation Plan. Region Five Development Commission was secured to complete the writing of this plan due to their experience with the completion of three other county Hazard Mitigation Plans (Cass, Morrison and Wadena Counties). Various groups assisted with the development of this plan along with assistance provided by departmental staff from Todd County.

Multiple steps were followed in the development of this plan, with a strong emphasis on involving citizens and local units of government. These steps are identified throughout section 1.4 more in-depth. A timeline of actual progress towards this plan is shown in the chart below.

**Table 1-1**

May 2003 – November 2004	Data Collection
May 2003 – December 2005	Public Participation Component
December 2004 – January 2005	Develop Goals, Objectives and Strategies
January 2007	State and FEMA Review and Adoption
February 2007	Public Review and Adoption

The Todd County Hazard Mitigation Plan will be reviewed annually and updates as necessary, while the entire plan will be formally reviewed and updated every five years.

#### 1.4.1 Data Collection

The data collection process involved the reviewing of many existing plans, policies, and programs that are either exclusively Todd County's or effect Todd County. Plans are listed as follows:

##### Planning Documents Reviewed:

- Todd County Comprehensive Land Use Plan (2000)
- Todd County Zoning Ordinance (2004)
- Todd County Comprehensive Water Plan (2000)
- Todd County Emergency Operations Plan (2000)
- Todd County Public Health Emergency Preparedness Plan (2005)
- Todd County Drainage Management Policy (2005)
- City of Bertha Comprehensive Plan
- City of Browerville Comprehensive Plan
- City of Browerville Zoning Ordinance
- City of Clarissa Comprehensive Plan
- City of Clarissa Zoning Ordinance
- City of Eagle Bend Comprehensive Plan
- City of Eagle Bend Zoning Ordinance
- City of Hewitt Comprehensive Plan
- City of Long Prairie Comprehensive Plan
- City of Long Prairie Zoning Ordinance
- City of Osakis Comprehensive Plan
- City of Osakis Zoning Ordinance
- City of Staples Comprehensive Plan
- City of Staples Zoning Ordinance

##### Programs Reviewed:

- Todd County Emergency Management Programs
- Todd County National Flood Insurance Program (NFIP) Participation
- Todd County Public Health Programs
- Todd County Sheriff Department Programs
- Environmental Programs EPA and MPCA
- Minnesota Department of Homeland Security & Emergency Management Programs

Policy Documents Reviewed:

- Todd County Comprehensive Land Use Plan (2000)
- Todd County Zoning Ordinance (2004)
- Todd County Comprehensive Water Plan (2000)
- Todd County Emergency Operations Plan (2000)
- Todd County Public Health Emergency Preparedness Plan (2005)
- Todd County Drainage Management Policy (2005)
- City of Bertha Comprehensive Plan
- City of Browerville Comprehensive Plan
- City of Browerville Zoning Ordinance
- City of Clarissa Comprehensive Plan
- City of Clarissa Zoning Ordinance
- City of Eagle Bend Comprehensive Plan
- City of Eagle Bend Zoning Ordinance
- City of Hewitt Comprehensive Plan
- City of Long Prairie Comprehensive Plan
- City of Long Prairie Zoning Ordinance
- City of Osakis Comprehensive Plan
- City of Osakis Zoning Ordinance
- City of Staples Comprehensive Plan
- City of Staples Zoning Ordinance

1.4.2 Public and Local Government Participation Component

Todd County recognizes the importance of public participation in developing a strong all-hazard mitigation plan. In order to achieve this, Todd County invited members of the public to participate numerous times during the planning process. These meetings are as follows:

Subcommittee Meeting:

During the process of developing the Todd County Hazard Mitigation Plan, a Hazard Mitigation Team was assembled to assist with the collection of public comments and the overall development of the plan. Team members consisted of:

