
Town of Cottage Grove Annex

Community Profile

The Town of Cottage Grove is located in eastern Dane County, Wisconsin, about 1½ miles east of Madison and 65 miles west of Milwaukee. Its land area includes about 33.7 square miles. It is bisected by County Highways BB and N, bordered on the north by I-94 and US Highway 12/I8 runs through the southern part. The Town is bordered on the north by the town of Sun Prairie and the town of Pleasant Springs to the south. The town of Deerfield is located to the east and the Town of Blooming Grove and the city of Madison to the west. The Village of Cottage Grove is located in the northern part of the Town, along County Trunks N and BB and includes 1,480 acres. Pursuant to state statutes, the Village extends and exercises its extraterritorial authority into the Town 1½ miles in all directions, and the City of Madison extends and exercises its extraterritorial authority into the Town 3 miles. Where the extraterritorial jurisdictions of the City of Madison and the Village of Cottage Grove meet, a compromise between the two has been reached. This extraterritorial area encompasses some 17,225 acres. Collectively, the area of the Village and the extraterritorial area accounts for about 81 percent of the original town. Land use in the Town includes agriculture, wetlands and woodlands, rural subdivisions, and dispersed one and two-family homes.

As of the 2010 Census, there are 3,875 people, 1,463 households, and 1,170 families residing in the Town of Cottage Grove. The population density is 120.7 per square mile. There are 1,495 housing units at an average density of 46.6 per square mile. The municipality population distributed by the Wisconsin Department of Administration indicates that the 2015 population for Town of Cottage Grove was 3,900 people. Table 1 shows the population profile by age for the Town of Cottage Grove according to the 2010 Census.

American Community Survey estimates for 2014 indicate that the median income for a household in the Town of Cottage Grove is \$84,643 and the median income for a family is \$95,469. The per capita income for the Town of Cottage Grove is \$39,525. 97.5% of the population has at least a high school degree, while 26.2% of the population holds at least a bachelor's level degree.

Table 1 Population Profile of Town of Cottage Grove

Category	Number	Percent
Total population	3,875	100.0
Under 5 years	142	3.7
5 to 9 years	204	5.3
10 to 14 years	294	7.6
15 to 19 years	326	8.4
20 to 24 years	143	3.7
25 to 29 years	134	3.5
30 to 34 years	159	4.1
35 to 39 years	207	5.3
40 to 44 years	314	8.1
45 to 49 years	412	10.6
50 to 54 years	413	10.7
55 to 59 years	426	11.0
60 to 64 years	282	7.3
65 to 69 years	189	4.9
70 to 74 years	98	2.5
75 to 79 years	66	1.7
80 to 84 years	46	1.2
85 years and over	20	0.5

Data Source: 2010 U.S. Census

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 Town of Cottage Grove 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 Town of Cottage Grove’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 1. This matrix reflects the significance of the hazards relative to one another.

This matrix reflects that the Town of Cottage Grove is most vulnerable to tornadoes and windstorms. The Town of Cottage Grove has a lower vulnerability to dam/levee failures, extreme cold and heat, drought, flood, fog, hail storm, landslides, lightning, tornado, subsidence, wildfire, windstorm, and winter storm. 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 Town of Cottage Grove

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	1	1	1	0	0	0	0	0	0	3
Extreme Cold	5	3	3	4	4	3	1	1	0	24
Extreme Heat	5	3	3	2	1	4	1	1	0	20
Drought	5	2	2	1	1	1	1	4	3	20
Expansive soils	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flood	3	4	4	3	4	1	1	4	2	26
Fog	3	3	3	0	0	0	0	0	0	9
Hail Storm	3	3	3	1	0	0	0	3	0	13
Landslide	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lightning	1	1	3	3	3	3	1	2	3	20
Tornado	5	4	5	5	5	5	5	5	5	44
Wildfire	1	1	5	2	0	1	1	1	0	12
Windstorm	5	5	5	5	3	2	1	4	3	33
Winter Storm	5	3	3	4	3	3	1	1	2	25

Data Source: Town of Cottage Grove Data Collection Guide

Previous Hazard Events

Through the Data Collection Guide, the Town of Cottage Grove 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:

Windstorm: July, 1991

Windstorm left debris on public roads and other public property. Damages were \$2,000.

Flood and Windstorm: June 23, 2000

Town road systems (\$11,049) and the town park (\$2,062) were damaged during this event. The town received \$11,233 in federal disaster assistance.

