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## Village of Belleville Annex

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### Community Profile

The Village of Belleville is located on the southern border of Dane County, surrounded on three sides by the Town of Montrose. Belleville straddles the Dane County – Green County boundary. Unless otherwise noted, the numbers given in this community profile reflect only the portion of Belleville that is within Dane County. Land use is primarily residential. According to the Dane County Land Information Office, the Village has a total area of 1.66 square miles.

As of the 2010 Census, there are 1,848 people, 767 households, and 510 families residing in the Village of Belleville. The population density is 1,312.5 per square mile. There are 800 housing units at an average density of 568.2 per square mile. Table 1 shows the population profile by age for the Village of Belleville according to the 2010 Census.

**Table 1 Population Profile of Village of Belleville**

Category	Number	Percent
Total population	2,385	100.0
Under 5 years	202	8.5
5 to 9 years	178	7.5
10 to 14 years	168	7.0
15 to 19 years	144	6.0
20 to 24 years	102	4.3
25 to 29 years	213	8.9
30 to 34 years	188	7.9
35 to 39 years	194	8.1
40 to 44 years	179	7.5
45 to 49 years	176	7.4
50 to 54 years	165	6.9
55 to 59 years	131	5.5
60 to 64 years	105	4.4
65 to 69 years	62	2.6
70 to 74 years	56	2.3
75 to 79 years	47	2.0
80 to 84 years	35	1.5
85 years and over	40	1.7

Data Source: 2010 U.S. Census.

Note: Table 1 reflects population numbers for the entirety of the Village of Belleville, not just the Dane County portion.

American Community Survey estimates for 2014 indicate that the median income for a household in the Village of Belleville is \$69,352 and the median income for a family is \$81,000. The per capita income for the Village of Belleville is \$28,522. 97.3% of the population has at least a high school degree, while 23.3% of the population holds at least a bachelor's level degree.

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## **Hazard Identification and Risk Assessment**

A hazard identification and vulnerability analysis was completed for the Village of Belleville using the same methodology in the base plan. The information to support the hazard identification and risk assessment for this Annex was collected through a Data Collection Guide, which was distributed to each participating municipality to complete.

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 Belleville based on the Data Collection Guide issued in 2015. The purpose of this worksheet was to identify and rank the hazards and vulnerabilities specific to the jurisdiction. The Village of Belleville’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 3 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 Belleville is most vulnerable to tornado, winter storm, extreme cold and flooding. The vulnerability established here is a qualitative assumption based on the impacts, geographic extent, probability of future occurrence, and magnitude/severity.

**Table 2 Vulnerability Assessment Matrix for the Village of Belleville**

Hazard	Hazard Attributes			Impact Attributes						Total
				Primary Impact (Short Term - Life and Property)			Secondary Impact (Long Term – Community Impacts)			
	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	
	(1-5)	(1-5)	(1-5)	(0-5)	(0-5)	(0-5)	(0-5)	(0-5)	(0-5)	
Dam Failure	4	1	4	3	3	1	2	2	4	24
Extreme Cold	3	3	2	1	2	4	4	4	4	27
Extreme Heat	3	3	2	1	2	4	4	2	4	<b>25</b>
Drought	3	3	2	0	0	2	2	4	2	<b>18</b>
Expansive soils	0	0	0	0	0	0	0	0	0	<b>0</b>
Flood	3	2	3	4	2	1	3	4	4	<b>26</b>
Fog	1	1	3	0	0	0	0	0	2	<b>7</b>
Hail Storm	1	2	3	4	2	1	1	3	2	<b>19</b>
Landslide	0	0	0	0	0	0	0	0	0	<b>0</b>
Lightning	2	4	3	2	4	2	2	3	3	<b>25</b>
Tornado	4	1	4	5	4	4	5	5	5	<b>37</b>
Wildfire	0	0	0	0	0	0	0	0	0	<b>0</b>
Windstorm	3	4	2	3	2	2	2	3	2	<b>23</b>
Winter Storm	5	5	2	2	3	4	3	3	4	<b>31</b>

Source: Village of Belleville

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## Previous Hazard Events

Through the Data Collection Guide, the Village of Belleville outlined the following hazard events, in addition to those already noted in the County Plan.

