



ALL HAZARD MITIGATION PLAN

5-Year Update
2015

Adopted: March 29th 2016

Austin/ Mower County
201 1st St NE
Austin MN 55912

Acknowledgements

The 5-year update of the Mower County All Hazard Mitigation Plan required a concerted effort of numerous individuals and organizations. The Mower County Board of Commissioners would like to thank the following individuals and organizations for their input and support in the development of this plan:

City and Township Officials from each City and Township in the County

Mower County Departments:

- Environmental Services
- Emergency Management
- Sheriff and Dispatch
- Public Health
- Social Services
- Public Works
- Management Information Systems

The Federal Emergency Management Agency (FEMA)

Minnesota Division of Homeland Security and Emergency Management

Minnesota Department of Natural Resources

Mower County School Districts

Mower County Soil and Water Conservation District

The County Commissioners also want to thank the members of the various Fire Departments and Emergency Rescue services for their assistance with this project:

Fire Departments:

- Adams
- Austin
- Blooming Prairie
- Brownsdale
- Dexter
- Grand Meadow
- Le Roy
- Lyle
- Rose Creek
- Spring Valley

Ambulance Services:

- Adams
- Blooming Prairie
- Gold Cross
- Grand Meadow
- Hayfield
- Le Roy

Executive Summary

The purpose of the Mower County All Hazard Mitigation Plan planning process is to analyze the county’s hazard mitigation needs and create a framework for addressing those needs. The purpose of the 5-year update is to benchmark the progress of proposed mitigation projects throughout Mower County and identify new mitigation projects. The result is an updated plan that incorporates comments, updates and proposed mitigation activities.

In the appendices to this document there a list of proposed mitigation activities. This list represents the final product of the planning process for each city and township in the county. The County Commissioners are proud of the total participation of each city and township, and are intent upon assisting each city and township with the implementation of individual mitigation activities.

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I. ALL HAZARD MITIGATION PLANNING PROCESS

DEFINITION / PURPOSE

The Federal Emergency Management Agency (FEMA) was established to address all hazards. During the cold war, the focus was on nuclear catastrophe. In the past decade the focus was on natural disasters. Most recently, in response to a variety of human caused disasters, such as terrorism and hazardous materials spills, the definition has shifted to mitigation for these types of hazards:

Hazard Mitigation means any action taken to reduce or eliminate the long-term risk to human life and property from natural disasters. (FEMA publication 44CFR, Chapter 1, subpart M, SOURCE: 55fr 35529, August 30, 1990.

All Hazard mitigation planning is designed to decrease the amount of damage and costs to a community in the event of a disaster. All types of hazards, categorized as natural, technological, or human, are considered in this planning process. Mitigation projects are developed in response to the perceived risk of such hazards occurring based on historical occurrence and analysis.

The purpose of the Mower County All Hazard Mitigation Planning (AHMP) project is to identify and prioritize hazards, and to develop and implement projects that will decrease the damages from these hazards in Mower County.

LEGAL AUTHORITY / OVERVIEW

Mower County has long had an Emergency Operations Plan in place to serve as a guide for county, city, and emergency operations response teams in emergency situations. In 2012 Mower County participated in the Threat Hazard Identification Risk Assessment (THIRA) Plan and continues to grow the plan. Portions and rankings from the THIRA have been incorporated into the Mower County AHMP. The Emergency Operations Plan, THIRA and AHMP are maintained, tracked and updated with the Emergency Management Office.

Legal Authority for the Mower County AHMP is derived from U.S. Public Law 106-390, created through the approval of the Disaster Mitigation Act of 2000. Section 322 of this statute requires that a state hazard mitigation plan be prepared following a disaster declaration, and among other things states that mitigation plans are a new prerequisite for hazard mitigation funding. The Disaster Mitigation Act of 2000 also requires open public involvement in the (planning) process, and coordination with neighboring communities. MN Statutes, Chapter 12 provides that the Minnesota Department of Homeland Security and Emergency Management (HSEM) be responsible for local emergency operations managers. The Governor's Executive Order 15-15 assigns emergency responsibilities (including hazard mitigation) to state agencies. HSEM is the coordinating agency for disaster preparedness, emergency response and disaster recovery assistance. In addition, in Minnesota the legal basis for planning is via Minnesota Statutes 462: Housing, Redevelopment, Planning and Zoning.

Tornadoes, floods, blizzards, and other natural disasters can affect Austin/Mower County. In addition, major disasters such as train wrecks, plane crashes, explosions, hazardous materials release, emergency levee failures, pipeline leaks, foreign animal disease and national security emergencies pose a potential threat to public health and safety in Austin/Mower County. An emergency plan is needed to ensure the protection of the public from effects of these hazards. Hazards that have a probability of involving Austin/Mower County would be flooding of the City of Austin due to the Dobbins Creek, Turtle Creek and the Cedar River Watershed which join in the City of Austin. In addition, we have experienced numerous tornado warnings and a few touchdowns resulting in property damage as well as the transportation routes carrying hazardous material on Interstate 90 and the Canadian Pacific Railroad which involves both the City of Austin and the County of Mower.

The difference between the Emergency Operations Plan and the All Hazard Mitigation Plan is that the Operations Plan describes how to react to specific emergencies, while the All Hazard Mitigation Plan describes potential hazards and ways to mitigate the negative effects of those hazards.

PLANNING PROCESS (FEMA)

The four basic hazard mitigation planning steps outlined by FEMA were utilized during the Mower County updating of the plan process:

- Organize Resources
- Existing Emergency Response plans
- Interested Community Members
- Technical Experts

Assess Risk

- Identify and prioritize natural, technical and human caused hazards
- Prioritize those hazards
- Identify how those hazards could affect key facilities

Develop Mitigation Plan

- Develop mitigation strategies
- Determine priorities of addressing potential hazards

Implement the plan and Monitor the progress

- Community members and emergency response personnel put the plan into action
- Evaluate efforts for effectiveness
- Revisit and revise plans as necessary as changes occur

THE MOWER COUNTY PLANNING PROCESS

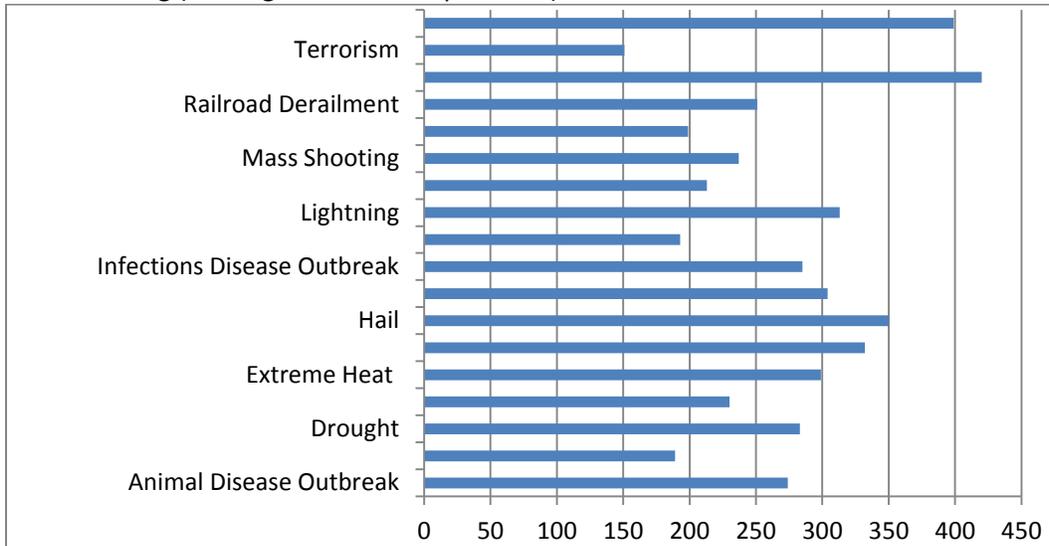
The Mower County planning process 5-year update incorporated a series of strategic planning sessions, public meetings and surveys to gather the information, data and prioritization necessary for the mitigation plan. The county involved organizations, cities, townships and county officials in the process. The process of the 5-year update was initiated by Mower County Emergency Management with technical assistance from Minnesota Department of Homeland Security and Emergency Management.

DOCUMENTATION OF THE PLANNING PROCESS

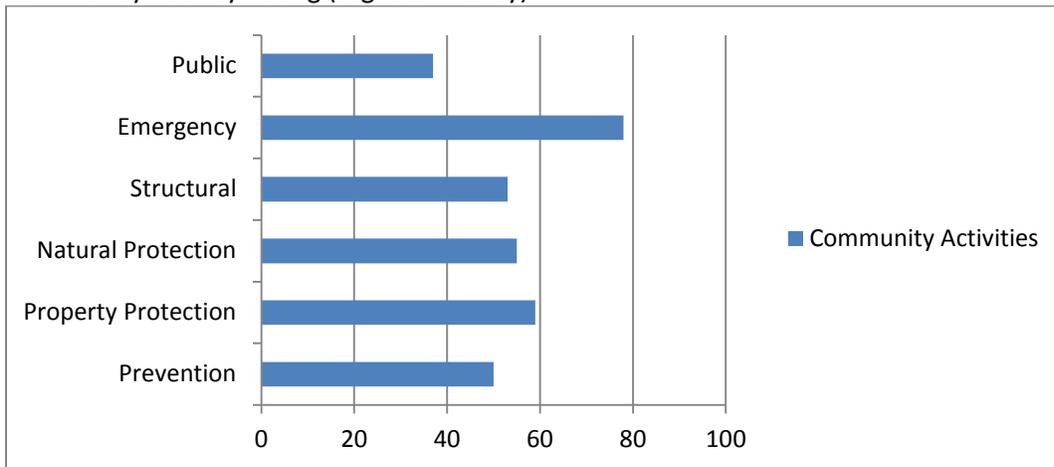
During the process of 5-year update the Emergency Management Office used the All Hazard Mitigation Plan (2010), THIRA, City of Austin and Mower County's Comprehensive Plans and the State of Minnesota All Hazard Mitigation Plan as a source of information. Statistical information was gathered from the previous reports to compare past mitigation efforts with current. Planning process documentation is located in Annex D.

The county sent out an All Hazards Survey during October 2014. The surveys went to elected officials, school board members, township clerks and chairs, city mayors and clerks, law enforcement, citizens and county departments. This All Hazards Survey listed natural hazards, technological hazards, and human-caused hazards and asked the respondents to provide historical data for the events, and to prioritize each of the hazards. The results of this survey provided the basis for the planning committee, public meetings and plan creation.

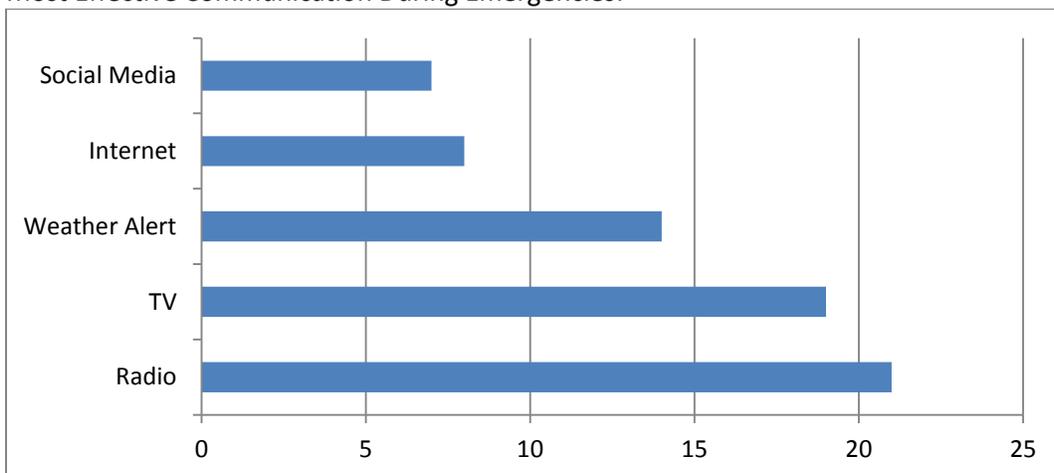
A sample of the responses from the survey:
 Hazard Rating (ranking in order of importance):



Community Activity Rating (Highest Priority):



Most Effective Communication During Emergencies:



After the results of the surveys were tabulated the Emergency Management Office began meeting with the planning team. The planning team meetings were to review survey results, look at historical data, past mitigation efforts, present and future mitigation efforts and cost effectiveness. These meetings were held in March, April and May, 2015.

On February 24th 2015 FEMA held an outreach meeting which incorporated current mitigation efforts and facilitated new ideas. This meeting was a good start in identification of Mitigation Actions to be included in this plan. The meeting brought together FEMA officials, Mower and Freeborn County, City of Albert Lea and Austin and FEMA representative.

On March 25th, 2015 Mower County Commissioner Chair, Mike Ankeny, formally approved the Letter of Intent for township and city participation. The letter and a sample resolution were mailed to cities and townships in Mower County. These were to be signed, dated and returned to the Mower County Emergency Management Office. The county received back one hundred percent of the letters of intent.

The following organizations passed a Letter of Intent to participate in All Hazard Mitigation Plan process and to adopt the plan after approval:

Townships:	Municipalities:
Adams Township	City of Adams
Austin Township	City of Austin
Bennington Township	City of Brownsdale
Clayton Township	City of Dexter
Dexter Township	City of Grand Meadow
Frankford Township	City of Elkton
Grand Meadow Township	City of LeRoy
Lansing Township	City of Lyle
LeRoy Township	City of Mapleview
Lodi Township	City of Racine
Lyle Township	City of Rose Creek
Marshall Township	City of Sargeant
Nevada Township	City of Taopi
Pleasant Valley Township	City of Waltham
Racine Township	
Red Rock Township	
Sargeant Township	
Udolpho Township	
Waltham Township	
Windom Township	

April 30th 2015 Riverland Community College held an Emergency Preparedness Meeting. This meeting was a great opportunity for school districts, colleges, government and private organizations to meet to discuss mitigation hazards and emergency response strategies. The ideas were very simple to extremely complex. More detail is available in Appendix D.

On Wednesday May 21st 2015 a City and Township meeting was held with all Mower County cities and townships. This meeting was well attended, and resulted in a number of the mitigation activities described in this plan. The primary purpose of attending this meeting was to solicit specific mitigation activity suggestions. During the meeting the officials representing each entity filled out two additional surveys:

Asset Inventory Survey and All Hazard Questionnaires:

Assets Inventory Survey:

The respondents were provided with an extensive list of community assets ranging from medical facilities, emergency services, schools, churches, and other public resources. They were asked to confirm the existence and add any resources in their community so that the county could verify the previously compiled list of critical assets county-wide and update the current All Hazard Mitigation Plan with new or additional resources. The changes have been incorporated in to the updated plan.

Hazards Profile and Risk Assessment Surveys:

These were distributed at the public meeting on May 21st 2015 and mailed to any city, township or organization representatives not in attendance. These surveys were actually variations of the standard "Hazard Profile" and "Risk Assessment" Worksheets templates provided by the state and FEMA.

Another excellent response to these surveys resulted in an "Overall Priority" hazards update to the database for the county.

On July 13th 2015 Mower County Emergency Management held a public meeting to have input. The meeting was advertised in the official paper on July 2nd 2015. Unfortunately there were no attendees.

CONTINUED PUBLIC INVOLVEMENT

As with the initial process, public participation is an essential ingredient of the All Hazard Mitigation Plan or a comprehensive planning process. One needs to use the adage that instead of "planning for people you are planning with people". By using this approach, we will end up with a more successful project. The following procedure will be used each year: Representatives of the Environmental Services and/or Emergency Management Department will make speaking engagements at the Mower County Township Association meeting, in May or October and with the League of Municipalities at their October meeting to discuss the All Hazard Mitigation Plan. This person will explain what has been done and will encourage them to use the document as they are conducting their business.

GOALS, OBJECTIVES & IMPLEMENTATION

The Goals of the Mower County All Hazard Mitigation Plan include:

Protect Life and Property

Prevent Loss of Life and limit damage

Protect emergency response personnel and resources

The Objectives include specific mitigation activities designed to address hazards in the county in relation to the stated goals.

IMPLEMENTATION

Plan Adoption and Maintenance:

Once the Mower County Updated Plan has been approved by HSEM and FEMA, the plan will be brought before the County Board for approval. After the Mower County Board of Commissioners approves the plan, the finalized plan will be distributed to each city, and township for review and approval. Each local government has already passed a letter of intent so adopting the plan will be seamless. Once the official resolution is received, a copy of the resolution will be kept on file with the updated All Hazard Mitigation Plan.

Incorporating into Existing Planning Mechanisms:

All government agencies and non-governmental agencies that have participated in the All Hazard Mitigation Plan update process will be sent a copy of the approved plan for their use. When they are doing their yearly budgets, the City Councils will use their All Hazard Mitigation Plan and discuss how they can address the goals, objectives, and strategies identified and to look at the most cost effective

method of achieving those results. They will be requested to forward their results to the Environmental Services Department and/or Emergency Management Department.

Monitoring, Evaluating, and Updating the Plan:

Each local government was asked to pass a resolution adopting the Mower County Plan. The Mower County Environmental Services Director and/or Emergency Management Director will be sending out to all cities in the County their mitigation activities that have been approved in the plan and request for an update in December of 2017. This request will ask for information on what has been done, and if not done, has a different mitigation strategy been replaced. This process will go on each year in December for calendar years 2015 through 2020. In the year of 2019 the Environmental Services Department or Emergency Management Department will again institute the update of the All Hazard Mitigation Plan for the entire County. The key committee members and all of the municipalities and townships will be contacted to participate in this process. From our perspective, we see the All Hazard Mitigation Plan as a process similar to the comprehensive plan process where you receive goals, strategies, implementation ideas and these are then reviewed yearly by the appropriate governmental agencies and if changes are necessary, the changes are made. It is a constant process that goes on. After this update is completed in 2019/2020, the Plan will be resubmitted to Homeland Security for approval.

Project Implementation:

The Mower County All Hazard Mitigation Plan update includes individual implementation activities to be undertaken by each local government unit in the county. Responsible officials in each LGU will ensure that the individual activities are undertaken according to the plan. The county Environmental Services Office will coordinate this process and provide assistance to each community, as requested. In the year of 2019 the Environmental Services Department or Emergency Management Department will again institute the update of the All-Hazard Mitigation Plan for the entire County. The key committee members and all of the municipalities and townships will be contacted to participate in this process. From our perspective, we see the All Hazard Mitigation Plan as a process similar to the Comprehensive Plan process where you receive goals, strategies, implementation ideas and these are then reviewed yearly by the appropriate governmental agencies and if changes are necessary, the changes are made. It is a constant process that goes on. After this update is completed in 2019/2020, the Plan will be resubmitted to Homeland Security and FEMA for approval.

Implementation of Mitigation Actions:

For the fourteen municipalities in the County, the individual mitigation strategies will be implemented and administered by each governmental unit unless the activity transcends several jurisdictions then it will be a multiple approach. The City Council will be the primary responsible agency for the cities since they are also charged with determining the cost benefit of the proposed activities and the City Councils will use their All Hazard Mitigation Plan and discuss how they can address the goals, objectives & strategies identified and to look at the most cost effective method of achieving those results. They will be requested to forward their results to the Environmental Services Department or Emergency Management Department. By using this approach, the city council will be able to determine what the best financial interest of the community is. When each city developed their implementation strategies, they were cognizant of the cost benefit of the items that they were selecting.

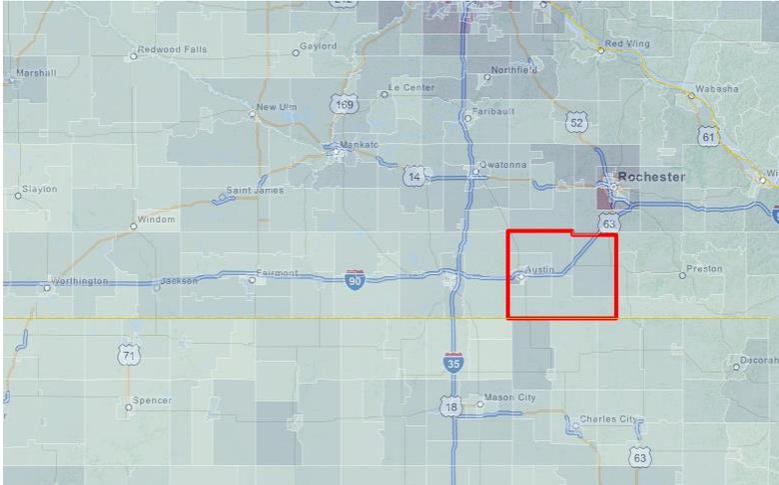
UPDATES AND RESPONSIBLE PARTIES

The county Emergency Management Department will be responsible for annual review and updates to the Plan. County staff will review progress made by each community toward their individual mitigation activities, and will make adjustments to the plan as warranted. As new concerns or suggestions for enhancement to the All Hazard Mitigation Plan become available, new data and mitigation projects will be completed and new projects advanced.

II. Mower County Community Profile

The following profile sections provide a description of the county, and a basis for creating and implementing the All Hazard Mitigation Plan. Please refer to the maps in the Community Assets section of this report for additional detail.

COUNTY OVERVIEW



As of 2014, Mower County's population is 39,323 people. Since 2000, it has had a population growth of 0.4 percent. The median age is 39 and males are 48.5% of the population with females at 51.5%. Mower County has various types of employment available, packing plant to corporate jobs. The majority of working citizens, 49%, work in the private wage or salary type positions while 44% are self-employed.

The unemployment rate in Mower County is 4.1% (U.S. avg. is 5.7%). Recent job growth is Negative. Mower County jobs have decreased by 0.50%.

Mower County has a median household income of \$46,004 with Minnesota's median income of \$59,836. Per capita our poverty level is 16.3%.

The median home cost in Mower County is \$138,979 for a detached home. The average price for an apartment rent is \$521 per month.

In 2013, Mower County resident living in poverty was 14.7% and the Minnesota average is 11.2%.

HISTORY

The settlement of Mower County began in earnest in the 1850's. Seeking to take advantage of the County's rich agricultural soils, settlers from throughout the world homesteaded the county. The population of the county grew dramatically between 1860 and 1870 with the introduction of the railroad to the region. During the railroad era, virtually every existing village, except Austin, was given birth by the railroads, which crisscrossed the County in every direction. Austin grew as a railroad division center, a major agricultural shipping point and a center for the lumber trade.

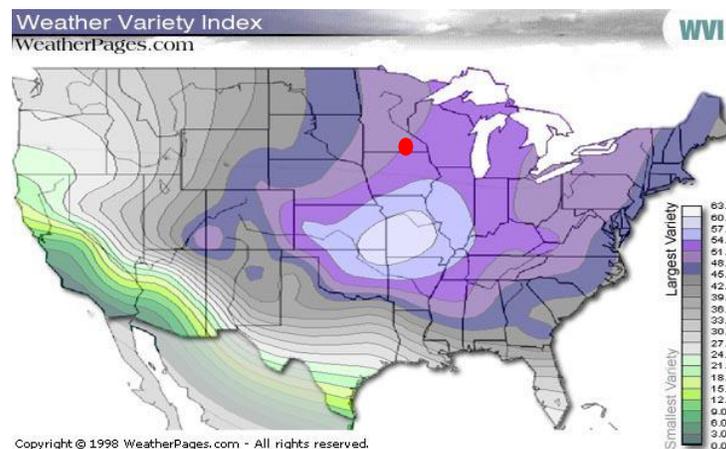
Villages also grew with the railroads as the centerpiece of their economies. Several of them were developed as railroad stations while others became small industrial hubs, reliant on railroad service. Throughout its history, Mower County has remained primarily an agricultural economy.

The County continued to grow until 1960, when it reached a population of 48,498. Surprisingly, the small cities maintained a relatively stable population in spite of the loss of the railroads while the townships and the City of Austin declined substantially in population due, in large part, to the leveling off of employment growth and the loss of basic industry. This trend of population loss began to change in the 1990's into 2000. Since 1990 the population has increased, but the household size has continued to decrease. During that period Austin showed an increase in the number of households and population, but household size declined.

The cities, on the other hand, have exhibited a different growth pattern. Austin's population grew in response to a growing economy, which included the founding of the George A. Hormel Company in 1891. The other cities as a group also continued to grow modestly until 1960. Since then their collective population has essentially remained stable, although a number have declined including Austin whose population fell from 27,908 in 1960 to 23,314 in 2000. However, data from the past decade begin to show a reversal of this trend, particularly with Austin's population increasing during that time.

GEOGRAPHY

Mower County is in the Upper Mississippi River Valley of the Midwest with rolling hills and relatively flat farm land. The City of Austin is an urban area on the far western end of the county. The area experiences a large variety of weather including drastic temperature changes, both warm and cold season extremes.



Winter months can bring heavy snows, intermittent freezing precipitation or ice, and prolonged periods of cloudiness. While true blizzards are occasionally here, winter storms impact the area on average about 4-5 times per season. Arctic outbreaks bring extreme cold and dangerous wind chills for extended periods of time.

Thunderstorms occur on average 39 times a year, mainly in the spring and summer months. The strongest storms can produce associated severe weather like tornadoes, large hail, or damaging wind. Both river flooding and flash flooding can occur along with urban-related flood problems. Heat and high humidity is observed in June, July, or August. The autumn season usually has the quietest weather. Dense fog occurs several times during mainly the fall or winter months. High wind events can also occur from time to time, usually in the spring or fall.

Mower County is located in the rich agricultural region of Southeastern Minnesota. It contains fourteen cities and twenty townships. The largest city is Austin with a population of 23,671. Other than Austin, all of the other cities have a population of 922 or less. The County has a total land of 453,205 acres, or 708 square miles. Surrounding Mower County are three Iowa counties to the South (Worth, Mitchell, and Howard), and from West to East, the Minnesota counties of Freeborn, Steele, Dodge, Olmsted and Fillmore.

Mower County contains the following incorporated and unincorporated cities:

Adams	Austin	Brownsdale	Dexter
Elkton	Grand Meadows	LeRoy	Lyle
Mapleview	Racine	Rose Creek	Sargeant
Taopi	Waltham		

The largest city, Austin, is the county seat for Mower County, and is located along Interstate 90. Austin is known for its agricultural processing facilities, and specifically, Hormel Inc., the producer of the world-renowned “Spam” processed meat products. Each of the other communities serves a variety of important roles in the county.

The county contains the following townships:

Adams	Austin	Bennington	Clayton
Dexter	Frankford	Grand Meadow	Lansing
LeRoy	Lodi	Lyle	Marshall
Nevada	Pleasant Valley	Racine	Red Rock
Sargeant	Udolpho	Waltham	Windom

PHYSICAL CHARACTERISTICS

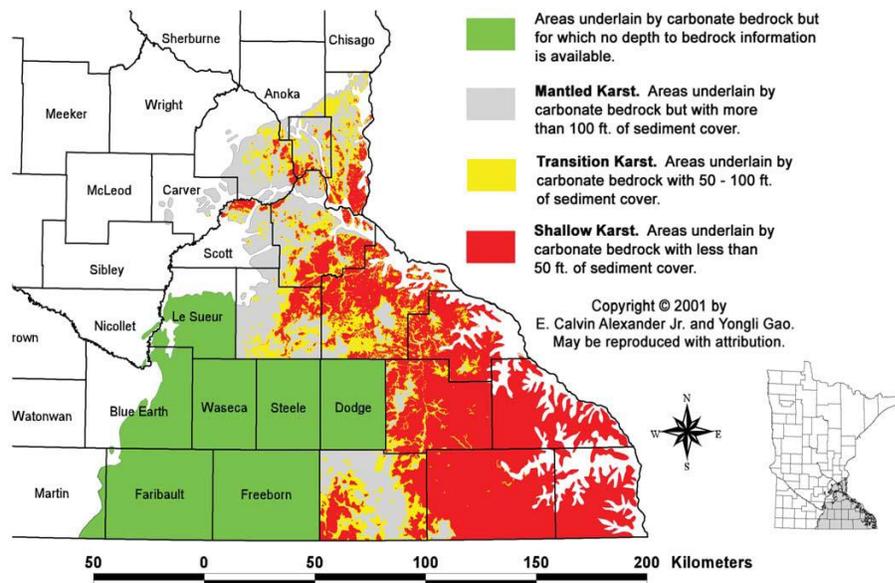
Mower County has some of the richest agricultural land in the country. It is primarily flat and contains parts of four watershed districts.

The County is classified within the Central Lowland physiographic province and is largely a broad, flat or slightly undulating, well-drained plain. The extreme northeastern section of the County lies in the Dissected Till Plains of the Central Lowlands. This area is characterized by rugged terrain and two streams: Deer and Bear Creeks, which are cutting into the soil and the underlying limestone bedrock, thereby forming deep valleys.

The dominant physiographic feature in the area is the deep Cedar River valley and the hummocky hills and poorly drained depressions of the Wisconsin terminal moraine located northwest of Austin. The plateau upon which Mower County is situated rises over 1,400 feet above sea level and is the highest part of the upland surface. Elevations range from 1,435 feet above sea level in the east central section of the County near Dexter and Elkton to 1,160 feet at the Cedar River in the southwest corner of the County.

KARST GEOLOGY

Of particular relevance to the county’s All Hazard Mitigation Plan is the Karst geology of the region. Mower County contains significant Karst areas. Karst is a limestone landscape that is characterized by sinkholes, disappearing and underground streams, caves, and cracks in the bedrock. Karst features and the active processes that form Karst features can potentially have a significant impact on human activities and the County will need to address and plan for appropriate land uses in Karst regions. For instance, one of the key concerns with Karst topography is the susceptibility to ground water pollution and contamination.



The most visible Karst features are sinkholes. Over 125 sinkholes have been mapped in LeRoy Township, and field observations indicate that there are many more to be mapped. Many of the sinkholes have been modified by human activity or road construction and drain-tile have modified the hydrologic characteristics of sinkholes. Although humans have modified existing sinkholes, new ones are still forming. In 1994, a sinkhole formed in County Highway 12 south of LeRoy.

The second kind of Karst features is disappearing streams. These surface streams end suddenly where all surface water flow sinks into the subsurface and flow through the subsurface drainage system. A disappearing stream may have more than one point where it disappears, which is called stream sinks. Two stream sinks have been identified in LeRoy Township south of the City of LeRoy at the Iowa border.

The third kind of Karst features is springs and seeps. Karst springs and seeps are the points where ground water is naturally returned to the surface. Karst springs range in size and type (diffuse and conduit). A recent inventory conducted by the MN DNR, the County, and the Minnesota Geological Survey shows that there are at least twelve springs surrounding the City of LeRoy.

