# **Village of Mazomanie Annex**

# **Community Profile**

The Village of Mazomanie is located in the far northwest quadrant of the County, north of the Village of Black Earth and encompassed by the Town of Mazomanie. Land use is primarily residential and commercial. According to the United States Census Bureau, the Village of Mazomanie has a total area of 1.8 square miles.

As of the 2010 Census, there are 1,652 people, 689 households, and 463 families residing in the Village of Mazomanie. The population density is 903.1 per square mile. There are 734 housing units at an average density of 401.3 per square mile. Table 1 shows the population profile by age for the Village of Mazomanie according to the 2010 Census.

**Table 1 Population Profile of Village of Mazomanie** 

Subject	Number	Percent
Total population	1,652	100.0
Under 5 years	132	8.0
5 to 9 years	126	7.6
10 to 14 years	97	5.9
15 to 19 years	92	5.6
20 to 24 years	100	6.1
25 to 29 years	107	6.5
30 to 34 years	131	7.9
35 to 39 years	114	6.9
40 to 44 years	124	7.5
45 to 49 years	124	7.5
50 to 54 years	133	8.1
55 to 59 years	101	6.1
60 to 64 years	78	4.7
65 to 69 years	58	3.5
70 to 74 years	36	2.2
75 to 79 years	46	2.8
80 to 84 years	30	1.8
85 years and over	23	1.4

Data Source: 2010 U.S. Census

American Community Survey estimates for 2014 indicate that the median income for a household in the Village of Mazomanie is \$60,242 and the median income for a family is \$65,208. The per capita income for the Village of Mazomanie is \$27,309. 94.0% of the population has at least a high school degree, while 22.3% of the population holds at least a bachelor's level degree.

## **Hazard Identification and Risk Assessment**

The first step in a hazard analysis is to identify which hazards the community is vulnerable to. Table 2 outlines the hazard identification for the Village of Mazomanie based on the Data Collection Guide. The Data Collection Guide listed all of the hazards that could impact anywhere in Dane County. The purpose of this worksheet was to identify and rank the hazards and vulnerabilities specific to the jurisdiction. The Village of Mazomanie's planning team members were asked to complete the matrix by ranking each category on a scale of 0 to 5 based on the experience and perspective of each planning team member. A ranking of 0 indicated "no concern" while a ranking of 5 indicated "highest concern." This matrix appears as Table 2. This matrix reflects the significance of the hazards relative to one another.

This matrix reflects that the Village of Mazomanie is most vulnerable to tornadoes, winter storms, and flooding. The vulnerability established here is a qualitative assumption based on the impacts, geographic extent, probability of future occurrence, and magnitude/severity. On the county level, these vulnerabilities were calculated with quantitative data as well.

Table 2 Vulnerability Assessment Matrix for the Village of Mazomanie

				Impact Attributes (0-1-2-3)						
	На	Hazard Attributes (1-2-3)			Primary Impact (Short Term – Life and Property)			Secondary Impact (Long Term- Community Impacts)		
Hazard	Area of Impact	Past History, Probability of Future Occurrence	Short Term Time Factors	Impact on General Structures	Impact on Critical Facilities	Impact on At- Risk Populations	Social Impact	Economic Impact	Severity of other associated secondary hazards	Total
Dam failure	0	0	0	0	0	0	0	0	0	0
Extreme Cold	5	5	2	0	0	3	1	1	0	17
Extreme Heat	5	4	2	1	1	3	0	0	1	17
Drought	5	2	3	0	0	1	0	2	1	14
Flood	3	2	3	4	4	2	0	2	0	20
Fog	4	5	2	0	0	1	0	0	0	12
Hail Storm	2	2	2	3	2	1	0	2	0	14
Landslide	0	0	0	0	0	0	0	0	0	0
Lightning	1	2	1	1	1	1	0	0	0	7
Tornado	5	1	3	3	3	3	3	3	0	24
Wildfire	1	1	4	0	0	0	0	0	0	6
Windstorm	5	5	2	2	2	1	0	2	0	19
Winter Storm	5	5	2	1	2	2	1	2	0	20

Data Source: 2017 Data Collection Guide.