### ***June 19, 2014: Lightning Strike***

Lightning knocked out important Village technology, including utility meter reading antenna, and computer equipment at the wastewater treatment plant. \$14,700 in technology damage were sustained as a result of this strike. It is thought that this may occur again given the lack of lightning mitigation on the antenna.

### ***2008: Flood***

The 2008 floods destroyed the concrete pedestrian bridge that spanned the Sugar River, cutting off pedestrian and bike access to downtown Belleville from the lake and park areas for several years. The cost of removing the bridge following the flood damage was \$18,475. A new bridge, built to current flood standards was later built at a cost of \$300,000.

### ***2009: Windstorm***

In 2009, a windstorm knocked down trees in historic Library Park, which fell on and destroyed the park's gazebo. The gazebo cost \$52,886 to replace.

## Asset Inventory

Assets include the people, property, and critical facilities within the Village of Belleville 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**

<b>Disability Status from the 2014 American Community Survey</b>	<b>Number</b>	<b>Percent of Group with Disability</b>
Population Under 5 years old with a Disability	0	0%
Population 5-17 years old with a Disability	17	3.9
Population 18-64 with a Disability	74	5.6
Population Over 65 years old with a Disability	58	29.1
Total Population with Disability	149	6.8

<b>Other Vulnerable Populations</b>	Estimate	Percentage
Families Below Poverty Level	21	3.4
Individuals Below Poverty Level	95	4.3
Of those poverty: Individuals Under 18	29	4.4
Of those poverty: Individuals Over 65	16	8.0
Total Population Over 5 who Speak English less than "very well"	7	.4
2014 ACS Total Population Estimate	2193	100%

Data Source: 2014 American Community Survey

## **General Property**

**Table 4 Property Exposure Summary**

<b>Property Type</b>	<b>Total Parcel Count</b>	<b>Improved Parcel Count</b>	<b>Improved Values (\$)</b>	<b>Content (\$)</b>	<b>Total Value (\$)</b>
<b>Totals</b>	<b>813</b>	<b>675</b>	<b>97,295,900</b>	<b>48,647,950</b>	<b>145,943,850</b>
Agriculture	9	2	199,200	99,600	298,800
Commercial	45	38	8,790,100	4,395,050	13,185,150
Utilities	8	2	815,600	407,800	1,223,400
Institutional/ Governmental	29	5	1,508,500	754,250	2,262,750
Other	76	12	3,087,400	1,543,700	4,631,100
Residential	646	616	82,895,100	41,447,550	124,342,650

Data Source: Dane County Land Information Office, 2015. Note: Figures represent only Dane County parcels within Village of Belleville.

## **Critical Facilities**

The Village of Belleville has identified the following critical facilities important to protect from disaster impacts. These are collected in Table 5. Table 5 is based on the 2015 Village of Belleville Data Collection Guide. Note, the Village assigned a limited number of replacement values, but did provide additional documentation regarding specific properties damaged in past events to Dane County Emergency Management.

**Table 5 Critical Facility Summary/Essential Infrastructures**

Name of Asset	Type*	Replacement value	Occupancy/capacity	Hazard Specific issues
Bridge – STH 69/92	EI			Crossing over Sugar River
Bridge – Remy Road	EI			Crossing over Sugar River
Tower – Antenna; US Cellular & Verizon	EI			Lightning
Water Tower	EI	\$581,388		Lightning – Meter Antenna
Allegiant Oil	HM			Under construction summer 2015; see summary
Sugar River Dam	NA			See emergency plan
Lake Bell View / Sugar River & Wetland islands	NA			Major rehabilitation in 2011; Conservancy areas; Floodplain forest See map
Residences in Floodplain	VF			See FEMA map & listing of properties damaged

