
The Village of DeForest Annex

Community Profile

The Village of DeForest is approximately 10 miles north of the State Capitol in the City of Madison. The Town of Vienna to the west, the Town of Burke to the south and the Village of Windsor to the east and north surround it. DeForest is located in the Upper Yahara River Basin, which drains to Lake Mendota and then down the chain of lakes in the County. Land use within the Village is dominated by residential neighborhoods, areas developed for commercial and industrial uses, and an extensive environmental corridor network particularly along the Yahara River. The Village of DeForest has a total area of 7.51 square miles: 7.45 square miles of it is land and 0.117 square miles is water. The total area is 0.016% water. As of the 2010 Census, there were 8,936 people, 3,400 households, and 2,446 families residing in the Village of DeForest. The population density was 1,189.9 persons per square mile of land. There were 3,499 housing units at an average density of 465.9 units per square mile. The Wisconsin Department of Administration estimates that the 2016 population for the Village of DeForest was 9,388 people.

Also per the 2010 Census, 41.7% of households had children under the age of 18 living in them. 21.6% of all households were made up of individuals and 35.5% of householders living alone were 65 years of age or older. The average household size was 2.63 and the average family size was 3.08. 29.0% of the 2010 population was under the age of 18, 6.2% aged 18 to 24, 31.0% aged 25 to 44, 25.1% aged 45 to 64, and 8.7% 65 years of age or older. The median age in 2010 was 35.6 years. The 2009-2013 American Community Survey (ACS) estimates that 4.1% of the population speaks a language other than English at home and 10.6% of the population (above the age of 5) is disabled.

The ACS also determined that the median income for a household in the Village of DeForest in the 2009-2013 timeframe was \$69,898 and the median income for a family was \$80,800. The per capita income for the Village of DeForest was \$31,455. 3.1% of the population was below the poverty line. Out of the total people living in poverty, 0.5% were under the age of 18 and 4.3% were 65 or older. 95.7% of the population had at least a high school degree, while 25.4% of the population held at least a bachelor's level degree.

Hazard Identification and Risk Assessment

A hazard identification and vulnerability analysis was completed for the Village of DeForest using the same methodology in the County 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 1 outlines the hazard identification for the Village of DeForest based on the Data Collection Guide issued in 2015. 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 DeForest'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”. The completed matrix appears as Table 1. This matrix reflects the significance of the hazards relative to one another.

This matrix reflects that the Village of DeForest is most vulnerable to flood, tornado, and winter storm, and has a lower vulnerability to dam/levee failures, extreme heat and cold, drought, erosion, 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.

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Table 1 Vulnerability Assessment Matrix for the Village of DeForest

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)	
Dam Failure	1	1	1	0	0	0	0	0	0	3
Extreme Cold	2	2	3	0	2	2	1	1	0	13
Extreme Heat	2	2	3	0	0	2	1	1	0	11
Drought	1	1	1	0	0	2	1	1	0	7
Flood	2	3	3	1	1	1	2	2	1	15
Fog	1	1	1	0	0	0	0	0	0	3
Hail Storm	2	1	2	1	1	1	1	1	1	11
Landslide	1	2	2	0	0	0	0	0	0	5
Lightning	1	2	3	1	1	1	1	1	0	11
Tornado	3	2	4	2	2	2	2	2	2	21
Wildfire	1	1	1	0	0	0	0	0	0	3
Windstorm	2	2	2	1	2	1	1	1	1	13
Winter Storm	3	3	3	1	1	2	2	2	1	18
Earthquake	3	1	1	0	3	0	1	1	0	10

Data Source: Village of DeForest Data Collection Guide, 2015

Previous Hazard Events

Through the Data Collection Guide, the Village of DeForest 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:

Blizzard: December 19-20, 2012

A major blizzard struck the Village and caused economic damage. 16 inches of snow fell and were shortly followed by blizzard force winds. The Fire Department was dispatched to three fire calls due to the storm. Innovation Drive was blocked for 3-4 days and vehicles were stranded within the Village at times. Additionally, EMS services were stranded outside the Village. The Village received some FEMA reimbursement.

