
City of Fitchburg Annex

Community Profile

The City of Fitchburg is a suburb of Madison. Fitchburg was a town until its incorporation as a city on April 26, 1983 and is located south of Madison. As the city of Madison began to encroach upon the Town of Fitchburg via annexation, the town pursued incorporation as a city to halt Madison's expansion into the town and became its own City. Therefore, the geographic area of Fitchburg is very similar to that of the City of Madison. Land use is primarily residential, agricultural, and commercial. According to the United States Census Bureau, the City of Fitchburg has a total area of 34.9 square miles.

As of the 2010 Census, there are 25,260 people, 9,955 households, and 6,238 families residing in the City of Fitchburg. The population density is 722.3 people per square mile. There are 10,668 housing units at an average density of 305.1 units per square mile. The population age profile as of 2010 is shown in Table 1.

Table 1 Population Age Profile

Category	Number	Percent
Total population	25,260	100.0
Under 5 years	2,029	8.0
5 to 9 years	1,702	6.7
10 to 14 years	1,499	5.9
15 to 19 years	1,462	5.8
20 to 24 years	1,894	7.5
25 to 29 years	2,700	10.7
30 to 34 years	2,237	8.9
35 to 39 years	1,798	7.1
40 to 44 years	1,621	6.4
45 to 49 years	1,807	7.2
50 to 54 years	1,660	6.6
55 to 59 years	1,647	6.5
60 to 64 years	1,274	5.0
65 to 69 years	746	3.0
70 to 74 years	427	1.7
75 to 79 years	310	1.2
80 to 84 years	249	1.0
85 years and over	198	0.8

Data Source: 2010 U.S. Census

According to the 2014 American Community Survey, the median income for a household in the City of Fitchburg is \$62,832 and the median income for a family is \$103,936. The per capita income for the City of Fitchburg is \$34,836. 90.8% of the population has at least a high school degree, while 45.9% 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 City of Fitchburg 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 City of Fitchburg 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 City of Fitchburg’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 reflects that the City of Fitchburg has the highest vulnerability to flood, windstorm, winter storms, and tornados; and a lower vulnerability to dam/levee failures, drought, fog, hail storm, 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.

Table 2 Vulnerability Assessment Matrix for the City of Fitchburg

Hazard	Hazard Attributes			Impact Attributes						Total
	Area of Impact	Past History, Probability of Future Occurrence	Short Term Time Factors	Primary Impact (Short Term - Life and Property)			Secondary Impact (Long Term – Community Impacts)			
						Impact on General Structures	Impact on Critical Facilities	Impact on At-Risk Populations	Social Impact	Economic Impact
	(1-5)	(1-5)	(1-5)	(0-5)	(0-5)	(0-5)	(0-5)	(0-5)	(0-5)	(0-5)
Dam Failure	0	0	0	0	0	0	0	0	0	0
Extreme Cold	3	3	3	0	1	3	3	0	0	15
Extreme Heat	3	3	3	0	1	3	3	0	0	16
Drought	3	3	3	0	0	0	1	1	0	11
Flood	3	3	3	1	1	1	1	1	1	17
Fog	1	1	1	0	0	1	1	0	0	5
Hail Storm	3	3	1	1	1	0	1	1	0	11
Landslide	0	0	0	0	0	0	0	0	0	0
Lightning	1	1	1	1	1	1	1	1	1	9
Tornado	3	3	3	3	3	3	3	3	3	27
Wildfire	1	1	1	1	1	0	1	1	1	8
Windstorm	3	3	3	3	1	1	3	3	1	21
Winter Storm	3	3	3	0	1	3	3	0	0	16

Data Source: City of Fitchburg Data Collection Guide

Previous Hazard Events

Through the Data Collection Guide, the City of Fitchburg 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. The events noted by this jurisdiction in the Data Collection Guide include:

Flood: June 2008

Flooding in the City of Fitchburg caused some damage to the City. The event occurred in various areas of the City. The City of Fitchburg received FEMA funds to help recover from the hazard. The City of Fitchburg planning members feel such an event is very likely to occur again.