Data Source: Village of Belleville Data Collection Guide, 2015

**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 the Village of Belleville. 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
<b>Dam Failure</b>	None	None	None	Specifics unknown; See hazard profile in County Plan
<b>Drought</b>	Minimal	None	Minimal	Specifics unknown; See hazard profile in County Plan
<b>Flooding</b>	See section below	See section below	See section below	See section below
<b>Fog</b>	Minimal	None	None	Specifics unknown; See hazard profile in County Plan
<b>Hailstorm</b>	Minimal	See Property Exposure table 3	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan
<b>Landslide/ Sinkholes/ Erosion</b>	Minimal	Minimal	Minimal	Specifics unknown; See hazard profile in County Plan
<b>Lightning</b>	See Table 2 Population	See Table 3 Property Exposure	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan

Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
<b>Severe Cold</b>	See Table 2 Population	See Table 3 Property Exposure	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan
<b>Severe Heat</b>	See Table 2 Population	None	Minimal	Specifics unknown; See hazard profile in County Plan
<b>Severe Winter Storm</b>	See Table 2 Population	See Table 3 Property Exposure	See Critical Facility Inventory Table(s)	Specifics unknown; See hazard profile in County Plan
<b>Tornado</b>	See Table 2 Population	See section below	See Critical Facility Inventory Table(s)	See section below
<b>Wildfire</b>	Minimal	Minimal	Minimal	Specifics unknown; See hazard profile in County Plan
<b>Windstorm</b>	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 Belleville. 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
0	0	6	5	11.65	32	27	62.91

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
0	\$0	0	6	\$568,500	5	32	\$3,349,100	27

Source: Analysis based on Dane County Land Information Office Data

**Repetitive Loss Properties and Flood Insurance Policies**

There are no repetitive loss properties in the Village of Belleville. According to FEMA Policy and Claim Statistics for Flood Insurance, the community has 9 flood insurance policies, with a total coverage amount of \$1,776,000. There have been no claims.