Flood: August 18, 2007

Heavy flooding in the Town of Cottage Grove caused road system damages. The event occurred jurisdiction-wide. There were no deaths or injuries reported, but there was reported damage to property, and Ridge road was closed. Damages totaled \$2,310. The Town of Cottage Grove did not receive FEMA funds to help recover from the hazard. The Town of Cottage Grove planning members felt such an event had a very likely potential to occur again.

Severe Flood: June 7-8 & 12th, 2008

Flood waters in the Town of Cottage Grove caused road systems and public structural damage that was initiated a Presidential Disaster Declaration. The event occurred throughout the jurisdiction. There were no deaths or injuries reported, but there was reported damage to infrastructure property. Approximate damage expectations for private and public structures totaled \$267,010. The Town of Cottage Grove did receive FEMA funds to help recover from the hazard in the amount of \$31,629. The Town of Cottage Grove planning members felt such an event had a very likely potential to occur again.

Severe Winter Storm: February 5-6, 2008

A Winter Storm in the Town of Cottage Grove caused school closings and required the need for additional emergency road services. The event occurred jurisdiction wide. There were no deaths or injuries reported. Estimated costs for emergency road services totaled \$9,594.33. The Town of Cottage Grove did receive FEMA funds to help recover from the hazard in the amount of \$9,594. The Town of Cottage Grove planning members felt such an event had a very likely potential to occur again.

Severe Windstorm: June, 2014

A windstorm caused damage on a diagonal path from the Northwest to Southeast corner of the Town. High winds took down many trees causing damage to structures and temporarily blocking several roads. The town provided brush pickup in the aftermath of the event to aid in the cleanup efforts of its residents.

Asset Inventory

Assets include the people, property, and critical facilities within the Town of Cottage Grove 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	25	4.3
Population 18-64 with a Disability	137	5.4
Population Over 65 years old with a Disability	94	21
Total Population with Disability	256	6.7

Other Vulnerable Populations	Estimate	Percentage
Families Below Poverty Level	0	0
Individuals Below Poverty Level	47	1.2
Of those poverty: Individuals Under 18	0	0
Of those poverty: Individuals Over 65	0	0
Total Population Over 5 who Speak English less than "very well"	0	0
2014 ACS Total Population Estimate	3846	100%

Data Source: 2010 US Census and 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	2,131	1,480	253,654,400	126,827,200	380,481,600
Agriculture	599	232	36,895,900	18,447,950	55,343,850
Commercial	28	23	5,846,800	2,923,400	8,770,200
Utilities	6	1	585,000	292,500	877,500
Industrial	6	5	1,790,300	895,150	2,685,450
Institutional/ Governmental	7	1	66,300	33,150	99,450
Other	239	33	7,634,600	3,817,300	11,451,900
Residential	1,246	1,185	200,835,500	100,417,750	301,253,250

Data Source: Dane County Land Information Office Data

Critical Facilities

The Town of Cottage Grove has identified the following critical facilities important to protect from disaster impacts. These are collected in Table 5. Table 5 is based on GIS data inventories from Dane County. There is no supplemental data that was provided by the community through the Data Collection Guide.

Table 5 Critical Facility Summary/Essential Infrastructures

Name of Asset	Type*	Replacement value
11 Bridges:	EI	\$2,500,000 total
Baxter Road		
Ridge Road		
Uphoff Road		
W. Ridge Road		
Femrite Road		
Hope Road		
Siggelkow Road		
Natvig Road		
Vilas Road (3)		
Flynn Hall at 116 W. Reynolds St	VF	\$750,000
Town Garage at 4062 County N	EI	\$500,000
Salt Shed at 4062 County N	EI	\$75,000

Name of Asset	Type*	Replacement value
Pole shed at 4062 County N	EI	\$35,000
Former Town Garage at 4091 County N	VF	\$350,000
Electric Substation	EI	\$0
Emergency Services Building	EI	\$3,131,286
Extremely Hazardous Substances	HM	\$440,300
Manufactured Home	VF	\$0
Municipal Hall	EI	\$621,056
Police	EI	\$2,035,860

Data Source: Town of Cottage Grove Data Collection Guide

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

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 Town of Cottage Grove. 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	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

Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
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 Hazard

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 Town of Cottage Grove. 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	2	2	4.66	2	2	4.66

