
Village Of Cambridge Annex

Community Profile

The Village of Cambridge is located in the southeast quadrant of the County, north of the village of Rockdale, east of the Town of Pleasant Springs, and south of Roxbury. Land use is primarily residential and commercial. According to the United States Census Bureau, the Village of Cambridge has a total area of .89 square miles, all of it land.

As of the 2010 Census, there are 1,348 people, 372 families, 572 households, and 609 housing units residing in the Village of Cambridge. The population density is 1,060 people per square mile. The housing unit density is 478.9 units per square mile. Table 1 shows the population age profile for the Village of Cambridge.

Table 1 Population Age Profile

Category	Number	Percent
Total population	1,457	100.0
Under 5 years	85	5.8
5 to 9 years	106	7.3
10 to 14 years	114	7.8
15 to 19 years	72	4.9
20 to 24 years	68	4.7
25 to 29 years	76	5.2
30 to 34 years	79	5.4
35 to 39 years	95	6.5
40 to 44 years	116	8.0
45 to 49 years	135	9.3
50 to 54 years	120	8.2
55 to 59 years	111	7.6
60 to 64 years	74	5.1
65 to 69 years	45	3.1
70 to 74 years	32	2.2
75 to 79 years	46	3.2
80 to 84 years	37	2.5
85 years and over	46	3.2

Data Source: 2010 U.S. Census

According to the 2014 American Community Survey, the median income for a household in the portion of the Village of Cambridge is \$63,750 and the median income for a family is \$90,417. The per capita income for the Village of Cambridge is \$31,723. 94.5 % of the population has at least a high school degree, while 38.4% of the population holds at least a bachelor's level degree.

Hazard Identification and Risk Assessment

A hazard identification and vulnerability analysis was completed for the Village of Cambridge 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 Cambridge based on the Data Collection Guide issued in 2010. 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 Cambridge's planning team members were asked to complete the matrix by ranking each category on a scale of 0 to 3 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. The table has been updated to reflect the changed scale of 0-5 rather than 0-3. The Village did not submit a new matrix indicating that it does not believe the situation has changed. Thus, the matrix was simply updated to be consistent with the scale used in other local plans. This matrix reflects the significance of the hazards relative to one another.

This matrix reflects that the Village of Cambridge is most vulnerable to extreme heat and cold, flood, hail storm, tornado, and windstorm. The Village of Cambridge has a medium vulnerability to fog, and a lower vulnerability to dam/levee failures, drought, erosion, landslides, lightning, wildfire, and subsidence. 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 Cambridge

Hazard	Hazard Attributes (1-5)			Impact Attributes (0-5)						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	
Dam failure	1	1	1	1	1	1	1	1	1	9
Extreme Cold	5	5	1	3	3	3	1	3	3	28
Extreme Heat	5	5	1	1	1	5	1	1	1	21
Drought	1	3	1	0	0	0	1	1	1	7
Erosion	1	1	1	0	0	0	0	0	0	3
Flood	5	5	5	5	5	3	1	5	5	39
Fog	3	5	3	0	1	1	0	0	3	14
Hail Storm	5	5	5	3	1	1	0	5	3	28
Landslide	1	1	1	0	0	0	0	0	0	3
Lightning	1	5	5	1	1	1	0	1	3	18
Tornado	5	5	3	5	5	5	3	5	5	41
Wildfire	1	1	5	1	1	1	1	1	1	13
Windstorm	5	5	3	5	5	5	3	5	5	41
Winter Storm	5	5	1	3	3	5	1	3	3	29

Source: Village of Cambridge

Previous Hazard Events

Through the Data Collection Guide in 2010, the Village of Cambridge noted specific historic hazard events to include in the community profile. These events have been incorporated into the appropriate hazard chapters in the base plan. These events had a particular impact on the community beyond the impacts and events recorded in the Dane County Hazard Mitigation Plan. This is not a comprehensive summary of past incidents, as the hazard profiles collected in the main Mitigation Plan include other events that may have historically impacted the jurisdiction. No additional events were provided for this update. The events noted by this jurisdiction in the Data Collection Guide include:

Flood, August 2008

The flooding during the summer of 2008 impacted the entire area, causing high amounts of property damage with high cost involvement. Economic impacts to businesses were high as some businesses were flooded or closed because of the flooding, and others lost revenue due to the inability of customers to travel while floodwaters filled roadways. Over \$100,000 insured damages were reported, though no other damage figures are available at this time. No injuries or deaths were reported. The Village received disaster assistance from FEMA.