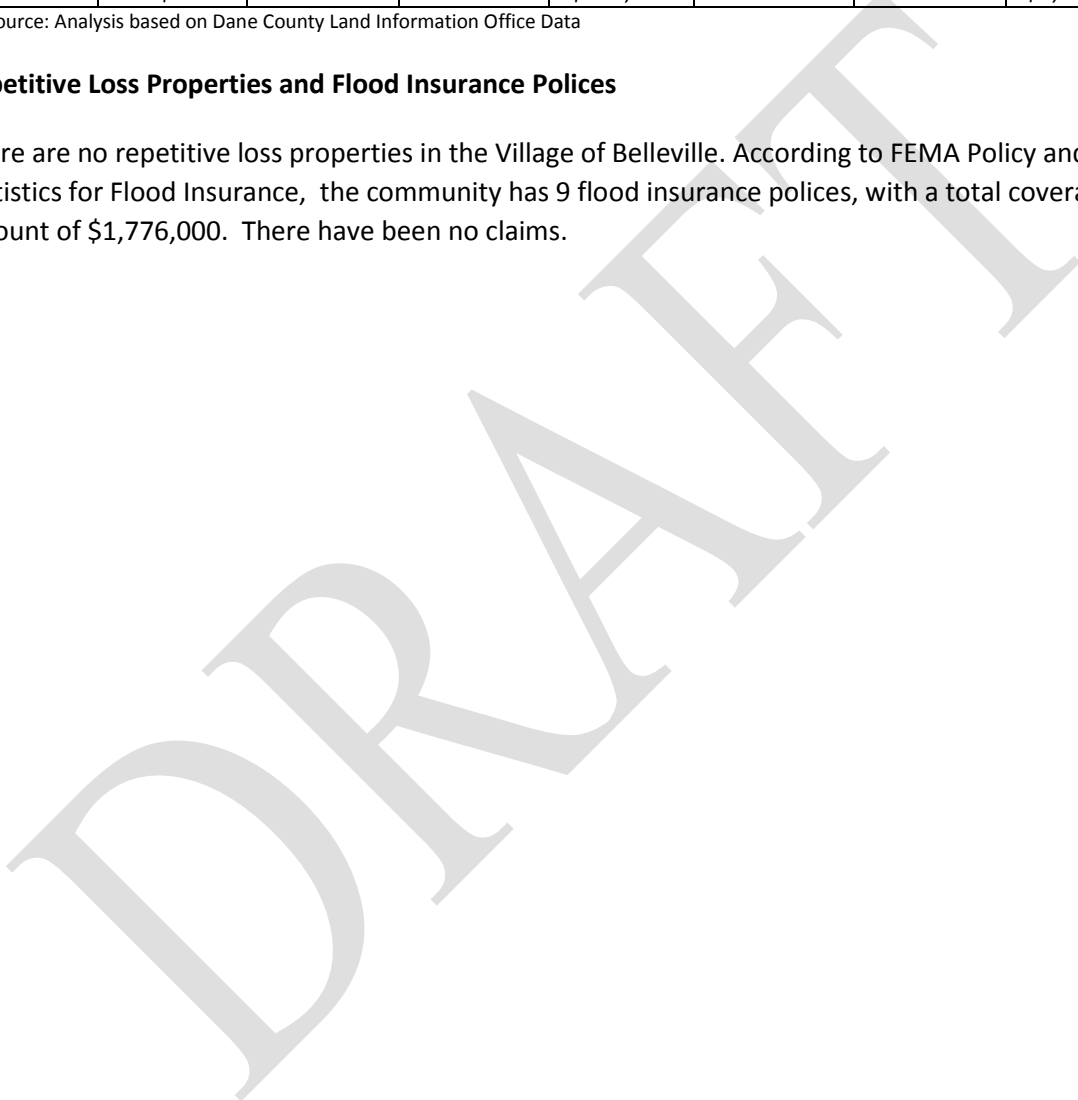
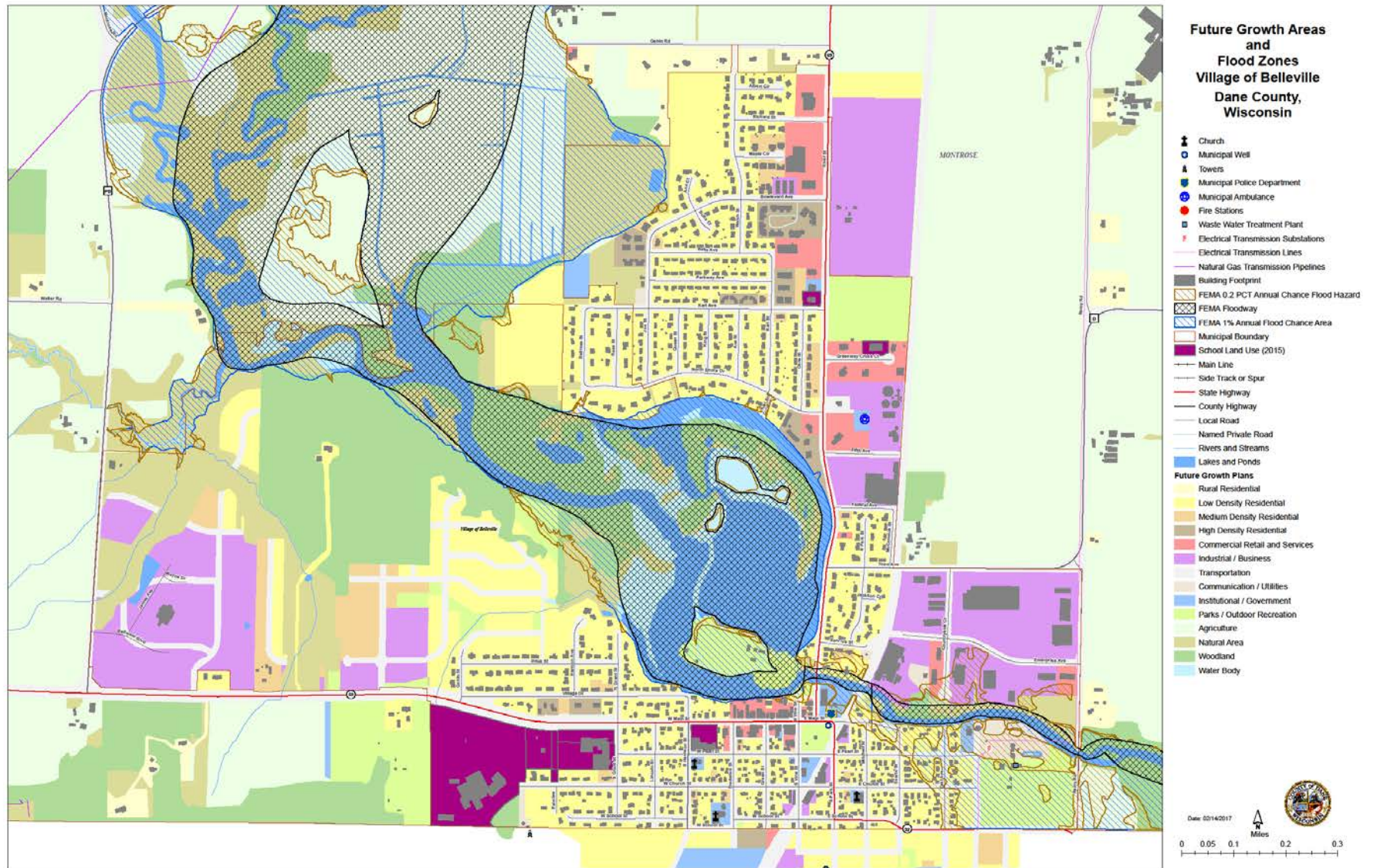