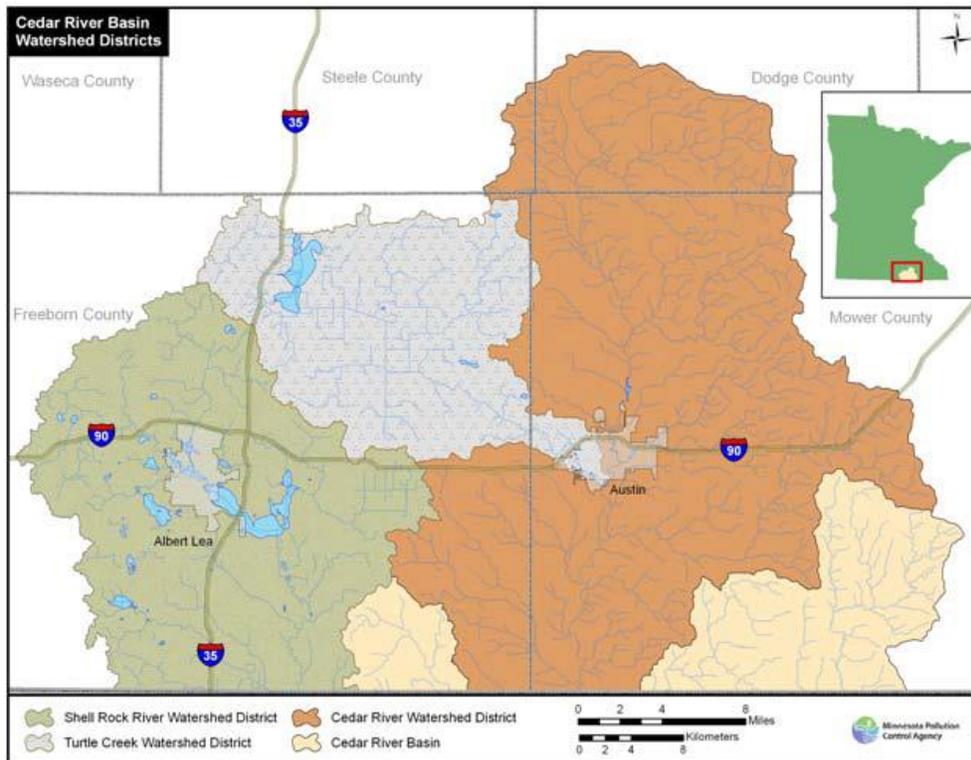
Surface Waters/Wetlands

Mower County has four major rivers the Cedar River, Root River, Upper Iowa River and Upper Wapsipinicon River; the major topographic divide, which separates the major watersheds (Root and Cedar), occurs in central Mower County.

Mower County is very unusual in that it is laced with rivers, creeks and ditches but has only four man-made ponds and no natural lakes, including the Lake Louise State Park, Mill Pond, East Side Lake and the Ramsey Mill Pond.

Most of the rivers, creeks and ditches are categorized by the MDNR as tributary river segments for purposes of State mandated shoreland management. Only segments of the south branch of the Root River, Deer Creek, the north branch of the Root River, Deer Creek, the north branch of the Root River and the Cedar River are categorized as agricultural river segments. The Ramsey Mill Pond is classified as a natural environment lake. All are required to be regulated in accordance with the 1989 Minnesota Shoreland Management Rules and Regulations.

The County is divided by four major watersheds. The largest watershed unit, the Cedar River, embraces most of western Mower County and contains 487.6 square miles. Its headwaters are located six miles northeast of Blooming Prairie and it drains south into the Iowa River, which in turn drains to the Mississippi River. The Cedar River has a fall of 145 feet over its 40 miles of length within Minnesota. The Turtle Creek Watershed is located in Udolpho, Lansing and Austin townships in Mower County. The major portions of Turtle Creek Watershed are not located in Mower County, but during floods it greatly affects the county.



With the introduction of farm field tiling, many of the wetlands that originally existed in Mower County have been drained. Wetlands needing protection under the State’s Wetland Management rules are still in the process of being identified and categorized. Lakes, rivers, creeks and streams depend on wetlands to remain healthy. Vegetation found in wetlands acts as a filter for water. It removes phosphates and other plant nutrients from surrounding land. They can prevent flooding by holding water. Wetlands are also important habitat for water fowl and wildlife. It’s easy to understand why wetlands are important and why they need surface water management and flood control and a 10-year plan by the Cedar River Water Shed District to accomplish those two goals.

FLOODING

Flooding is a fairly common occurrence along a number of the river segments in Mower County, especially when spring snow melt and major rainfalls coincide. Generally speaking, runoff rates are rapid and the river is subject to peak flows only for short durations. Areas susceptible to flooding are delineated and are regulated by the County’s Shoreland Management and Floodplain Management Ordinances.

In 2005 Mower County began a project for a County-wide base map. County-wide aerial photos were flown, rectified and produced in the fall of 2006 utilizing high altitude color over the entire county and low altitude color over the municipalities. New FEMA floodplain maps are being produced by an outside vendor and should be available in draft form in the fall of 2010. Mower County has initiated a GIS startup with the pilot program beginning in the fall of 2009; the mapping is completed and layered the County will be in a better position for future projects and projections.

Vulnerability Assessment – There are relatively numerous assets within Mower County, which are exposed to flooding hazards. There are currently 13,302 residential properties 1094 commercial, office & industrial facilities, 1150 religious, government, educations, and non-profit institutional facilities, and 6317 agricultural areas located with Mower County. Continued enforcement of development regulations and the land use plan will significantly reduce vulnerability and prevent future development projects and building critical infrastructure in flood prone areas.

Assets Exposed to Hazard - The major area of concern in Mower County that has repetitive flood loss is within the City of Austin (non-residential and residential). The City of Austin sustained significant damage in 2004 and 2008, 2010 had minor flooding. The City of Austin and Southwest portion of the county suffered significant damages with flooding during both of these events. The data was collected from the various municipalities and the Mower County Tax Assessors Office.

Damage Assessment - Complete losses of those properties located within flood zones in Mower County would result in significant losses and damages.

Land Use and Development Trends - Mower County has and continues to make significant efforts to eliminate the placement of structures identified in flood hazard areas. The County and all municipalities have enacted and vigorously enforce land use plans. These land use plans provide guidance for the prevention of development within flood prone areas. The county promotes the safety and general welfare by regulating land use, the location, height and size of buildings, the density of population and the division of the county into districts for residential, industrial and agricultural uses, thereby ensuring orderly future development outside the limits of incorporated municipalities. The county also promotes the safety and community welfare through building plan review, permit requirement, inspection of construction and application of International and State of Minnesota Building Codes.

Multi-Jurisdictional Concerns – All jurisdictions within Mower County can potentially be affected by flooding. There are many areas throughout the county where localized flooding has been an issue (due to flash floods). There are also rivers and streams throughout the entire county. All mitigation efforts will focus on countywide improvements.

Hazard Summary – Floods pose a significant threat in Mower County. Identified mitigation efforts related to flooding. Mower County and its cities and townships have worked hard to mitigate the loss of life and property in our community from flood hazards. This has been accomplished by taking a countywide approach to code enforcement and seeking mitigation grant funding to reduce flood hazards.

Flooding along the Cedar River and other streams is a concern of Mower County. In order to address this issue, the county, City of Austin, Adams, LeRoy, Mapleview, Rose Creek and Waltham participate in the National Flood Insurance Program.

Austin/Mower County participates in the National Flood Insurance Premium reduction program. The Floodplain Progress Report and Management Plan are updated annually by the City of Austin. Mower County Environmental Health Department maintains the county flood management system. The County and City both meet the requirements of the NFIP to receive the flood insurance rate reduction. Mower County is currently integrating flood plain mapping into county mapping system. This will be a visual during flood events to evacuate citizens and an updated version with all the prior mitigation activities. There are approximately 184 structures in the floodplain, both private and businesses.

The following are participants in the NFIP in Mower County:
11/06/2015:

Communities Participating in the National Flood Program							
CID	Community Name	County	Init FHBM	Init FIRM	Curr Eff	Reg-Emer Date	Tribal
			Identified	Identified	Map Date		
270308#	ADAMS, CITY OF	MOWER COUNTY	7/30/1976	8/15/1979	8/15/1979	8/15/1979	No
275228#	AUSTIN, CITY OF	MOWER COUNTY		5/14/1971	8/18/1992	5/14/1971	No
27310#	BROWNSDALE, CITY OF	MOWER COUNTY	05/10/1974		NFIP	03/18/1985	No
270583#	LEROY, CITY OF	MOWER COUNTY	12/27/1974	5/15/1980	5/15/1980	5/15/1980	No
270934#	GRAND MEADOW, CITY OF	MOWER COUNTY		09/14/2013	09/14/2013	12/16/2013	No
270935#	LYLE, CITY OF	MOWER COUNTY		09/04/2013	09/04/2013	09/20/2013	No
270586#	MAPLEVIEW, CITY OF	MOWER COUNTY	4/18/1975	5/15/1984	5/15/1984	5/15/1984	No
270307#	MOWER COUNTY *	MOWER COUNTY	3/21/1975	7/16/1979	7/16/1979	7/16/1979	No
270598#	ROSE CREEK, CITY OF	MOWER COUNTY	6/10/1977	7/16/1979	7/16/1979	7/16/1979	No
270311#	WALTHAM, CITY OF	MOWER COUNTY	8/9/1974	10/16/1979	10/16/1979	10/16/1979	No

The below municipalities do not participate in the NFIP due to not being sanctioned and not being mapped for flood plain at this time. Also depending on staff levels in the future may wish to participate in the NFIP and the feasibility of participation for the individual jurisdictions.

Communities Not Participating in the National Flood Program							
CID	Community Name	County	Init FHBM	Init FIRM	Curr Eff	Reg-Emer Date	Tribal
			Identified	Identified	Map Date		
None issued	DEXTER, CITY OF	MOWER COUNTY	N/A	N/A	Not mapped	N/A	No
None issued	ELKTON, CITY OF	MOWER COUNTY	N/A	N/A	Not mapped	N/A	No
None issued	RACINE, CITY OF	MOWER COUNTY	N/A	N/A	Not mapped	N/A	No
None issued	SARGEANT, CITY OF	MOWER COUNTY	N/A	N/A	Not mapped	N/A	No
None issued	TAPOI, CITY OF	MOWER COUNTY	N/A	N/A	Not mapped	N/A	No

The flat, basin quality of the land has resulted in mitigation projects consisting of acquisition and relocation of homes of flood prone areas. While there is argument to the effectiveness of this strategy it has been an effective tool for Mower County and its communities.

An in-depth study bears out the cost effectiveness of the buyout program in terms of moneys saved by avoiding damages in future flooding. The report concludes that the "losses avoided" analysis has demonstrated the economic viability of the various acquisition projects in Austin, Minnesota, since 1978. The savings of completed projects are documented in the following Avoidance Report conducted

after the 2000 flooding (FEMA). While it is an impossibility to control the river in the countryside, it is possible to mitigate areas in population centers to control, if not stop future damages from occurring. Mitigation Cost Savings

In Austin, Minnesota, losses avoided analysis has demonstrated the economic viability of the 163 property acquisitions. During the first phase, in a time span of about 20 years, the investment of \$1.7 million (normalized to \$4.8 million to the year 2001) from HUD has saved more than \$3.9 million in losses avoided. This savings in disaster costs represents greater than 80% return on mitigation investment. Later, in the aftermath of 1993 floods, an investment of \$5.5 million (normalized to \$7 million to the year 2001), with the hazard mitigation grant program has saved \$2.6 million; a return on investment of more than 36%.

After the 2004 flooding the City of Austin applied for a Pre-Disaster Mitigation Competitive (PDM-C) grant updating mitigation projects in Mower County. The project was approved and the City of Austin was awarded the under PDM-C grant which resulted in 15-flood prone homes acquired and removed in the Wildwood Park area which experienced repeated flooding since 1978. The mitigation project was completed before the 2008 flooding which resulted in substantial saving to the community and verified the importance of mitigation (see following FEMA article).



Austin Pre-Disaster Mitigation Saves Homes

Austin, MN - When the City of Austin, located in southern Minnesota, implemented their most recent mitigation project, no one expected to reap the benefits so soon. In 2007, the city acquired and removed 15 flood-prone homes in the Wildwood Park area, which had flooded six times between 1978 and 2004. The acquisitions couldn't have come sooner. In June of 2008, the Wildwood Park area was flooded again and every acquired, but now vacant, parcel was once again flooded.

The city and its 23,000 residents are no strangers to flood damage. Since 1978 the City of Austin has acquired 240 homes and businesses in order to remove them from the threat of flooding. These acquisitions have saved the city and State and Federal governments millions of dollars in losses avoided as a result of the mitigation efforts.

The City of Austin may be best known as the home of the Spam, the canned meat product. But beyond Spam, the city is proactive and progressive in reducing its flood threat. After experiencing a devastating flood in 1978, local officials began to realize the importance of mitigation in a city prone to floods. With Cedar River, Turtle Creek, and Dobbins Creek converging in the center of the city, hundreds of homes had been flooded in the 1978, 1983, 1993, 2000, and 2004 floods. This degree of damage was unbearable to the residents and frustrating to city leaders trying to protect homes and infrastructure.

In September of 2006, the City received a Pre-Disaster Mitigation Competitive (PDM-C) grant to purchase 15 homes in Wildwood Park along the Cedar River. During 2007, the City of Austin implemented their PDM-C grant and purchased 15 homes in the Wildwood Park neighborhood, which would have been flooded in their basements and to their first floor in 2008 if they had not been acquired.

The PDM-C grant was true mitigation at work: acquiring a flood-prone home before it was flooded again. In 2004, the Wildwood Park area had over \$575,000 in flood damages. Add that value to the five previous floods and the area has incurred over \$2.6 million in damages since 1978. The city worked with the Minnesota Homeland Security and Emergency Management as well as with the Federal Emergency Management Agency (FEMA) to provide PDM-C funding for the \$2.2 million dollar project. The city had already developed a Comprehensive Linear Park System to manage the acquired flood-prone properties so the open space can be enjoyed by all its citizens. The Wildwood Park acquisitions will now make it possible for the city to connect bike trails in parks across the city.

In addition to protecting the 15 homes, the PDM-C project enabled the city to remove the sanitary sewer service to that area, which alleviated sewer backup problems to an additional 38 homes located near the acquisition area but away from the threat of riverine flooding. These 38 homes are no longer prone to sewer backup resulting from the Wildwood Park overland flooding since all sewer connections were removed and the floodwaters are unable to enter the sanitary sewer system.



Mower County, Minnesota



Quick Facts

Sector:
Public
Cost:
Amount Not Available
Primary Activity/Project:
Acquisition/Buyouts
Primary Funding:
Pre-Disaster Mitigation (PDM)

Mower County its Cities and townships have found the most effective way to control repetitive loss from flooding is by property acquisition. The City of Austin has acquired 250 homes as part of the Flood Mitigation Program. Mower County in conjunction with the City of Austin have had studies conducted in 1969-Corp of Engineers Study, 1979-Corps of Engineers Study, 2001-FEMA Property Acquisition Study, 2002-Corps of Engineers Study, 2002-Mower County/City of Austin Hazard Mitigation Plan, 2004-FEMA Post Event Mitigation Study and 2005-City of Austin North Main Street Study.

Most current information on unmitigated/mitigated properties located in Mower County.

Mower County (099) Non-Mitigated Properties							
Community Name	Community Number	Building Payments	Content Payments	Total Payment	Average Payment	Losses	Properties
Adams, City of	270308	6,030.90	411.80	6,442.70	3,221.35	2	1
Austin, City of	275228	2,119,620.82	277,249.84	2,396,870.66	25,230.22	95	33
Mower County	270307	417,802.83	121,251.80	539,054.63	22,460.61	24	6
Mower County (099) Mitigated Properties							
Community Name	Community Number	Building Payments	Content Payments	Total Payment	Average Payment	Losses	Properties
Austin, City of	275228	2,299,771.77	631,586.49	2,931,358.26	12,265.10	239	91
Mower County	270307	143,530.65	66,936.28	210,466.93	30,066.70	7	3

Berms are used to control erosion and sedimentation by reducing the rate of surface runoff. The berms either reduce the velocity of the water, or direct water to areas that are not susceptible to erosion, thereby reducing the adverse effects of running water on exposed topsoil. The County and City Engineer had a series of meetings with FEMA and Flood Control Planners to devise a series of berms to protect resources located in Mower County, City of Austin. This strategy combined with acquisition and relocation of vulnerable properties in the public and private sector will continue to demonstrate economic viability to local, state and federal agencies.

GROUNDWATER

The glacial drift and Paleozoic limestone and sandstone are the chief water bearing formations in Mower County. While shallow drift wells produce sufficient water supplies for farms and domestic use, municipal and industrial wells tap the St. Peter sandstone at depths of 400-700 feet. Water can also be found in the Dresbach sandstone formation at considerably greater depths.

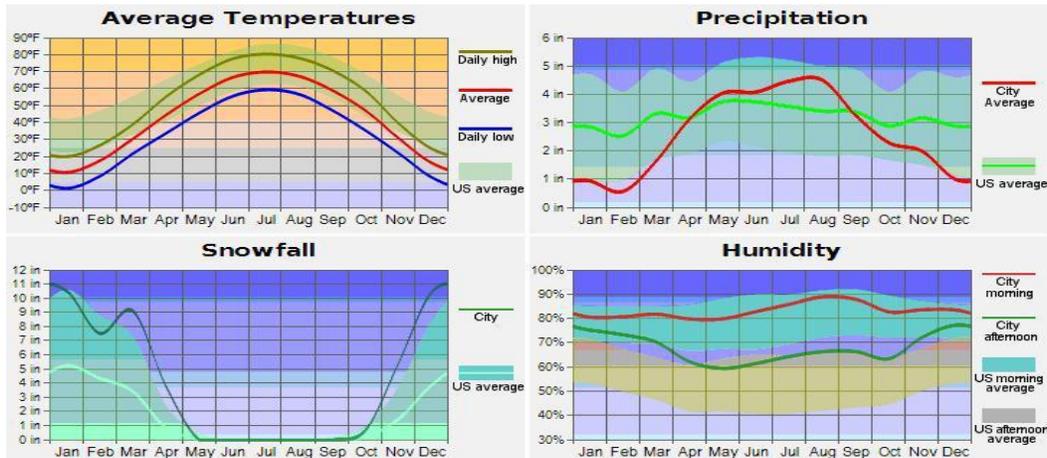
Mower County relies on several aquifer systems for domestic, agricultural and industrial water supplies. The Cedar Valley-Galena aquifer system of the Middle Devonian to Late Middle Ordovician age is referred to as the upper system. The lower system is comprised of the St. Peter (sandstone)-Prairie Du Chien (carbonate) - Jordan (sandstone) group which is the Middle Ordovician to Late Cambrian age. Ground water movement through the sandstone units is basically through intergranular (intergranular fracture that follows the grains of the material). If the material has multiple lattice organizations, when one lattice ends and another begins, the fracture changes direction to follow the new grain flow. Ground water movement through the carbonate units is basically through fracture flow. The fractures range from microscopic openings to large, pipe like cracks. The Cedar Valley and the Galena are separate aquifers with the Maquoketa functioning as an aquitard (bed of low permeability along an aquifer).

CLIMATE / PRECIPITATION

According to the 1989 Soils Survey of Mower County, Minnesota, the average temperature in winter is 15° F and the lowest temperature on record was -34° at Grand Meadow on January 30, 1951. In summer the average daily temperature is 68° F and the highest recorded temperature was 100° F on August 22, 1955 also at Grand Meadow.

Average Climate in Austin, Minnesota

Based on data reported by over 4,000 weather stations



Precipitation averages 31.6 inches per year with 23 inches or 70% falling between April and September. Thunderstorms occur on about 42 days each year and most of those occur during the summer. The average seasonal snowfall is 52 inches.

The sun shines 65% of the time during the summer and 40% of the time in the winter. Average relative humidity is approximately 65% and the prevailing winds are from the south with average wind speed being the highest at 14 mph during the spring.

Local Climatology

Month \ Data is valid for Austin, MN based on normal from a 30-year period (1971-2000).	Normal Maximum Temperature	Normal Minimum Temperature	Average Temperature	Precipitation	Snowfall
JAN	22.1	4.0	13.0	0.89"	11.6"
FEB	28.5	10.9	19.7	0.51"	6.3"
MAR	40.9	24.0	32.5	1.53"	5.5"
APR	57.1	35.6	46.4	3.05"	2.5"
MAY	70.2	47.3	58.7	4.10"	0.0"
JUN	79.2	56.9	68.1	4.06"	0.0"
JUL	82.0	60.6	71.3	4.48"	0.0"
AUG	79.9	58.2	69.0	4.38"	0.0"
SEP	72.6	49.4	61.0	3.34"	0.0"
OCT	59.9	38.1	49.0	2.23"	0.3"
NOV	40.9	24.8	32.8	1.84"	4.7"
DEC	26.5	10.7	18.6	0.99"	10.2"
Year	55.0	35.0	45.0	31.41"	41.1"

Note: Climatologically data is from the Austin Waste Water Treatment plant or KAUS Radio, which starts in 1938. Some data is used from Grand Meadow, MN with data that begins in 1887.

COMMISSIONER DISTRICTS

There are five Commissioner Districts in Mower County. Each of the districts except District 2 contains wards and precincts within the City of Austin. Districts 4 and 5 are comprised entirely of Austin wards and precincts. Five people are elected as Mower County Commissioners, serving staggered four year terms. Commissioners work to provide services to people and communities while overseeing the cost of such services. The Mower County Board meets the first, second, and fourth Tuesday each month in the Board Room located in the Lower Level of the Mower County Courthouse. The first meeting of the month begins at 1:00 PM while the remaining begins with departmental business at 8:30 AM with general business starting around 10:00 AM.

1st District

Commissioner Tim Gabrielson

23264 570th Avenue, Austin, MN 55912

The 1st District includes the following townships: Lansing, Red Rock, Udolpho and Waltham. The following cities are in the first district: Brownsdale, Mapleview, Waltham and the 1st Ward, 1st Precinct of the City of Austin.

2nd District

Commissioner Polly Glynn

PO Box 301, Grand Meadow MN 55936

The 2nd District includes the following townships: Adams, Bennington, Clayton, Dexter, Frankford, Grand Meadow, LeRoy, Lodi, Marshall, Pleasant Valley, Racine and Sargeant. The following cities are in the 2nd District: Adams, Dexter, Elkton, Grand Meadow, LeRoy, Racine, Sargeant and Taopi.

3rd District

Commissioner Jerry Reinartz

2101 6th Ave SW, Austin MN 55912

The 3rd District includes the following townships: Austin, Lyle, Nevada and Windom. The following cities are included in the 3rd District: Lyle, Rose Creek and the 2nd Ward 2nd Precinct of the City of Austin.

4th District

Commissioner Tony Bennett

2000 13th Ave NE, Austin MN 55912

The 4th District includes the entire 3rd Ward of the City of Austin.

5th District

Commissioner Mike Ankeny

102 22nd Street NW, Austin, MN 55912

The 5th District includes the 1st Ward 2nd Precinct and the 2nd Ward 1st Precinct of the City of Austin.

PUBLIC SCHOOLS

Public education is under great stress in rural communities where there is a high incidence of obsolete school facilities combined with small and shrinking enrollments and too few dollars to commit to quality education. These characteristics are evident in Mower County.

The County is served by nine independent school districts with 2008 enrollments ranging from 268 to 4,056. Four of the eight districts providing enrollment information lost students between 1990 and 1990 - paralleling the general decline in population. Much more significant enrollment shrinkage occurred during the late 1970's.

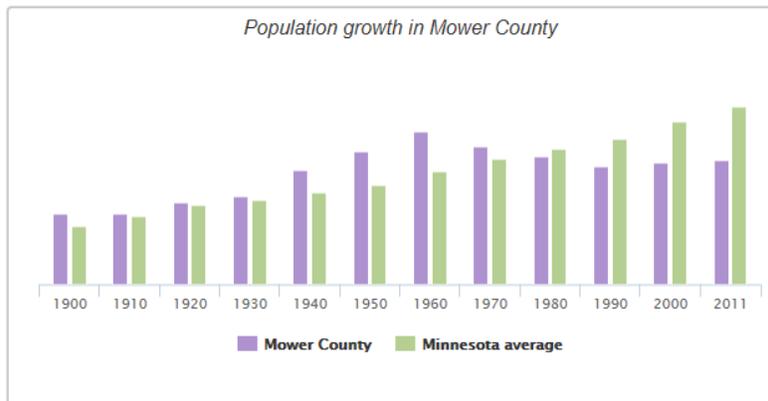
Wherever possible, school districts in rural areas should be expected to service an area within a radius of 15 miles or 40 to 50 minutes travel time from a high school and have a minimum K-12 student enrollment of 1,500 to 2,000 students. This translates too many less districts than the nine that currently serve Mower County.

In 2015, there were five school districts located completely in Mower County. Austin School District, LeRoy/Ostrander School District, Lyle School District, Grand Meadow School District and Southland School District. Student enrollments ranged from 240 to 4318.

District Name	Phone	County	Students	Schools
AUSTIN PUBLIC SCHOOL DISTRICT 401 NW Third Avenue, Austin, MN 55912	(507) 433-0966	Mower	4,318	9
CEDAR RIVER EDUCATION DISTRICT 401 3rd Avenue NW, Austin, MN 55912	(507) 433-0966	Mower	N/A	0
GRAND MEADOW PUBLIC SCHOOL DISTRICT Box 68, Grand Meadow, MN 55936	(507) 754-5318	Mower	416	3
LEROY PUBLIC SCHOOL DISTRICT Box 1000, LeRoy, MN 55951	(507) 324-5743	Mower	319	2
LYLE PUBLIC SCHOOL DISTRICT 700 2nd Street, Lyle, MN 55953	(507) 325-4146	Mower	240	2
SOUTHLAND PUBLIC SCHOOL DISTRICT Box 351, Adams, MN 55909	(507) 582-3283	Mower	672	3

DEMOGRAPHICS

POPULATION TRENDS



Mower County's population grew steadily though erratically between 1860 and 1960 from 3,217 to 48,498 people in large part because of the availability of jobs in and related to agriculture. Substantial population growth occurred between 1860 and 1880 attributable to the first major incursion of eastern farmers, the advent of the railroads, and the growth of commerce related to both. The County's population continued to grow, but at a slower rate, between 1880 and 1930, as a result of more diversified farming practices, farm tiling and the growth of Austin as a railroad center. Between 1930 and 1960 growth again accelerated due to the coming of age of the George A. Hormel meat packing company that employed approximately 5,000 workers in Austin in the early 1940's. After 1960, the County's population declined substantially until 1990 for a variety of reasons. Since 1990, there has been resurgence in both employment and population.

The Township populations shrank steadily from 1960 to 1990. Only Frankford Township grew during the 1960's, Racine Township in the 1970's and the Townships of Racine and Clayton in the 1980's. In the 1990's the population of the Townships began to stabilize with population increases in 10 of the 20 Townships. Collectively, the Townships have lost 36% of their population since 1960 and they comprise just 24.8% (30.9% in 1960) of the County's population. In 2007 the townships comprise 23.6%. The Cities also declined in population between 1960 and 1990 but to a lesser degree (18.4%) than the Townships. The Cities began to stabilize in the 1990's with an increase of almost 1,650 persons, or 6.0%. Austin was the biggest loser in the 1990's accounting for virtually all of the Cities collective losses. In the 1990's only four of fourteen municipalities lost population. Cities now comprise 75.2% (69.1% in 1960) of the County's population. Every unit of government in the County had an appreciably smaller household size in 2000 than in 1960

AGE TRENDS AND DISTRIBUTION

The County's population has aged consistent with national trends. It had a median age of 27.9 years in 1950 and has aged by over eleven years since then. The age distribution has also changed rather significantly since 1970 when 29.6% of the County's population was between five and 17 years of age. In 1990 and 2000, only 19.0% of the population fell in that age group.

The 25 to 44 age group decreased from 26.6% to 25.7% attributable to the aging of the baby boom generation. What was not expected was the decrease in the 65 and over age group.

Generally speaking, Cities have a much higher percentage of their population in the over 65 age group (20.1%) than the Townships (13.2%) while the Townships have a somewhat higher percentage of their population in the 45 to 54 age group (14.0%) than the Cities (11.2%).

POPULATION

From 2005-2014, Mower County had a total population of 39,323, 50% are females and 50% are males. The median age was 39.5 years. Twenty-five percent of the population was under 18 years and 17% was 65 years and older.

Population, 2014	39,323	5,457,173
Population, percent change, April 1, 200 to July 1, 2008	.4%	2.9%
Population base 2010	39,163	5,303,925
Persons under 5 years old, 2010	6.9%	6.4%
Persons under 18 years old, 2008	25%	23.5%

(Census.gov)

MOWER COUNTY MEADIAN AGE	
1950	27.9
1960	27.4
1970	29.3
1980	33.9
1990	37.4
2000	38.9
2007	39.5
2010	39.0
2014	39.5
Source: 1950-2014 – U.S. Census Bureau	

HOUSING MIX AND TENURE TRENDS

According to 2014 Census data, housing in Mower County (excluding Austin) is predominantly single-family with 93.6% of the stock consisting of single-family and mobile homes. Only 250 or 4.2% are classified as multi-family units with virtually all of these being located in cities.

Housing is predominantly owner-occupied with 84.5% of occupied units outside of Austin being so classified in 1990. More than 70% of the renter occupied housing stock outside of Austin consists of single-family homes.

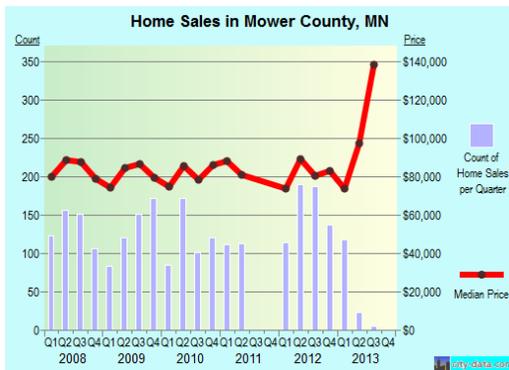
HOUSING CHARACTERISTICS

In 2014 Mower County had a total of 17,990 housing units. Of the total housing units, 82 percent was in single-unit structures, 15 percent was in multi-unit structures, and 3 percent was mobile homes.

Thirteen percent of the housing units were built since 1990. Median value of an owner occupied home in 2014 was \$106,000.

HOUSING VALUES

In 2012 home sales for the county increased. Of the 350 sold, the median price was \$100,000. The median price increased from \$75,000 to 100,000 in 3 years.



EMPLOYMENT TRENDS

Mower County’s total employment grew rapidly until 1950 in large part paralleling the growth of the George A. Hormel Company, which comprised a substantial proportion of the total labor force in 1943 (perhaps as much as 40%). As the Company expanded geographically, beginning in the 1940’s, slowing employment growth in Austin, total County employment leveled off at around 16,600 jobs where it has remained through 1990. Hormel comprised just 14% of the work force in 1980 and 11% in 1990. On the other hand, Quality Pork (QPP) began to operate in a portion of the Hormel plant in 1989 and has grown to approximately 700 employees since.