Thunderstorm: June 21, 2013

Multiple trees and powerlines were down, especially in the Main Street area of the Village after a severe thunderstorm. Power outages and the closing of Main Street followed the storm. Other than trees and powerlines, no damage was reported but it is likely that vehicles were damaged.

Extreme Cold: November – March, 2014

The winter of 2014 brought with it extreme cold that became known as the polar vortex. The main impact of this cold was frozen water lines, which were extensive. One area business required a temporary water supply and fire fighters lost water while battling a fire in the (then) Town of Windsor. Significant water usage increases were reported as residents left taps on to keep lines from freezing.

Thunderstorm: June 17-18, 2014

A multiple day storm event had wide effects on the Village, but hit the northeast corner of municipality particularly hard. A garage, roof, and fence were all lost and powerlines were downed in this area. The Emergency Operations Center was used during this event.

Asset Inventory

Assets include the people, property, and critical facilities within the Village of DeForest 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. They also form the basis for estimating potential losses, where possible.

Population

Table 2 Vulnerable Population Summary

Disability Status from the 2014 American Community Survey	Number	Percentage of Group with Disability
Population Under 5 years old with a Disability	0	0%
Population 5-17 years old with a Disability	50	2.5
Population 18-64 with a Disability	634	11.0
Population Over 65 years old with a Disability	229	28.4
Total Population with Disability	913	9.9

Other Vulnerable Populations	Estimate	Percentage
Families Below Poverty Level	39	1.5
Individuals Below Poverty Level	294	3.2
Of those poverty: Individuals Under 18	26	1.0
Of those poverty: Individuals Over 65	52	6.5
Total Population Over 5 who Speak English less than "very well"	186	2.2
2014 ACS Total Population Estimate	9,232	100%

Data Source: 2014 American Community Survey

General Property

Table 3 Property Exposure Summary

Property Type	Total Parcel Count	Improved Parcel Count	Improved Values (\$)	Content (\$)	Total Value (\$)
Totals	3,497	2,785	545,816,100	272,908,050	818,724,150
Agriculture	41	10	6,608,100	3,304,050	9,912,150
Commercial	72	64	37,137,100	18,568,550	55,705,650
Utilities	25	3	831,900	415,950	1,247,850
Industrial	55	39	63,835,000	31,917,500	95,752,500
Institutional/ Governmental	27	3	1,179,500	589,750	1,769,250
Other	663	128	35,579,100	17,789,550	53,368,650
Residential	2,614	2,538	400,645,400	200,322,700	600,968,100

Data Source: Dane County Land Information Office, 2015

Critical Facilities

The Village of DeForest has identified the following critical facilities important to protect from disaster impacts. These are collected in Table 4. Table 4 is based on information from the Village of DeForest Data Collection Guide.

Table 4 Critical Facility Summary/Essential Infrastructures

Name of Asset	Type*	Replacement value	Occupancy/ capacity	Hazard Specific issues
Public Safety Building housing fire, EMS, Police, Courts, Probation & Parole and Human Services	EI	\$\$7,000,0000 (includes Village Hall)	252 capacity	Flood, lightning, tornado, ice storm
Residential Parcels (improved)	VF	\$432,231,700	8,936	Flood, lightning, tornado, ice storm
Commercial and Manufacturing Parcels (improved)	VF, HM	\$174,347,400	Unknown	Flood, lightning, tornado, ice storm
Communication Towers	EI	\$150,000	3 towers	Lighting, tornado, ice storm
Electrical Generation Distribution	EI	unknown		Lighting, tornado, ice storm
Village Hall	EI, VF	\$0 (combined Public Safety Building/Village Hall value above)	161 capacity	Flood, lightning, tornado, ice storm
Public Works Building	EI, VF	\$2,253,712	12 -16 typical; ~40 capacity	Flood, lightning, tornado, ice storm
Water Utilities	EI	\$7,954,305		Flood, lightning, tornado, ice storm
Child Care Centers	VF	\$1,902,400	~200	Flood, lightning, tornado, ice storm
Community Based Residential Facilities and Special Needs Housing	VF	\$45,627,000	~150	Flood, lightning, tornado, ice storm
Public Library	VF	\$6,090,200	Typical 50; ~300 capacity	Flood, lightning, tornado, ice storm
Senior Center	VF	\$1,327,403	~200	Flood, lightning, tornado, ice storm
Medical Clinics	VF	\$9,178,466	~500	Flood, lightning, tornado, ice storm
Public Schools	VF	\$128,203,872 District engaging in substantial capital improvement project; numbers will change by Sept. 2017	3,680 (enrollment in Winter 2017)	Flood, lightning, tornado, ice storm, school violence