Winter Storm: February 5-6 2008

Record snow fall affected the entire City of Fitchburg during early February of 2008. The snow resulted in delays and closures along roadways, and in schools and businesses. The City of Fitchburg received FEMA funds to help cover the expenses of salt/sand, labor and maintenance of vehicles used to remove the snow. The City of Fitchburg planning members feel such an event is very likely to occur again.

Asset Inventory

Assets include the people, property, and critical facilities within the City of Fitchburg 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	304	7.1
Population 18-64 with a Disability	1209	7.3
Population Over 65 years old with a Disability	650	28.4
Total Population with Disability	2163	8.7

Other Vulnerable Populations	Estimate	Percentage
Families Below Poverty Level	781	12
Individuals Below Poverty Level	4020	16.1
Of those poverty: Individuals Under 18	1747	28.7
Of those poverty: Individuals Over 65	119	5.2
Total Population Over 5 who Speak English less than "very well"	3179	13.1
2014 ACS Total Population Estimate	26050	100%

Data Source: 2014 ACS

General Property

Table 4 Property Exposure Summary

Property Type	Total Parcel Count	Improved Parcel Count	Improved Values (\$)	Content (\$)	Total Value (\$)
Totals	6,276	5,233	1,518,202,100	759,101,050	2,277,303,150
Agriculture	414	109	19,696,400	9,848,200	29,544,600
Commercial	201	175	296,559,200	148,279,600	444,838,800
Utilities	36	6	4,295,000	2,147,500	6,442,500
Industrial	19	16	21,501,100	10,750,550	32,251,650
Institutional/ Governmental	46	11	6,847,100	3,423,550	10,270,650
Other	634	128	61,170,800	30,585,400	91,756,200
Residential	4,926	4,788	1,108,132,500	554,066,250	1,662,198,750

Data Source: Dane County Land Information Office

Critical Facilities

The City of Fitchburg has identified the following critical facilities important to protect from disaster impacts. These are collected in Tables 5 and 6. Both are based on the Data Collection Guide and information submitted by the City.

Table 5 Critical Facility Summary/Essential Infrastructures

Facility	Type*	No. of Facilities	Replacement Value (\$)
Bridge, (bike, vehicle, RR, Underpass)	El	34	Unknown
Communications Tower	El	6	Unknown
Correctional Facility	El	2	Unknown
Electrical Substation	El	1	Unknown
FCC Tower	El	7	Unknown
Fire Station	El	2	Unknown
Food Pantry	El	1	Unknown
Municipal Hall	El	1	Unknown
Police	El	1	Unknown
Powerplant	El	1	Unknown
Water Tower	El	4	Unknown
Water Storage Facilities	El	3	Unknown

Facility	Type*	No. of Facilities	Replacement Value (\$)
Wells	EI	8	Unknown
Affordable Rental Housing	VF		Unknown
Child Care	VF		Unknown
Clinic	VF	1	Unknown
Community Based Residential	VF		Unknown
Historic Site	VF		Unknown
Manufactured Home	VF	47	Unknown
Public School	VF	2	Unknown
Private School	VF	1	Unknown
Residential Care Apt Complex	VF		Unknown
Senior Center	VF	1	Unknown
Subsidized Housing	VF		Unknown
Total		143	Unknown
*EI: Essential Infrastructure; VF: Vulnerable Facilities; HM: Hazardous Materials Facilities;			

Data Source: City of Fitchburg Data Collection Guide, City of Fitchburg

Other Assets

Other assets help define a community beyond the current composition of the City of Fitchburg. These assets may provide economic benefit to the community, in addition to preserving the heritage and diversity of the community and may include natural, cultural and historic assets or economic assets such as major employers. It may also include more specific detail on critical facilities. The City of Fitchburg has identified these other assets in Table 6. Hazard specific vulnerabilities are noted, where known.