Manufacturing employment continued to grow but very slowly between 1960 and 1970 while agricultural employment declined significantly. Between 1970 and 1980, manufacturing employment declined while agriculture remained stable. From 1980 to 1990, both manufacturing and agricultural employment decreased in number and percent of total employment. The primary areas of employment growth from 1960 to 1990 were services, wholesale and retail sales. It is substantially because of the erosion in basic industrial employment that the population of Mower County decreased from 1960 to 2000.

INCOME

Like most of greater Minnesota, household income for Mower County lagged behind that of the State in 1989. The median income for a household in the county in 2008 was \$36,654, and the median income for a family was \$45,154. Males had a median income of \$31,743 versus \$23,317 for females. The per capita income for the county was \$19,795. About 6.30% of families and 9.20% of the population were below the poverty line, including 11.30% of those under age 18 and 5.60% of that age 65 or over. Seventy-three percent of the households received earnings and 20% received retirement income other than Social Security. Thirty-six percent of the households received Social Security. The average income from Social Security was \$14,267. These income sources are not mutually exclusive; that is, some households received income from more than one source.

Average household size: 2014

Mower County 2.44 people

Minnesota 2.47 people

Estimated median household income in 2014 (\$43,009 2010)

Mower County \$43,004

Minnesota \$59,836

AGRICULTURE

Since the early settlement days, agriculture has been a predominant land use in Mower County. Although the county has seen some rural development along with urban expansion, agriculture is still the predominant land use. In 1987, 404,238 acres, or about 90% of its total land area, was in a farm. While it represented only 7.8% of all jobs in 1990, agriculture is the heart of the past, present and future economy.

Generally speaking, the average number of farms in Minnesota has been declining while the average size of farms has been increasing. In 1981, there were approximately 104,000 farms with an average size of 292 acres. In 1997, there were 73,367 farms averaging 354 acres in size. From 1987 to 1997, the amount of agricultural land in Minnesota diminished by 579,198 acres, a 2.2% loss. The county has witnessed an overall decline in the number of livestock farms from 1987 to 1997. Although there was a 42% decrease in the number of hog and pig operations, the number of livestock increased 22%, indicating a significant trend toward larger and fewer operators in this livestock industry; Mower County ranked 14th in the state for overall hog and pig production.

Agriculture in Mower County in 2010

- Average size of farms: 379 acres
- Average value of agricultural products sold per farm: \$164,229
- Average value of crops sold per acre for harvested cropland: \$284.07
- The value of livestock, poultry, and their products as a percentage of the total market value of agricultural products sold: 40.97%
- Average total farm production expenses per farm: \$137,437
- Harvested cropland as a percentage of land in farms: 90.08%
- Irrigated harvested cropland as a percentage of land in farms: 0.25%
- Average market value of all machinery and equipment per farm: \$115,300
- Minnesota is ranked highly among the states in several areas of production:
 - First in sugar beets, turkeys, and green peas for processing
 - Second in canola, spring wheat, oats and sweet corn for processing
 - Third in soybeans, hogs and pigs, and American cheese, dry edible beans, and flaxseed
 - Fourth in corn and sunflowers
 - Fifth in total cheese and mink pelts

Source: U.S. Department of Agriculture; Minnesota 2010 Agricultural Statistics

WIND FARMS

Minnesota is among the nation's leaders in wind energy production, ranking fourth behind Texas, California, and Iowa. Since the construction of its' first wind farm in Crookston in 1987, Minnesota has been the Midwest's pioneer for wind energy development. In the past 20 years, over 80 wind farms have sprouted up across Minnesota with a total wind energy capacity of over 1300 MW. Mower County currently has about 380 wind turbines. The County is directly responsible for the regulation of private on-site utilities in all unincorporated areas of the County and it intends to exercise its regulatory authority in a manner that will limit development in areas that are generally unsuitable for on-site utilities in an effort to protect the public's welfare.

INFRASTRUCTURE

HIGHWAYS, ROADS AND BRIDGES

Where railroads once interconnected all of the County's Cities and Villages, they have been almost replaced by highways. Those cities that are fortunate enough to be located on a State highway have generally fared better economically than those that are located on lesser roadways.

Mower County has a number of major highways including Interstate #90, Interstate #35, U.S. Trunk Highways 218 and 63, and State Trunk Highways 105, 56, 251 and 16. None of them are operating at anything near capacity. All of the remainder of the County system (404.7 miles) is comprised of County Roads and County State Aid Highways (CSAH), which are also operating well within capacity. Most are paved (87%) two lane roadways having a surface width of 22 to 24 feet. Some of these carry between 500 and 1,000 cars per day but most carry much less traffic. The only other categories of roads are those that are termed "local". These gravel Township roads primarily follow section lines, providing direct access to farmsteads.

Generally speaking, the county roadway system is not in need of expansion. It is however, in need of substantial rehabilitation and reconstruction at a cost that greatly exceeds the County's available resources. With the implementation of a wheelage tax, Mower County will have extra funding to complete road projects. This tax went into effect about 3 years ago and projects are already underway.

According to a recent needs study conducted by the Minnesota Department of Transportation State Aid Department, upgrading of the present County State Aid Highway System to nine-ton capacity would cost \$66 million (1986 dollars not adjusted for inflation), excluding local County roads. Furthermore, all bridges are owned by the County, and 77 are classified as deficient. The estimated cost to replace deficient bridges is another \$20 million.

Major highways



Interstate 90



U.S. Highway 63



Minnesota State Highway 56



U.S. Highway 218



Minnesota State Highway 10



Minnesota State Highway 16

Mower County consistently ranks amongst the worst counties for troubled bridges. Yet, the county is the most proactive in the state at tackling the issues. 77 of the 327 bridges are listed with deficiencies. Mower County is not alone Fillmore County is in the same situation with deficient bridges. Mower County has decreased the number of deficient bridges, 77 to 50 over the last 4 years.

National Bridge Inventory (NBI) Statistics Number of bridges: 352

New/Replaced BRIDGES

1930-1939: 11	1970-1979: 3	2010-2014: 39
1940-1949: 0	1980-1989: 1	
1950-1959: 23	1990-1999: 3	
1960-1969: 8	2000-2009: 2	

AVIATION

The Austin Municipal Airport is classified as a General Utility Airport serving a variety of business and personal aircraft. The Austin Airport has gone through a major expansion and upgrade of the airport facilities. More information will be supplied by the City of Austin. Austin's airport currently accommodates corporate jets with a 6,500 foot runway.

Though a tremendous asset, there are issues related to the Airport, most notable noise and safety. Some land uses are not compatible with take-off and landing zones. Obstructions to airspace are also of concern. In January of 1978, an Airport Zoning Ordinance was adopted by the Austin-Mower County Joint Airport Zoning Board, which regulates obstructions to airspace and land use safety. It defines airspace zones for the purpose of airspace protection and land use safety zones within which land use is carefully regulated. Permitted uses include agriculture, non-spectator recreation, wildlife habitat, cemeteries and automobile parking. Austin Municipal Airport is located in the state of Minnesota (county of Mower), at latitude N 43.66469, longitude W -92.93352 (also known as lat-long or GPS coordinates).

Austin Municipal Airport Geographical Survey map USGS Austin East quad.



Single Engine Aircrafts: 20

Other services: INSTR,RNTL,SALES Remarks

Lighting Schedule: HIRL RY 17/35 PRESET LOW INTST; TO INCR INTST & ACTVT REIL RY 17, MALSR RY 35 & PAPI RYS 17 & 35 - CTAF. Runway 1 General ID: '17/35,

Length: 5800 ft, Width: 100 ft,

Runway Surface Type Condition: Portland cement concrete, Good condition,

Runway Weight Bearing Capacity: Single Wheel: 14,000 lbs, Dual Wheel: 19,000 lbs,

Edge Lights Intensity: High Base End

Base End ID: '17, True Alignment: 172,

Right Traffic Pattern: No,

Runway Markings Type: Precision instrument,

Markings Condition: Poor,

Physical GPS (Degrees): Lat: 43° 40' 13.850", Lng: -92° 56' 03.945",

Physical GPS (Seconds): Lat: 43.670514, Lng: -92.934429,

Physical Elevation: 1231 ft,

Threshold Crossing Height: 41.0 ft,

Glide Path Angle: 0.03 °,

Elevation At Touchdown Zone: 1231.0 ft,

Visual Glide Slope Indicators: P4L,

Runway End Identifier Lights (REIL): Yes,

Controlling Object Description: TREES, FAA

RAIL

The Chicago, Milwaukee and St. Paul, the Chicago Great Western, the Illinois Central, the Winona and Southwestern and the Southern Minnesota Railroads were their original names. Today, the cities remain but their progenitor is all but gone. Just Austin and Lyle are currently served by the Canadian Pacific Railroad. Currently the rail in Mower County is under construction to increase the track speed.

First the automobile and then the truck began to compete with rail for passengers and product. Highways were subsidized by the Federal government during most of the 20th century much as rail had been favored during the late 19th century. Since the 1930's, pipelines, aviation and telecommunications have also taken their toll on rail service. The auto and truck will continue to be the predominant mode of transit in the foreseeable future, especially in rural areas of Mower County.

PUBLIC TRANSIT

The Southern Minnesota Area Rural Transit (SMART) provides transportation to Austin and Surrounding area residents. Rides are available between 6:00 A.M. and 6:00 P.M. on weekdays, and Saturdays from 9:00 to 5:00. This service provides reliable and accessible transportation to Mower County, Freeborn County and Steele County.

Dial-A-Ride is a service from SMART. It is designed to serve riders with special needs by providing home pickup service which drops them off directly at their destination in Mower County. Dial-A-Ride can take you directly from your home instead of a bus stop.

The Mower County Senior Center also provides transportation to residents by means of its Volunteer Driver program. This service is most often utilized by frail elderly, rural residents, and persons needing to go to medical appointments in Rochester. Approximately twenty-five volunteers provide this service in exchange for mileage reimbursement.

PUBLIC LIBRARIES

- Austin (Central)
- Brownsdale Public Library
- Grand Meadow Public Library
- LeRoy Public Library



The Austin Public Library is located in Austin. It includes 11,300 square feet and over 87,000 titles, 4,633 audio materials; 3,266 video materials; and 319 serial subscriptions. It has branch libraries in the Cities of Grand Meadow, LeRoy and Brownsdale. The Austin/Mower County Bookmobile operates from the Austin Public Library and services the entire County. Lyle also has a small library (3,500 volumes) that is unrelated to the Austin system.

The library's computers provide patrons with Internet access and Microsoft Office 2003 programs (Word, Excel, Access, and PowerPoint). There are 11 computer stations available in the computer lab. Three Express work stations and one Adaptive station are located near the Information Desk. There are six computers in the Children's Department for children under 12 to use.

Interlibrary Loans Materials not owned by the library may often be borrowed from another SELCO regional library. Patrons' library cards in good standing are honored by SELCO libraries and by most Minnesota public libraries.

PARKS, RECREATION AND TRAILS

The County currently has no parks; it relies for the most part on its Cities to provide these services. However the County and Prairie Visions and MN DNR are working on a multipurpose recreational trail system. This trail is the "Shooting Star Trail and has been completed from LeRoy to Rose Creek The City of Austin is working with Albert Lea on the Blazing Star Trail between the two Cities. Both trails when completed will join in the city of Austin.

Both ends of the Shooting Star Trail have been extended in 2008 and continue in 2014.. At the eastern end, the trail was extended into the city of LeRoy and the Trail Head parking lot-shelter including a restored railroad bridge across the Upper Iowa River. All parts of the shorter rides are entirely on the trail, no travel on city streets or the county highway to start riding. At the western end, the trail has been extended about 5 more miles west from the parking lot and restroom at Taopi along the old Milwaukee Road rail bed through Adams to the city park on the western edge of the city and across the road from the area swimming pool. There is also camping in the city park. Further westward extension of the trail toward Rose Creek is in the engineering phase and hopes are up to see another 7 miles added soon. The final link of about 10 miles to link with the City of Austin system of trails and the Hormel Nature Center is still being developed.

The County and the snowmobile association maintain an extensive countywide snowmobile trail system consisting of approximately 200 miles of State approved groomed trails.

UTILITIES

The County plays no role in the provision of public utility services (sewer and water) to residents. All of the municipalities within Mower County have public water systems with the exception of Taopi where private wells are shared. All but Taopi also provide a public sanitary sewer service. Because urban densities require public utilities, the County is concerned only that the Cities provide such services in the most efficient and cost effective manner consistent with the needs to protect the public's health and welfare, the environment, commercial agriculture and the rural lifestyle.

The County is directly responsible for the regulation of private on-site utilities in all unincorporated areas of the County and it intends to exercise its regulatory authority in a manner that will limit development in areas that are generally unsuitable for on-site utilities in an effort to protect the public's welfare.

EMERGENCY RESPONSE

LAW ENFORCEMENT

The Mower County Sheriff's Department was established in the 1850's and has grown from a one-man department to a one of 38 full-time employees including deputies and civilian personnel. The County also shares 13 dispatchers and one dispatch supervisor with the City of Austin. The Sheriff is elected. The Austin Police Department (APD) is currently comprised of 30 sworn personnel, 3 Community Service Officers, Police Reserves, and the Police Explorers. Staffing as of January 2014 consists of: 1 Chief, 1 Captain, 3 Lieutenants, 2 Sargeant/Investigators, 3 Detectives, 18 Patrol Officers, and 2 School Liaison Officers Totaling 30. The department operates with three shifts of 10 hours each, covering 24 hours a day/ 7 days a week. With the increased number of arrest both the City of Austin and Mower County are looking to expand their staff.

The County Sheriff's Department shares the Law Enforcement Center with the City of Austin Police Department. The completion of the 40 million dollar jail/justice center was completed in 2010. It is located downtown directly across from the current courthouse. In addition to Austin, most of the small Cities also provide police service.

Mower County Safe Communities Coalition (MCSCC) exists to keep Mower County residents safe on the road. Current membership includes representatives from Law Enforcement, non-profit agencies, child care, public health (CPS Advocate/Technician), the medical community, parents, youth, business, the City of Austin, area schools, corrections, the county attorney's office and members of the faith community.

Throughout the past five years of existence, the coalition has utilized multiple strategies in its campaign to increase seat belt use, reduce drunk driving and reduce the number of traffic crashes in Mower County. Strategies for the current grant year include media campaigns, information dissemination, youth-focused activities and community events.

FIRE AND RESCUE SERVICES

Fire protection is provided by the Mower County Cities of Adams, Austin, Brownsdale, Dexter, Grand Meadow, LeRoy, Lyle, Mapleview and Rose Creek. It is also serviced by several non-Mower County Cities including Stewartville, Spring Valley, Blooming Prairie, Hayfield and Ostrander. All of these departments service the surrounding Townships via mutual aid agreements. Townships pay for fire service on a per incident flat fee basis. All are volunteer departments except Austin. Austin currently has 10 full-time firefighters and numerous volunteer firefighters.

Adam Volunteer Fire Department
303 W Main St
Adams, MN 55909-0357

Austin Fire Department
122 NE 1st Ave
Austin, MN 55912

Brownsdale Volunteer Fire Department
402 S Mill St
Brownsdale, MN 55918

Dexter Volunteer Fire Department
Po Box 148
Dexter, MN 55926

Grand Meadow Fire & Rescue
200 Second St Se
Grand Meadow, MN 55936

LeRoy Fire Department
121 E Main St
LeRoy, MN 55951-0296

Lyle Fire Department
111 Grove St
Lyle, MN 55953

Mapleview Fire Department
101 Maple Ave
Mapleview, MN 55912

Rose Creek Volunteer Fire Department
105 Maple St Se
Rose Creek, MN 55970

The County is served by six emergency rescue services, including Austin, Adams, Blooming Prairie, Gold Cross, Hayfield, Grand Meadow and LeRoy. All except Gold Cross are volunteer services. All are having difficulties with cost containment and several are in need of costly new equipment. The need most often identified is countywide paging of volunteers.

Existing fire protection is considered to be acceptable for rural areas. Stations must be located where volunteers are most readily available, which is in the Cities, and distances to remote incidents are necessarily lengthy. Except for Austin, fire insurance ratings are generally in the seven to nine ranges, attributable in part to the absence of public water service beyond City limits.

Virtually every department serving Mower County perceives the need for improved facilities, but all have limited resources with which to undertake such improvements. Fire and rescue services are, by nature, exercises in cooperation in rural areas but even more needs to be done to increase efficiency and improve training. The County may appropriately play the role of facilitator in streamlining fire and rescue services to insure a cost effective level of protection for all of its residents.

Medical Facilities

Mower County is serviced by Austin Medical Center, a division of Mayo Health Systems. A central hospital is located in the City of Austin, with regional clinics located the towns of Adams, LeRoy, and Grand Meadow.

COMMUNICATIONS

In the past 4 years Mower County Communications has changed tremendously. With the remodel of the 24 hour dispatch center it increased from two to three terminals and updated all the equipment. Mower County now runs on Statewide Interoperable Public Safety Radio and Communication System named Allied Radio Matrix for Emergency Response (ARMER) and 800mhz. Along with the upgrades, all law enforcement received new radios and training. The dispatchers also received additional training on the new systems and also using the portable 800mhz. The State of Minnesota also enhanced radio tower communication by additional radio towers and increasing the capacity of the existing towers. Mower County maintains a catch of fifteen (15) portable 800 MHz radios for training as well as utilization during emergencies which require interoperable communication when initiating Mutual Aid Agreements.

The Austin/Mower County 24 hour dispatch center also increased the generated power during emergencies. During the remodel this was discussed in length to make sure the communication center operates seamless during power outages.

Mower County relies heavily on media communication during an emergency situation. Our local television and radio stations take pride in serving the community during emergent situations. With social media expanding daily Mower County does not have any plans to upgrade citizen communication.

Strongest AM radio stations in Austin:

KNFX (970 AM; 5 kW; AUSTIN, MN; Owner: CLEAR CHANNEL BROADCASTING LICENSES, INC.)

KAUS (1480 AM; 1 kW; AUSTIN, MN; Owner: THREE EAGLES OF LUVERNE, INC.)

KOLM (1520 AM; 10 kW; ROCHESTER, MN; Owner: OLMSTED COUNTY BROADCASTING COMPANY)

KGLO (1300 AM; 5 kW; MASON CITY, IA; Owner: CLEAR CHANNEL BROADCASTING LICENSES, INC.)

Strongest FM radio stations in Austin:

K277AD (103.3 FM; AUSTIN, MN; Owner: MINNESOTA PUBLIC RADIO)
K280EF (103.9 FM; AUSTIN, MN; Owner: MINNESOTA PUBLIC RADIO)
KAUS-FM (99.9 FM; AUSTIN, MN; Owner: THREE EAGLES OF LUVERNE, INC.)
KROC-FM (106.9 FM; ROCHESTER, MN; Owner: SOUTHERN MINNESOTA BROADCASTING CO.)
KYBA (105.3 FM; STEWARTVILLE, MN; Owner: SOUTHERN MINNESOTA BROADCASTING CO)
KQPR (96.1 FM; ALBERT LEA, MN; Owner: HOMETOWN BROADCASTING, INC.)
KVGO (104.3 FM; SPRING VALLEY, MN; Owner: KVGO, INC.)
KCPI (94.9 FM; ALBERT LEA, MN; Owner: THREE EAGLES OF LUVERNE, INC.)
KBDC (88.5 FM; MASON CITY, IA; Owner: AMERICAN FAMILY ASSOCIATION)
KSMA-FM (98.7 FM; OSAGE, IA; Owner: CLEAR CHANNEL BROADCASTING LICENSES, INC.)
KJCY (95.5 FM; ST. ANSGAR, IA; Owner: MINN-IOWA CHRISTIAN BROADCASTING, INC.)
KYTC (102.7 FM; NORTHWOOD, IA; Owner: THREE EAGLES OF MASON CITY, INC.)

TV broadcast stations around Austin:

KAAL (Channel 6; AUSTIN, MN; Owner: KAAL-TV, LLC)
KYIN (Channel 24; MASON CITY, IA; Owner: IOWA PUBLIC BROADCASTING BOARD)
KIMT (Channel 3; MASON CITY, IA; Owner: MEDIA GENERAL BROADCASTING OF SO. CAROLINA HOLDINGS, INC.)
KTTC (Channel 10; ROCHESTER, MN; Owner: KTTC TELEVISION, INC.)

Newspapers:

Adams Monitor Review, LeRoy Independent, Austin Daily Herald, Rochester Post Bulletin, Mower
County Shopper

III. Presidential Disaster Declarations

Mower County has been included in seven Presidential Disaster Declarations since 1993. The worst of these in terms of federal disaster funds expended was the rain and flooding disaster of 1993. According to records from the Region V FEMA office, and the Minnesota Division of Homeland Security and Emergency Management, after that disaster, over \$45 million of federal disaster funds were expended. The 1993 rain / flooding disaster was also one of the most damaging in the state's history, affecting 56 of the state's 88 counties – mostly those of the Red River, Minnesota River, and lower Mississippi River watersheds.

There were five other severe storm and flooding disasters in recent history that included Mower County:

- The 2000 disaster covered 17 counties and cost over \$18 million.
- The 2001 disaster covered 66 counties with a federal funds cost of over \$40 million.
- In addition, a huge rainfall event on September 14 and 15, 2004 created flooding conditions in several southern Minnesota Counties. During this event, the City of Austin and several townships experienced some of the most severe flooding ever recorded. Mower County was one of the hardest hit. This event resulted in another presidential disaster declaration for Mower County covering damage to private and public property.
- Federal disaster aid, DR-1772, once again was made available for Mower County to supplement state and local recovery efforts in the areas struck by severe storms and flooding beginning on June 7- 12, 2008. Total damages to Public Infrastructure were in excess of \$1,170,000 for Mower County.
- Mower County was also included in the DR-1941-MN from severe rain storms. Total damages were \$250,000 or \$12.59 per capita.

The Presidential Disaster Declaration allows Federal funding was made available to state and local governments and certain private nonprofit organizations on a cost-sharing basis for emergency work and the repair or replacement of facilities damaged by the severe storms and flooding in affected counties.

IV. All Hazards

Mower County officials conducted an extensive screening process to determine which natural, technological and human caused hazards had the most impact on Mower County communities. The following descriptions include all of the county's 'high' and 'medium' priority hazards. The planning committee also used the all hazards approach to identify mitigation goals for the county and all of its municipalities. The purpose hazard mitigation plan is to identify hazard areas, to assess the risks, to analyze the potential for mitigation and to recommend mitigation strategies where appropriate. Potential mitigation projects will be reviewed using criteria that stress the intrinsic value of the increased safety for people and property in relation to the monetary costs to achieve this (i.e., a cost-benefit analysis). With that in mind, the planning goals for this entire plan, as determined by the mitigation planning committee were:

- **Objective 1:** To preserve life and minimize the potential for injuries or death.
- **Objective 2:** To preserve and enhance the quality of life throughout Mower County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage.
- **Objective 3:** To promote countywide planning that avoids transferring the risk from one community to an adjacent community, where appropriate.
- **Objective 4:** To identify potential funding sources for mitigation projects and form the basis for FEMA project grant applications

Vulnerability:

This Hazards Section of the Mower County Plan includes a description of the jurisdiction's vulnerability (to each hazard) within an overall summary of each hazard. For clarification, each hazard listed in Part Two, Section 1 of the Crosswalk that has been reviewed and amended has been highlighted below. We have found, with the exception of flooding and manmade hazards, all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

NATURAL HAZARDS

Overview Mower County is in the Upper Mississippi River Valley of the Midwest with rolling hills and relatively flat farm land. The City of Austin is an urban area on the far western end of the county.

Winter months can bring occasional heavy snows, intermittent freezing precipitation or ice, and prolonged periods of cloudiness. While true blizzards are rare, winter storms impact the area on average about 4 times per season. Occasional arctic outbreaks bring extreme cold and dangerous wind chills.

Thunderstorms occur on average 30 to 50 times a year, mainly in the spring and summer months. The strongest storms can produce associated severe weather like tornadoes, large hail, or damaging wind. Both river flooding and flash flooding can occur, along with urban-related flood problems. Heat and high humidity is occasionally observed in June, July, or August. The autumn season usually has the quietest weather. Dense fog occurs several times during mainly the fall or winter months. High wind events can also occur from time to time, usually in the spring or fall.

Since 1998; Mower County has been included in a FEMA Federal Disaster 6 times:

1998 – Severe storms	2004 – Severe storms / flooding
2000 – Severe storms / flooding	2008 – Severe storms
2001 – Flooding	2010-- Severe storms

Flooding

Flooding is defined as a general condition of partial or complete inundation of normally dry land (i.e., the floodplains) caused by the overflow of inland waters or the unusual and rapid accumulation or runoff of surface waters from any source. Floods are common in the United States, including Wisconsin, and are considered natural events that are hazardous only when adversely affecting people and property.

Identifying Structures:

Hazards that have a probability of involving Austin/Mower County would be flooding of the City of Austin due to the Dobbins Creek, Turtle Creek and the Cedar River Watershed which join in the City of Austin.

We have found flooding puts all public and private structures in the County at risk at one time or another due to the geographical makeup of the county and the watersheds encompassing the area. While major flooding most frequently occurs in Austin, Adams, Grand Meadow, Lansing, Leroy and Lyle are susceptible.

Estimating Potential Losses:

The 100-year floodplain identifies areas that have a 1% chance of occurring annually. These areas may be flooded more than once every hundred years. These Special Flood Hazard Areas are mapped by FEMA and the Minnesota Department of Natural Resources through the National Flood Insurance Program (NFIP). The resulting maps are used to determine what areas need flood insurance.

Flooding along the Cedar River and other streams has been a concern of Mower County. Flooding received the highest designation as a priority during the All Hazards Survey conducted during the creation of the AHMP and the update conducted for the 5-year update of 2015. Mower County and its cities and townships have debated the flooding issues from the waterways entering the County in the City since 1978. The acquisition strategy that was started in 1978 and continues to this day has proven we are heading in the right direction. While the upfront cost is an issue, the millions of loss avoided as shown by example in 2004 and 2008 flooding have proven a positive return on investment.

In order to address this issue, the county participates in the National Flood Insurance Program. The county also participates in the Federal Community Rating System which provides a ten percent yearly reduction on flood insurance premiums to policy holders in Mower County. The total in property damage from 1993, 1998, 2000 and 2001 was \$2.436 million, and the crop damage total was \$829,000.

The Community Rating System (CRS) was developed to reward communities that are doing more than meeting the minimum National Flood Insurance Program requirements to help their citizens prevent flood losses. Community participation is voluntary. The CRS schedule identified 18 creditable activities, organized under four categories. The City of Austin has received credit for 15 out of 18 activities. This has earned the City of Austin a Class 5 rating and a reduction of 25% in flood insurance premiums for policyholders.

While it is impossible to project when flooding will occur; we have learned from past events that the probability of flooding occurring at least once every 3.41 years. Mower County and its communities prepare for the flooding through the Mower County, Disaster Working Group in place that ties First Responders, Volunteer Organizations, Austin Medical Center, City and County Officials together for planning and programming response to the scene.

Analyzing Development Trends:

Even though the Mower County, its Cities and Townships have experienced seventeen (17) flood events since March 1945, averaging one flood every 3.41 years the damages to private and public property, to include infrastructure has decreased due to improved early warning systems, increased preparedness and on-going flood mitigation projects.

Mower County has approximately 950 miles of streams in the County. These streams range from small creeks draining a few acres, to rivers with large watersheds, including the Cedar, Upper Iowa, Little Cedar Rivers and Turtle Creek. Over the past fifty years Mower County has experienced numerous floods resulting in millions of dollars of property damage and even loss of life. Flooding is a concern that the Mower County Commissioners, City and Township Officials and Mower County Water Planning Committee feels must be addressed on a continuing basis.

The following flood events have occurred in Mower County over the past 65 years:

Date Crest Height (Cedar River)

1945 (March) 16.70'	1993 (April) 17.90'
1950 (March 26) 17.80'	1993 (August 15) 21.25'
1961 (March) 17.10'	1998 (July 6 & 7) 19.50'
1962 (March) 17.20'	2000 (May 18) 17.40'
1965 (March) 18.87'	2000 (June 1) 17.50'
1976 (June 17) 19.10'	2000 (July 10) 23.40'
1978 (July 17) 21.90'	2004 (Sept. 14 & 15) 24.80'
1983 (July 2) 18.20'	2008 (June 12) 24.40'
1988 (Oct.) 18.10	2010 (September 22-24) 20.00'

(This list is a compilation of data from the NOAA Website and the City of Austin and may not be all inclusive)

Mower County will continue to experience flooding. However, flood prevention and remediation measures lessen the amount of property damage and the likelihood of loss of life. All residents of Mower County are impacted by floods due to the demand on emergency services and interruption of essential services. Therefore, the issues involving flooding need to be addressed in all of the county watersheds.

In mid-September 2004, record setting rainfall (near 12" around Blooming Prairie, MN) led to significant and widespread flooding along the Cedar River basin. Although flash flooding was the initial problem, many of the regional rivers and creeks saw dramatic rises. The Austin, MN area saw very high to record crest levels on the Cedar River and creeks leading into it. Sand bagging efforts were used on key facilities both public and private. One (1) casualty occurred when a 20-year old man drowned trying to cross swollen flood waters on foot. (Photos below: Flooding in Austin, MN – September 2004 – Courtesy of SMIG.NET)



In June 2008, rainfall amounts of 6-8 inches fell across the region and led to more flooding. People were rescued from submerged vehicles and sections of Interstate 90 were closed. Area creeks and rivers crested at the 2nd or 3rd highest levels on record. (Photo upper right) Since 2008 Mower County has experienced high flood waters that prompted flood warnings and watches but through mitigation efforts there have been no property damage and flooding, other than designated areas, but have been minor.

Tornadoes

A tornado is a violently rotating funnel-shaped column of air. The lower end of the column may or may not touch the ground. Average winds in the tornado are between 173 and 250 miles per hour but winds can exceed 300 miles per hour. It should also be noted that straight-line winds may reach the same speeds and achieve the same destructive force as a tornado.

Most Recent Tornadoes (www.weather.gov/ark/mower):

- June 17, 2009 (EF2,EF0)
- Aug. 18, 2005 (F0)
- Mar. 30, 2005 (F0)
- June 16, 2004 (F0)
- June 11, 2004 (F0)
- June 11, 2004 (F3)
- May 01, 2001 (F0)
- May 01, 2001 (F1)
- July 27, 1995 (F2)
- April 18, 1995 (F0)
- June 08, 1993 (F0)

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

Even though Minnesota averages about 24 tornadoes per year, Mower County has only had 31 tornadoes since 1950, averaging about one tornado every 1-2 years with nine injuries, no deaths and the total damages of \$5,087,500. Most tornadoes are short-lived and small. May and June are the peak months and most occur between 3 and 9 p.m., but they can occur nearly any time of year and at all times of the day.