Source: Analysis based on Dane County Land Information Office Data

Table 8 Properties with Primary Structures in the Floodplain

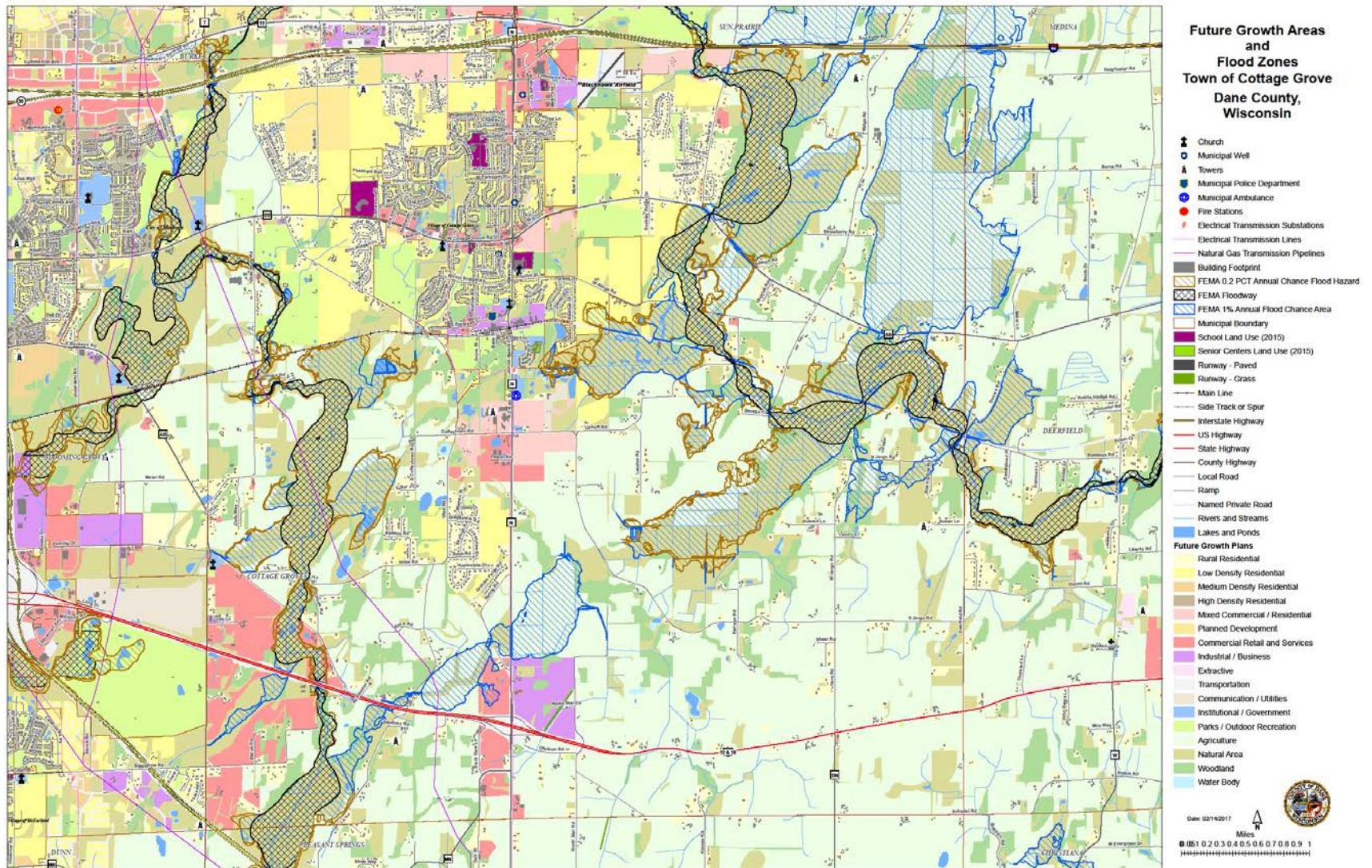
Total Floodway Properties	Floodway Improved Values	Floodway Residential Properties	Total Properties in 100 year Floodplain	Total Improved Value of Properties in 100 year Floodplain	Residential Properties in 100 year Floodplain	Total Properties in 500 year Floodplain	Total Improved Value of Properties in 500 year Floodplain	Residential Properties in 500 year Floodplain
0	\$0	0	2	\$420,700	2	2	\$420,700	2

Source: Analysis based on Dane County Land Information Office Data

Repetitive Loss Properties and Flood Insurance Policies

There is one repetitive loss property within the Town of Cottage Grove. Flood insurance policies and loss statistics are included as part of the County plan.