Table 6 Other Specific Assets for the City of Fitchburg

Name of Asset	Type*	Occupancy/ Capacity (#)	Hazard Specific Issues
Oakhill Correctional Facility	EI	675	Tornado
Oregon Correctional Facility	EI	70	Tornado
Meadowview Trailer Ct	VF	300	Tornado
Certco Foods	HM	75	Hazardous Material
Hospice Care	VF	325	Fire, Tornado
Promega	HM	250	Hazardous Material
Wingra Concrete	HM		Hazardous Material
Payne & Dolan	HM		Explosives
AMC Star Cinema	VF	600	Fire, Tornado
Sub Zero	HM		Hazardous Material
Playcon	HM		Hazardous Material
Englehart	HM		Hazardous Material
Overhead Doors	HM		Hazardous Material
Eagle School	VF	300	
Stoner Prairie Elementary School	VF	530	

Data Source: Dane County GIS

*EI: Essential Infrastructure; VF: Vulnerable Facilities; HM: Hazardous Materials Facilities; NA: Natural Assets

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 City of Fitchburg. Table 7 cross-references the hazards with the various tables where exposure or vulnerability specifics are found. The intent of Table 7 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 7 Hazard Vulnerability Specifics

Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
Dam Failure	None	None	None	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

Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
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

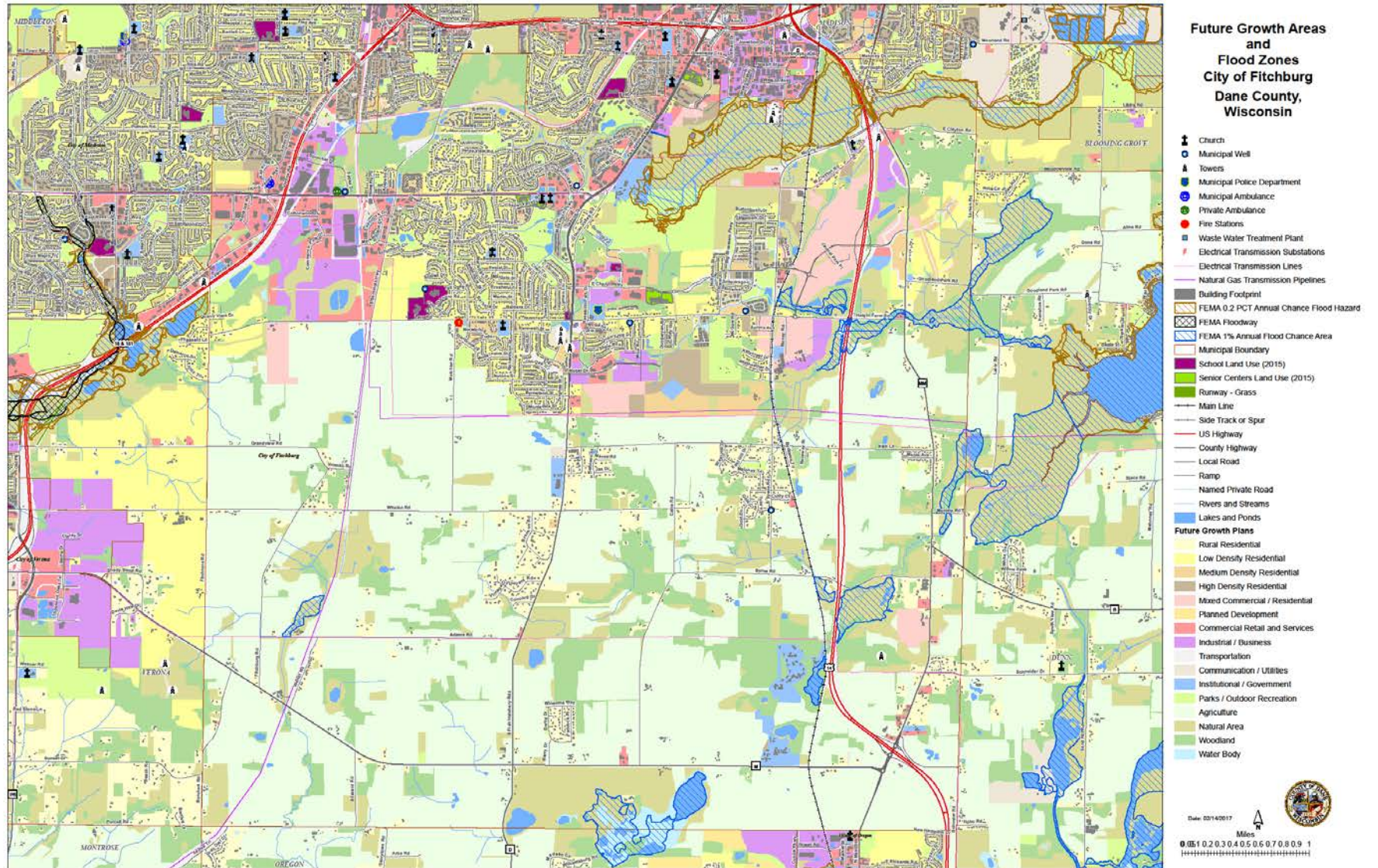
Most of the areas within a mapped flood hazard area (see map in Figure 1) of the City are non-urban core areas. Refer to the flood profile in the mitigation plan for a description of the methodology used to identify potentially flood-prone properties. There are no primary structures or properties containing primary structures within the mapped floodplains. Thus, based on this data, there are no individuals potentially at risk to either the 100 year or the 500 year flood events within the jurisdiction.