Data Source: Village of DeForest, *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 Village of DeForest. Table 5 cross-references the hazards with the various tables where exposure or vulnerability specifics are found. The intent of Table 5 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 5 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 Table 3, Property Exposure	See Table 4, Critical Facility Inventory	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 Table 4, Critical Facility Inventory	Specifics unknown; See hazard profile in County Plan
Severe Cold	See Table 2, Population	See Table 3, Property Exposure	See Table 4, Critical Facility Inventory	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 Table 4, Critical Facility Inventory	Specifics unknown; See hazard profile in County Plan
Tornado	See Table 2, Population	See section below	See Table 4, Critical Facility Inventory	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 Table 4, Critical Facility Inventory	Specifics unknown; See hazard profile in County Plan

Flood

Structures and Properties in the Floodplain

Refer to the flood profile in the County 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 within DeForest. Tables 6 and 7 outline the primary structures and properties with primary structures on them within the Village of DeForest. Potential number of individuals at risk are based on primary residential structures and the average household size within Dane County.

Table 6 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	4	4	9.32

Source: Analysis based on Dane County Land Information Office Data

Table 7 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	\$203,300	2	4	\$378,900	4

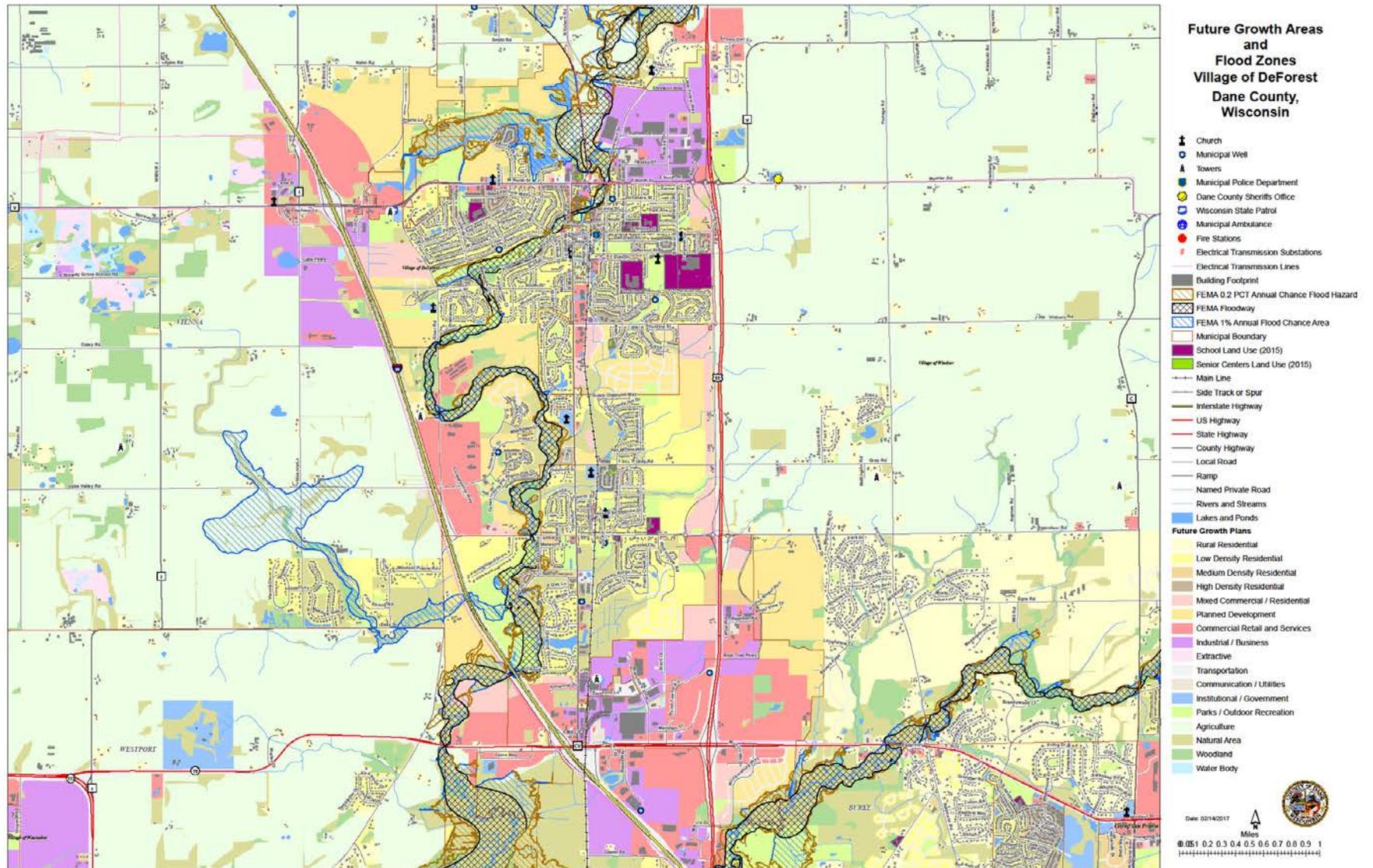
Source: Analysis based on Dane County Land Information Office Data