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 2017 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
2.62%	1540	40	\$396,569,850	\$10,376,903	\$5,188,451.49	\$2,594,225.75	1.3%

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 Town of Cottage Grove 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 Town of Cottage Grove 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
3875	3900	0.65%	1,495	1,588	6.2%

Source: Dane County

Table 11 Town of Cottage Grove Population Projections, 2015-2035

Population Change	5 year Growth %	2015	2020	2025	2030	2035
Increase by same percentage each year	0.13%	3,900	3,925	3,950	3,976	4,001

Source: Wisconsin Department of Administration and Dane County Planning and Development

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 Town of Cottage Grove.

Mitigation Capabilities Summary

Table 13 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 Town of Cottage Grove.

Table 12. Town of Cottage Grove Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
General or Comprehensive plan	Yes	Comprehensive plan
Zoning ordinance	No	Under County Zoning
Subdivision ordinance	Yes	
Growth management ordinance	No	
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Stormwater
Building code	Yes	
Fire department ISO rating	6/9	6 within 5 miles of station,9 elsewhere
Erosion or sediment control program	No	County
Storm water management program	Yes	
Site plan review requirements	Yes	
Capital improvements plan	No	
Economic development plan	No	
Local emergency operations plan	Yes	
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Data Source: Town of Cottage Grove Data Collection Guide, 2015

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

Table 13. Responsible Personnel and Departments for the Town of Cottage Grove

Personnel Resources	Yes/No	Department/ Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Engineer	Contracted
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Building Inspector	Contracted
Planner/engineer/scientist with an understanding of natural hazards	No		County
Personnel skilled in GIS	No		County
Full-time Building Official	Yes	Building Inspector	Contracted
Floodplain Manager	No		
Emergency Manager	Yes	Chair Emergency Government Committee	
Grant Writer	No		
GIS Data Resources – (land use, building footprints, etc.)	No		County
Warning systems/services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Outdoor Warning Signals	County has reverse 911

Data Source: Town of Cottage Grove Data Collection Guide, 2015

Table 14 identifies financial tools or resources that the Town of Cottage Grove could potentially use to help fund mitigation activities.

Table 14. Financial Resources for the Town of Cottage Grove

Financial Resources	Accessible/Eligible to Use (Yes/No)	Comments
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	No	
Impact fees for new development	No	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	No	
Incur debt through private activities	No	
Withhold spending in hazard prone areas	No	

Data Source: Town of Cottage Grove Data Collection Guide, 2015

Additional Capabilities

In the 2015 Data Collection Guide, the Town of Cottage Grove identified the following additional capabilities:

- The Cottage Grove Fire Department and EMS services have safety days/activities
- Stormwater education is included in the annual newsletter and at the annual Town meeting.

National Flood Insurance Program Participation

The Town of Cottage Grove does not participate in the National Flood Insurance Program as a stand-alone entity, but is covered under the County's ordinance.

Public Involvement Activities

The Town of Cottage Grove 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 they perceived within their own community. More information on these meetings can be found in the County base plan.

Mitigation Actions

Completed Mitigation Actions

The Town of Cottage Grove has undertaken efforts to increase its resiliency to natural hazards since the 2010 plan. Projects undertaken include:

- Stormwater management improvements were made in 2014 to the area of Valley Street and Bonnie Avenue to alleviate repetitive flooding in that area.

Proposed Mitigation Actions

The Town of Cottage Grove will pursue the following mitigation actions following the approval of this plan.

Objective #1: Minimize fog related traffic accidents by center-striping town “thru” roads.

Steps:

- 1) Inventory Town “thru” roads.
- 2) Determine center-striping cost.
- 3) Develop action plan.
- 4) Implement action plan.

Lead Implementing Agency: Town of Cottage Grove

Supporting Agencies: None.

Possible Funding and Technical Assistance:

- Tax Levy
- FEMA Pre-Disaster Mitigation Grant Program

Timeline: Begin immediately

Priority: Medium

Estimated Costs: Unknown

Objective #2: Encourage residents to prepare themselves by stocking up with necessary items and planning for how family members should respond if any of a number of possible emergency or disaster events strike.

Steps:

- 1) Promote the need for an emergency supply kit and plan

-
- 2) Develop list of supplies and/or a kit for purchase
 - 3) Provide a sample emergency plan

Lead Implementing Agency: Cottage Grove Combined Emergency Government Committee

Supporting Agencies:

- Town of Cottage Grove
- Village of Cottage Grove
- Dane County Emergency Management

Possible Funding and Technical Assistance:

- Discounted supplies from local retailers

Timeline: Annually in the spring

Priority: High

Estimated Costs: Costs for display kit