Flood, August 2007

The entire area was impacted by a 500-year flood event in late August of 2007. No injuries or deaths were reported, but there was a high incidence of property damage, and some economic impacts on businesses due to road closures and stock damages. Over \$100,000 in insured losses were reported. The Village did not receive federal aid to respond to this event. Temporary housing was utilized while repairs were made to private properties. The data collection guide indicates the Village feels there is a high likelihood of the event occurring again.

Asset Inventory

Assets include the people, property, and critical facilities within the Village of Cambridge 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	7	3.3
Population 18-64 with a Disability	49	6.9
Population Over 65 years old with a Disability	99	37.4
Total Population with Disability	155	12.4

Other Vulnerable Populations	Estimate	Percentage
Families Below Poverty Level	10	3
Individuals Below Poverty Level	61	4.9
Of those poverty: Individuals Under 18	6	2.2
Of those poverty: Individuals Over 65	18	6.8
Total Population Over 5 who Speak English less than "very well"	10	0.8
2014 ACS Total Population Estimate	1254	100%

Data Source: 2010 US Census

General Property

Table 4 Property Exposure Summary

Property Type	Total Parcel Count	Improved Parcel Count	Improved Values (\$)	Content (\$)	Total Value (\$)
Totals	632	473	85,609,800	42,804,900	128,414,700
Agriculture	8	1	57,400	28,700	86,100
Commercial	64	52	13,353,500	6,676,750	20,030,250
Utilities	6	0	0	0	0
Industrial	13	11	4,552,300	2,276,150	6,828,450
Institutional/ Governmental	25	4	1,195,100	597,550	1,792,650
Other	87	8	3,854,100	1,927,050	5,781,150
Residential	429	397	62,597,400	31,298,700	93,896,100

Data Source: Dane County Land Information Office

Critical Facilities

The Village of Cambridge has identified the following critical facilities important to protect from disaster impacts. These are collected in Table 5. Data was provided by the community through the Data Collection Guide.

Table 5 Other Specific Assets for the Village of Cambridge

Name of Asset	Type*	Replacement Value (\$)	Hazard Specific Issues
Community Building- Amundson Center	EI	1,682,026.00	NA
Cambridge Community Library	EI	1,700,000.00	NA
Village Garage	EI	550,000.00	NA
Salt Shed	EI	50,000.00	NA
Lagoon Road Admin Bldg	EI		NA
Lagoon Road Storage Shed	EI		NA
Skogen Road Pumphouse	EI		NA
Well #2 - Madison Street	EI	372,320.00	NA
Westside Park Shelter	VF	345,371.00	NA
Fire/EMS Station	EI		NA
Fire Dept Garage	EI		Na
Totals Replacement		\$	7,981,334.00
EI – Essential Infrastructure, VF – Vulnerable Facility			

Data Source: Village of Cambridge Data Collection Guide

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 Cambridge. 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
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Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
Dam Failure	None	Minimal	Minimal	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	Minimal	Minimal	Minimal	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 Property Exposure	See Critical Facility 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 Cambridge. 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	7	2	4.66	11	3	6.99