Figure 1 Flood Hazards and Future Land Use Map



## 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 of Impact	Improved Parcel Count	Affected Structure Estimate	Total Exposed Value	Estimated Loss \$ - High Damage Range	Estimated Loss \$ - Moderate Damage Range	Estimated Loss \$ - Low Damage Range	Loss Ratio for Moderate Damage Range
50.92%	802	408	\$197,705,100	\$100,670,303	\$50,335,151.67	\$25,167,575.83	25.5%

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 Belleville 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 Belleville Change in Population and Housing Units, 2000-2014/15**

2010 Population	2015 Population	Percent Change (%) 2010-2015	2010 # of Housing Units	2014 # of Housing Units	Percent Change (%) 2010-2014
1848	1856	0.43%	800	848	6.0%

**Table 11 Village of Belleville Population Projections, 2015-2035**

Population Change	5 year Growth %	2015	2020	2025	2030	2035
Increase by same percentage each year	0.09%	1,856	1,864	1,872	1,880	1,888

Data Source: Wisconsin Department of Administration, 2015

## **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 Belleville.

### **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 Belleville.

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

<b>Regulatory Tool (ordinances, codes, plans)</b>	<b>Yes/No</b>	<b>Comments</b>
General or Comprehensive plan	Yes	
Zoning ordinance	Yes	Available on Village of Belleville web site at <a href="http://bellevillewi.org/Codes">bellevillewi.org/Codes</a>
Subdivision ordinance	Yes	Available on Village of Belleville web site at <a href="http://bellevillewi.org/Codes">bellevillewi.org/Codes</a>
Growth management ordinance	Yes	Available on Village of Belleville web site at <a href="http://bellevillewi.org/Codes">bellevillewi.org/Codes</a>
Floodplain ordinance	Yes	Available on Village of Belleville web site at <a href="http://bellevillewi.org/Codes">bellevillewi.org/Codes</a>
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Stormwater - Available on Village of Belleville web site at <a href="http://bellevillewi.org/Codes">bellevillewi.org/Codes</a>
Building code	Yes	Available on Village of Belleville web site at <a href="http://bellevillewi.org/Codes">bellevillewi.org/Codes</a>
Fire department ISO rating	Yes	d/k
Erosion or sediment control program	Yes	Ordinance; monitored for new development
Stormwater management program	Yes	Ordinance; monitored for new development
Site plan review requirements	Yes	Ordinance; monitored for new development
Capital improvements plan	Yes	Updated annually
Economic development plan	Yes	Updated annually
Local emergency operations plan	Yes	Updated annually

Data Source: Village of Belleville 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 Belleville.