### **Previous Hazard Events**

The Village of Mazomanie did not list any previous hazard events beyond those covered in the County plan.

## **Asset Inventory**

Assets include the people, property, and critical facilities within the Village of Mazomanie that are exposed to hazards in general. Inventories of property, essential infrastructure, and natural, cultural or historic resources help provide a comprehensive picture of the community and provide a method of assessing exposure to hazards by establishing the improved and total values, capacities and populations for these assets. It also forms the basis for estimating potential losses, where possible.

## **Population**

**Table 3 Vulnerable Population Summary** 

Disability Status from the 2014 American Community Survey	Number	Percent of Group with Disability
Population Under 5 years old with a Disability	0	0%
Population 5-17 years old with a Disability	16	6.3
Population 18-64 with a Disability	94	9.3
Population Over 65 years old with a Disability	71	36.6
Total Population with Disability	181	11.4

Other Vulnerable Populations	Estimate	Percentage
Families Below Poverty Level	40	8.8
Individuals Below Poverty Level	177	11.2
Of those poverty: Individuals Under 18	96	26.1
Of those poverty: Individuals Over 65	0	0
Total Population Over 5 who Speak English less than "very well"	13	0.9
2014 ACS Total Population Estimate	1585	100%

Data Source: 2014 American Community Survey

# **General Property**

**Table 4 Property Exposure Summary** 

Property Type	Total Parcel Count	Improved Parcel Count	Improved Values (\$)	Content (\$)	Total Value (\$)
Totals	940	653	106,035,400	53,017,700	159,053,100
Agriculture	26	8	639,100	319,550	958,650
Commercial	45	41	8,896,400	4,448,200	13,344,600

Utilities	7	1	67,100	33,550	100,650
Industrial	12	11	18,377,200	9,188,600	27,565,800
Institutional/ Governmental	18	5	588,500	294,250	882,750
Other	236	22	3,933,000	1,966,500	5,899,500
Residential	596	565	73,534,100	36,767,050	110,301,150

Data Source: Dane County, December 2008

### **Critical Facilities**

The Village of Mazomanie has identified the following critical facilities important to protect from disaster impacts. These are collected in Table 5. Table 5 is based on information submitted by the village during the data collection process.

Table 5 Critical Facility Summary/Essential Infrastructure

Facility	Type*
Well #2	EI
Well #3	EI
92,000 Gallon Reservoir	EI
300,000 Gallon Reservoir	EI
Booster Station #1	EI
Sewer Pumping Station	EI
Village Municipal Building	EI
Public Works Garage	EI
EMS Building	EI
West Electric Substation	EI
Industrial Electric Substation	EI
Bridge St. Bridge	EI
State Street Bridge	EI
Heavy Traffic Streets	EI
Village Streets	EI
Lifecycle Preschool and Daycare	VF
Community Building	VF
Downtown Historic District	VF
Mazomanie Elementary School	VF

<sup>\*</sup>El: Essential Infrastructure; VF: Vulnerable Facilities; HM: Hazardous Materials Facilities Data Source: Dane County GIS,

## **Vulnerability to Specific Hazards**

This section details vulnerability to specific hazards, where quantifiable, and where it differs from that of the overall County. The previous inventory tables quantify what is exposed to the various hazards within Village of Mazomanie. Table 6 cross-references the hazards with the various tables where exposure or vulnerability specifics are found. The intent of Table 6 is to quantify, where possible, future impacts of each hazard on the jurisdiction. In many cases it is difficult to estimate potential losses, so the overall exposure of populations, structures, and critical facilities is referenced.