Source: Analysis based on Dane County Land Information Office Data

Table 8 Properties with Primary Structures in the Floodplain

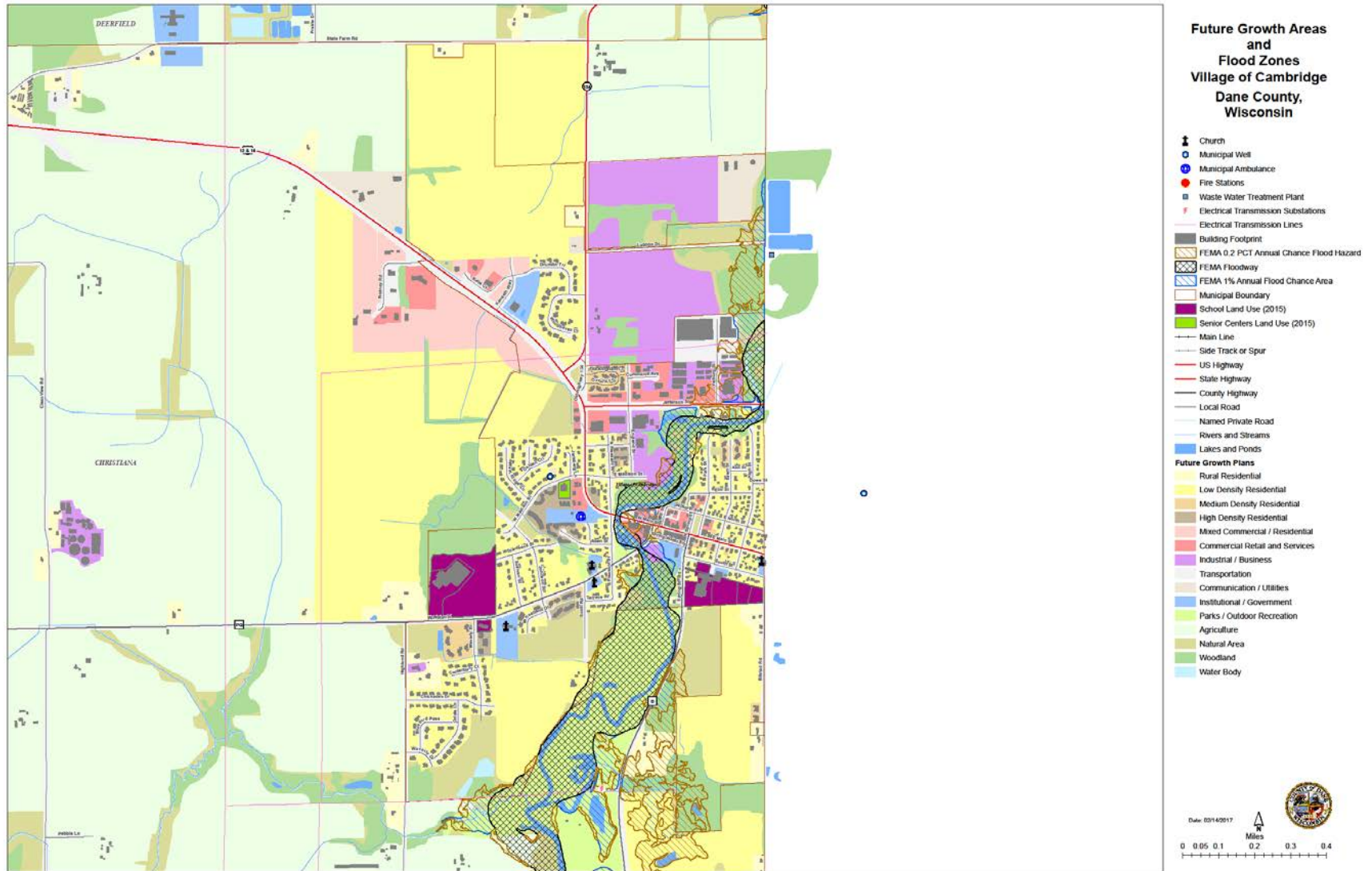
Total Floodway Properties	Floodway Improved Values	Floodway Residential Properties	Total Properties in 100 year Floodplain	Total Improved Value of Properties in 100 year Floodplain	Residential Properties in 100 year Floodplain	Total Properties in 500 year Floodplain	Total Improved Value of Properties in 500 year Floodplain	Residential Properties in 500 year Floodplain
0	\$0	0	7	\$1,325,200	2	11	\$3,194,100	3

Source: Analysis based on Dane County Land Information Office Data

Repetitive Loss Properties and Flood Insurance Policies

According to FEMA Policy and Claim Statistics for Flood Insurance, the community has four flood insurance policies, with a total coverage amount of \$799,000. There has been one claim, which was closed without payment, 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 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
64.0%	603	386	\$155,339,700	\$99,468,197	\$49,734,098.30	\$24,867,049.15	32.0%

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 Cambridge 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 Cambridge 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
12097	12901	6.65%	4,483	4,683	4.5%

Data Source: Dane County Planning and Wisconsin Department of Administration

Table 11 Village of Cambridge Population Projections, 2015-2035

Population Change	5 year Growth %	2015	2020	2025	2030	2035
Increase by same percentage each year	0.12%	1,356	1,364	1,372	1,380	1,388

Data Source: Demographics Services Center, Wisconsin Department of Administration

Problems or Additional Vulnerability issues

The Data Collection Guide identified the following additional development trends, it is believed that these trends are continuing:

- Concentrated population of elderly
- Increased concentration of elderly and increase in low income population

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 Cambridge.

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 Cambridge.