On June 11, 2004, a strong tornado (F3) that also hit Riceville, IA moved north and crossed the state line near Le Roy, MN completely demolishing several homes and farms. The tornado dissipated just north of Le Roy, but there were other brief touchdowns that day in the county. In

May 2001, another strong tornado that hit Glenville, MN tracked towards the northwest side of Austin damaging several nearby homes. And more recently, a tornado hit the north and east sides of Austin in June 2009 that hit Todd Park, damaged some homes, and injured one.

Analyzing Development Trends:

Mower County has only had 29 tornadoes since 1950, averaging about one tornado every 2.06 years with nine injuries and no deaths. While it is impossible to project where a tornado will occur, it is possible to prepare for the repercussions of the storm. Mower County has a Disaster Working Group in place that ties First Responders, Volunteer Organizations, Austin Medical Center, City and County Officials together for planning and programming response to the scene.

Thunderstorms and Lightning

A thunderstorm's mature stage is marked by a transition of wind direction within the storm cells. The prevailing updraft which initiated the cloud's growth is joined by a downdraft generated by precipitation. Lightning may occur soon after precipitation begins. Hail and tornadoes may also develop during this stage.

Lightning is a phenomenon associated with thunderstorms; the action of rising and descending air separates and builds-up positive and negative charge areas. When the built-up energy is discharged between the two areas, lightning is the result.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

Thunderstorms fall under the natural hazard category of severe (summer) storms, and are one of the most prevalent hazards in Mower County. By definition, thunderstorms are always accompanied by lightning, and often include strong wind gusts, heavy rain and often hail, and occasionally tornadoes. Thunderstorms can produce straight line winds which may exceed one hundred miles per hour. The resulting damage can include damaged homes and buildings, destroyed trees and other structures. A 'severe' thunderstorm is a storm that includes $\frac{3}{4}$ " or greater hail, wind speeds exceeding fifty miles per hour, and/or a tornado.

The National Climatic Data Center listing of thunderstorm events in Mower County shows 54 events with wind speeds in excess of 57 mph (50 knots), and 21 events with wind speeds in excess of 69 mph (60 knots). Eight of those storms created property damage exceeding \$50,000 per occurrence, and seven of them resulted in a total crop damage amount of more than \$622,000.

Downdraft winds from a severe thunderstorm can produce local or widespread damage, even tornado-like damage if strong enough. Most severe thunderstorm winds occur in June or July and between the hours of 4 and 8 p.m., but can occur at other times. Most damage involves blown down trees, power lines, and damage to weaker structures (i.e. barns, outbuildings, garages) with occasional related injuries. In 1998, a large squall line moved through the region with wind gusts in excess of 100 mph knocking down hundreds of trees and damaging buildings. Planes were flipped over at the Austin airport and power lines were down in the city. There have been 101 damaging wind reports since 1956 and 52 reports since 1995 in the county.

Large hail can also occur in a severe thunderstorm. May and June are the peak months with the most common time between 1 and 9 p.m., but it can occur in other warm season months and at any time of day. Hail is typically a crop damaging hazard but can damage roofs, windows, and vehicles if large enough (> 1”). Expenses can be high. Injuries or fatalities are rare for hail. In May 2000, golf ball size hail fell in the Austin area. There have been 102 large hail (≥ 3/4”) reports in the county since 1956 and 66 reports since 1995.

One of the most damaging components of thunderstorms is lightning. Lightning is defined as “any and all of the various forms of visible electrical discharge caused by thunderstorms.” Lightning can cause death or injury through direct or indirect means. The lightning current can branch off to a person from a tree, fence pole, golf club, or other tall object. The current may also travel through power, telephone lines, or plumbing pipes to a person who is in contact with an electrical appliance or fixture.

Analyzing Development Trends:

Mower County averages 39 thunderstorm days per year. The National Weather Service (NWS) considers a thunderstorm severe when it produces wind gusts of 58 mph (50 knots) or higher, 3/4 inch diameter hail or larger, or a tornado.

Severe Thunderstorm		
Year	# Watches	# Warnings
2013	4	11
2012	7	6
2011	9	11
2010	12	13
2009	8	4
2008	12	16
2007	15	10
2006	12	10
2005	18	2

Each community in the County has a severe storm warning system, and several communities have listed storm structures and newer warning systems for their hazard mitigation activities. The County will continue to coordinate mitigation activities that reduce the impact of thunderstorm and lightning on County residents and businesses. While it is impossible to project where a storm will occur, it is possible to prepare for the repercussions of the storm. Mower

County has a Disaster Working Group in place that ties First Responders, Volunteer Organizations, Austin Medical Center, City and County Officials together for planning and programming response to the scene

High Winds and Windstorm

High wind speeds may pose a hazard or is life threatening. The criteria is sustained non-convective (not related to thunderstorms) winds greater than or equal to 40 mph lasting for one hour or longer, or winds greater than or equal to 58 mph for any duration.

Windstorms are defined as storms with winds in excess of 58 miles per hour, excluding tornadoes. Windstorms are among the most severe natural hazards in terms of lives lost and property damage. Severe winds can damage and destroy buildings, including moving Mobile homes from their foundations. The National Weather Service lists the following effects from various wind speeds:

Wind Speed (mph)	Effects
25-31	Large branches in motion, whistling in telephone Wires
32-38	Whole trees in motion
39-54	Twigs break off of trees, wind impedes walking
55-72	Damage to chimneys and TV antennas, shallow rooted trees pushed

	over
73-112	Peels surface off roofs, windows broken, trailer homes overturned
113+	Roofs torn off houses, weak buildings and trailer houses destroyed, large trees uprooted

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

Windstorms are a regular occurrence in Southern Minnesota. Southern Minnesota, including Mower County is located in the wind zone where wind speeds can exceed 250 miles per hour. Five damaging windstorms from recent years are worth noting:

- 2001: Southern Minnesota counties experience \$8.0 million damages from severe windstorm.
- 1998: Severe windstorm with straight line winds blew down trees, and destroyed roofs, especially in Lyle and Windom Township.
- 1984: Southern Minnesota experienced snow with strong winds that snapped power poles and caused extensive power outages in rural areas.
- 1980: A Southeastern Minnesota summer windstorm caused extensive property and crop damage that totaled more than \$5.4 million. Electrical power was disrupted for 35,000 people.
- 1979: Straight line and downburst winds in Southern Minnesota resulted in at least \$35 million in damages.

Analyzing Development Trends:

While it is impossible to project where a windstorm will occur, it is possible to prepare for the repercussions of the storm. Mower County has a Disaster Working Group in place that ties First Responders, Volunteer Organizations, Austin Medical Center, City and County Officials together for planning and programming response to the scene.

Each community in the County has a severe storm warning system, and several communities have listed storm structures and newer warning systems for their hazard mitigation activities. The County will continue to coordinate mitigation activities that reduce the impact of windstorms on County residents and businesses.

Hailstorm

Hailstorms usually occur from May through August and Wisconsin averages two or three hail days per year. Most hail damage occurs in rural areas because maturing crops are particularly susceptible to bruising and other damage caused by hailstones. The four months of hailstorm activity correspond to the growing and harvesting seasons for most crops.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

Since 1950, the National Weather Service Lacrosse has recorded 81 hail events (with hail larger than ¾ -inch) in Mower County. These storms have generated property damage exceeding \$219,000, and crop damage in excess of \$90,000.

Analyzing Development Trends:

While it is impossible to project where a hailstorm will occur, it is possible to prepare for the repercussions of the storm. Mower County has a Disaster Working Group in place that ties First Responders, Volunteer Organizations, Austin Medical Center, City and County Officials together for planning and programming response to the scene.

Each community in the County has a severe storm warning system, and several communities have listed storm structures and newer warning systems for their hazard mitigation activities. The County will continue to coordinate mitigation activities that reduce the impact of hailstorms on County residents and businesses.

WINTER STORMS

The National Weather Service descriptions of winter storm elements are:

- Heavy snowfall - Accumulation of six or more inches of snow in a 12-hour period or eight or more inches in a 24-hour period.
- Blizzard - An occurrence of sustained wind speeds in excess of 35 miles per hour (mph) accompanied by heavy snowfall or large amounts of blowing or drifting snow.
- Ice storm - An occurrence of rain falling from warmer upper layers of the atmosphere to the colder ground, freezing upon contact with the ground and exposed objects near the ground.
- Freezing drizzle/freezing rain - Effect of drizzle or rain freezing upon impact on objects with a temperature of 32 degrees Fahrenheit or below.
- Sleet - Solid grains or pellets of ice formed by the freezing of raindrops or the refreezing of largely melted snowflakes. This ice does not cling to surfaces.
- Wind chill - An apparent temperature that incorporates the combined effect of wind and low air temperatures on exposed skin.

Hazardous winter storms can bring a variety of conditions to Mower County. Since 1982, an average of 4-5 winter storms impact the area each season. The relatively flat terrain does lead to blizzard or near-blizzard conditions more frequently than counties to the east, with about 9 blizzards documented since 1961. Heavy snow, sleet, and periods of blowing/drifting snow all occur.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses

The NCDL does not list blizzard events, but responses from the Mower County All Hazards Survey indicates that there were significant blizzard events in Mower County in the winters of

1991 , 1992, 1996, 1997, 2007, and 2014. On February 23-25, 2007, a major winter storm impacted southeast Minnesota. The combination of heavy snow, sleet, and significant blowing and drifting over the weekend paralyzed much of the region. Ice accumulation was nearly 2” in places, especially around Adams, MN where numerous power poles and trees were knocked down. Blizzard conditions also developed leading to 4-5 foot snow drifts. Another storm hit less than a week later with another 13” of snow, setting a record for the snowiest week on record (31.0” ending 3/2/07) at Austin.

Analyzing Development Trends:

March can often be a snowy month. Even though snowfall may be less frequent, heavy wet snow can form from large spring storms. In mid May 2014, a late season dumped about 17.5” at Grand Meadow and 17.0” in the Austin area.

Hazardous winter weather can bring a variety of conditions to Mower County. Since 1982, an average of 4-5 winter storms impact the area each season. The relatively flat terrain does lead to blizzard or near-blizzard conditions more frequently than counties to the east, with about 7 blizzards documented since 1961. Heavy snow, sleet, and periods of blowing/drifting snow all occur.

The 30-year average seasonal snowfall at Austin is 41.1 inches with a record of 76.2 inches set during the 1961-62 winter. Grand Meadow, MN had a record 90.7 inches of snow during the winter of 1908-09. The bulk of snow falls between December and March. The largest winter storms tend to form over the central or southern Plains, and then move northeast towards the western Great Lakes.

Top 5 Seasonal Snowfalls in Austin	
Years	Snowfall
1961-62	75.7”
2006-07	70.5”
1950-51	70.3”
1951-52	64.8”
2000-01	61.1”

Every community is vulnerable to Blizzard events, and Mower County communities are no exception. Cities and Townships in the County have blizzard event plans in place for snow removal and emergency vehicle mobility, to reduce vulnerability of homes and businesses. The County should begin collecting blizzard event data such as extreme temperatures, snowfall amounts and wind speeds to create a database for future impact analysis. This analysis can also be used to determine the impact of specific mitigation activities regarding excessive cold events.

EXTREME TEMPATURES

Temperature extremes can cause disruption of normal activities for the population, property loss and even the loss of life, especially among the more vulnerable members of our population such as children and the elderly.

COLD

Wind chill is a relationship between wind and cold that is based on the rate of heat loss from exposed skin. As the wind speed increases, heat is drawn from the body, driving down skin temperature and eventually core body temperature.

HEAT

The National Weather Service issues a Heat Advisory when the Heat Index ranges from 105-114 degrees during the day, and remains at or above 80 degrees at night. An Excessive Heat Warning is issued when the Heat Index exceeds 115 degrees during the day, and remains at or above 80 degrees at night.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response. Excessive heat/cold is a concern in buildings that house individuals with special medical conditions such as hospitals, Rest Homes and Assisted Living Facilities.

Estimating Potential Losses:

Arctic cold outbreaks can occur in the upper Midwest. Snow depth can modify these cold temperatures leading to sub-zero readings on average 30 times a winter. Occasionally strong northwest winds will combine with arctic outbreaks to create dangerous wind chill conditions as well. The coldest temperatures are usually in January and February with average lows in the single digits and record lows colder than -30F most days. The all-time record low is -42F set in 1963.

The La Crosse National Weather Service issues Wind Chill Advisories when wind chill readings of -20F to -34F are expected. Wind Chill Warnings are issued when wind chill values at or below -35F are expected or occurring. The National Weather Service issues a Wind Chill Advisory when wind chills of 40 degrees Fahrenheit below zero, with winds at least 10 miles per hour are expected. A Wind Chill Warning is issued when wind chill readings are expected to exceed 60 degrees below zero, with wind speeds of 10 miles per hour or more.

In 1996, Austin went 6 consecutive days with temperatures at or below zero degrees (F) following a blizzard about a week earlier. Low temperatures of -24F, -28F, -28F, -34F, -31F, and -25F were set on six straight mornings.

On occasion the weather pattern across the upper Midwest favors prolonged heat and humidity, leading to heat waves. June through August is the warmest months with average high temperatures around 80F and record highs above 100F most days. The warmest temperatures on record in the county include 102F at Austin and 107F at Grand Meadow, MN. Extreme temperatures can cause significant health threats to humans and animals.

Analyzing Development Trends:

According to the National Climatic Data Center, between 1950 and 2004 there were extreme cold temperature events in Mower County in 1994, 1996 and 1997. Mower County Every community in Minnesota is vulnerable to Excessive Heat events. Cities and Townships in the County have contingency plans in place for assuring emergency vehicle mobility in excessive heat conditions. The County should begin collecting excessive heat weather event data to create a database for future impact analysis. This analysis can also be used to determine the impact of specific mitigation activities regarding excessive heat events.

Estimating Potential Losses:

In Mower County, there have been 5 heat waves since 1993. During that same time period, there were 15 fatalities directly related to heat waves in Minnesota. One of the longest heat waves on record occurred in July 1936 when southeast Minnesota hit 90F or higher on 14 consecutive days, including 9 days at or above 100F and an all-time record of high of 107F. In July 1940 temperatures also hovered around 100F for 9 days in a row. In more recent years, heat waves occurred in 1988, July 1995, and July/August of 2001.

The NCDC lists 6 extreme heat events in Mower County between 1950 and 2010. The extreme heat event in 1995 resulted in \$2.0 million in property damage.

Warmest Highs at Austin, MN	
High	Date
102°F	07/24/1990
100°F	05/15/2013
100°F	07/03/1990
100°F	06/07/2011
100°F	06/21/1988

DROUGHT

Meteorological refers to a measure of departure of precipitation from normal. These two types of drought occur in Minnesota: agricultural and hydrologic. Agricultural drought is a dry period that reduces crop yields. Also refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop. Hydrologic drought is a dry period of sufficient length and intensity to affect lake and stream levels and the height of the groundwater table and when surface and subsurface water supplies are below normal. These two types of drought may, but do not necessarily, occur together. What is considered a drought in one location may not be a drought in another location. Socioeconomic refers to the situation that occurs when physical water shortages begin to affect people.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

In Mower County, the rural agricultural economy is dependent upon adequate crop yields from year to year, and the effects of prolonged drought can be devastating. When this happens, farmers can draw upon the resources of the Farm Services Agency for assistance.

Noninsured Crop Disaster Assistance Program (NAP)

Provides financial assistance to eligible producers affected by drought, flood, hurricane, or other natural disasters. This federally funded program covers non-insurable crop losses and planting prevented by disasters. Producers who are landowners, tenants, or sharecroppers who share in the risk of producing an eligible crop are eligible. Eligible crops include commercial crops and other agricultural commodities produced for food (including livestock feed) or fiber for which the catastrophic level of crop insurance is unavailable. Also eligible for NAP coverage are controlled-environment crops (mushrooms and floriculture), specialty crops (honey and maple sap), and value loss crops (aquaculture, Christmas trees, ginseng, ornamental nursery, and turf

grass sod). Authorized by section 196 of the Agricultural Market Transition Act (Pub. L. 104-127) (7 U.S.C. 7333), as amended.

Dry weather can also lead to a wildfire threat, especially in the spring before foliage has emerged (i.e. before green up) or in the fall after vegetation has started to die off. Warm, dry (i.e. lower relative humidity), and windy conditions all favor higher fire danger and can lead to sporadic grass fires in Mower County. Thick, wooded areas also pose a threat for wildfires under extremely dry conditions but occur far less frequently.

Analyzing Development Trends:

In southern Minnesota, drought has a history of occurring every one to two decades since the early 1900's. More recently however, drought is occurring more frequently (once per decade since the 1970's). In drought years, precipitation levels during dry months are generally an inch or more below the normal amount. In summer droughts, precipitation amounts are generally three or more inches below normal.

Mower County communities with small water systems from shallow wells are the most vulnerable to drought hazard events. The County will continue to assist these communities as they seek financing to replace or upgrade municipal well water systems.

CROP DISASTER

The term "crop disaster" is defined as the destruction of crops through natural events or intentional tampering. Crop disasters are typically a consequence of natural hazard events. These include tornadoes, wind and hail storms, drought and flooding. Because Mower County has a primarily agriculture-based economy, it is particularly susceptible to crop disaster consequences.

Identifying Structures:

According to 2012 cense by the USDA, Mower County has 449,784 tillable acres, 1053 farms, and the acreage net cash farm operation is \$137,484. The number one producing crop is corn for grain producing 36,769,528 bushels per year and soybeans 6,771,435 bushels per year. Hogs are the number one produced livestock, 769,657 hogs sold per year.

Estimating Potential Losses:

Since the early settlement days, agriculture has been a predominant land use in Mower County. Although the county has seen some rural development along with urban expansion, agriculture is still the predominant land use.

Crop disasters expose all members of the agriculture industry, including farm families, equipment dealers and manufacturers, seed and chemical distributors and commercial and retail outlets to economic hardship. In Mower County, the Soil and Water Conservation District, the Farm Service Agency, County staff and other related groups are available to assist members of the agriculture community during these difficult times. The County will continue to coordinate responses to drought disasters, in order to reduce the impact of these disasters on residents and businesses.

Analyzing Development Trends:

In Mower County, the Farm Services Agency is the primary provider of relief from crop disaster economic consequences.

WILDFIRE

The grassfire and wildfire (fires on open or agricultural land) season in Mower County begins in March and continues through November, although fires can occur at any time during any month of the year. Generally speaking, however, fires are more likely to occur whenever vegetation is dry as a result of a winter with little snow or a summer with sparse rainfall.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

The Mower County planning process used a series of surveys and public input meetings to identify and prioritize local hazards. The planning group reviewed (40) natural, manmade, and technological hazards, and the Mower County Plan lists and discusses the top (26). "Wildfire" as a hazard appears as the 32nd priority, and is one of the bottom (9) hazards that only (1) or (0) persons/groups listed as a priority. Clearly, "Wildfire" is not a priority hazard for Mower County. However, Mower County does have one fulltime fire department and numerous volunteer fire departments within the county.

Analyzing Development Trends:

Dry weather can also lead to a wildfire threat, especially in the spring before foliage has emerged (i.e. before green up) or in the fall after vegetation has started to die off. Warm, dry (i.e. lower relative humidity), and windy conditions all favor higher fire danger and can lead to sporadic grass fires in Mower County. Thick, wooded areas also pose a threat for wildfires under extremely dry conditions but occur far less frequently.

EARTHQUAKE

An earthquake is a shaking or sometimes violent trembling of the earth which results from the sudden shifting of rock beneath the earth's crust. This sudden shifting releases energy in the form of seismic waves.

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

The Mower County planning process used a series of surveys and public input meetings to identify and prioritize local hazards. The planning group reviewed forty natural, manmade, and technological hazards, and the Mower County Plan lists and discusses the top twenty-six. "Earthquake" as a hazards appears at the 36th priority, and is one of the bottom nine hazards that no one listed as a priority. Clearly, "Earthquake" is not a priority hazard for Mower County. The nearest active fault is in the New Madrid Fault, stretching along the central Mississippi Valley in Missouri. Scientist modeled a 8.3 magnitude earthquake would only cause very minor damage to Southern Minnesota. Therefore Mower County is not actively planning for an earthquake as a major hazard.

Analyzing Development Trends:

Since 1945 there have been no earthquakes in Mower County. Therefore there has been no impact on Mower County assets.

INFECTIOUS DISEASE (Environmental Outbreak)

As defined by the World Health Organization (WHO) - Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another. Zoonotic diseases are infectious diseases of animals that can cause disease when transmitted to humans.

Identifying Structures:

Mower County Continuity of Operations Plan addresses the effect of infectious disease in the community to include staffing of essential services. All areas of the county are susceptible to this hazard and an outbreak would be easily transmitted if airborne.

Estimating Potential Losses:

In the mid twentieth century, antibiotics cured many of the diseases that were life threatening. Since then, new diseases such as AIDS and new strains of the flu have emerged. In the past decade or so, increased mobility, including air travel to and from all points of the globe, has led to an increase in the ability of infectious disease to spread quickly from one part of the world to another.

Early in the twentieth century, over 10,000 Minnesotans died of the Spanish influenza. As recently as 2001, a small outbreak of Meningitis in southern Minnesota revived fears of susceptibility to disease. Yet according to the county health department, the average person in Mower County is at low risk for contracting a fatal disease. Actually, half of the reported cases of disease each year are sexually transmitted diseases. Food-borne diseases make up another large percentage, and infectious diseases comprise an even smaller percentage. This low percentage is partly due to the low, scattered population common to rural communities.

Pandemic Influenza - Prevention and Treatment

These outbreaks expose the general population in the County to potentially life threatening situations. The County Health Department is responsible for ensuring that high risk groups, such as pregnant women, small children, and the elderly are aware of these threats in their area, and will continue to work with health care facilities, emergency services, public school systems and the media to keep exposure of vulnerable populations to a minimum.

Pandemic planning requires that people and entities not accustomed to responding to health crises understand the actions and priorities required to prepare for and respond to these potential risks. Information is provided on these pages to help every sector of society, from federal, state and local government to individuals and families, participate in our national planning efforts.

Analyzing Development Trends:

Mower County Continuity of Operations Plan addresses Infectious Disease (Environmental Outbreak) and a Working Group chaired by Public health, Director is in place that ties First Responders, Volunteer Organizations, Austin Medical Center, City and County Officials together for planning and programming.

A Historical Perspective

In the last century there were three influenza pandemics. All of them were called pandemics because of their worldwide spread and because they were caused by a new influenza virus. The 1918 pandemic was especially severe.

- 1918-1919: Most severe, caused at least 675,000 U.S. deaths and up to 50 million deaths worldwide.
- 1957-1958: Moderately severe, caused at least 70,000 U.S. deaths and 1-2 million deaths worldwide.
- 1968-1969: Least severe, caused at least 34,000 U.S. deaths and 700,000 deaths worldwide.
- 2014- present: Ebola Epidemic in multiple countries, including the United States. 27,741 confirmed cases.

TECHNOLOGICAL HAZARDS ,HUMAN CAUSED HAZARDS AND TERRORISM

Identifying Structures:

Manufacturing, farms, businesses and households contain a variety of chemicals that workers and residents may not realize actually are types of hazardous materials, such as chlorine, paint, muriatic acid, ammonia, fertilizers and pesticides. Many chemicals fall into the flammable or combustible category, which means an ignition source could present a problem. These chemicals are stored in a number of places around the work center and house. All building storing chemicals could present a hazard.

Estimating Potential Losses:

HazMat spills can occur in urban and rural settings, although it is generally seen as an urban issue. Hazardous materials are a chemical substance that can pose a threat to the human or natural environment if it is released or misused.

In Minnesota, hazardous waste generators must apply for a permit to handle these wastes. The state not only regulates the permit application process, but monitors the transfer and disposal of hazardous wastes.

On the federal level, the Environmental Protection Agency requires that producers of specific quantities of hazardous substances prepare and file a Risk Management Plan. These plans are a requirement of the Clean Air Act, and include specific steps to be taken if spills occur during every stage of the handling process.

Surveillance:

This list describes the vulnerability of Mower County residents and businesses to hazardous materials spills. The County will continue to respond to hazardous materials spills as described, and the State will continue to track hazmat incidents. Information dissemination by the county health department, the sheriff's department, and individual community emergency response personnel will serve to keep the impact of hazardous materials spills low in Mower County

Analyzing Development Trends:

In Mower County, hazardous materials spills are the responsibility of the materials generator. In addition, the Austin Fire Department is trained to respond to Hazardous Material incidents at the First Responder Operations level. The Operations level would permit the Fire Department to support a Hazardous Materials Response Team. At present, there is only one Hazardous Materials Team for the State of Minnesota. This team is located in St. Paul. There are two

Chemical Assessment Teams in southeastern Minnesota. There is a team in Rochester, and one in Mankato. The CAT teams may also respond to hazardous materials incidents.

Radiological

Identifying Structures

Medical and research facilities located in the County that utilize this technology.

Estimating Potential Losses:

A hazardous radiological event is defined as the unintentional exposure to materials that emit ionizing radiation. Radiological events can be catastrophic on a large scale (such as an overheated reactor in a nuclear electricity generating facility) or hazardous to people or animals on a small scale (such as overexposure to radiation from medical imaging technology).

Analyzing Development Trends:

Mower County does not have any nuclear electricity generating facilities, but does have a large number of medical facilities with imaging technology, and individuals are vulnerable to radiological exposure in these facilities (See the Mower County map with medical facilities in the Community Assets section). These medical facilities are self-policing, and have a high success rate in keeping exposure incidents to a minimum. In that regard, they will continue to have a high impact in reducing the change of radiological exposure in Mower County.

Meth Labs

Identifying Structures:

Meth amphetamine labs were found in rural as well as developed areas of Mower County.

Estimating Potential Losses:

This hazard was identified in the initial creation of the All Hazard Mitigation Plan. The concern by all participants was a surprise and a concerted effort was made by Law Enforcement, Communities, Schools and individuals to put a halt to the labs. Reporting of suspected activities and education of our community members to the adverse effects of the chemical was a top priority. Billboards designed by a formed working group were created, flyers were developed and distributed and the schools conducted a series of education assemblies. While this may not have stopped the use of the drug, no lab has been discovered since the community action was implemented.

Analyzing Development Trends:

This hazard went from our number two concern to the bottom of the list since the initial survey was conducted in 2005.

Arson

Identifying Structures/ Assessing Vulnerability:

We have found all public and private structures in the County could be at risk at one time or another from arson. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Estimating Potential Losses:

Arson is defined as 1) intentionally causing a fire or explosion through direct contact or remotely using a projectile, or 2) the crime of maliciously setting fire to the property of another or of burning one's own property for an improper purpose.

Arson is a leading cause of fires in Minnesota. According to the State Fire Marshall, there is one arson fire reported in Minnesota every 6.1 hours. In Mower County, the incidence of arson fire has remained steady over the past five years, averaging one incident and two arrests each year. As a percentage of the population impacted, the vulnerability of Mower County residents to arson events is very minimal. The County Sheriff's department and individual city public safety staff will continue to locate and apprehend arsonists in order to keep that impact low into the future.

Analyzing Development Trends:

Mower County, its Cities and Townships have experience 52 incidents of arson in the past ten years. The Arson Tip Line is a tool used by local authorities for enforcement and prevention measures.

Other Man-made Hazards

Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

Although there are very few instances of these problems appearing in Mower County, survey respondents identified the following hazards as belonging in the "top twenty six" Mower County hazard priorities:

FEMA and other resources provide the following definitions for these hazards:

Biological Hazards: Biological agents are infectious microbes or toxins used to produce illness or death in people, animals or plants.

Chemical Hazards: Chemical agents kill or incapacitate people, destroy livestock or ravage crops. Some chemical agents are odorless and tasteless, and are difficult to detect. They can have an immediate effect, or a delayed effect.

Agricultural / Economic Attack: The intentional and direct destruction of crops or the contamination of crops or livestock.

Hostage / Barricade: A hostage is 1) an individual held by one party in a conflict as a pledge that promises will be kept or terms met by the other party, 2) a person taken by force to secure the taker's demands, or 3) someone that is involuntarily controlled by an outside influence.

Sabotage: 1) the destruction of an employer's property or the hindering of manufacturing by discontented workers, 2) destructive or obstructive action carried on by a civilian or enemy agent to hinder a nation's war effort.

Infrastructure Disruption: The disruption of infrastructure systems that are necessary for survivability, continuity of operations, and mission success.

Food-Water Contamination: The intentional contamination of food or water

Intentional HazMat Incident: The intentional release of a hazardous substance into the environment

Assessing Vulnerability/ Identifying Structures:

We have found all public and private structures in the County could be at risk at one time or another from natural hazards involving the weather. It is not possible to project loss or identify certain structures at risk, but it is possible to analyze data from past occurrence for future response.

SUMMARY

For people living in Mower County, there is a high degree of vulnerability to each of the hazards listed above. Along with that vulnerability, there is a high potential impact or negative implications. Below is the estimated loss for County of Mower, City of Austin and all public homestead, non-homestead and building properties.

Assessing public vulnerability for potential dollar loss for the Mower, County of:

- Building loss \$29,693,730
- Machinery/Vehicles \$2,851,986
- Infrastructure \$72,736,163

Information based from the year ending 2014 Financial Statement and Supplemental Information audit of Mower County conducted by CliftonLarsonAllen.

Assessing public vulnerability for potential dollar loss for the City of Austin:

- Building Loss \$13,944,309
- Machinery/Vehicles \$4,910,128
- Infrastructure \$43,159,378

Information based from the year ending 2013 Comprehensive Annual Financial Report audit of City of Austin conducted by CliftonLarsonAllen.

Potential loss dollars for private structure in Mower County, using September 2015 Assessment Abstract , Homestead/building \$4,496,040,000

V. Mitigation Projects

Mower County utilized the FEMA Hazard Mitigation Planning Process format to determine city, township and county-wide mitigation actions. This process includes developing mitigation goals and objectives, and identifying and prioritizing mitigation actions.

During the course of this process, each local government unit in the county was asked to review their list of prioritized hazards and then to develop goals and objectives that addressed those hazards. In order to assist them, the county staff provided several examples. In addition, this process was presented at the May city and township meeting.

The end result of this process is a list of specific mitigation activities developed by each of the local government units in the county, and the county staff. This list is summarized in the pages that follow.

Identification and Analysis of Mitigation Actions:

The following chart contains proposed actions for each community in the Mower County All Hazard Mitigation Plan. In developing these action items, each community worked with the City Council, Emergency Management staff and public works staff to evaluate the individual properties of each community. The size of the community dictates what level of activity is chosen for each City and when the City Council selected the items they carefully considered the cost benefit.