**Table 6 Hazard Vulnerability Specifics** 

Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
Dam Failure	Unknown	Unknown	Unknown	Specifics unknown; See hazard profile in County Plan
Drought	Minimal	None	Minimal	Specifics unknown; See hazard profile in County Plan
Flooding	See section below	See section below	See section below	See section below
Fog	Minimal	None	None	Specifics unknown; See hazard profile in County Plan
Hailstorm	Minimal	See Property Exposure table 3	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan
Landslide/ Sinkholes/ Erosion	Unlikely	Unlikely	Unlikely	Specifics unknown; See hazard profile in County Plan
Lightning	See Table 2 Population	See Table 3 Property Exposure	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan
Severe Cold	See Table 2 Population	See Table 3 See Critical Facility Property Exposure Inventory Table(s)		Specifics unknown; See hazard profile in County Plan
Severe Heat	See Table 2 Population	None	Minimal	Specifics unknown; See hazard profile in County Plan
Severe Winter Storm	See Table 2 Population	See Table 3 Property Exposure	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan
Tornado	See Table 2 Population	See section below	See Critical Facility Inventory Table(s)	See section below
Wildfire	Minimal	Minimal	Minimal	Specifics unknown; See hazard profile in County Plan
Windstorm	See Table 2 Population	See Table 3 Property Exposure	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan

### Flood

### Structures and Properties in the Floodplain

Refer to the flood profile in the mitigation plan for a description of the methodology used to identify potentially flood-prone properties. Figure 1 shows mapped floodplains, future growth areas, and critical or vulnerable facilities. Tables 7 and 8 outline the primary structures and properties with primary structures on them within the Village of Mazomanie. Potential number of individuals at risk figures are based on primary residential structures and the average household size within Dane County.

**Table 7 Primary Structures in the Floodplain** 

Total Floodway Structures	Floodway Residential Structures	Total Structures in 100 year Floodplain	Residential Structures in 100 year Floodplain	Potential Number of Individuals at Risk in 100 year Flood	Total Structures in 500 year Floodplain	Residential Structures in 500 year Floodplain	Potential Number of Individuals at Risk in 500 year Flood
5	5	19	17	39.61	21	19	44.27

Source: Analysis based on Dane County Land Information Office Data

**Table 8 Properties with Primary Structures in the Floodplain** 

Total Floodway Properties	Floodway Improved Values	Floodway Residential Properties	Total Properties in 100 year Floodplain	Total Improved Value of Properties in 100 year Floodplain	Residential Properties in 100 year Floodplain	Total Properties in 500 year Floodplain	Total Improved Value of Properties in 500 year Floodplain	Residential Properties in 500 year Floodplain
5	\$412,500	5	19	\$1,391,100	17	21	\$1,589,900	19

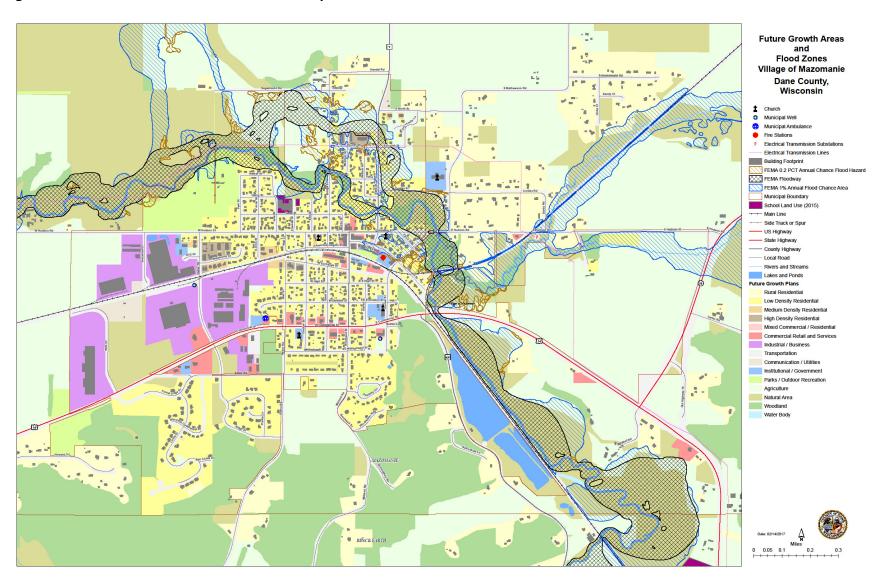
Source: Analysis based on Dane County Land Information Office Data

#### **Repetitive Loss Properties and Flood Insurance Polices**

There is one repetitive loss property within the Village of Mazomanie.