Table 12 Village of Cambridge Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
General or Comprehensive plan	Yes	Jefferson County All Hazard Mitigation Plan and smart growth plan
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Growth management ordinance	Yes	Smart growth plan
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	Planning commission and building codes
Capital improvements plan	No	
Economic development plan	Yes	
Local emergency operations plan	Yes	Preliminary plan
Other special plans	No	
Flood insurance study or other engineering study for streams	Yes	
Elevation certificates (for floodplain development)	Yes	

Data Source: Village of Cambridge 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 Cambridge.

Table 13 Responsible Personnel and Departments for the Village of Cambridge

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Town and Country, Warren Myers, retained firm	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	BZA and Town and Country	
Planner/engineer/scientist with an understanding of natural hazards	Yes	County level	
Personnel skilled in GIS	Yes	County level	
Full-time Building Official	No	Part-time only	
Floodplain Manager	No		
Emergency Manager	Yes	County level	
Grant Writer	Yes	Village president and Village Treasurer	
Other Personnel	Yes		
GIS Data Resources – (land use, building footprints, etc.)	Yes	County level	
GIS Data – Links to assessor’s data	Yes	Local siren and county level	

Data Source: Village of Cambridge Data Collection Guide

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

Table 14 Financial Resources for the Village of Cambridge

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

Data Source: Village of Cambridge Data Collection Guide

Additional Capabilities

National Flood Insurance Program Participation

The Village participates in the NFIP and has done so since 1980. Table 15 reflects the NFIP status for the Village of Cambridge. An objective related to continued participation is described later.

Table 15 Floodplain Regulation Program Status as of 5/2017

Floodplain Ordinance	Comments	Dane County FIRM Panels	NFIP Participation	Init FHBM Identified	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date

Yes		494, 657	Yes	12/17/1973	6/4/1980	2/4/2015	6/4/1980
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Public Involvement Activities

The Village of Cambridge 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 risk the perceived within their own community. More information on these meetings can be found in the County base plan. .

Mitigation Objectives (Actions)

Objective #1: Create a public storm shelter within 8 years.

Steps:

- 1) Determine the full extent of the need for the Village. This would be done by feedback from the community organizations, businesses, industry, and citizens.
- 2) Locate a suitable shelter location. The size and needs determined in step one would be an indicator for the suitable shelter requirements and location.
- 3) Determine the necessary improvements or construction requirements to create a multi-hazard storm shelter. Back up power/generators would be necessary for the storm shelter and possibly acquiring portable generators for use.
- 4) Begin financing arrangements (grants, or loans).
- 5) Hold a public hearing.
- 6) Bid project

Lead Implementing Agency: Village of Cambridge Board.

Supporting Agencies:

- Cambridge Chamber of Commerce
- Cambridge Foundation
- Cambridge School District
- Other community organizations.

Possible Funding and Technical Assistance: Pursue CDBG funding, Cambridge Foundation grant and other community organization funding. Contact the Village engineer, Dane County Emergency Management and other communities that have recently created a storm shelter for information, ideas or assistance on various aspects, including technical assistance, for the storm shelter.

Timeline: Complete this project within 8 years (continuing from 2010)

Priority: High

Estimated Costs: Location and improvements will determine the costs for this project. An estimated minimum cost of \$200,000 would be plausible.

Objective #2: 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, with the help of outside resources, the regulatory deficiencies and enforcement shortcomings in flood-related ordinances and programs;
- 2) Update flood-related ordinances on an annual basis;
- 3) Ensure that stop work orders and other means of compliance are being used as authorized by each ordinance;
- 4) Village staff or Village building inspector will suggest changes to improve enforcement of and compliance with regulations and programs;
- 5) Encourage Village building inspector to become Certified Floodplain Manager (CFM) or maintain their CFM status.
- 6) The Village of Cambridge will participate in Flood Insurance Rate Map updates by adopting new maps or amendments to maps
- 7) The Village of Cambridge will utilize recently completed Digital Flood Insurance Rate maps 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 Jefferson County, Dane County and WDNR.

Lead Implementing Agency: Village of Cambridge Building Inspector

Supporting Agencies:

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

Possible Funding and Technical Assistance:

- Staff Time

Time Line: On going

Priority: High

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

Objective 3: Support Dane County efforts to mitigate natural hazards at the local level through continued collaboration with County projects in the Village of Cambridge area. The Town 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 Town.

Steps:

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

Lead Implementing Agency: Village of Cambridge

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

Timeline: Continuous

Priority: Moderate

Estimated Costs: Unknown