The strategies are listed by hazard category and described by MA or mitigation action, priority, lead agency, funding source, and time frame. Mitigation Action is categorized as follows:

- Prevention (P)
- Property/facility protection (PP)
- Public education and awareness (PE)
- Natural resources protection (N)
- Structural projects (S)
- Emergency services (E)
- Coordination/cooperation (C)

The priority column is based on several factors that, in part, are an identification of the feasibility of the strategy. The costs for each strategy are not a part of this plan but must be developed at the time that the strategy is considered for implementation. The feasibility of each strategy is based on several factors that will need to be updated at the time that the strategy is reviewed for implementation. Those factors considered as the strategies were developed include:

- Legality of the strategy based on state law/rules
- Resource availability – staff, funding, ongoing program or activity, capabilities of the community
- Cost of the strategy
- Effectiveness of the strategy
- Capacity for implementation – community understanding and acceptance

After each factor is analyzed the mitigation action is given a priority level:

High (H), Medium (M), Low (L)

Each action was also given a long term goal. Some goals are very specific to accomplish the action while other are very broad. The broad answer is because accomplishing each action might take years and some projects are not understood yet what the goal is.

The next column represents the Action Plan, how the goal will be accomplished. As with the goals, some are very specific while other action plans are very broad.

Then the Mitigation Action activities address the lead agency that will accomplish the task. Some actions have multiple agencies while others address only one lead agency. This grouping might change as the action is in process.

For each Mitigation Action the designations are classified as follows:

Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)
Program: New program (NP), Ongoing program (OP)

VI. Estimated Investments & Contributions

FUNDING & BUDGETS STATEMENT

A number of mitigation plans or activities have been approved by most of the government entities in the county. The activities are part of the plans of each organization and as such are part of the operating budgets of those organizations.

In addition to funding these activities internally, the county will assist all organizations as they seek grant funds and alternative forms of funding for these projects. In some cases, the county will provide financial assistance for those specific mitigation activities that are common to several organizations.

Austin 0.5% Sales and Use Tax: On April 1, 2007, the city of Austin put into effect a one half of one percent sales and use tax that will be administered by the Minnesota Department of Revenue. The tax will be used to fund flood mitigation projects in the City of Austin. This tax continues to assist the City of Austin with mitigation projects without asking for FEMA assistance.

The sales tax applies to retail sales made within the city limits of Austin. The use tax applies to taxable items used in Austin if the local sales tax was not paid. The tax applies to the same items that are taxable under the Minnesota sales and use tax law.

Appendix A: CURRENT MITIGATION ACTIVITY

<div style="display: flex; justify-content: space-between; padding: 10px;"> <div style="width: 25%;"> <p>Mitigation Action</p> <p>Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C)</p> </div> <div style="width: 15%;">Goals</div> <div style="width: 15%;">Action Plan</div> <div style="width: 10%;">Lead Agency</div> <div style="width: 10%;">Priority (H-High, M-Medium, L-Low)</div> <div style="width: 10%;">Funding N-Not Funded, P-Partially Funded, F- Currently Funded</div> <div style="width: 15%;">Program (NP- New Program, OP- Ongoing Program)</div> </div>							
P	Property acquisition for repetitive loss properties.	Buy properties	Continue to work with home/business owners to acquire repetitive loss properties.	Mower County Planning and Zoning, City of Austin	M	F	OP
P	Identification of reoccurring damage to roads and bridged during flooding events.	Conduct an inventory and identify the highest risk roads/bridges for flooding in the county. Determine measures to improve safety on those roads/bridges	Conduct an inventory prior to flooding and after flooding events.	Mower County Planning and Zoning	M	N	OP
P, PP, N	Debris Build-up before and after flooding in stream/river areas	Remove Debris to prevent localized flooding	Cleanout debris on a regular basis	Department of Natural Resources	M	N	OP
P	Stream Gages to include real time rainfall data.	Continuation of gage usage	Upgrade gages to include real-time live data.	Department of Natural Resources	H	N	OP/ NP
P,PP,C	Livestock Emergency Response Trailer	Obtain a stocked livestock response trailer.	Work with the Department of Agriculture and local business to purchase a trailer.	Emergency Management	H	N	NP

P,PP	Community Rating System	Reduce the flood damage to insurable property.	Continue to participate in the CRS in order to be eligible for community discounts on insurance	City of Austin, Mower County Emergency Management, Mower County Environmental Services	M	N	OP
P,PP	Cedar Watershed - Bank Stabilization	Stabilize river banks with riprap and native vegetation.	Focus on the areas with the greatest need for stabilization.	Mower County Environmental Health, Emergency Management, Department of Natural Resources.	H	N	OP
P,PE, C	Community Safe Rooms	Have the ability to support community partners in the development and grant applications.	Education community partners that meet the requirements to apply for community safe rooms.	Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton, Leroy, Lyle, Mapleview, Racine, Rose Creek, Sargeant, Taopi, Waltham,	H	P	OP
P, PP, N	Shoreline Buffering Program	Develop educational materials and promote shoreline buffer vegetation best Management Practices and monitoring	Education to community during the spring tree sale and continuing outreach as needed.	Cedar River Watershed, SWCD	M	N	OP
PP,N	Septic System Ordinance	Enforcement and inspection of septic systems with county adopted regulations.	Enforce the septic system rules and regulations	Public Works	H	N	OP

P,PE,E,C	Groundwater Pollution Policy	Update the county land use plan and city land use plans to provide additional policies on development/land uses within the highly sensitive areas to groundwater pollution. Follow up with any necessary changes to the local zoning ordinances.	Work with all lead agency's to develop and enforce the ordinance.	Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton, Leroy, Lyle, Mapleview, Racine, Rose Creek, Sargeant, Taopi, Waltham,	M	N	OP
N	Storm Water Collection and Usage during Drought Events	Develop a countywide program for the use of Storm water best management practices that includes the use native plant species, storm water capture and other measures by public agencies and the private sector.	Develop a program and provide education to the public and private agencies	Mower County Public Works	M	N	OP
P,PE,E,C	Sandbags	Maintain a catch of sandbags	Distribute as needed	Environmental Services	M	N	OP
E	Emergency Response Plan for Extreme Temperatures	Ensure that the emergency response plan for Mower County includes response actions for both winter and summer events. Include the identification of vulnerable populations and location in the county	Develop and maintain the plan	Mower County Emergency Management, Mower County Sheriff's Office, City of Austin	M	N	OP

P,PE,E,C	IPAWS- Reverse 911	Increase emergency warnings to citizens.	Locate funding to bring reverse 911 to Mower County	Emergency Management	M	N	OP
P,PP,E	Additional Radio equipment for Austin/Mower County Reserve Program	Provide updated radio equipment for reserve and posse to use when activated.	Locate funding to purchase radio equipment	Emergency Management, Mower County Sheriff Office	H	N	OP
P,PP,E	Fire Departments in ARMER system for improved interoperability with Law Enforcement and neighboring counties.	100% of Mower County Fire Departments using ARMER	Provide training and opportunity to transition fire departments to the ARMER system.	Emergency Management, Mower County Sheriff Office	H	N	OP
P,E,C	Remainder of out county sirens activated by dispatch.	Remaining 2 cities receive radio equipment to allow for 24 hour dispatch to set of sirens.	Assist with updating systems,.	Mower County Sheriff Office	H	N	NP
PP,N	Nicolville Sanitation System, Austin Township	Eliminate holding tank exhaustion during heavy rain events.	Work with Planning and Zoning to assist with a solution.	Nicolville Mayor, Mower County Planning and Zoning.	H	N	NP
P	Elimination of Lift Station	Relocation of lift station	Identify lift stations and relocate or eliminate as needed.	City of Austin, Wastewater Treatment Plant	M	N	OP
P	Turtle Creek Interceptor Repair- Eliminate Sanitary Sewer Back Up during flooding events.	To eliminate excessive infiltration during flood events.	Update the interceptor	City of Austin, Wastewater Treatment Plant	H	N	OP
P	Dobbins Creek Lift	From previous flooding, list station needs improvements to increase sanitary flow especially during flooding events.	Upgrade the lift station	City of Austin, Wastewater Treatment Plant	M	N	OP

P	Cedar River Siphon replacement	Replacement of siphons under the Cedar River to allow for enhanced water movement.	Replace siphons	City of Austin, Wastewater Treatment Plant	M	N	OP
P,PP	North Main Phase 1	Structural protection of downtown power plant.	To protect critical infrastructure	City of Austin, Wastewater Treatment Plant	H	N	NP
P,PP	North Main Phase 3-7	Structural protection on the west side of the Cedar River from the community swimming pool to I90	To protect critical infrastructure, businesses during high water events.	City of Austin, Wastewater Treatment Plant	H	N	NP
P,PP	Acquisition, City of Austin of Austin	Remove homes and/or business that have repetitive loss criteria.	Remove structures that cannot be cost effectively protected	City of Austin, Wastewater Treatment Plant	M	N	OP
P,PP	Acquisition, City of Austin of Austin, Lions Park	Acquire or protect structures from the Cedar River East to 8th Street and also 2nd Ave NE.	Acquire to protect structures	City of Austin, Wastewater Treatment Plant	M	N	NP
P	Stream Bank Protection	Stabilize stream banks throughout Austin.	Along public property plant native vegetation and riprap.	City of Austin	M	N	NP
P	City of Austin of Austin Waste Water Treatment Plant Levee Improvement	Upgrade current levees for emergency measurements.	Improve the current levees	City of Austin, Wastewater Treatment Plant	M	N	OP
P	Ellis Ditch Project	To provide drainage to a large watershed.	Increase capacity of Austin and remove debris.	City of Austin	M	N	NP
P	Cook Farm Storm Sewer Plan Phase III	Increase storm water pounding plan	Develop storm water and ponding plan.	City of Austin	L	N	NP

P,C	Assure that policy, funds, staffing and adequate facilities are in place to establish mass dispensing stations.	Continue to improve existing plans and establish secondary plans.		Local and State Public Health	H	N	OP
P,C	Assure access to laboratory services capable of quick identification for infectious disease.	Update information as needed.	Have information available to access as needed.	Local and State Public Health	H	N	OP
P,C	Identify clinics, hospitals, triage sites, and other locations where there exists an increased risk of acquiring/transmitting a dangerous respiratory disease (e.g. pandemic influenza or SARS), and acquire/install the appropriate equipment and/or building designs necessary to reduce or eliminate risk of contaminated air (e.g. filtration systems, air exchange enhancements, negative pressure rooms etc.)	Update clinics, hospitals and triage sites for improvement plan.	Revisits existing facilities to look at improvement.	Local and State Public Health	H	P	OP
P,C	Supply chain integrity	Assure that a plan is in place to provide safe drinking water and food supplies when normal delivery systems are disrupted due to shortages or contamination	Contact suppliers to assure that resources are available in a timely manner.	Local and State Public Health	H	N	OP
P,C	Prevention and control of infectious diseases during an epidemic.	Assure policy and operational structure is in place to provide education, consultation and regulation as needed to help assure prevention and control of infectious diseases during an epidemic	Review policy and operational structure.	Local and State Public Health	H	P	OP

P,C	Develop and/or sustain methods and assets necessary to quickly detect and report emerging infectious disease threats.	Revisit methods and assets.	Review information for the 10 year plan update.	Local and State Public Health	H	F	OP
P,C	Regional Emergency preparedness and response roles.	Formalize and be prepared to deliver regional emergency preparedness and response roles such as communication, mass dispensing, flu centers, antiviral/vaccine/supplies storage and distribution capacity of Austin	Continue to update and revisit plans on a by annual basis.	Local and State Public Health, Health Care Providers	H	F	OP
P,C	Prevention and control of infectious diseases during an outbreak.	Assure policy and operational structure is in place to provide education, consultation and regulation as needed to help assure prevention and control of infectious diseases during an epidemic	Continue to update and revisit plans on a by annual basis.	Local and State Public Health	H	P	OP
P,C	Emerging and infectious disease control	Develop and/or sustain methods and assets necessary to quickly detect and report emerging infectious disease threats	Continue to update information for a rapid response.	Local Public Health	H	P	OP

<p>P,C</p>	<p>Disease Surveillance Plan during an ongoing epidemic</p>	<p>Develop an active disease surveillance plan that includes the necessary staff, just-in-time training and logistical support to daily assess new cases, hospitalizations, pharmaceutical impact, medical supply impact, mortality and other epidemiology data necessary during an ongoing epidemic, and be prepared to implement when needed.</p>	<p>Continue education to new employees and review plans for existing employees for just in time training. Update data on a bi-yearly basis information to support daily assessments</p>	<p>Local Public Health</p>	<p>H</p>	<p>P</p>	<p>OP</p>
<p>P,C,PE</p>	<p>Isolation and Quarantine Support Plan</p>	<p>Develop and maintain a system to support basic needs (e.g. food, medications) for individuals/families that are placed in isolation or quarantine, or are following recommendations to self-isolate/quarantine.</p>	<p>Develop educational materials to distribute as needed.</p>	<p>Mower County/City of Austin Government, Non-profit & Businesses</p>	<p>H</p>	<p>N</p>	<p>OP</p>

Appendix B: PAST MITIGATION ACTIVITIES

CRS ANNUAL PROGRESS REPORT – YEAR 2013

Communications and Warning Systems					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRESS REPORT 2012
E	Design/install VHF radio system bringing total coverage to entire county	H, NP	MCSO	F, ST	Completed: April 2008
E	Design and install County Wide Paging System for 1 st Responders	M, NP	MCSO / EM	F, ST	Completed: May 2008
E	Modify radio communication to ensure early notice of approaching storms. Replace Elkton siren and move repeater to tower.	H, OP	MCSO / EM	F, ST	Completed: Feb 2010
E	Notification to Cities and of narrow banding change to Emergency Alert System (Sirens). Sirens will need to be programmed or replaced 2012.	H, OP	MCSO, EM, Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton,, Leroy, Lyle, Mapleview, Racine, rose Creek, Sargeant, Taopi, Waltham	N, ST	Completed 2006
E	Conversion capability of VHF system to 800 MHZ conversion for interoperability with other jurisdictions	M, OP	MCSO, EM, HSEM, RRB, County	P / ST	Completed: June 2009

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Flooding					
PP, C / M / OP	County Wide Base Map - LIDAR – High/Low level aerial photos to be rectified and produced utilizing high altitude color over entire county and low level color over municipalities. LIDAR flown 2006 – finish project fall 2010.	M, NP	County Engineer	P, ST	Completed 2010
P, PP, CC	FEMA floodplain maps are being produced by an outside vendor and should be available in draft form in the fall of 2010.	M, OP	FEMA, County Engineer	F, ST	Completed 2013
P, PP	GIS startup with the pilot program beginning in the fall of 2009; once the mapping is completed, layered and made available for use current flood plain maps will be updated to include municipalities.	M, NP	County Engineer	P, ST	Completed 2013
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C)	Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)	Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

CRS ANNUAL PROGRESS REPORT – YEAR 2013

Flooding					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRES REPORT 2012
P / PP / N	Rip rap ditches, culverts, bridge embankments on an as needed basis for proper drainage, prevention of pooling and erosion – on-going repair after spring melt is projected into Highway Department budget.	M, OP	County Highway	F, LT	On-going
C	Improve monitoring of watersheds in the county during severe storms and flood events	M, OP	H, O	P, ST	On-going
P, C	Complete and implement DFIRM project in Mower County. Each community will need to adopt the revised floodplain maps and update floodplain ordinance	H, OP	County Engineer	F, ST	Completed 2013
PP, S	Implement capital improvements identified by the city that will mitigate flood impact to flood prone areas.	H, OP	City of Austin	P, ST	CAP – completed On-going process
P, PP,	Property acquisition for repetitive loss properties	H, OP	Mower County, City of Austin	P, MT	On-going
P, PP	Construction of structural improvements in North Main area: raised berms “invisible” walls with removable panels.	H, OP	City of Austin	P, MT	Phase 2, 8, 9, 10, 12 - completed Phase 1, 3-7, 11 - Ongoing
PP	Participation in Community Rating System	H, OP	City of Austin	F, ST	On-going
PE	Develop educational materials and promote shoreline buffer vegetation best Management Practices and monitoring	M, OP	Environmental Services, Cedar, Turtle Creek Watersheds	N, ST	SWCD – On-going

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P	Conduct an inventory and identify the highest risk roads/bridges for flooding in the county. Determine measures to improve safety on those roads/bridges.	H, NP	Highway Dept, Public Works	N, MT	Not complete
PP	Maintain catch of sandbags and sand for use during flooding	H, OP	EM, Highway Department, Public Works		In-place
PP	Conduct a study of areas in the cities that have reoccurring basement flooding and develop mitigation strategies.	H, NP	City of Austin	N, ST	On-going
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C) Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)		Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

Violent Storms - Tornado, Thunderstorm, High Wind, Lightning, Windstorm, Hailstorm, Blizzard, Ice and Sleet					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRES REPORT 2012
E	Determine there is an effective warning system (sirens) for violent storms in each area of the county. Make investments in warning system if gaps are found.	H, OP	Mower EM, MCSD	P, St	Completed
P	Study incorporating storm shelter regulation in each community's code of ordinances.	M, NP	Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton, Leroy, Lyle, Mapleview, Racine, rose Creek, Sargeant, Taopi, Waltham	N, MT	Not yet started Started discussions
E	Conduct an inventory of storm shelters in the county and determine where additional facilities are needed.	M, NP	Mower EM	N, ST	Inventory completed

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P	Investigate requiring the incorporation into the feedlot permit of a response plan for all feedlot owners/operators for feedlots of 500 or more animal units (determine adequate power backup).	M, NP	Environmental Services	N, MT	Not started
E	Encourage more individuals to become volunteers active in severe storm network (storm spotter)	M, OP	EM, Red Cross, MCSD	N, MT	On-going
E	Investigate burying of existing power lines in Mower County.	L, OP	Mower/Freeborn electric, Austin Utilities	N, ST-MT	On-going New Substation constructed 2013
E, PP	Develop alternate means of fuel dispensing during power outages for emergency responder and other public vehicles.	H, NP	Mower County, Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton, Leroy, Lyle, Mapleview, Racine, rose Creek, Sargeant, Tsopi, Waltham	N, ST	Completed
E	Maintain and update the safe shelter program for residents of manufactured home and campgrounds.	M, NP	Mower EM	N, ST	Not started 1 mfg home has completed
E	Develop storm Debris management guidelines for the county, incorporate into Emergency Response Plan.	H, OP	Mower County Highway department, Austin Public Works	N, ST	On-going
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C) Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)		Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

CRS ANNUAL PROGRESS REPORT – YEAR 2013

Extreme Temperatures					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRES REPORT 2012
E	Ensure that the emergency response plan for Mower County includes response actions for both winter and summer events. Include the identification of vulnerable populations and location in the county.	H, OP	Mower EM	P, ST	On-going Almost complete
N	Encourage communities to study the use of vegetation for reducing the impacts of extreme temperatures including tree planting and windbreak development.	M, NP	Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton, Leroy, Lyle, Mapleview, Racine, rose Creek, Sargeant, Tsopi, Waltham	N, MT	Completed Need to revisit
E	Identify and map the locations of all vulnerable populations for emergency response, and develop a communications plan to notify vulnerable populations.	H, NP	Mower EM, MCSD, APD	N, ST	Not Funded – 1-5 years to complete; started
Wildfires					
PE	Identify and collect existing information or develop information for distribution to rural residents/property owners	L, NP	Fire Departments, Mower EM	N, ST	Not Funded – 1-5 years to complete; not started
PE	Investigate the need for an education program for the public regarding the dangers/prevention of wildfires.	L, OP	Fire Departments	N, MT	Completed DNR Forestry program covers

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Drought					
E	Encourage each city to develop a drought response plan for their city water system.	M, NP	Mower EM, Extension Service	N, MT	Not Funded – 1-10 years to complete; not started
PE	Enforce water conservation measures in the building code for each jurisdiction by educating the public and contractors.	H, OP	Building Code	P, MT	On-going
N	Develop a countywide program for the use of Storm water best management practices that includes the use native plant species, storm water capture and other measures by public agencies and the private sector.	M, NP	Mower Environmental Services, Extension Service	N, MT	On-going
					Demonstration sites completed
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C) Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)		Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

CRS ANNUAL PROGRESS REPORT – YEAR 2013

Water Supply					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRESS REPORT 2012
P	Update the county land use plan and city land use plans to provide additional policies on development/land uses within the highly sensitive areas to groundwater pollution. Follow up with any necessary changes to the local zoning ordinances.	M, OP	Adams, Austin, Brownsdale, Dexter, Grand Meadow, Elkton, Leroy, Lyle, Mapleview, Racine, rose Creek, Sargeant, Taopi, Waltham, Environmental Services	P, MT	On-going
P	Continue to regulate individual sewage treatment systems (septic systems). Update the county ordinance if new regulations are developed by the state.	H, OP	Environmental Services	F, ST-LT	On-going Ordinance revision required by Feb 2014
P	Continue to conduct an inspection program for all feedlots and manure storage facilities in the county. Investigate adopting feedlot rules.	M, OP	Environmental Services	F, ST	On-going
P	Continue to provide a well water testing program for all well owners in the county.	H, OP	Environmental Services	F, ST-LT	Discontinued
PE	Develop educational materials for well owners to address flooding and well impact. If material exists determine means for distribution.	H, OP	Environmental Services	N, ST	On-going Mailed annually to floodplain property owners
Waste Water Treatment					
P	Continue to properly enforce the septic system ordinance and state rules within the county.	H, OP	Environmental Services	F, ST	On-going
P	Develop regulations to require inspection of septic systems at the time	H, OP	Environmental Services,	P, ST	On-going

CRS ANNUAL PROGRESS REPORT – YEAR 2013

	of sale, inspection program requirements/ pumping requirements, and other Best Management Practices.		County Auditor, Recorder		
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Infectious Disease					
E	Develop and/or sustain methods and assets necessary to quickly detect and report emerging infectious disease threats.	H	Local & State PH & Local Health Care Providers	P, ST-LT	Completed 2002 Working on current 10-yr plan
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C) Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)		Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

Infectious Disease					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRES REPORT 2012
P	Develop an active disease surveillance plan that includes the necessary staff, just-in-time training and logistical support to daily assess new cases, hospitalizations, pharmaceutical impact, medical supply impact, mortality and other epidemiology data necessary during an ongoing epidemic, and be prepared to implement when needed.	H	Local & State PH	N, ST	Pandemic flu plan completed Ongoing updates
E	Increase capacity to monitor large numbers of persons placed in community isolation	H	Local & State PH	N, ST-LT	Quarantine policy in place

CRS ANNUAL PROGRESS REPORT – YEAR 2013

	and/or quarantine during an infectious disease epidemic				Working on large numbers
E	Develop and maintain a system to support basic needs (e.g. food, medications) for individuals/families that are placed in isolation or quarantine, or are following recommendations to self-isolate/quarantine.	H	Mower County/City Government , Non-profit & Businesses	P, MT	Completed Plan in place Training completed
P	Maintain high childhood and adult immunization levels against influenza, measles and other serious infectious diseases.	H	Local & State PH, Health Care Providers and Schools	P, ST-LT	On-going
E	Develop and sustain capability to preventively immunize or medicate very large numbers of selected populations in a short period of time, including provisions for clinic staffing, storage and preparation of biologics, staging areas and security (e.g. mass clinics).	H	Local & State PH, Health Care Providers	P, ST-LT	Mass dispensation program in place
E	Identify individuals who may be at increased risk of direct exposure to infectious diseases while implementing emergency response plans and assure that appropriate personal protective equipment (e.g. respirators, masks, gowns etc.) are available in adequate supply, serviceable and fit tested if necessary.	H	Local & State PH, Health Care Providers	P, ST-LT	Plan and supplies in place On-going review / update
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C) Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)		Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

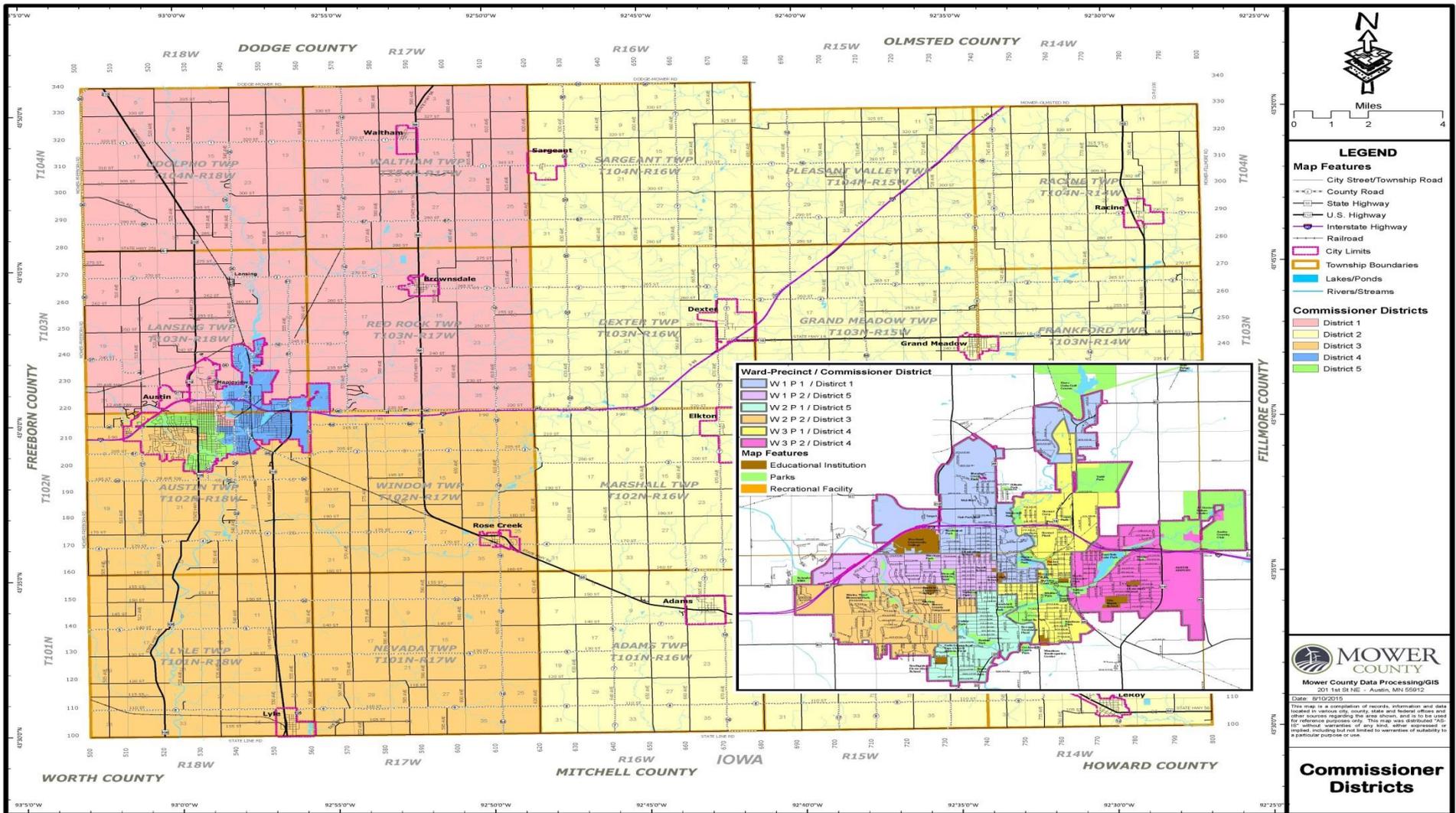
Infectious Disease					
Mitigation Action	Strategy	Priority/ Program NP/OP	Lead Agency	Funding / Completion	CRS ANNUAL PROGRESS REPORT 2012
E	Assure that policy, funds, staffing and adequate facilities are in place to establish "flu centers" for the purposes of triage, treatment and possibly short term care during a pandemic	H	Local & State PH, Health Care Providers	N, ST-LT	Plan and supplies in place On-going review / update
P	Assure access to laboratory services capable of quickly identifying/ typing high risk infectious diseases and also determining drug sensitivities	H	Local & State PH, Health Care providers	F, ST	MDH has in place
S	Identify clinics, hospitals, triage sites, and other locations where there exists an increased risk of acquiring/transmitting a dangerous respiratory disease (e.g. pandemic influenza or SARS), and acquire/install the appropriate equipment and/or building designs necessary to reduce or eliminate risk of contaminated air (e.g. filtration systems, air exchange enhancements, negative pressure rooms etc.)	H	Local & State PH	N, ST	Areas have been identified Equipment & building design – On-going Isolation rooms and Negative Pressure rooms identified
P	Assure that a plan is in place to provide safe drinking water and food supplies when normal delivery systems are disrupted due to shortages or contamination	H	Local & State PH	P, ST	Plan in place
P	Assure policy and operational structure is in place to provide education, consultation and regulation as needed to help assure prevention and control of infectious diseases during an epidemic	H	Local & State PH	P, ST	Plan in place
S	Formalize and be prepared to deliver regional emergency preparedness and response roles	H	Local & State PH, Health Care	N, ST	Plan in place

	such as communication, mass dispensing, flu centers, antiviral/vaccine/supplies storage and distribution capacity		Providers		Update On-going
P	Assure that state or local government agencies have the ability and resources necessary to conduct on-going surveillance for vector-borne and other zoonotic diseases that may threaten Mower County residents due to illness or economic repercussions.	M	Local & State PH	N, ST	Program completed
Prevention (P) Property / facility protection (PP) Public education and awareness (PE) Natural resource protection (N) Emergency services (E) Coordinated / cooperation (C) Priority: High (H), Medium (M), Low (L) New Program (NP), Ongoing program (OP)		Funding: Not funded (N), Partially funded (P), Currently funded (F), and a time frame for implementation of 1-5 years (ST), 5-10 years (MT), and more than 10 years (LT)			