**Table 1-2**

Dave Kircher	Todd County Sheriff/Emergency Management Director
Duane Lorsung	Todd County Public Works Department
Gloria Stevenson	Todd County GIS Department
Kitty Tepley	Soil and Water Conservation District (SWCD)
Cheryl Schneider	Todd County Public Health Department
Tim Cadwallader	Todd County Solid Waste Department
Ben Oleson	Todd County Planning & Zoning Department

Overall Meetings:

October 24, 2002

Location: Todd County Old Courthouse

Attendance: Hazard Mitigation Team

April 8<sup>th</sup>, 2003 (1<sup>st</sup> Hazard Mitigation Meeting)

Location: Todd County GIS Office

Attendance: Hazard Mitigation Team

April 10<sup>th</sup>, 2003 (Annual Township Meeting)

Location: Browerville Community Center

Attendance: Todd County Townships attending the Township Association Meeting

April 30<sup>th</sup>, 2003 (Monthly City Clerk Meeting)

Location: Long Prairie City Hall

Attendance: City Clerks of Todd County

Held: May 7<sup>th</sup>, 2003 1:00 PM

Location: Todd County Old Courthouse Breakroom

Attendance: Hazard Mitigation Team

Topics Discussed: Reviewed various hazards for the county and legal issues plus concerns about identifying risks to a particular site (matter to be looked into more in depth).

Held: May 13<sup>th</sup>, 2003 7:00 PM

Location: Todd County, Annex 1 basement

Attendance: Township and City officials

Topics Discussed: Information about past hazard events to be gathered.

Held: May 21<sup>st</sup>, 2003 1:00 PM

Location: Todd County, Old Courthouse Breakroom

Attendance: Hazard Mitigation Team

Topics Discussed: What is being done to address issues identified on May 7<sup>th</sup>, 2003.

June 21<sup>st</sup>, 2004 2:00 PM

Attendance: Matt Johnson, Dave Kircher & Gloria Stevens

Topic: Discussion of hazard mitigation plan

October 13<sup>th</sup>, 2004 2:00 PM

Location: County Commissioners Room

Attendance: Hazard Mitigation Team

December 14<sup>th</sup>, 2004 9:00 AM  
Location: County Board Room  
Attendance: Hazard Mitigation Team

January 5<sup>th</sup>, 2005  
Location: County Commissioners Room  
Attendance: Hazard Mitigation Team  
Topic: Strategy Completion Meeting

January 25<sup>th</sup>, 2005  
Location: County Commissioners Room  
Attendance: Hazard Mitigation Team  
Topic: Review and comment on Hazard Mitigation Plan Draft

#### 1.4.3 Development of Goals, Objectives and Strategies (Subcommittee Meeting)

##### Project Identification Process:

Local governments throughout Todd County assisted with the identification of specific projects intended to mitigate potential hazards through the project identification process. This process included the following steps:

1. Supplying each local unit of government within Todd County with information about hazard mitigation
2. Identification of projects by local units of government and submission of projects to Todd County
3. Inclusion of hazard mitigation projects identified by local units of government within the Todd County Hazard Mitigation Plan

#### 1.4.4 Drafting and Development

In the drafting and development phase, Region Five Development Commission staff prepared the Todd County Hazard Mitigation Public review document with the cooperation of the Todd County Emergency Management Director and the Todd County Planning & Zoning Department. The plan was then forward on to process participants, local officials, the Minnesota Department of Homeland Security and Emergency Management, and the general public for review and comment.

#### 1.4.5 Public Review, County Adoption, State and FEMA Review

Copies of the Todd County Hazard Mitigation Plan document were sent to all local units of government within the County and made available on the Region Five Development Commission ([www.regionfive.org](http://www.regionfive.org)) and Todd County ([www.co.todd.mn.us](http://www.co.todd.mn.us)) websites. A published notice notifying interested persons of this was published in the official newspaper of the County. All comments received by the local units of government and FEMA resulted in revisions and amendments to this plan.