Repetitive Loss Properties and Flood Insurance Policies

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

According to FEMA Policy and Claim Statistics for Flood Insurance, community members hold nine separate flood insurance policies, with a total coverage amount of \$2,064,600. There have been 5 claims and \$20,309 in losses paid in flood insurance claims in DeForest since 1978.

Figure 1. 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 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
11.17%	3184	356	\$933,759,900	\$104,332,382	\$52,166,191.14	\$26,083,095.57	5.6%

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

Growth and Development Trends

Planned land use, per the Village's Comprehensive Plan, is shown in Figure 1. Refer to the plans of neighboring municipalities, especially Windsor, for updated plan designations there. Table 9 illustrates how the Village of DeForest 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 at time of plan creation. Table 10, drawn from the Demographics Services Center at the Wisconsin Department of Administration, shows population projections through 2035, starting with the projected population in 2015, which was the original period this plan was drafted.

Table 9 Village Of DeForest Change in Population and Housing Units, 2010-2014/15

2010 Population	2016 Population	Percent Change (%) 2010-2015	2010 # of Housing Units	2014 # of Housing Units	Percent Change (%) 2010- 2014
8,936	9,388	3.15	3,499	3,543	1.2

Source: U.S. Census Bureau and Wisconsin Department of Administration

Table 10 Village Of DeForest Population Projections, 2015-2035

Population Change	5 year Growth %	2015	2020	2025	2030	2035
Increase by same percentage each year	0.63%	9,223	9,515	9,817	10,129	10,450

Source: Wisconsin Department of Administration

Capability Assessment

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

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 Village of DeForest.