According to FEMA Policy and Claim Statistics for Flood Insurance, the community has 24 flood insurance polices, with a total coverage amount of \$3,702,800. There have been 10 claims and \$11,230 in losses paid in flood insurance claims since 1978.

Figure 1 Flood Hazards and Future Land Use Map



#### **Tornado**

While it is difficult to estimate specific losses to a tornado due to the random nature of the event, a methodology was developed that was applied to each jurisdiction during the 2015 update. The table below estimates the percent area of the jurisdiction that could be impacted based on the average sized tornado (F2) in Dane County. High value exposure is based on 100% loss, medium 50% loss, and low is 25% loss to the property potentially impacted. The loss ratio, which is the ratio of the damaged building value to total exposed building value, is a measure of the impact to the jurisdiction as a whole. Communities with loss ratios 10% or more may have difficulty recovering from a disaster. Refer to the tornado hazard profile in the main mitigation plan for more details on this methodology.

**Table 9 Tornado Loss Estimate** 

% Area	Improved	Affected	Total	Estimated Loss \$ - High Damage Range	Estimated Loss	Estimated Loss	Loss Ratio for
of	Parcel	Structure	Exposed		\$ -Moderate	\$ - Low	Moderate
Impact	Count	Estimate	Value		Damage Range	Damage Range	Damage Range
47.45%	679	322	\$153,152,700	\$72,678,477	\$36,339,238.39	\$18,169,619.19	23.7%

Data Source: Analysis based on Dane County Land Information Office's data.

## **Growth and Development Trends**

Planned land use is shown in Figure 1, in relation to the flood hazard. Table 10 illustrates how the Village of Mazomanie has grown in terms of population and number of housing units between 2010 and 2014-15. Housing data is to 2014 due to data availability. Table 11, drawn from the Demographics Services Center at the Wisconsin Department of Administration, shows population projections through 2035.

Table 10 Village of Mazomanie Change in Population and Housing Units, 2010-2014/15

2010 Population	2015 Population	Percent Change (%) 2010-2015	2010 # of Housing Units	2014 # of Housing Units	Percent Change (%) 2010-2014
1652	1667	0.91%	734	729	-0.7%

Data Source: Dane County Planning and Wisconsin Department of Administration

Table 11 Village of Mazomanie Population Projections, 2015-2035

Change in Population	2015	2020	2025	2030	2035
Projected Change in Population (.18% growth rate)	1,667	1,682	1,697	1,713	1,728

Data Source: Demographic Services Center, Wisconsin Department of Administration

# **Capability Assessment**

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment summarizes regulatory mitigation capabilities, administrative and technical mitigation capabilities, and fiscal mitigation capabilities for the Village of Mazomanie.

# **Mitigation Capabilities Summary**

Table 12 lists planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities, or by themselves contribute to reducing hazard losses. The table also indicates which of these tools are currently utilized in the Village of Mazomanie.

**Table 12 Village of Mazomanie Regulatory Mitigation Capabilities** 

Regulatory Tool (ordinances, codes, plans)	Yes/No
General or Comprehensive plan	Yes
Zoning ordinance	Yes
Subdivision ordinance	Yes
Growth management ordinance	No
Floodplain ordinance	Yes
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes
Building code	Yes
Fire department ISO rating	Yes
Erosion or sediment control program	Yes
Stormwater management program	Yes
Site plan review requirements	Yes
Capital improvements plan	Yes
Economic development plan	Yes
Local emergency operations plan	Yes
Other special plans	No
Flood insurance study or other engineering study for streams	Yes
Elevation certificates (for floodplain development)	Yes
Other	

Data Source: Village of Mazomanie Data Collection Guide

Table 13 identifies the personnel responsible for mitigation and loss prevention activities as well as related data and systems in the Village of Mazomanie.

Table 13 Responsible Personnel and Departments for the Village of Mazomanie

Personnel Resources	Yes/No
Planner/engineer with knowledge of land development/land management practices	No
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes
Planner/engineer/scientist with an understanding of natural hazards	No
Personnel skilled in GIS	Yes
Full-time Building Official	No
Floodplain Manager	No
Emergency Manager	Yes
Grant Writer	Yes
Other Personnel	Yes
GIS Data Resources – (land use, building footprints, etc.)	Yes
Warning systems/services (Reverse 9-11, cable override, outdoor warning signals)	Yes

Data Source: Village of Mazomanie Data Collection Guide

Table 14 identifies financial tools or resources that the Village of Mazomanie could potentially use to help fund mitigation activities.