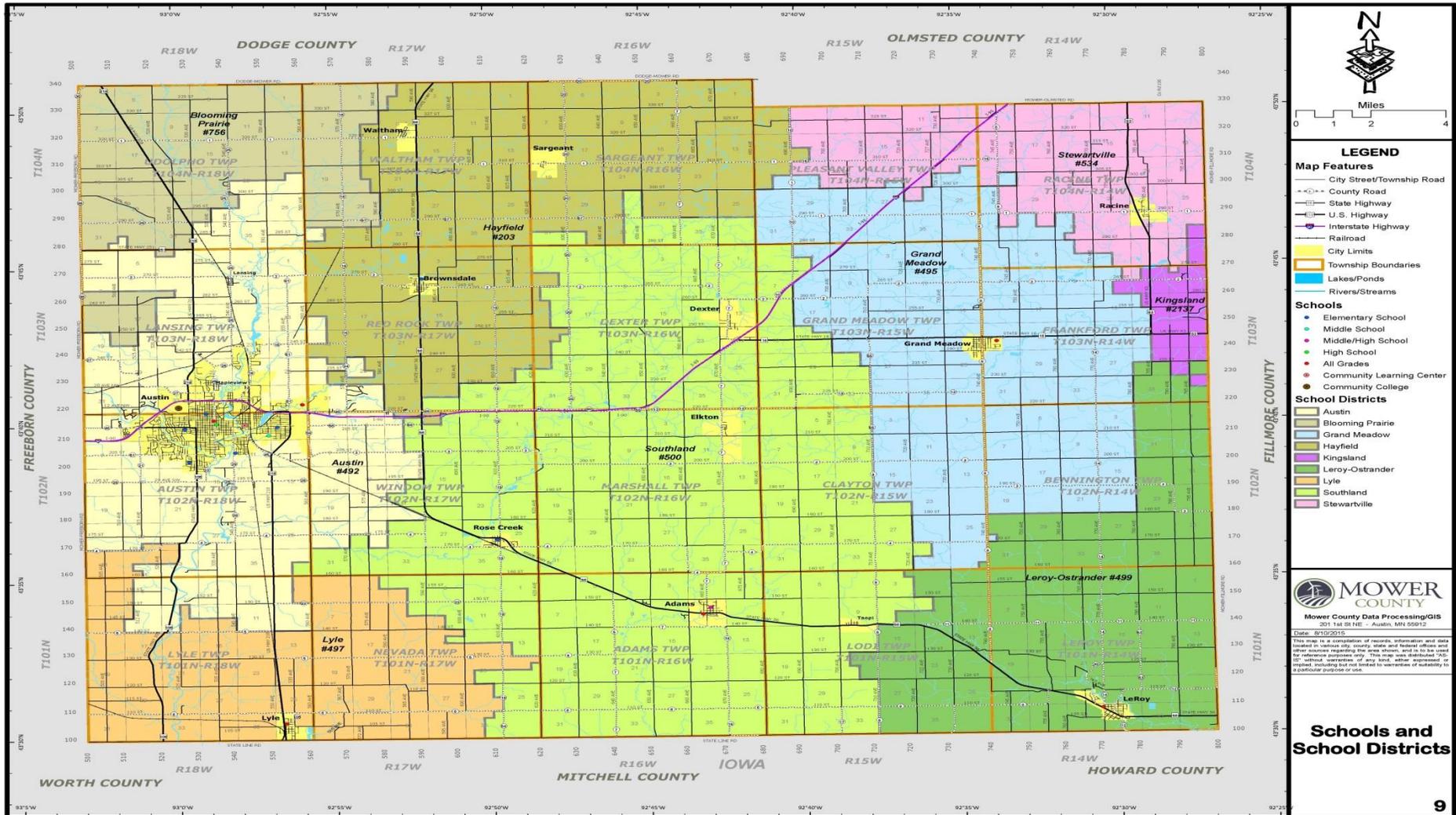
Appendix C: MAPS

This section contains the following maps:

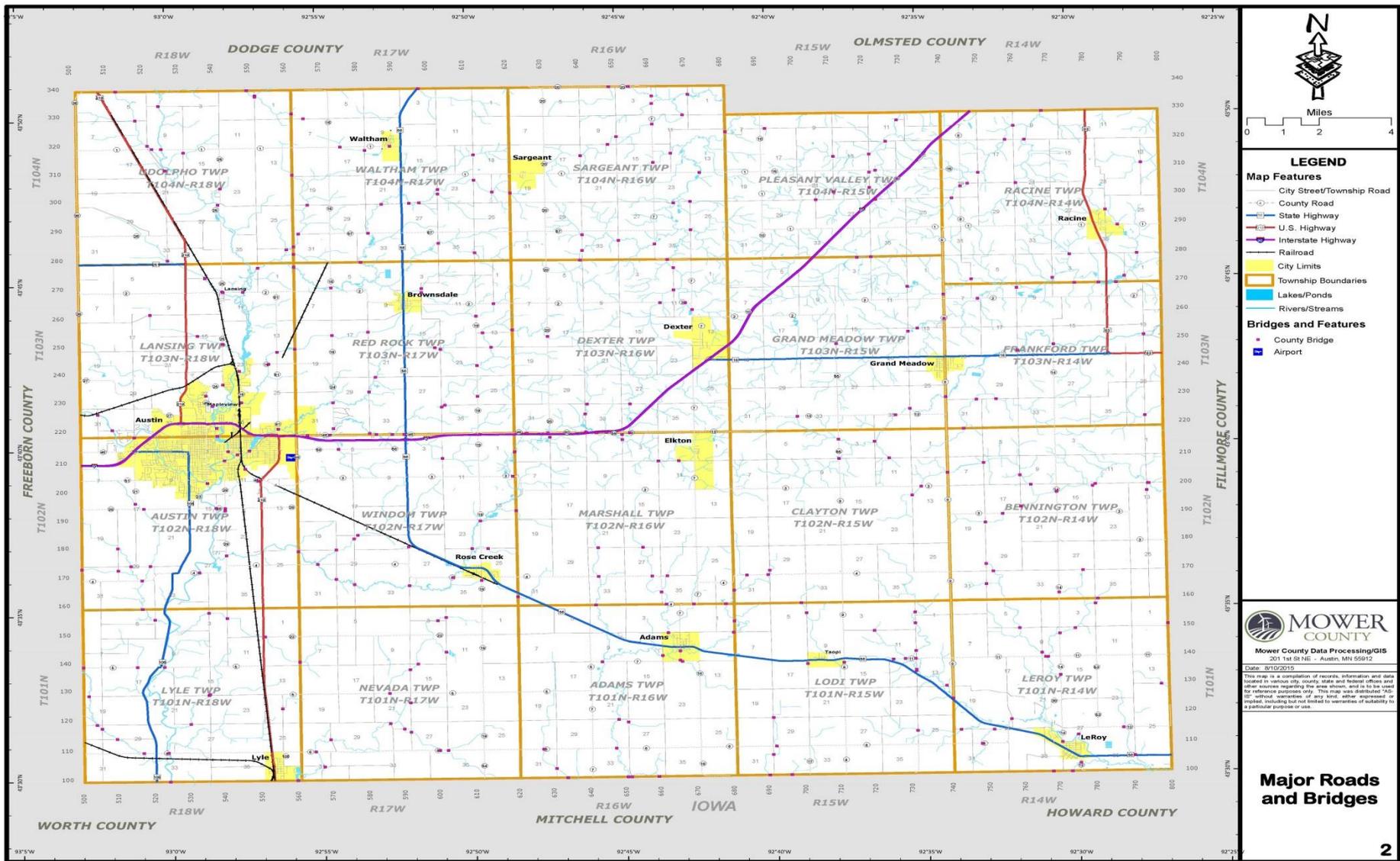
- Commissioner Districts
- Schools and School Districts
- Major Roads and Bridges
- Roads, Bridges and Airports
- Water Supply and Waste Water Treatment Stations
- Ambulance and Emergency Sirens
- Fire Departments
- Government Buildings
- Ambulance Department, Fire Stations, Health Care Facilities, Hospital, Ambulance and Salvation Army Shelter
- Cell Towers and Pipelines
- Churches and Cemeteries
- Preserved Natural Lands, Historic Sites, Tourism, Amenities, Major Employers and Landmarks
- Adult Care Facilities
- Daycare Facilities

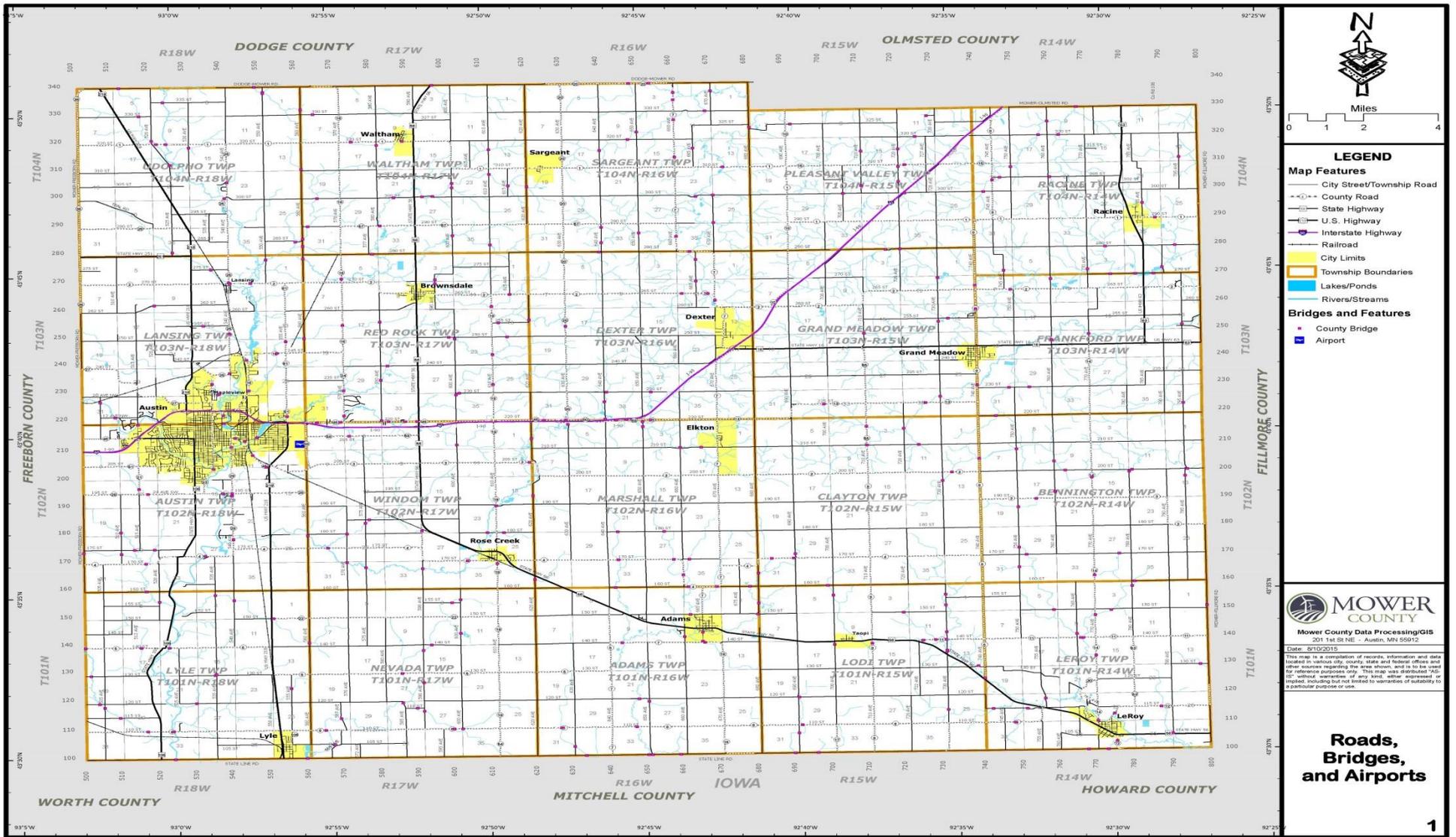


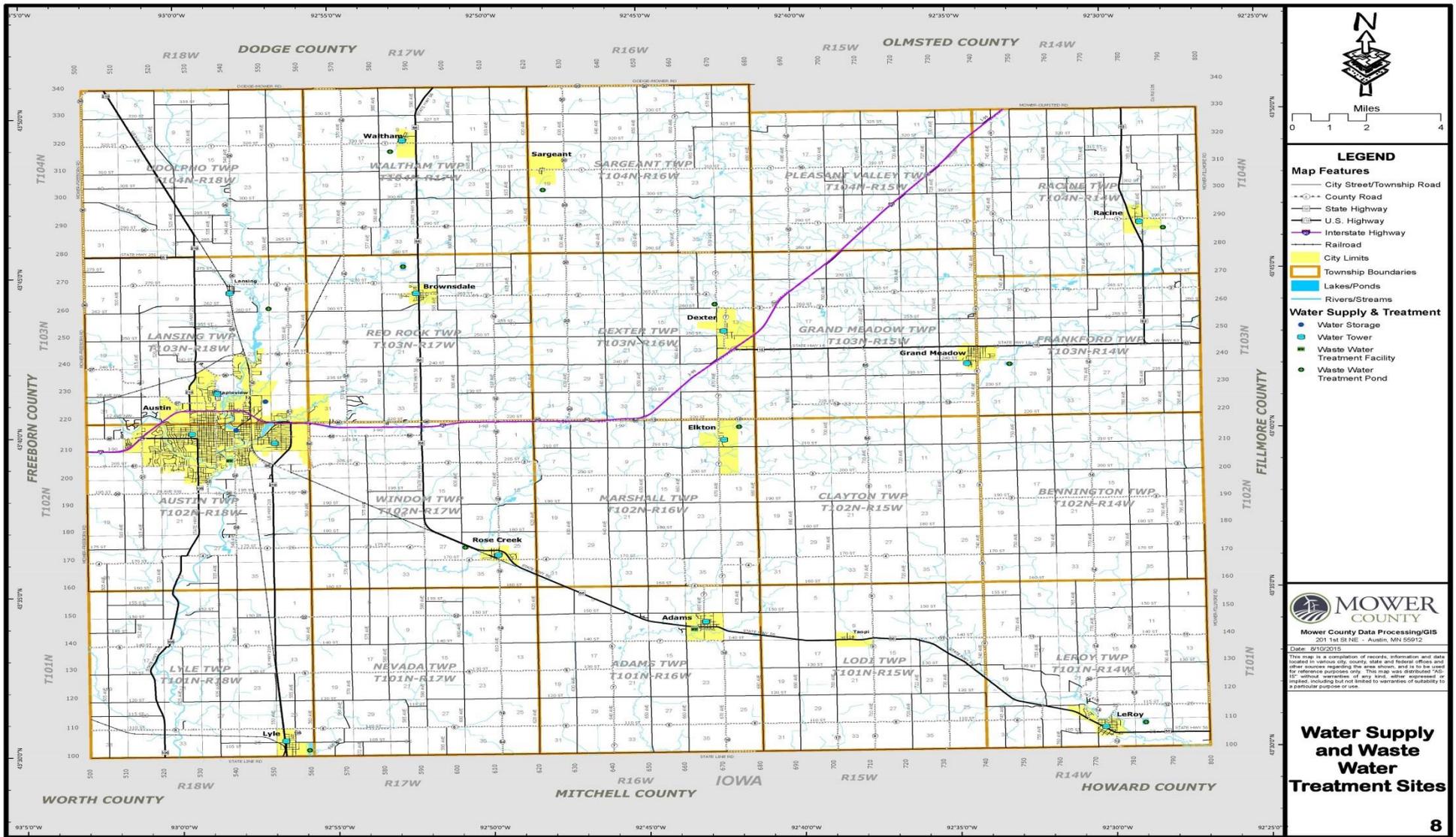
Austin/Mower County All Hazard Mitigation Plan Update- 2015

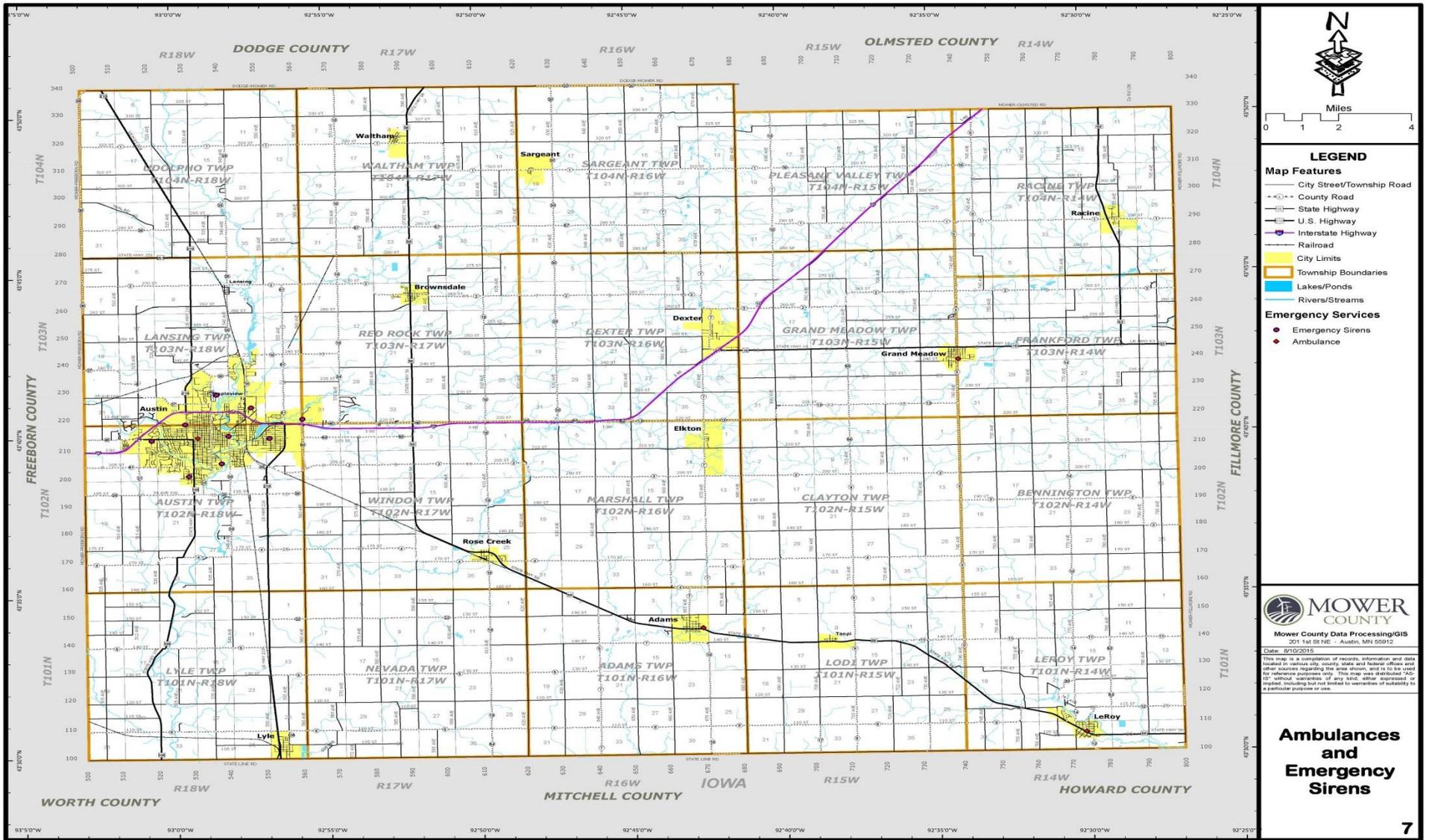


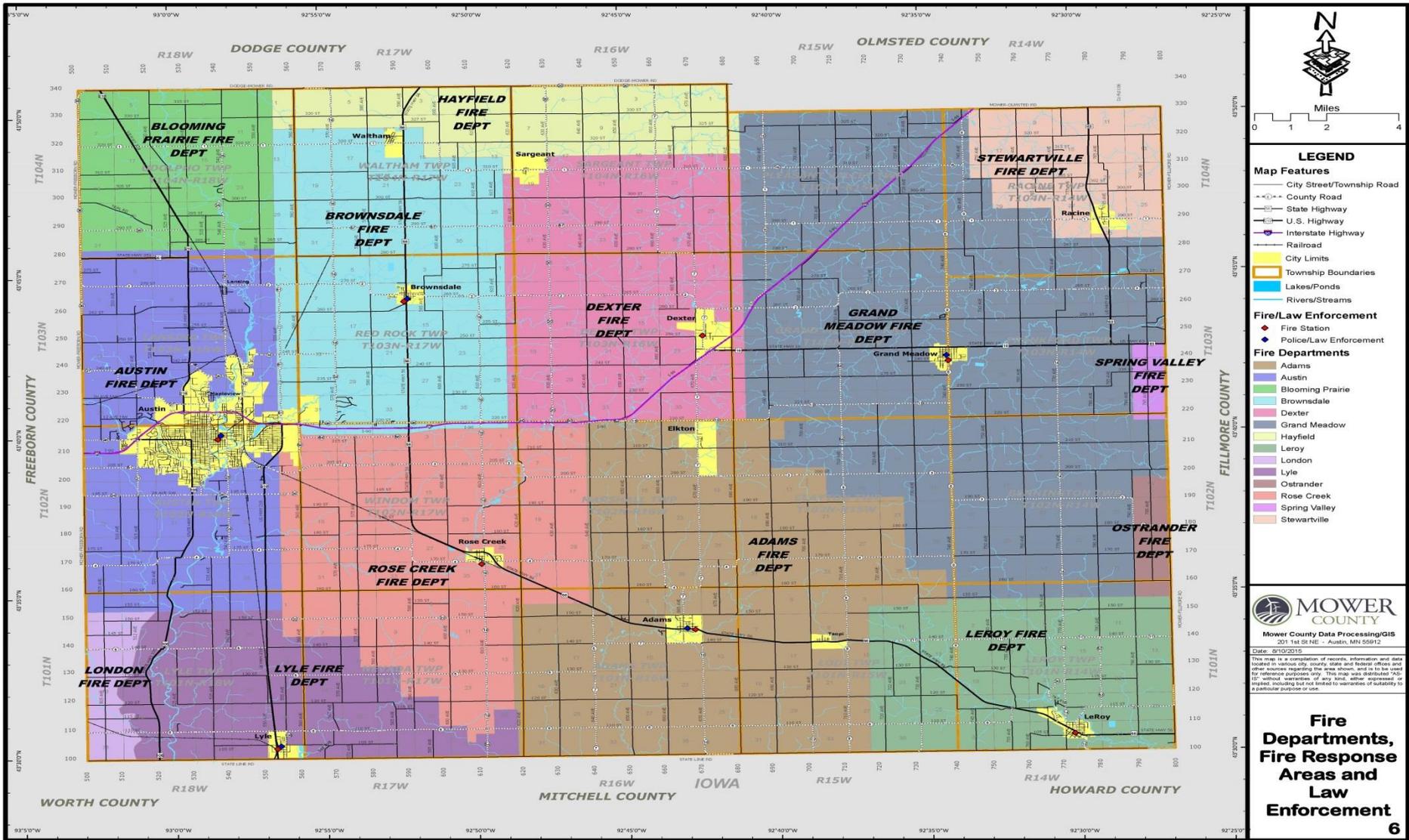
Austin/Mower County All Hazard Mitigation Plan Update- 2015