Table 11 Village Of DeForest Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
General or comprehensive plan	Yes	Updated March 2015, last amended in March 2016
Zoning ordinance	Yes	Ordinance adopted 1999; amended regularly to address issues as necessary
Subdivision ordinance	Yes	Amended regularly to address issues as necessary
Growth management ordinance	No	No, but Village Comprehensive Plan includes growth phasing policy for new development areas.
Floodplain ordinance	Yes	Amended in 2014 to incorporate new floodplain maps and modernize per latest DNR model
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Stormwater Management Utility and Ordinance, with ordinance meeting (and in some cases exceeding) minimum County standards
Building code	Yes	Substantially amended in 2013
Fire department ISO rating	Yes	Village rating of 4/10
Erosion or sediment control program	Yes	Village Stormwater Management Ordinance meets County standards for erosion control planning and permitting
Stormwater management program	Yes	In addition to the stormwater management ordinance, the Village has a Stormwater Utility, which manages improvements to the Village's stormwater system
Site plan review requirements	Yes	Required for all commercial, industrial, multiple family residential, and institutional projects under Village zoning ordinance.
Capital improvements plan	Yes	
Economic development plan	Yes	Included as chapter of Comprehensive Plan and as component of each separate tax incremental district project plan
Local emergency operations plan	Yes	Prepared in 2013. Emergency Operations Center tested in June 2014. See attached.
Other special plans	Yes	<ul style="list-style-type: none"> Park and Open Space Plan, updated in 2015. Includes strategies to protect floodplains and other open lands.

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
		<ul style="list-style-type: none"> Emergency Siren Plan included within 2015 Comprehensive Plan update (on Official Map.) Future siren planned within Well #5 Site.
Flood insurance study or other engineering study for streams	No	Rely on FEMA floodplain mapping
Elevation certificates (for floodplain development)	No	
Other	Yes	In 2013, Village adopted Wellhead Protection Overlay zoning district covering recharge areas for its municipal wells.

Data Source: Village of DeForest Data Collection Handbook, 2015

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

Table 12 Responsible Personnel and Departments for the Village of DeForest

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Public Services Director, Zoning Administrator, Village Engineer, Village Planner	Outside consultants used extensively in both planning and engineering
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Village Engineering consultants	Village Engineer is a hired consultant and PE
Planner/engineer/scientist with an understanding of natural hazards	Yes	Public Services Director and Consultants	Consulting Village Planner has natural hazard planning experience
Personnel skilled in GIS	Yes	Consultants	Village has on-line interactive GIS
Full-time Building Official	Yes	Zoning Administrator, Consulting Building Inspector	
Floodplain Manager	Yes	Public Services Director	
Emergency Manager	Yes	Police Chief	The Police Chief is designated as the Emergency Management Director by Village ordinance
Grant writer	No		Each Department handles its own grants
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Public Services, Consulting Engineer	

Personnel Resources	Yes/No	Department/Position	Comments
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Police Department/Chief	Have sirens
Other: Emergency Preparedness Commission	Yes	Police Department	This is a commission comprised of village officials and 1 citizen.

Data Source: Village of DeForest Data Collection Guide, 2015

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

Table 12 Financial Resources for the Village of DeForest

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, stormwater, sewer, gas, or electric services	Yes	Water, storm water and sewer. Village does not manage gas and electric
Impact fees for new development	Yes	Parks, utilities, public safety buildings
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Incur debt through private activities	Yes	
Withhold spending in hazard prone areas	No	Assumes that development is allowed in these areas, which is not permitted by the Village

Data Source: Village of DeForest Data Collection Guide, 2015

National Flood Insurance Program Participation

The Village has been a participant in the NFIP since 1978, with details provided in Table 17.

Table 17 NFIP Participation for the Village of DeForest

Floodplain Ordinance	Comments	Dane County FIRM Panels	NFIP Participation	Init FHBM Identified	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date
Yes		500	Yes	12/7/1973	9/1/1978	9/17/2014	9/1/1978

Source: FEMA National Flood Insurance Program Community Status Book.

Additional Capabilities

The Village of DeForest has additional capabilities for hazard mitigation beyond those listed in the above tables. Those listed in the Data Collection Guide include:

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- The entire Fire/EMS Department and most police and administrative staff have received a Certificate of Completion for NIMS ICS Training for basic introductory or advanced level.
 - The Village adopted in 2013 an Emergency Management Plan that provides the resources for the implementation of the policies and procedures necessary to manage its community's needs during emergency situations. The sequence of steps to command an Emergency Operations Center (EOC) was tested after severe storms hit the Village in June 2014.
 - The Fire Department participates in Fire Prevention Week Education to schools and other education activities throughout the year
 - The Public Services Department engages in wintertime education, such as distributing information fliers during the severe cold of Winter 2013. These efforts likely prevented frozen pipes developing in homes in the Village.
 - The Village alerts the media news releases during extreme heat and extreme cold. The library and community /senior center act as warming or cooling centers during these events.