Table 14 Financial Resources for the Village of Mazomanie

Financial Resources	Accessible/Eligible to Use (Yes/No)
Community Development Block Grants	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes

Data Source: Village of Mazomanie Data Collection Guide

### **Additional Capabilities**

The local fire department conducts fire safety training at schools, the industrial park, daycare, and library.

## **National Flood Insurance Program Participation**

The Village of Mazomanie participates in the NFIP program. As of September 2017, the initial FHBM was identified on 12/28/1973. The initial FIRM identification date is 12/01/1981, with a current effective map date of 06/16/2016. The FIRM Panel for the Village of Mazomanie is 55025C0166H.

### **Public Involvement Activities**

The Village of Mazomanie community participated in the County public outreach process. This was a series of public workshops held twice around the County in which an overview of natural hazard mitigation was given and the County plan was discussed. Residents were then given the opportunity to give their input on mitigation actions that could be taken, and filled out informational surveys that assessed the level of risk the perceived within their own community. More information on these meetings can be found in the County base plan.

# **Mitigation Actions**

# **Completed Mitigation Actions**

This is the first natural hazard mitigation plan to be completed for the Village of Mazomanie. However, prior to the writing of this plan, the Village completed several major hazard mitigation actions. These are:

- A re-meandering of the Black Earth Creek to limit flooding and restore the stream to a more natural state.
- Creation of an ongoing cleanup program for Black Earth Creek to keep the stream free of debris so as to avoid flooding caused by backups.

### **Proposed Mitigation Actions**

<u>Objective 1:</u> Support Dane County efforts to mitigate natural hazards at the local level through continued collaboration with County projects in the Village of Mazomanie area. The Village will continue to lower its vulnerability to natural hazards by distributing County hazard mitigation information and evaluating grant opportunities for potential use on hazard mitigation projects within the Village.

### Steps:

- Consider Dane County hazard mitigation information and its relevance to Village hazard mitigation efforts and resident safety.
- 2) Take necessary steps to apply for hazard mitigation grant money when available.

Lead Implementing Agency: Village of Mazomanie

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

Timeline: Continuous

Priority: Moderate

Estimated Costs: Unknown

<u>Objective 2</u>: Continue to implement sound floodplain management practices through continued compliance with the National Flood Insurance Program, to include floodplain ordinance enforcement and periodic review, promoting the benefits of flood insurance, and continued staff training and development in floodplain management.

### Steps:

- 1) Evaluate through the existing staff, County planning staff, and additional DNR staff if necessary, the regulatory deficiencies and enforcement shortcomings in flood-related ordinances and programs (see related County objective).
- 2) Periodically update ordinances as necessary.
- 3) Ensure that stop work orders and other means of compliance are being used as authorized by each ordinance.
- 4) Suggest changes to improve enforcement of and compliance with regulations and programs.
- 5) Encourage floodplain management staff to become Certified Floodplain Managers (CFM) or maintain their CFM status.
- 6) Participate in Flood Insurance Rate Map updates by adopting new maps or amendments to maps
- 7) Utilize recently completed Digital Flood Insurance Rate maps in conjunction with GIS to improve floodplain management, such as improved risk assessment and tracking of floodplain permits.
- 8) Promote and disperse information on the benefits of flood insurance, with assistance from partners such as the County, WDNR, or ASFPM.
- 9) Evaluate the potential costs and benefits of becoming a participant in the Community Rating System.

Lead Implementing Agency: Public Works Department

### **Supporting Agencies:**

- Dane County Planning and Development
- Lakes and Watershed Commission
- Land Conservation Department
- Association of State Floodplain Managers
- Wisconsin Department of Natural Resources

#### Possible Funding and Technical Assistance:

Staff Time

Timeline: On going

**Priority: High** 

<u>Estimated Costs</u>: Low; can be accomplished with existing staff and within existing department budget.