#### 1.5 Plan Implementation and Maintenance

The success of the Todd County Hazard Mitigation Plan is due to the commitment of county officials, staff, and the entire countywide community to the implementation of the goals, objectives, and strategies set forth in section 4.0 of this plan. Changes resulting from internal and external forces, couples with the completion of individual goals, objectives and policies may be cause for revisions of this plan. In order to respond to these changes, the Todd County Emergency Management Director will review this plan at least annually to ensure goals, objectives and policies are being met in accordance with the implementation schedule of the plan. Every five years Todd County shall update and revise this plan to ensure the plan remains consistent with the overall goal which is briefly summarized as the mitigation of potential hazards within the County. Upon completion of revisions and updates to the Todd County Hazard Mitigation Plan, the plan will be submitted to the State of Minnesota and Federal Emergency Management Agency (FEMA) for review and approval.

##### Implementation of Plans, Programs, and Policies:

The implementation schedule of the Todd County Hazard Mitigation Plan calls for the updating and revisions of several County Plans, programs, and policies. As this plan is implemented, the Todd County Emergency Management Director will coordinate these revisions with the persons identified as “Task Leaders” within the implementation schedule of the plan. Plans, programs and policies to be updated include:

Plans and Policies to be revised as necessary include:

- Todd County Comprehensive Plan
- Todd County Comprehensive Water Plan
- Todd County Public Health Emergency Preparedness Plan
- City of Bertha Comprehensive Plan
- City of Browerville Zoning Ordinance
- City of Clarissa Zoning Ordinance
- City of Eagle Bend Zoning Ordinance
- City of Long Prairie Comprehensive Plan
- City of Osakis Comprehensive Plan
- City of Staples Comprehensive Plan
- Todd County Zoning Ordinance
- Todd County Emergency Operations Plan
- Todd County Drainage Management Policy
- City of Browerville Comprehensive Plan
- City of Clarissa Comprehensive Plan
- City of Eagle Bend Comprehensive Plan
- City of Hewitt Comprehensive Plan
- City of Long Prairie Zoning Ordinance
- City of Osakis Zoning Ordinance
- City of Staples Zoning Ordinance

Programs to be revised as necessary include:

- Todd County Emergency Management Programs
- Todd County National Flood Insurance Program (NFIP) Participation
- Todd County Public Health Programs
- Todd County Sheriff Department Programs
- Environmental Programs EPA and MPCA
- Minnesota Department of Homeland Security & Emergency Management Programs

Ongoing Public Participation:

In order to ensure public involvement in future revisions to this plan, Todd County shall follow a similar procedure, including the memberships of public members on any future Hazard Mitigation Planning Teams and the regular publishing and updating of information related to the hazard mitigation plan revisions process. Mechanisms that are to be used to ensure ongoing public participation included the following:

- General public membership on future hazard mitigation planning teams
- Posting of the Todd County Hazard Mitigation Plan on the County Website ([www.co.todd.mn.us](http://www.co.todd.mn.us))
- Published notices of all public hazard mitigation related meetings
- Maintain copies of the Todd County Hazard Mitigation Plan at all libraries and similar public information outlets within the County

Plan Responsibilities:

The Todd County Emergency Management Director is responsible for all monitoring, maintenance, coordination, and implementation of the Todd County Hazard Mitigation Plan with the ongoing support of the Todd County Board of Commissioners and Departments. Please direct all inquiries to the office of Todd County Emergency Management.

Emergency Management Director

Bob Blessing

(320) 533-4697

[bob.blessing@co.todd.mn.us](mailto:bob.blessing@co.todd.mn.us)

The Todd County Hazard Mitigation Plan, on file with the Emergency Management Director, is available as a reference for others researching the same information for future updates of their plans. A copy of the plan is also available at the following Todd County Departments:

- Planning & Zoning
- Highway
- Public Health
- GIS
- Sheriff