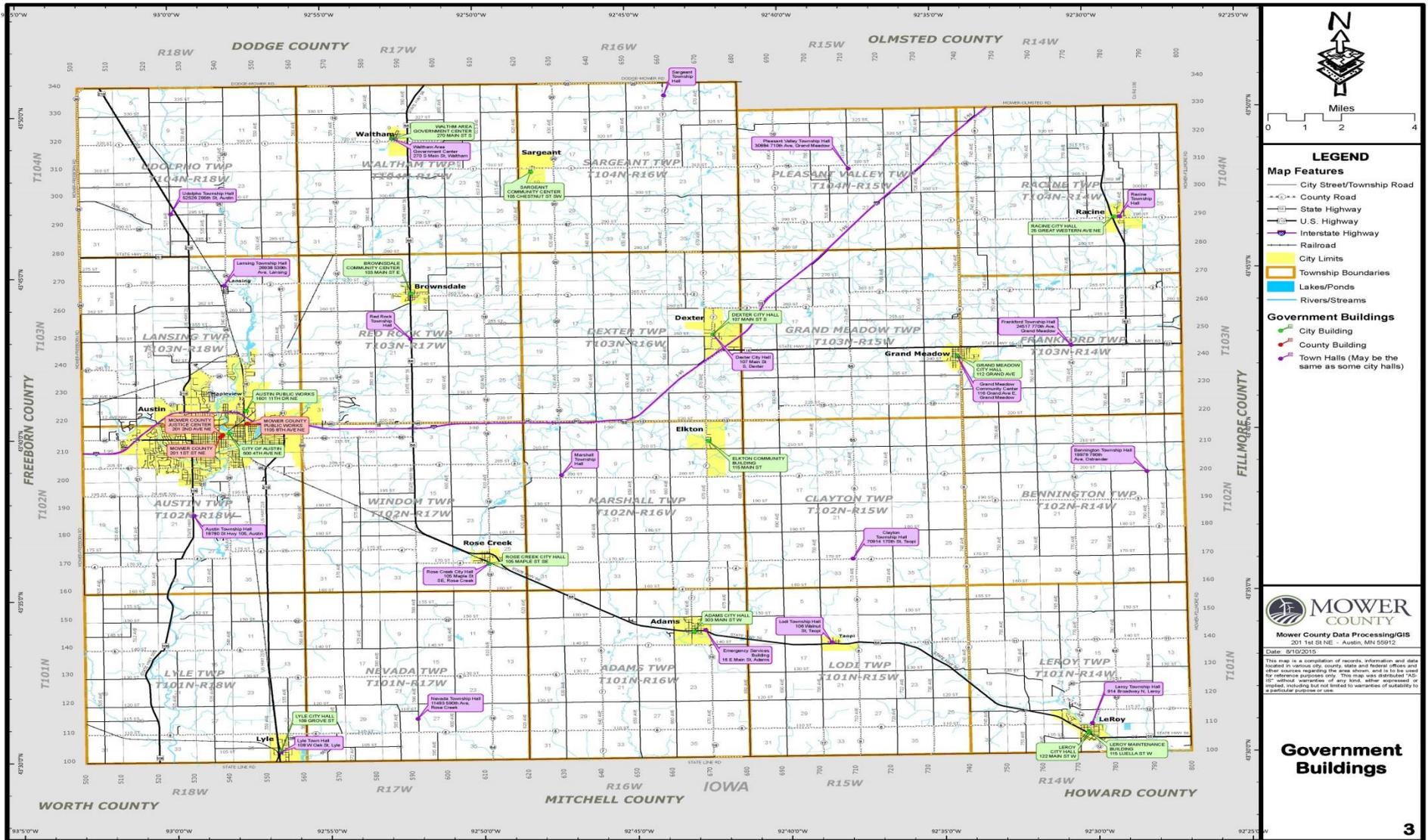


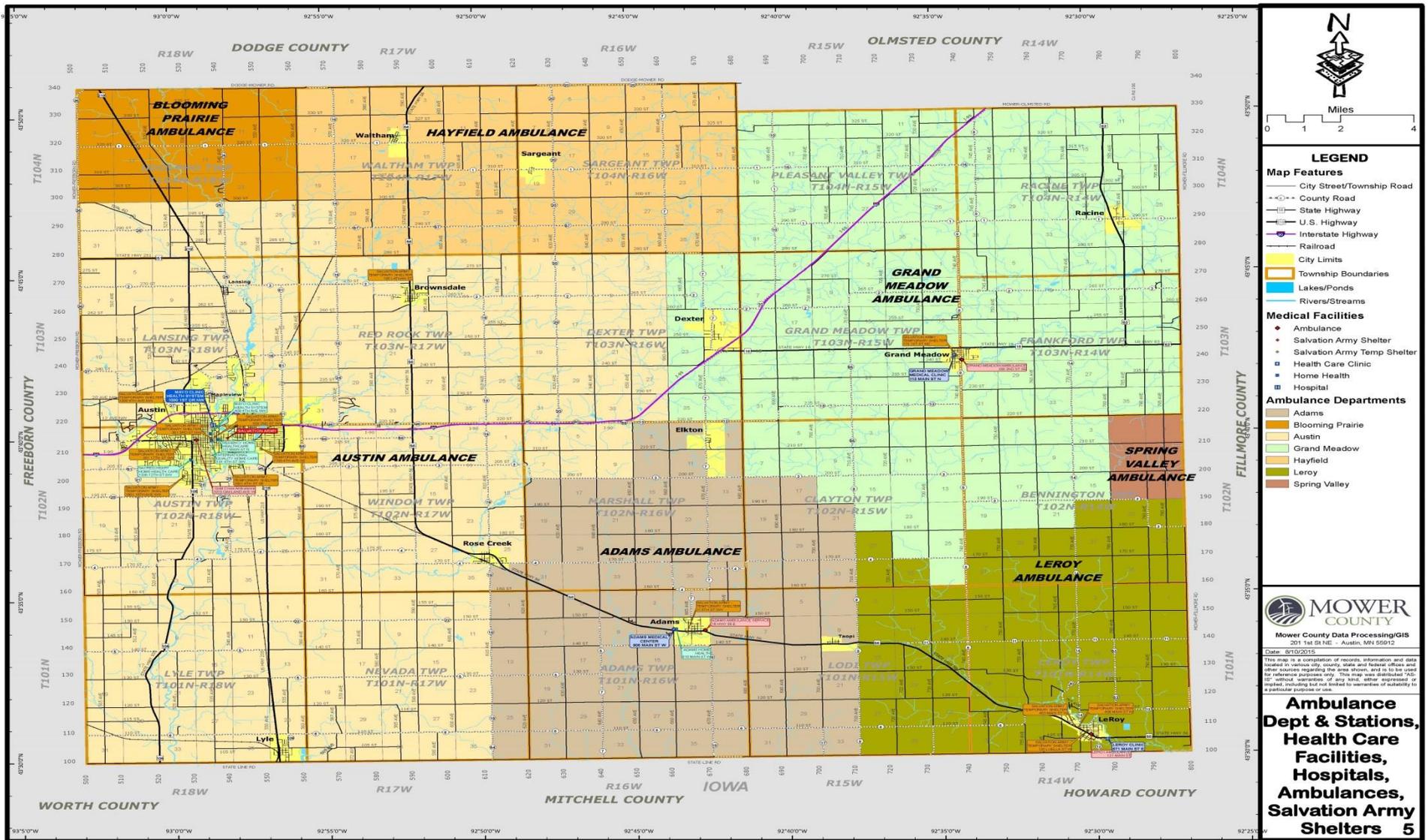


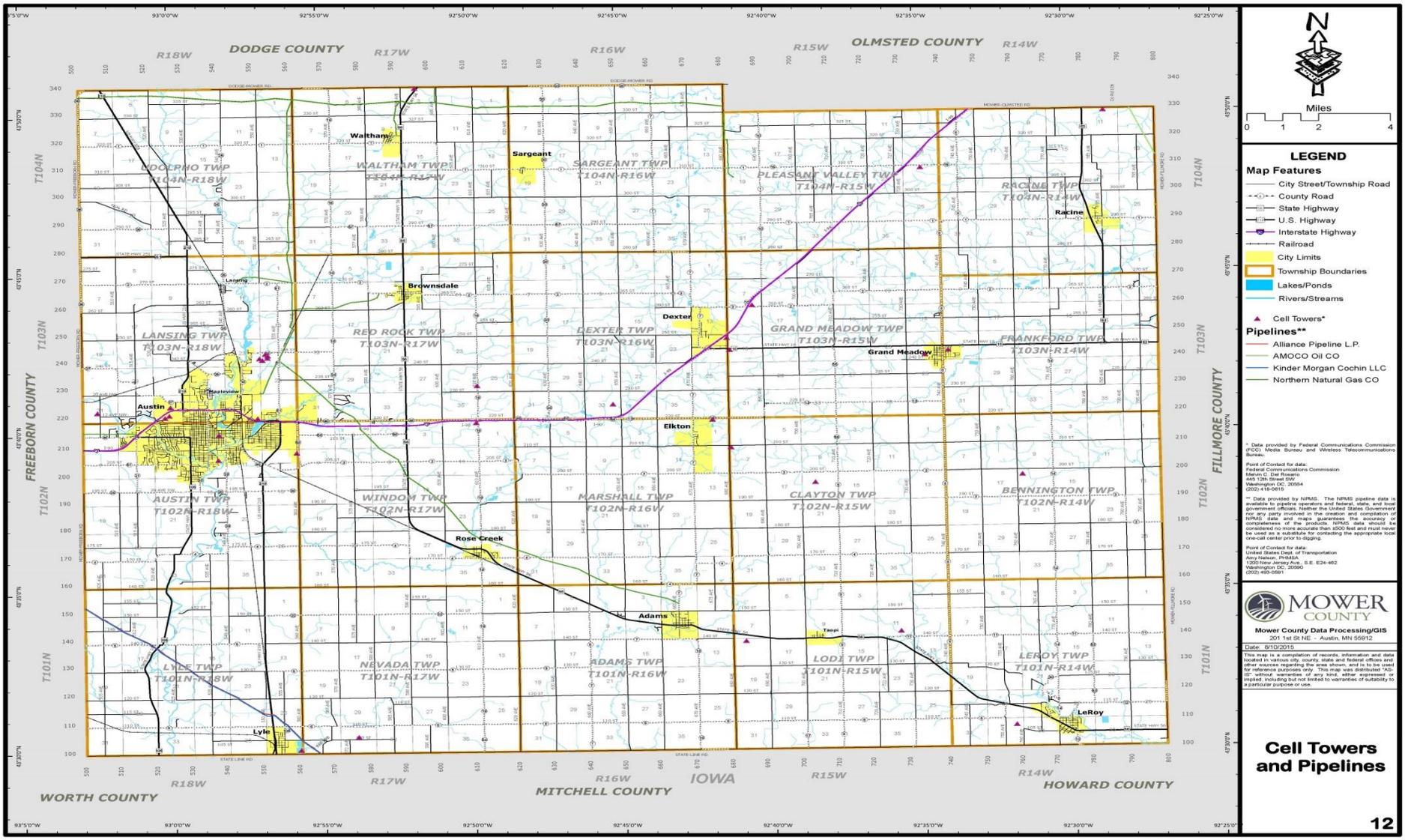


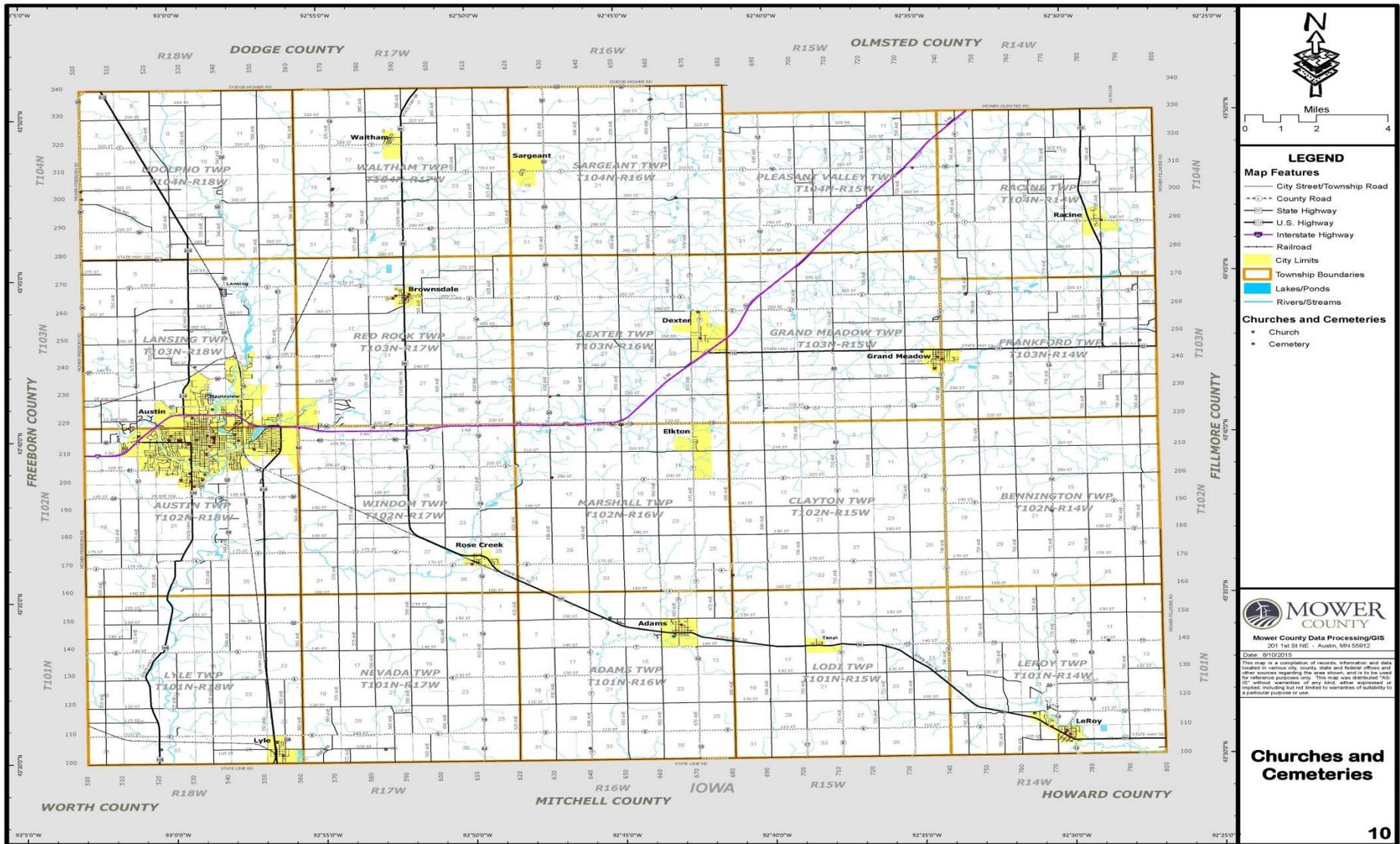


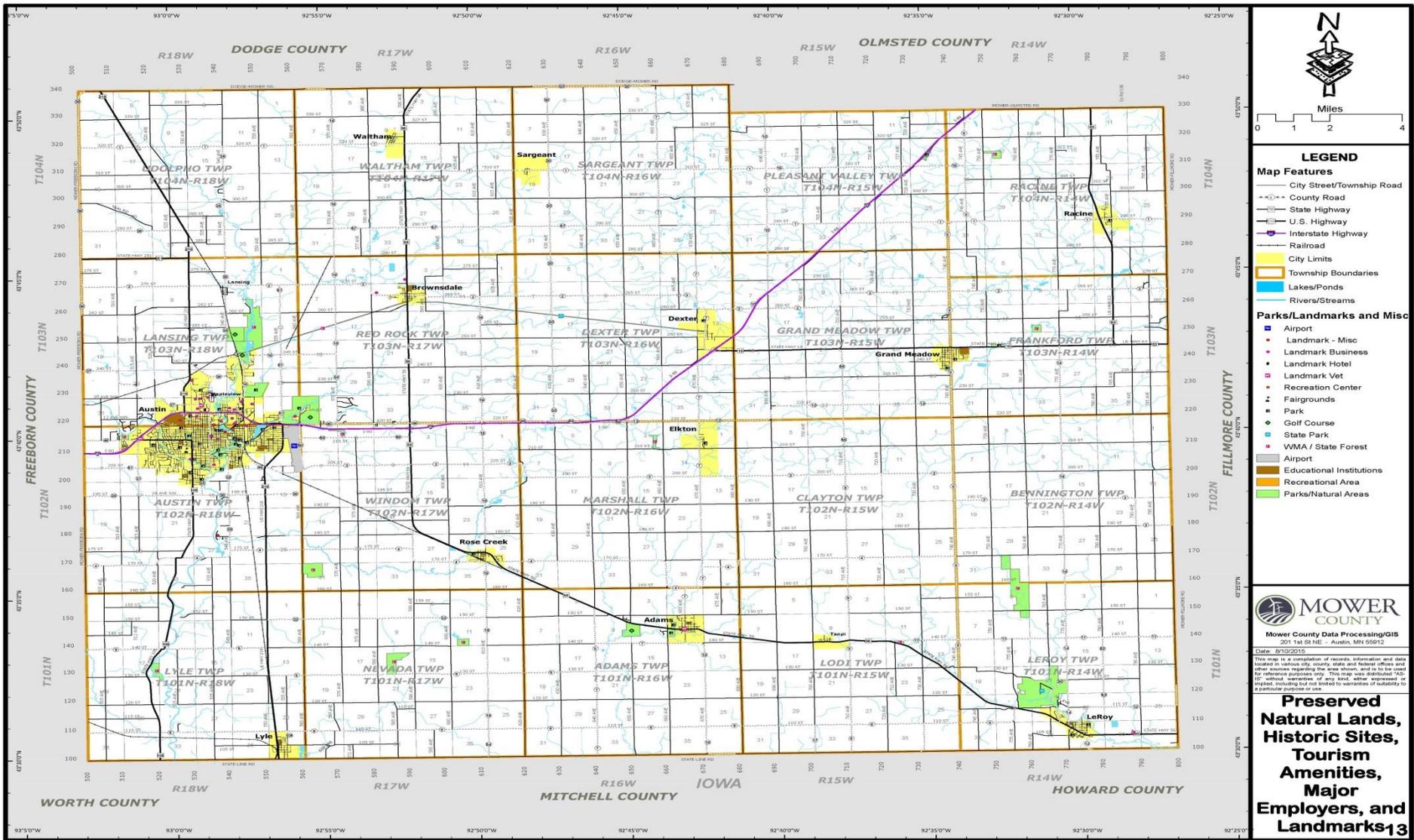


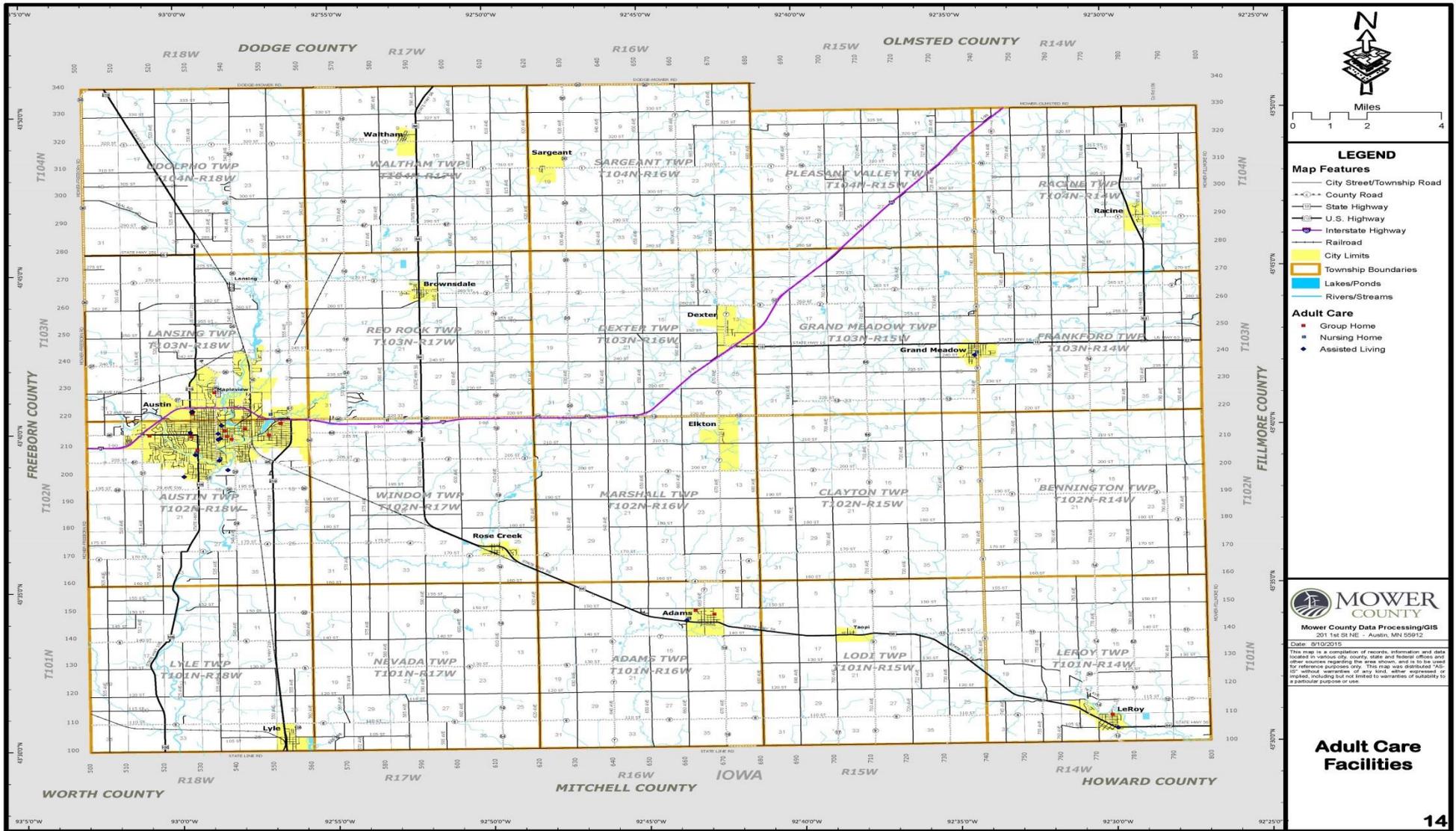


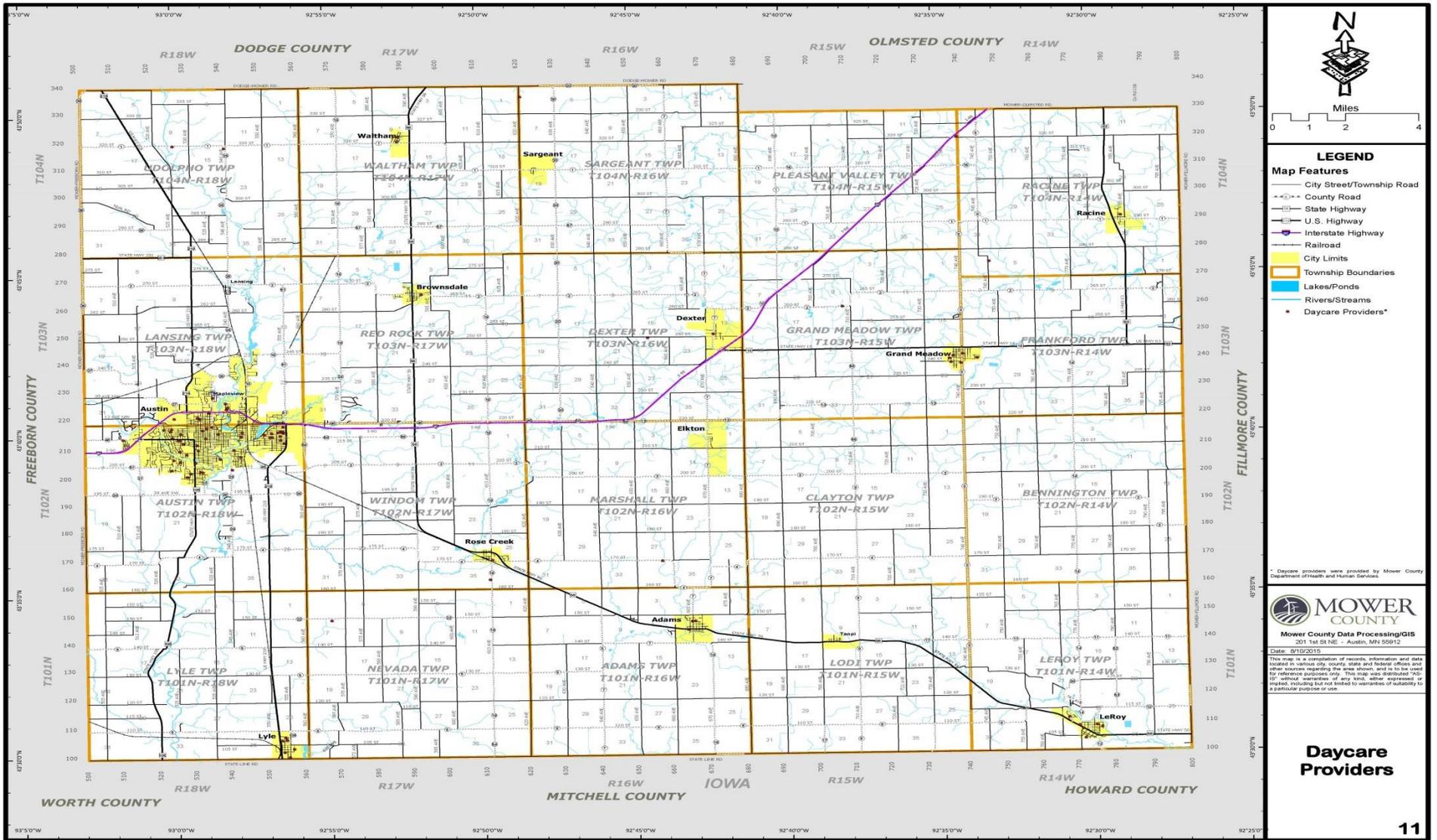






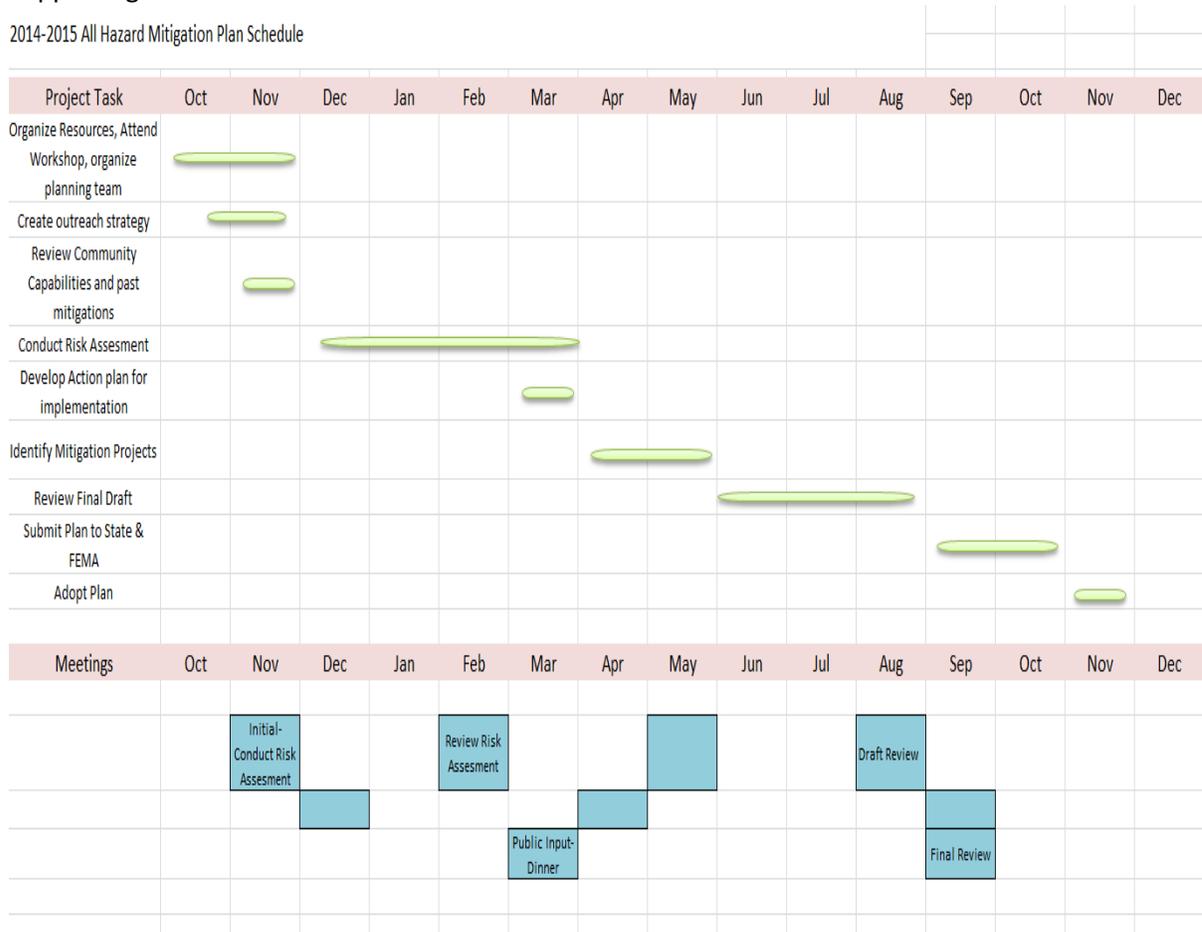






Appendix D: Supporting Documentation

2014-2015 All Hazard Mitigation Plan Schedule





FEMA



Project Name:	FEMA Region V Community Mitigation Meeting
Meeting:	SE Corner Tier 2 Group, MN
Date and Time:	February 24, 2015 9:00 a.m
Place:	Mower County Government Center at 201 1st Street NE, Austin, MN 55912
Facilitator:	Jon Johnson, STARR and Ryan Wiedenman, STARR

Attendees

See attached sign in sheet.

Introductions

Jon Johnson opened the meeting and all attendees introduced themselves. A pre-populated sign-in sheet was distributed for attendees to initial their attendance and check and correct contact information. Jon displayed the outreach materials binder and briefly explained the types of information included, and informed attendees that all the materials were included in the flash drive that was provided to each community. He noted that some of the materials could be used both for internal planning and education on mitigation ideas, while others were suitable for providing to interested residents, developers, realtors, or other organizations. Jon described the RiskMAP program and objectives.

Purpose of Meeting

Tom Smith from FEMA provided a brief overview of Risk MAP, including that one of the goals was to support local activities that reduce risk. FEMA Risk MAP projects can include both mapping studies and technical support for local mitigation efforts, so this meeting is intended to focus exclusively on identifying specific mitigation technical support that would help communities to advance on mitigation projects. FEMA and the State partners specifically selected certain communities to meet with based on recognition of mitigation needs or interest. He explained that this meeting is intended to identify specific actions that the community will implement over the coming year, along with desired mitigation technical support that FEMA may be able to provide. Technical support funded at this time is limited to smaller low-cost support efforts – not project funding or grant needs – and the specific support would be determined by FEMA and State review of the issues following the meeting.

Review Meeting Documents

Jon Johnson introduced the meeting documents that had been provided to each community. He explained that the Community Profiles were a compilation of data from FEMA and other Federal databases and are intended to give a “snapshot” of the community from an NFIP and mitigation perspective. In addition, it includes a summary of information from the current mitigation plan that can be a starting point for identifying potential mitigation activities and needed technical support. Also provided for the community is a list of Mitigation Priorities, which is also intended to provide some ideas for the group discussion and help the community to think through options – and decide what might best fit their community’s unique situation.

Mitigation History

Ryan Wiedenman discussed the status of the mitigation plan for the community, and explained that part of Risk MAP is communities planning for community development and growth, and how





floodplains and stormwater management fits into future growth. The group reviewed the dates of the current mitigation plan and discussed its future.

Mitigation Strategy

Within one small group discussion, the communities worked with Risk MAP representatives to review the profiles and the mitigation priorities, and identified actions they would be likely to implement and technical support that would help them to progress. The Risk MAP representatives documented these actions and the technical support. A brief summary of the conversation included below:

- Acquisition of Homes (Mower Co.) – There are several homes (between 4-6) in the county that have been identified as repetitive loss properties or, in some cases, severe repetitive loss properties. These areas were identified on the hot spots maps and confirmed by the county. The county is interested in pursuing buyouts for these properties and has talked with several of the homeowners about doing so. Although a few are hesitant, there are at least some that are interested in buyouts. The biggest challenge in doing this has been that homeowners in some cases believe that their house is worth more than the funds that have been offered for buyouts in the past.
- Debris buildup after flooding (Mower Co.) – Cleanout of debris is an issue that is causing concern for the county as it is often causing localized flooding problems and is a nuisance to citizens. Suzanne Jiwani mentioned that in the past DNR has been able to get people from the Parks and Trails section of DNR out to take a look at this in other communities. The county would like to look into establishing a more consistent program for addressing this issue.
- Stream Gages and Inundation Mapping (Mower Co., Albert Lea, Austin) – The communities are interested in keeping the gaging program going and are very interested in the inundation mapping program that was developed as a pilot in St. Paul recently and is now on the NWS website. The main requisite of this mapping program is to have gages and those generally seem to be in place. However, the communities mentioned that it would be useful to have a gage right on the north side of I-90 near the cemetery.
- Real Time Rainfall Data (City of Austin) – In addition to stream gage data, the City of Austin mentioned that they would be interested in having better rainfall data. Mower County mentioned that they use this kind of data frequently, but they don't have as much detailed information as they would like. Suzanne Jiwani thinks that it is worth checking with the National Weather Service as they may have some data points on this in some cases or may be able to add recording capability for this to gages that are already in place.
- Road and Infrastructure Issues (Mower Co., Albert Lea, Austin) – The county and both cities identified several locations where road flooding has been a problem in the past and where infrastructure is in need of upgrading to prevent future flooding. For example, on 105 South right along the river there are several locations that have gone under water in the past and under I-90 the culverts were sized incorrectly which has caused flooding in the past. The communities looked at a recent MNDOT vulnerability study that the Core Team provided and noted that many of the areas identified in the study were correct. In addition, the cities and county were interested in the idea of implementing more green



FEMA



infrastructure related projects to try to reduce stormwater and flooding issues related to roads other infrastructure.

- Cedar River Watershed Bank Stabilization (Mower Co., Albert Lea, Austin)- The watershed district has done a lot of modeling in the past, especially along Dobbins Creek, where they have been examining the impacts of drain tiles and that sort of thing. There is a USACE software program that can look at these kinds of issues and the DNR may be able to provide support in using this program or helping with identifying problem areas.
- Acquisition of Homes (Austin) - The City of Austin is also looking at 1 or 2 remaining potential buyouts that they have not captured in their previous buyout programs. The biggest challenge now is convincing people that they are at risk since they have not had a flood event in a while and the remaining homes are on the fringe of flood risk.
- Berm Projects (Austin - The city has shifted focus from buyouts towards projects that are flood control. They have begun working on several berm projects that are intended to protect homes in the city. There is one that is in the works along Turtle Creek to protect about 50 homes and there is one along Cedar River that would also protect structures in the downtown area. Also, the city is looking at permanently reinforcing the temporary berms that were set up around the WWTP during past flood events to ensure protection.
- Flood Storage to Address Localized Flooding of Homes (Albert Lea) - There are several areas in the city where there has been localized flooding in the past, namely around 4th and Plainview, 5th and Virginia, in the Abbott Street neighborhood, and surrounding Moran Park. The solution to these flooding issues requires a regional approach to try to address locations where basements are flooding. In some cases, the best solution would likely be to implement some type of flood storage project. One of the issues in implementing this type of project is finding the space to add them.
- Better Education Materials (Albert Lea) - The city said that one of the bigger issues that they encounter is trying to help both citizens and other community leaders to better understand flooding issues. The city would be interested in receiving some materials that are aimed at the layman so they can utilize these to help understand why projects need to be implemented. The watershed district has done a lot of outreach in the past on public education. 111111

Wrap Up - Summary of Desired Mitigation Projects

The group identified several mitigation projects that are high priority. The communities would like to work with FEMA and the State toward securing funding for technical assistance to support local implementation. Below is a summary of desired technical support.



MITIGATION ISSUE	LOCATION DESCRIPTION	MITIGATION PROJECT TYPE	NEEDED TECHNICAL SUPPORT
Acquisition of Homes (Mower Co)	Various locations	Property Protection	-DNR/HSEM grant funding and application assistance
Debris Buildup (Mower Co)	Various locations	Property Protection	-DNR will contact Parks and Trails section
Stream Gages and Inundation Mapping (Mower Co, Austin, Albert Lea)	North of I-90 near cemetery	Emergency Services	-Assistance with funding source for new gage -Assistance with inundation mapping through USACE, DNR
Real Time Rainfall Data (Austin)	Various locations	Emergency Services	-Assistance with identifying data sources through NWS
Road and Infrastructure Flooding Issues (Mower Co, Austin, Albert Lea)	105 South, I-90	Structural	-More information on MNDOT projects -Potential assistance implementing green infrastructure
Cedar River Bank Stabilization (Mower Co, Austin, Albert Lea)	Along Cedar River	Property Protection	- Identifying problem areas -What programs to use and how to use them through DNR
Acquisition of Homes (Austin)	Various locations	Property Protection	-DNR/HSEM grant funding and application assistance
Flood Storage (Albert Lea)	Locations need to be identified	Structural	-Assistance identifying areas for storage -Funding needed to implement
Education Materials (Albert Lea)	Countywide	Public Education	-FEMA/DNR/HSEM assistance with providing materials

Next Steps

FEMA and State partners will consider the desired technical support and needs and will contact the community within two months to provide more information about how FEMA and the State can provide support for the community mitigation efforts. Meeting notes and revised meeting documents will be prepared to reflect the identified technical support needs from this meeting and these will be provided within two months as well.

Southeast Corner Tier 2 Priorities

Community	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5
<i>Albert Lea</i>	Abbot Street- street flooding, basement flooding, stormwater related	Main Street- buyouts in past, retention added, street flooding issue now	Front Street- street flooding, stormwater-related, could be infrastructure issue	Hard to get public buy-in	Unsure about participation in HMP
<i>Austin</i>	Berm project along Turtle Creek to protect ~50 homes	WWTP on Main Street- stabilize existing berms that were built during flood events	Berm project along Cedar River	Hard to get homeowners to recognize need for projects- no flood in a while	Gauging stations upstream- want more rainfall data as opposed to river level data
<i>Fillmore County</i>	Retention ponds- for example, Hwy 28 could be used as barrier to create retention; also Spring Valley could use retention	Basement flooding in lower part of Preston	Road flooding- examples: near City of Fillmore, along Bear Creek	Many issues could be resolved by slowing water down	
<i>Mower County</i>	Home buyouts- currently working on 4, may look at some SRL	Deer Creek and Upper Iowa River- would like to have better data	Some home flooding in Cities of Adams and/or Rose Creek		
<i>Rushford</i>	Questions about status of levee	Road flooding- example: Highway 43	Gauging upstream on Rush Creek	Currently trying to rebuild sewer, water, storm infrastructure	



May 26, 2015

Amy Lammey
Emergency Management Coordinator & Safety Director
Mower County Offices
201 1st. Street NE, Suite 9
Austin, MN 55912

Dear Amy Lammey,

Thank you for attending the emergency preparedness meeting on April 30 at Riverland Community College. It was informative, productive and enjoyable. The insightful discussion contained several innovative ideas that we are now considering for the development and improvement of our existing emergency preparedness plan. We invite you to continue to share your expertise and advice with us as we seek to formalize our goal to provide “Best-in-Class” emergency and safety practices to our communities.