Repetitive Loss Properties and Flood Insurance Policies

There are no repetitive flood loss properties within the City of Fitchburg.

According to FEMA Policy and Claim Statistics for Flood Insurance, the community has 20 flood insurance policies, with a total coverage amount of \$4,521,000. There have been 2 claims, both closed without payment.

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 8 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
2.40%	11292	271	\$24,923,739,600	\$598,135,785	\$299,067,892.26	\$149,533,946.13	1.2%

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 9 illustrates how the City of Fitchburg 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 9, drawn from the Demographics Services Center at the Wisconsin Department of Administration, shows population projections through 2035.

Table 9 City of Fitchburg 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
25,260	26,321	4.13	10,668	10,858	1.78

Data Source: Dane County and the City of Fitchburg Comprehensive Plan.

Table 10 City of Fitchburg Population Projections, 2015-2035

Population Change	5 year Growth %	2015	2020	2025	2030	2035
Increase by same percentage each year	0.83%	26,321	27,408	28,541	29,720	30,948

Data Source: Demographic Services Center, Wisconsin Department of Administration

Problems or Additional Vulnerability issues

The 2015 Data Collection Guide did not identify additional problems or additional vulnerability issues in the City of Fitchburg.

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 City of Fitchburg.

Mitigation Capabilities Summary

Table 11 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 City of Fitchburg.

Table 11. City of Fitchburg Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No
General or Comprehensive plan	Yes
Zoning ordinance	Yes
Subdivision ordinance	Yes
Growth management ordinance	Yes
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	
Flood insurance study or other engineering study for streams	Yes
Elevation certificates (for floodplain development)	Yes

Data Source: City of Fitchburg

Table 12 identifies the personnel responsible for mitigation and loss prevention activities as well as related data and systems in the City of Fitchburg.

Table 12. Responsible Personnel and Departments for the City of Fitchburg

Personnel Resources	Yes/No	Department/Position
Planner/engineer with knowledge of land development/land management practices	Yes	Engineering
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Building Inspection
Planner/engineer/scientist with an understanding of natural hazards	Yes	Planning/Zoning
Personnel skilled in GIS	Yes	Engineering
Full-time Building Official	Yes	Building inspection
Floodplain Manager	Yes	Public works
Emergency Manager	Yes	Police/Fire/Engineering
Grant Writer	No	
GIS Data Resources – (land use, building footprints, etc.)	Yes	Engineering
GIS Data – Links to assessor’s data	No	

Data Source: City of Fitchburg

Table 13 identifies financial tools or resources that the City of Fitchburg could potentially use to help fund mitigation activities.

Table 13. Financial Resources for the City of Fitchburg

Financial Resources	Accessible/Eligible to Use (Yes/No)	Comments
Community Development Block Grants	Yes	In joint ventures with Dane County, not individually
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	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Incur debt through private activities	No	
Other:	Yes	

Data Source: City of Fitchburg

National Flood Insurance Program Participation

The City of Fitchburg participates in the National Flood Insurance Program. Refer to information provided in Table 14 below.

Table 14. Floodplain Regulatory Program Status as of 5/2016

Floodplain Ordinance	Dane County FIRM Panels	NFIP Participation	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date
Yes	Numerous – See index	Yes	9/18/86	9/17/14	8/23/01

Data Source: FEMA Community Status Book Report

Public Involvement Activities

The City of Fitchburg 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 Actions

Objective #1: 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

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