Public Involvement Activities

The Village of DeForest 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. Through its standing Public Safety Committee, the Village also provided an opportunity for public comment at local meetings.

Mitigation Actions

Completed Mitigation Actions

The Village of DeForest has been active in increasing the community's resilience to natural hazards. Actions already undertaken include:

- Initiated flood control effort near Lexington Parkway to address basement flooding near Jefferson Street/DeForest Area High School area
- Collaborated with School District on flood mitigation associated with expansion at High School and rebuild of Eagle Point Elementary School
- Improvements to the South Street drainageway
- Purchased two-way radios aiding in emergency communications
- Added emergency warning siren within Conservancy Place neighborhood area and have developed plan for future siren locations
- \$25,000 in public dollars spent in 2011 to improve drainage capacity near EVCO in Drainage District #22. (Total project cost was \$65,000, with balance supplied by EVCO and other affected property owners.)
- Added repeater for public services communication
- Emergency Operations Center Plan implemented for future disasters (tested in 2014 after June storms)

Proposed Mitigation Actions

The following are mitigation actions that the Village is proposing for implementation in the coming years to increase its resilience to natural hazards.

Objective 1	Address occasional flooding on east side of the Village, west of USH 51
Problem Statement	Heavy stormwater flows, a large drainage area east of USH 51, and a bottleneck in the existing stormwater management system cause intermittent flooding.
Issue/Background	<p>This project, included in the 2009 plan, was set aside by the USH 51 reconstruction project, completed in 2014. WisDOT accommodated flow and storage for added stormwater associated with the new highway only. The project did not resolve the prior issue associated with several hundred acres of farmland east of USH 51 draining under the highway and then through the Village. Adding a new detention basin east of USH 51, akin to the Village's Yankee Detention Basin north of CTH V, would assist with both stormwater quantity and quality. The stormwater conveyance system at the DeForest High School/Jefferson Street area could also be improved. Presently, a bottleneck occurs east of a single 48" culvert/storm sewer pipe north of the school building. During heavy storms, the ball fields on the school property can flood, and rears of four homes along Renata Court to the north are threatened. Expanding the size or number of culverts/pipes would eliminate this bottleneck. Such an improvement is unlikely to negatively affect downstream property owners, as the greenway and control structures widen downstream. A detailed analysis would be required to ensure downstream capacity.</p> <p>Doing nothing to address this problem is one alternative. If so, ballfields would continue to be flooded and four homes would continue to be threatened, though none have been flooded during past storm events.</p>
Other Alternatives	<p>Instead of installing both a larger pipe and establishing a basin east of USH 51 (which is in Windsor), the Village could elect to do just one of the projects to reduce expense and the need for property owner and intergovernmental collaboration. The land needed for a detention basin is in Windsor and privately owned. The bottleneck is on School District property and culvert/storm sewer widening may necessitate reconstruction of a parking lot. The School District engaged in a school expansion project in 2016; As part of that project, the District installed sufficient downstream pipe capacity at a new driveway associated with that project to accommodate a broader future solution.</p> <p>Village plans also advise the future extension of Jefferson Street east to North Towne Road (old 51), which may provide another opportunity for stormwater improvements. However, that project would be costly and</p>

may confront opposition. Finally, the area between North Towne Road and USH 51 could alternatively be used for stormwater storage, but the area there is likely not large enough and overflow may still negatively affect the four homes.