**Table 13 Responsible Personnel and Departments for the Village of Belleville**

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Consultant on as-needed basis	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	MSA Professional Service	
Planner/engineer/scientist with an understanding of natural hazards	Yes	MSA Professional Services and Montgomery Associates	
Personnel skilled in GIS	Yes	Database on website. Some staff have basic user knowledge	
Full-time Building Official	No	Part time only- General Engineering	
Floodplain Manager	No	MSA Professional Services and April Little	
Emergency Manager	No	Committee only	
Grant Writer	No	No dedicated staff member, done as needed	
Other Personnel			
GIS Data Resources – (land use, building footprints, etc.)	Yes		See: <a href="http://gis.msaps.com/belleville/gis2/">http://gis.msaps.com/belleville/gis2/</a>
Warning systems/services (Reverse 9-11, cable override, outdoor warning signals)	Yes	New Dane County Outdoor Siren	

Data Source: Village of Belleville Data Collection Guide

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

**Table 14 Financial Resources for the Village of Belleville**

Financial Resources	Accessible/Eligible to Use (Yes/No)	Comments
Community Development Block Grants	-	Administered by Dane County
Capital improvements project funding	Yes	Within levy limits
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Water and sewer and stormwater use charges
Impact fees for new development	No	Sewer connection charge only
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Incur debt through private activities	-	

Data Source: Village of Belleville Data Collection Guide

### Additional Capabilities

The Data Collection Guide identified the following additional capabilities for the Village of Belleville:

- Storm Ready Certification
- Informational materials, including magnets, targeted to special needs populations and handed out at EMS open houses.
- Have a dedicated emergency services resources page on Village website.
- New plats approved on West side of Belleville are buffered from the Sugar River by an environmental corridor.

### National Flood Insurance Program Participation

Table 15 provides an overview of the NFIP participation status for the Village of Belleville.

**Table 15. NFIP Information Status for the Village of Belleville**

Floodplain Ordinance	FEMA Flood Map	NFIP Participation	Init FHBM Identified	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date
Yes	55025C0731H,	Yes	01/23/74	11/19/1980	06/16/16	11/19/1980

Data Source: Dane County GIS, FEMA Community Status Book Report

### Public Involvement Activities

The Village of Belleville community participated in the County public outreach process. This was a series of public workshops held 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

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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 completed by the Village of Belleville. However, prior to joining the process, Belleville had already taken action to reduce the community's vulnerability to natural hazards. These actions include:

- Extensive dam/community park flood mitigation work done in 2011, including a dam safety inspection and preparation of a dam emergency plan.
- Trimming or removing hazardous trees
- Replacing the old pedestrian bridge from the lake and park area with a new bridge built to current flood standards following the destruction of the old bridge.

Additionally, the Village submitted many maps illustrating past flood damaged areas. These maps have not been included in this annex but were kept by Dane County Emergency Management. The information included in these maps and associated data was factored into the County planning process.

### **Proposed Mitigation Actions**

**Objective 1:** Build a safe room within the community to shelter residents without adequate cover during storm events.

**Steps:**

- 1) Identify relevant populations and potential locations for safe room
- 2) Apply for and obtain FEMA mitigation grant funding
- 3) Design and build safe room to meet FEMA P-361 and ICC-500 specifications for safe rooms

**Lead Implementing Agency:** Village of Belleville

**Supporting Agencies:** Dane County Emergency Management, Wisconsin Emergency Management

**Possible Funding and Technical Assistance:** FEMA Mitigation Grant

**Timeline:** Within 5 years

**Priority:** High

**Estimated Costs:** Depends on final size/design. Expect \$150 - \$240 per square foot.

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Objective 2: Support Dane County efforts to mitigate natural hazards at the local level through continued collaboration with County projects in the Village of Belleville 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:

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

Lead Implementing Agency: Village of Belleville

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

Timeline: Continuous

Priority: Moderate

Estimated Costs: Unknown

Objective 3: 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.

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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

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