We agreed on the following list of action items and talking points:

- Discuss and review constituting a Public Information Officer (PIO) group for media assistance among our agencies. Possibly set up a meet and greet with media training.
- Establish a 24-Hour emergency contact person for each Riverland building; develop an internal use resource kit for items or services Riverland can provide to other agencies.
- Provide Law Enforcement agencies in Albert Lea, Austin, and Owatonna with a list of key holders for each Riverland building. Discuss providing law enforcement with card access, master keys, Knox Box, etc.
- Develop digital “Go-Kits” that contain employee and student contact information, building plans, safety maps, mutual aid agreements, etc. for law enforcement agencies in Albert Lea, Austin, and Owatonna.
- Establish an identification method for non-uniformed emergency responders. One idea was to wear reflective emergency vests.
- Discuss and review designing “Shelter-in-Place” Kits. Possible content ideas include flashlights, first-aid supplies, medications, and whistles.

We created a short online survey to solicit your feedback; it is available at <https://www.surveymonkey.com/r/TJ6RF59>

We will notify you as soon as we schedule our next emergency planning meeting and provide updates in the interim. We look forward to your continued participation and comments.

Sincerely,

Adenuga Atewologun, Ph.D.
President

Mike R. Howe, M.S.
Safety Administrator

riverland.edu



ALBERT LEA CAMPUS
2200 Riverland Drive
Albert Lea, MN 56007
507-379-3300

AUSTIN CAMPUS
1900 8th Avenue NW
Austin, MN 55912
507-433-0600

OWATONNA CAMPUS
965 Alexander Drive SW
Owatonna, MN 55060
507-455-5880

A MEMBER OF THE MINNESOTA STATE COLLEGES AND UNIVERSITIES SYSTEM

Emergency Preparedness Planning Meeting on 4/30/2015										RSVPs as of 4/30/15	
# of Invites	RSVP	First Name	Last Name	Title	Business/Dept.	Address	City	State	Zip	Phone	Email
1	Yes	Adenuga	Atewologun	President	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0607	adenuga.atewologun@riverland.edu
2	Yes	Mary	Davenport	VP of Academic & Student Affairs	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0530	mary.davenport@riverland.edu
3	Yes	Mike	Howe	Safety Administrator	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0621	mike/howe@riverland.edu
4	Yes	Celeste	Ruble	VP of Employee & Technology Resources	Riverland Community College	965 Alexander Drive SW	Owatonna	MN	55060	507-433-0666	celeste.ruble@riverland.edu
5	Yes	James	Douglass	Exec. Director of Communications, Mktg. & Media Relations	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0611	james.douglass@riverland.edu
6	Yes	Dan	Harber	Director of Technology	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0609	dan.harber@riverland.edu
7	Yes	Brian	Staska	RTD Rep. (fire)	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0353	brian.staska@riverland.edu
8	Yes	Steve	Wald	Law Enforcement Instructor	Riverland Community College	1900 8th Avenue NW	Austin	MN	55912	507-433-0360	steve.wald@riverland.edu
9	Yes	Judy	Enright	Physical Plant Director	Riverland Community College	1901 8th Avenue NW	Austin	MN	55913	507-433-0636	judy.enright@riverland.edu
10	Yes	Bob	Bender	IMNR Instructor	Riverland Community College	2200 Riverland Drive	Albert Lea	MN	56007	507-379-3343	bob.bender@riverland.edu
11		Bob	Silbaugh	Certified Network Technician Instructor	Riverland Community College	2200 Riverland Drive	Albert Lea	MN	56007	507-379-3339	robert.silbaugh@riverland.edu
12		Tami	Yokeil		Austin Medical Center-Mayo	1000 1st Drive NW	Austin	MN	55912		yokeil.tami@mayo.edu
13		Denise	Barthels		Mower County Offices	201 1st. Street NE, Suite 9	Austin	MN	55912		deniseb@co.mower.mn.us
14	Yes	Amy	Lammey	Emergency Mgmt. Coordinator & Safety Director	Mower County	201 1st. Street NE, Suite 9	Austin	MN	55912	507-434-2712	amy@co.mower.mn.us
15	No	Brian	Krueger	Police Chief	Austin Police Department	201 1st Street NE, Ste. 2	Austin	MN	55912	507-437-9411	bmkru@co.mower.mn.us
16	Yes	David	McKichan	Captain	Austin Police Department	201 1st Street NE, Ste. 2	Austin	MN	55912	507-437-9411	
17	Yes	Craig	Clark	City Administrator	City Hall	500 4th Avenue NE	Austin	MN	55912	507-437-9941	craigs@ci.austin.mn.us
18		David	Krenz	Superintendent	Austin Public Schools	401 3rd Ave NW	Austin	MN	55912		david.krenz@austin.k12.mn.us
19	Yes	Sheila	Berger	Security Committee Chair	Austin Public Schools	805 8th Avenue NW	Austin	MN	55912	507-460-1100	sheila.berger@austin.k12.mn.us
20	Yes	Mat	Miller	Director of Buildings & Grounds	Austin Public Schools	301 3rd Street NW	Austin	MN	55912	507-460-1928	mat.miller@austin.k12.mn.us
21		Mike	Johnson	Owatonna Fire Chief	City of Owatonna	540 West Hills Circle	Owatonna	MN	55060	507-774-7231	Mike.Johnson@ci.owatonna.mn.us
22		Tom	Sager	Director of Operations	Owatonna Public Schools	515 West Bridge St.	Owatonna	MN	55060	507-444-8605	tsager@owatonna.k12.mn.us
23		Stephanie	Olson		Mayo Health Systems - Owatonna	2200 26th St. NW	Owatonna	MN	55060	507-444-5007	olson.stephanie@mayo.edu
24		Mike	Funk	Superintendent	Albert Lea Public Schools	211 Richway Drive	Albert Lea	MN	56007	507-379-4802	mike.funk@alschools.org
25	Yes	Steve	Anderson	Director	Facilities & Transportation	211 Richway Drive	Albert Lea	MN	56007	507-379-4808	steve.anderson@alschools.org
26		Keith	Hiller	Police Chief	Owatonna Police Department	204 E Pearl St.	Owatonna	MN	55060	507-774-7201	Keith.Hiller@ci.owatonna.mn.us
27		Dwaine	Winkels	Director of Public Safety	City of Albert Lea	221 E. Clark Street	Albert Lea	MN	56007	507-377-5209	dwinkels@ci.albertlea.mn.us
28	Yes	J.D.	Carlson	Deputy Director of Police	City of Albert Lea	411 Broadway Avenue So.	Albert Lea	MN	56007	507-377-5665	
29		Lon	Thiele	Sheriff	Steele County	204 E Pearl St.	Owatonna	MN	55060	507-444-3815	lon.thiele@co.steele.mn.us
30	Yes	Terese	Amazi	Sheriff	Mower County	201 1st Street NE, Suite 3	Austin	MN	55912	507-437-9400	
31		Kurt	Freitag	Sheriff	Freeborn County	411 Broadway South	Albert Lea	MN	56007	507-377-5105	kurt.freitag@co.freeborn.mn.us
32	Yes	Rich	Hall	Emergency Manager	Freeborn County	411 Broadway South	Albert Lea	MN	56007	507-377-5105	
33	Yes	Jim	McCoy	Austin Fire Chief	Austin Fire Department	122 1st Avenue NE	Austin	MN	55912	507-433-3405	jimM@ci.austin.mn.us
34	Yes	Al	Kluever	Safety & Security Director	South Central College	1225 3rd Street SW	Faribault	MN	55021	507-389-7412	al.kluever@southcentral.edu



MOWER COUNTY BOARD AGENDA

SPECIAL SESSION

Mower County Government Center

Board Room Lower Level

201 First Street NE, Austin, MN 55912

March 24, 2015

8:30 a.m.

8:30 Approve Agenda

8:30 Department Report -- Extension

9:00 Community Health Business

1. Purchase of Service Agreement with Fernbrook Family Center
2. Community Health Updates

9:15 General Business

1. Approval of Human Services warrants
2. Approval of Minutes
3. Approval of Commissioner warrants
4. Application of Nilesh Patiz for abatement of tax penalty on PIN 34.8975.0021 (EconoLodge)
5. Approval of SELCO agreement for library services
6. Approval of 3.2 Beer license for Chateau Raceway in Lansing
7. Approval of Letter of Agreement for Mower County Corrections to provide truancy services to Austin School District #492
8. Misc. correspondence

9:30 Retirement Recognition

Dennis Lewison, Maintenance Crew Leader, 31 years of service

9:35 Public Works Director (Engineering Business)

1. Motion(s) to award seasonal bids:
 - a. CP 50-15-03 Gasoline and Diesel Fuel
 - b. CP 50-15-04 Centerline and Edge Striping
 - c. CP 50-15-05 Bituminous Material
 - d. CP 50-15-06 Weed spraying
2. Resolution to Prioritize the Replacement of Bridge L5054 in Section 9 of Racine Township

10:00 Joel Swanson, MCIT

RE: MCIT report to Board

10:20 Amy Lammey, Emergency Management

RE: Board signature for Letter of Intent to participate in the All Hazard Mitigation Plan

10:30 Committee Reports

1. Personnel
2. Finance
3. Building
4. Other Committees

10:45 Miscellaneous Business, Walk-ins and Adjourn

NOTICE ALL TIMES SUBJECT TO CHANGE



MOWER COUNTY

Board of Commissioners

201 1st Street NE, Suite 9, Austin, Minnesota 55912
Phone: 507-437-9549 Fax: 507-437-9458

March 24th 2015

To: Mower County City and Townships

Re: All Hazard Mitigation Plan Update - Letter of Intent to Participate

Concerned,

On behalf of the Mower County Board of Commissioners, I would like to inform you that the County is in the process of updating the All Hazard Mitigation Plan. In 2000, the Federal Government passed legislation stating that all government entities that receive future HMGP funding need to have an All Hazard Mitigation Plan and update it every 5 years.

A county-level plan covers all the local jurisdictions under one plan. Your responsibility to be included in this plan update would be to provide information to the County as the updates are prepared, have representatives attend meetings and to adopt the updates when they are completed. We would like to request from you a letter of intent stating that your city/township is willing to participate with Mower County as they prepare the All Hazard Mitigation Plan updates.

It is the position of the County Board that we never know when a disaster may happen to our communities and we may need Homeland Security and Emergency Management state assistance and FEMA Federal assistance to aid in recovery. The County-wide approach seems to be a logical way for us all to work together during a disaster.

You must show participation in the planning process and adopt the updates to All Hazard Mitigation Plan to receive future funding under the Hazard Mitigation Grant Program. Attached is a sample Letter of Intent for your use.

Please respond with a letter of intent to participate by May 1st 2015.

Thank you for your attention to this request.

Sincerely,

Mike Ankeny, Chair
Mower County Board of Commissioners

Tim Gabrielson
1st District

Polly Glynn, Vice-Chair
2nd District

Jerry Reinartz
3rd District

Tony Bennett
4th District

Mike Ankeny, Chair
5th District

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: City of Adams
James Kiefer, Clerk Treasurer
303 W Main Street
Adams MN 55909

Re: Letter of Intent to Participate

The city of Adams would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Mayor/Clerk
Adams City, 3/30, 2015

City of Austin
Craig Clark,
City Administrator



500 Fourth Avenue N.E.
Austin, Minnesota 55912-3773
Phone: 507-437-9941
craigc@ci.austin.mn.us
www.ci.austin.mn.us

April 10, 2015

Mower County Government Center
Attn: Amy Lammey
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

Re: Letter of Intent to Participate

Dear Ms. Lammey:

The City of Austin would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

A handwritten signature in black ink that reads "Craig Clark". The signature is written in a cursive style with a large initial "C".

Craig Clark, City Administrator
City of Austin

cc: Holly Wallace, Planning and Zoning Administrator

CDD/amk

No. 0733 P. 1

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

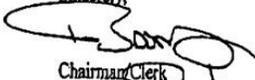
From: City Of Brownsdale
Theresa Booms, Clerk Treasurer
Po Box 336
Brownsdale MN 55918

Re: Letter of Intent to Participate

The City of Brownsdale would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

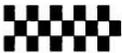
We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Chairman/Clerk
City of Brownsdale, June 1, 2015

Jun. 19. 2015 3:34PM



To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: City of Dexter
Natalie Shawback, Clerk Treasurer
PO Box 208
Dexter MN 55926

Re: Letter of Intent to Participate

The City of Dexter would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Mayor/Clerk
Dexter City, 4-6, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

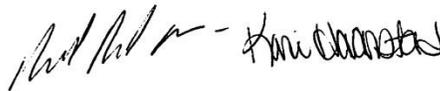
From: City of Elkton
Kari Haarstad, Clerk Treasurer
27017 670th Ave
Dexter, MN 55926

Re: Letter of Intent to Participate

The City of Elkton would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Mayor/Clerk
Elkton City, April 27, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

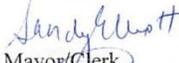
From: City of Grand Meadow
Sandy Elliot, Clerk Treasurer
112 Grand Ave E
Grand Meadow MN 55936

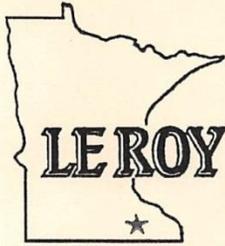
Re: Letter of Intent to Participate

The City of Grand Meadow would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Mayor/Clerk
Grand Meadow City, 4-13 - _____, 2015



City of LeRoy

P.O. Box 359 • LeRoy, MN 55951 • Phone or Fax: (507) 324-5707

Minnesota

March 30, 2015

Mower County Government Center
Emergency Management
210 1st St NE, Suite 6
Austin, MN 55912

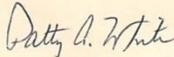
Re: Letter of Intent to Participate

To Whom It May Concern:

The City of LeRoy would like to participate in and be included in the All-Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

The LeRoy City Council will adopt the plan and updates when it is completed. Please let me know when you need additional information.

Sincerely,


Patty A. White
City Clerk-Treasurer

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

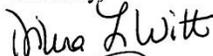
From: City of Lyle
Diana Witt, Clerk Treasurer
PO Box 247
Lyle MN 55953

Re: Letter of Intent to Participate

The City of Lyle would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Mayor/Clerk
Lyle City, April, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: City of Maplevue
Arthur Kuchera, Clerk Treasurer
PO Box 718
Austin MN 55912

Re: Letter of Intent to Participate

The City of Maplevue would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Mayor/Clerk
Maplevue City, April 2, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

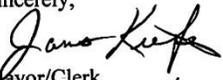
From: City of Taopi
James Kiefer, Clerk
501 1st St
Taopi MN 55977

Re: Letter of Intent to Participate

The City of Taopi would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Mayor/Clerk
Taopi City, 3/30, 2015

CITY OF WALTHAM
PO BOX 97
WALTHAM, MN 55982

This Institution is an Equal Opportunity Provider

To: Mower County Government Center

Emergency Management

201 1st Street NE, Suite 6

Austin, MN 55912

From: City of Waltham

PO Box 97

Waltham, MN 55982

Re: Letter of Intent to Participate

The City of Waltham would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Mayor/Clerk

City of Waltham,  - Clerk
 4/7, 2015

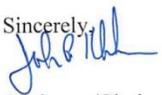
To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

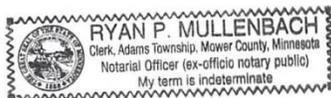
From: Township of Adams
Ryan Mullenbach, Clerk
65637 120th Street
Adams MN 55909

Re: Letter of Intent to Participate

The Township of Adams would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,
 
Chairman/Clerk
Adams Township, April 15th, 2015



To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Austin
Connie Krebsbach, Clerk
Po Box 479
Austin MN 55912

Re: Letter of Intent to Participate

The Township of Austin would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Chairman/Clerk
Austin Township, April 6, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Bennington
Bradley Davis, Chairman
19340 795th Ave
Ostrander MN 55961

Re: Letter of Intent to Participate

The Township of Bennington would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Elizabeth Rice, Clerk
Chairman/Clerk
Bennington Township, April 21, 2015
Brad Davis, Chairman

Elizabeth Rice, Clerk
19535-770th Ave
Ostrander, MN 55961
rice.beth@yahoo.com



To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: ~~Township of Clayton
Mike Arndorfer, Chairman
72958 176th St
Grand Meadow MN 55936~~

*Mark Schulz, Chairman
18709 690th Ave
Eberton Mn 55933*

Re: Letter of Intent to Participate

The Township of Clayton would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

David Wenes

Chairman/Clerk
Clayton Township, *April 27*, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Dexter
Jacob Haarstad, Clerk
27017 670th Ave
Dexter MN 55926

Re: Letter of Intent to Participate

The Township of Dexter would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Chairman/Clerk
Dexter Township, 13 April, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Frankford
Diane Hanson, Clerk
26193 770th Ave
Grand Meadow MN 55936

Re: Letter of Intent to Participate

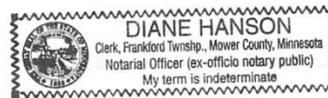
The Township of Frankford would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Diane Hanson

Chairman/Clerk
Frankford Township, 4/14, 2015



To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Grand Meadow
~~Ha Johnson, Clerk~~ LuAnn Holst
101 5th St SE
Grand Meadow MN 55936

Re: Letter of Intent to Participate

The Township of Grand Meadow would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely, 
Chairman/Clerk 
Grand Meadow Township, April 13, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

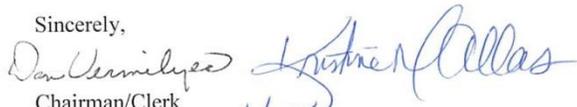
From: Township of Lansing
Ken Penkava, Chairman
50911 262nd St
Austin MN 55912

Re: Letter of Intent to Participate

The Township of Lansing would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Chairman/Clerk
Lansing Township, 4/15, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Leroy
~~Daniel Weness~~, Chairman *Tim Freerksen*
11384 790th Ave
Leroy MN 55951

Re: Letter of Intent to Participate

The Township of Leroy would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Chairman/Clerk
Leroy Township, *4-13*, 2015

Tim Freerksen

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Lodi
Richard Winfield, Chairman
73054 120th St
Leroy MN 55951

Re: Letter of Intent to Participate

The Township of Lodi would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Chairman/Clerk
Lodi Township, Chairmen, 2015

Richard Winfield

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Lyle
~~Gene Pell, Chairman~~ *David Baldner*
~~15099 505th Ave~~
Austin MN 55912

Re: Letter of Intent to Participate

The Township of Lyle would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Gene Pell, Clerk
Chairman/Clerk
Lyle Township, 4-13, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Marshall
Kathy Voigt, Clerk
118 South Centers St
Elkton MN 55933

Re: Letter of Intent to Participate

The Township of Marshall would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Chairman/Clerk
Marshall Township, April 9, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Nevada
Dawn Helgeson, Clerk
59034 140th St
Rose Creek MN 55970

Re: Letter of Intent to Participate

The Township of Nevada would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Chairman/Clerk
Nevada Township, April, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Pleasant Valley
Rebecca Schutz, Clerk *John E Thompson*
73864 300th St
Grand Meadow MN 55936

Re: Letter of Intent to Participate

The Township of Pleasant Valley would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

John E Thompson
Chairman/Clerk
Pleasant Valley Township, 4/6, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Racine
Audrey Oehlke, Clerk
26957 760th Ave
Grand Meadow MN 55936

Re: Letter of Intent to Participate

The Township of Racine would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Chairman/Clerk
Racine Township, April 14, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

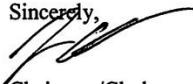
From: Township of Red Rock
Theresa Booms, Clerk
59637 265th St
Brownsdale MN 55918

Re: Letter of Intent to Participate

The Township of Red Rock would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Chairman/Clerk
Red Rock Township, 4/20/2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Sargeant
Joanne Kiser, Clerk
62318 290th St
Sargeant MN 55973

Re: Letter of Intent to Participate

The Township of Sargeant would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,



Chairman/Clerk
Sargeant Township, 4 - 13, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Udolpho
Linn Thoen, Chairman
33097 550th St
Blooming Prairie MN 55917

Re: Letter of Intent to Participate

The Township of Udolpho would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Chairman/Clerk
Udolpho Township,  2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Waltham
Eugene D Anderson, Chairman
30111 620th Ave
Waltham MN 55982

Re: Letter of Intent to Participate

The Township of Waltham would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,

Chairman/Clerk
Waltham Township, April 6, 2015

To: Mower County Government Center
Emergency Management
201 1st Street NE, Suite 6
Austin, MN 55912

From: Township of Windom
Tom Verdoorn, Chairman
58087 195th St
Rose Creek MN 55970

Re: Letter of Intent to Participate

The Township of Windom would like to participate and be included in the All Hazard Mitigation Plan and updates for all of Mower County. We understand we are to cooperate and provide data to Mower County as the updates are being prepared.

We will adopt the plan and updates when it is completed. Please let us know when you need further information.

Sincerely,


Chairman/~~Clerk~~
Windom Township, April 8, 2015



Emergency Management
invites you to the,

All Hazard Mitigation Dinner

When: May 21st 2015

Where: Holiday Inn, Austin MN

Time: 6:00pm, Dinner Served

City and Township-

This meeting is very important in order for your entity to be eligible for disaster funding.

FEMA has set very strict guidelines for participation in the planning process.

Please send a representative to the dinner.

See you on May 21st!

Questions, please call Amy Lammey, 507-434-2712.

Mower County All Hazard Mitigation Plan

Asset Inventory Survey Report

City or Township: Grand Meadow Township
Primary Contact: Wayne Gehling PH: 507-272-6711

In order to create an All Hazard Mitigation Plan for Mower County, we need to collect a fair amount of information from each of the individual cities and townships. The list that follows is a starting point for collecting that data. Please provide information that is relevant to your community.

FACILITIES and SERVICES

Medical Facilities (Hospitals, Clinics)

- Name / Type: None
of Beds: _____
of Employees: _____
- Name / Type _____
of Beds: _____
of Employees: _____

Fire Services (Fire Station, Hall)

Name \ Location: City of GM
Volunteer?: 25
of Trucks 6
of Responders _____

Emergency Medical Services

Type: Ambulance
Location: City of GM
of First Responders: 4
of Emergency Medical Technicians: 30

Ambulance Service

Facility / Location: City of GM
Ambulance bays 2
of Trucks: 2
of Full and Part Time responders:(FT) _____ (PT) 34

Police Services

Station Location: County & City of GM
of Cars: _____
/ type of Other Vehicles: _____
Full Time Officers _____
of Part Time Officers: _____

Historic Resources (National Register Homes, etc.)

List type, address for each:

Cert Misp

County, State Parks, Natural Areas:

List type, location for each:

NONE

Power Generating and Non-Renewable Energy Transport Facilities

List type, address for each:

Wind

Water and Sewer Treatment Plants

List type, address, capacity for each:

None

Hazard Profile, Risk Assessment, Responses

History of Natural Hazards

List Type (Floods, Tornadoes, Fires, etc.)

~~Floods~~ Floods
Tornadoes

Businesses in your community dealing with Hazardous Materials

List Name, Address, # of Employees, Other details (attach additional pages, if necessary)

Plans for Mitigation of Natural and Man-made Hazard Events

List Type of Plan, as well as Goals, Objectives, Strategies, Responsible Party, Time Frame and Estimated Costs:

Other Community Resources

List Type of Resource (Comprehensive Plan, Zoning Ordinance, Emergency Response Plan, etc.), and summary of each:

Public Safety

NOAA Weather transmitter? (Y / N) N

Location: _____

of Service Antennas: _____

Locations of those Antennas: _____

Schools

Name / Type NONE

Location _____

of Students: _____

of Faculty: _____

Name / Type: _____

Location: _____

of Students: _____

of Faculty: _____

Other Public Facilities

 Type

- Library: _____
- Parks: _____
- Post Office: _____
- Churches: _____
- Cemeteries: 2
- Community Org's: _____
- Fairgrounds: _____
- Other Meeting Spaces: _____

Mower County All Hazard Mitigation Plan
All Hazards Survey Questionnaire

About You

GM Township

1. Describe the jurisdiction for which you are involved with hazard mitigation planning.
 City Township Population P. 200
2. How have you been involved with hazard mitigation planning? (Select all that apply)
 I helped with the preparation of the comprehensive plan.
 I helped with drafting the hazard mitigation plan/element.
 I helped with the community visioning process.
 I helped with drafting or revising land-use regulations.
 Other not sure

About Your Community

3. Does your community have a FEMA-approved hazard mitigation plan?
 Yes
 No
 Do Not Know
4. How has your community addressed hazard mitigation through planning?
(Select all that apply)
 Hazard mitigation integrated throughout comprehensive plan.
 Separate hazard mitigation element in comprehensive plan (previously identified hazards)
 Hazard mitigation integrated into area plans (e.g., zoning, neighborhood, corridor, downtown)
 Hazard mitigation integrated into functional plans (e.g., sewer, transit).
 Hazard mitigation incorporated into capital improvements programming.
 Other not sure
5. Which of the following statements **best** describes the public visioning process regarding hazard mitigation in your community within the last 5 years?
 Public visioning exercises have addressed hazard mitigation.
 Public visioning exercises have not addressed hazard mitigation.
 No public visioning has taken place.
6. Which city agencies were involved in the development of your hazard mitigation plan?
(Select all that apply)
 Planning Department
 Emergency Manager
 Fire/Police Departments
 Public Works Department
 Other _____

7. Which stakeholders were involved in the development of your hazard mitigation plan?
(Select all that apply)

- Neighborhood/community/faith-based groups
- Business community
- Environmental/natural resource groups
- Emergency/Disaster response groups
- Other _____

8. Which natural hazards is a concern within your community,
(Scale 1-14; 1 as the greatest and 14 as the least concern)?
(Select all that apply)

	Rating:
<input type="checkbox"/> Methamphetamine Labs	_____
<input checked="" type="checkbox"/> Floods	<u>1</u>
<input checked="" type="checkbox"/> Wildfires	<u>16</u>
<input type="checkbox"/> Earthquakes	_____
<input type="checkbox"/> Landslides/mudslides	_____
<input checked="" type="checkbox"/> Tornadoes	<u>5</u>
<input checked="" type="checkbox"/> Straight line wind	_____
<input type="checkbox"/> Water supply contamination	_____
<input checked="" type="checkbox"/> Severe winter storms	<u>2</u>
<input checked="" type="checkbox"/> Drought	<u>7</u>
<input type="checkbox"/> Chemical/Hazardous material spill	_____
<input checked="" type="checkbox"/> Hail Storm	<u>4</u>
<input checked="" type="checkbox"/> Thunderstorm	<u>3</u>
<input type="checkbox"/> Other _____	_____

9. Which elements in our comprehensive plan address hazard mitigation?

- Do not have a comprehensive plan.
- Hazard mitigation not addressed in the comprehensive plan.
- Land use
- Transportation
- Housing
- Economic Development
- Public facilities/infrastructure
- Natural environment/open space
- Implementation
- Other _____

10. Which of the following regulatory tools have incorporated guidelines for hazard mitigation? *(Select all that apply)*

- Not applicable
- Zoning Code
- Subdivision regulations
- Landscaping standards
- Building code
- PUD regulation
- Design standards
- Other _____

11. Which of the following administrative processes have incorporated hazard mitigation considerations? *(Select all that apply)*

- Not applicable
- Site plan review
- Conditional use approvals
- Special permit approvals
- PUD proposal review
- Subdivision plat approvals
- Other _____

12. Has hazard mitigation planning resulted in changes to your capital improvement program or budgetary process?

- Yes
- No
- Do Not Know

13. Has hazard mitigation planning resulted in the creation of any of the following positions or groups in your community? *(Select all that apply)*

- Emergency Manager
- Hazards Planner
- Interagency Hazard Mitigation Task Force
- Citizen Hazard Mitigation Task Force/Committee
- Other _____

14. Has your community developed public education and outreach programs involving hazard mitigation as a result of the hazard mitigation planning process?

- Yes
- No
- Do Not Know

PRINTERS AFFIDAVIT OF PUBLICATION

STATE OF MINNESOTA

COUNTY OF MOWER

Sherri Thissen, being first duly sworn, on oath states as follows:

1. I am the publisher of the Austin Daily Herald, or the publisher's designated agent. I have personal knowledge of the facts stated in this Affidavit, which is made pursuant to Minnesota Statutes §331A.07.

2. The newspaper has complied with all of the requirements to constitute a qualified newspaper under Minnesota law, including those requirements found in Minnesota Statutes §331A.02.

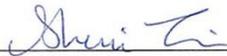
3. The dates of the month and the year and day of week upon which the public notice attached/copied below was published in the newspaper are as follows:

Tuesday, July 2, 2015

4. The publisher's lowest classified rate paid by commercial users for comparable space, as determined pursuant to § 331A.06, is as follows: \$19.35

5. Pursuant to Minnesota Statutes §580.033 relating to the publication of mortgage foreclosure notices: The newspaper's known office of is located in Freeborn County. The newspaper complies with the conditions described in §580.033, subd. 1, clause (1) or (2). If the newspaper's known office of issue is located in a county adjoining the county where the mortgage premises or some part of the mortgaged premises described in the notice are located, a substantial portion of the newspaper's circulation is in the latter county.

FURTHER YOUR AFFIANT SAITH NOT



Sherri Thissen



Subscribed and sworn before me this
15 day of July, 2015



Notary Public,
Mower County, MN
My commission expires 1-31-18

NOTICE OF PUBLIC HEARING

All Hazard Mitigation Plan Public Input for a Plan Update

Mower County Government Center, Room M180
201 1st ST NE
Austin MN 55912
Monday, July 13th
2015, 9am

The current plan (2010) is available for review in the office of Emergency Management Office, 201 1st ST NE, Austin MN 55912, 507-434-2712

7/2

RESOLUTION OF 14-16

ADOPTION OF THE
MOWER COUNTY ALL-HAZARD MITIGATION PLAN

WHEREAS, Mower County has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000, and

WHEREAS, the Act establishes a framework for the development of a County Hazard Mitigation Plan; and

WHEREAS, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and

WHEREAS, the Mower County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and

WHEREAS, the Mower County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and

WHEREAS, the Mower County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Mower County will maintain public participation and coordination; and

WHEREAS, the Mower County Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and

WHEREAS, the Mower County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and

WHEREAS, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

NOW THEREFORE BE IT RESOLVED that Mower County supports the hazard mitigation planning effort and wishes to adopt the Mower County All-Hazard Mitigation Plan.

This Resolution was declared duly passed and adopted and was signed by the Chair of the Mower County Board and attested to by the County Coordinator this 29th day of March, 2016.


Polly Glynn, Chair

Attest:


Craig Oscarson, County Coordinator