Responsible Office	Public Services
Priority (High, Med, Low)	High
Cost Estimate	Conveyance Improvements (Storm Sewer) = \$500,000 - \$550,000; Detention Basin Construction = 1.25MM – 1.5MM+/- (land acquisition is a significant variable)
Benefits (avoided losses)	Property damage and nuisances avoided; improved water quality
Potential Funding	WDNR UNPS Grant Program; FEMA Flood Hazard Mitigation
Schedule	Within next three to five years

Objective 2

Address stormwater drainage back-up within and east of Dahl Park

Problem Statement Heavy stormwater flows, a large drainage area east of USH 51, and a bottleneck in the existing stormwater management system cause intermittent flooding over future development lands between Dahl Park and USH 51.

Issue/Background Dahl Park and the “Karow Property” near USH 51, between CTH V and Holum Street, is a future mixed use development site. It receives overflow from a drainage bottleneck to the west. The bottleneck occurs as a result of a 36”, old storm sewer pipe running through residential back yards in the block bounded by Holum, Halsor, Columbia, and Johnson Streets. There have also been occasional back-ups from a storm sewer inlet in these back yards. The project would likely be to add a second storm sewer pipe to share the load with the existing 36” pipe. This new pipe would likely run within the rights-of-way of Halsor and Holum Streets, and along the railroad to the Yahara River, bypassing and thereby avoiding disturbance in the back yard areas. It is unclear whether there is any easement associated with this mid-block sewer. Existing utilities could affect the feasibility of the storm sewer. This would have to be analyzed to determine a feasible route for the additional storm pipe.

Other Alternatives Doing nothing to address this problem is one alternative. If so, Dahl Park would continue to be flooded, development opportunities on the Karow property would be reduced, and stormwater would continue to occasionally back up into back yards.

The School District is rebuilding Eagle Point Elementary School, immediately west of Johnson Street, scheduled to open in fall 2017.

Construction plans for the school call for more impervious area, which has provided opportunity to at least partially address this matter (as full stormwater plan was required). However, Eagle Point is downstream from the main area of concern.

Responsible Office	Public Services
Priority (High, Med, Low)	Medium
Cost Estimate	\$1.3MM - \$1.5MM
Benefits (avoided losses)	Avoid property damage; increase usability of Dahl Park; increase economic development potential on Karow property.
Potential Funding	FEMA Flood Hazard Mitigation
Schedule	May be a long-term project. Lower priority than High School drainage project.

Objective 3

Continue to implement Village’s Emergency Siren Plan

Problem Statement Southern areas of the Village are not within range of existing emergency sirens.

Issue/Background The “DeForest South” area, centered on the Highway 51/19 interchange, is not currently in a coverage zone for emergency warnings via sirens. This area is planned for significant commercial and residential development; there are already a range of commercial and industrial businesses and residential development is beginning in 2015. The Village incorporated an emergency siren plan as part of its 2015 Comprehensive Plan update. The Village’s Well #5 site, southeast of Bear Tree Parkway and North Towne Road, is identified as an emergency siren location to cover most of the “DeForest South” area. The siren would also be audible from nearby lands in Windsor, which contain and are planned for a significant amount of residential development.

Other Alternatives The Village could elect not to install a siren in this area. Based on its active program of emergency sirens for the rest of the Village, this would mean that some Village residents would be warned by sirens and others would not.

Responsible Office	Public Services/Emergency Management
Priority (High, Med, Low)	High
Cost Estimate	\$50,000

Benefits (avoided losses) Residents and visitors in multiple local government jurisdictions alerted to inclement weather and can take the necessary precautions needed to avoid harm

Potential Funding Borrowing; County funding given multi-jurisdictional benefit

Schedule In tandem with residential development in the area; as more homes emerge over the next 5 years the need will increase.

Objective 4 Continue NFIP compliance.

Problem Statement The Village will 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 existing Village staff and consultants, 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 Association of State Floodplain Managers (ASFPM).
 - 9) Evaluate the potential costs and benefits of becoming a participant in the NFIP Community Rating System.

Responsible Office Village of DeForest Planning, Zoning, and Development Department

Priority (High, Med, Low) High

Cost Estimate Low; most of this type of work can be accomplished with existing staff and within existing department budget.

DRAFT