
Town of Pleasant Springs Annex

Community Profile

The Town of Pleasant Springs is located in the southeast quadrant of Dane County, west of the Town of Christiana, north of the town of Dunkirk, and east of the town of Dunn. Land use is primarily rural agricultural and residential. There are urban density subdivision areas surrounding the lakeshore.

According to the United States Census Bureau, the Town of Pleasant Springs has a total area of 35.5 square miles, 33.36 square miles of it is land and 2.23 square miles is water.

As reported in the 2000 Census, there were 3,053 people, 1,099 households, and 896 families residing in the Town of Pleasant Springs. The population density is 91.5 people per square mile. There are 1,221 housing units, resulting in an average density of 36.6 residences per square mile. The Wisconsin Department of Administration final estimate of population for 2008 was 3,166 people.

There are 1,099 households out of which 37.7% have children under the age of 18 living with them, 18.4% of all households are made up of individuals and 5.1% have someone living alone who is 65 years of age or older. The average household size is 2.77 and the average family size is 3.05. In the Town of Pleasant Springs, the population is spread out with 26.0% under the age of 18, 5.7% from ages 18 to 24, 28.8% ages 25 to 44, 29.8% ages 45 to 64, and 9.8% who are 65 years of age or older. The median age is 40 years. 2.9% of the population speaks a language other than English at home and 10.9% of the population (above the age of 5) is disabled.

The median income for a household in the Town of Pleasant Springs is \$68,958 and the median income for a family is \$73,857. The per capita income for the Town of Pleasant Springs is \$28,938. 4.1% of the population and 2.2% of families are below the poverty line. Out of the total people living in poverty, 7.2% are under the age of 18 and 8.5% are 65 or older. 92.0% of the population has at least a high school degree, while 30.1% 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 Town of Pleasant Springs 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 1 outlines the hazard identification for the Town of Pleasant Springs based on the Data Collection Guide issued in 2008. 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 Pleasant Springs 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 1. This matrix reflects the significance of the hazards relative to one another.

This matrix reflects that the Town of Pleasant Springs is most vulnerable to flood, lightning, tornados, and winter storms. The Town of Pleasant Springs has a medium vulnerability to windstorm, wildfire, extreme cold and heat, and a lower vulnerability to dam failure, drought, erosion, fog, hailstorm, and landslide. The vulnerability established here is a qualitative assumption based on the impacts, geographic extent, probability of future occurrence, and magnitude/severity.

Table 1 Vulnerability Assessment Matrix for the Town of Pleasant Springs

Hazard	Hazard Attributes (1-2-3)			Impact Attributes (0-1-2-3)						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	0	0	0	0	0	0	3
Extreme Cold	1	1	1	1	1	2	1	1	1	10
Extreme Heat	1	1	1	1	1	2	1	1	1	10
Drought	1	1	1	0	0	1	1	1	1	7
Erosion	1	1	1	0	0	0	0	0	0	3
Flood	2	2	2	1	1	2	2	1	2	15
Fog	1	2	2	1	1	1	1	1	1	11
Hail Storm	1	1	1	1	1	1	1	1	1	9
Landslide	1	1	1	0	0	0	0	0	0	3
Lightning	3	1	1	2	2	2	1	1	1	14
Tornado	3	3	2	2	3	2	3	2	2	22
Wildfire	1	1	1	1	1	1	1	1	1	9
Windstorm	1	1	1	1	1	1	1	1	1	9
Winter Storm	3	3	2	2	2	2	2	1	2	19
Subsidence										
Other:										

Source: Town of Pleasant Springs

Previous Hazard Events

Through the Data Collection Guide, the Town of Pleasant Springs 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:

Tornado: August 2005

An F-3 tornado occurred on August 18, 2005, following a 6.5 mile storm path west to east and affecting portions of sections 29 through 36. One death occurred, and approximately twenty injuries were directly attributable to the event. Property, infrastructure, crop, business impacts, road/school closures, other damage, and insured losses are documented by Dane County Emergency Government sources. No FEMA declarations were issued for this event, as uninsured losses did not exceed the federal minimums. A 2006 state disaster relief fund reimbursed the town \$134,000 in assistance for costs associated with the event. The Town of Pleasant Springs planning members cannot predict if such an event of this nature is very likely to occur again.

Winter Storm: February 5-6 2008

Record snow fall affected the entire Town of Pleasant Springs in early February of 2008. There were no reports of injuries, deaths, property, crop or infrastructure damage. Quantifiable financial impacts on business and the economy were unavailable. The snow resulted in delays and closures along roadways, and in schools and businesses. The Town of Pleasant Springs received a FEMA declaration 3285-EM-WI Project DDA 023 amount of \$7124.00 to reimburse funds expended to repair damage to public property. The Town of Pleasant Springs planning members cannot predict if an event of this nature is very likely to occur again.

Flood: June 2008

Heavy rains over a twenty day period, preceded by a storm event with straight-line winds, caused property damage and flooding. The effects were localized to the NW of section 18, NE of section 17, SW of sec 18, and very localized in the NW quadrant of sec 19 and NE & NW quadrants of section 30. There were no deaths or injuries reported. Property, infrastructure, crop, business, and economic damages were insured and largely unreported. Sand bagging of residences prevented extensive damage. Road closures due to flooding impacted the community for four days. Other damage included road washouts, shoulder washouts, and culvert blockages. Insured losses were at 100%. The Town of Pleasant Springs received a FEMA declaration 1768-DR-WI amount of \$7657.00 to reimburse funds expended to repair damage to public property. The Town of Pleasant Springs planning members cannot predict if an event of this nature is very likely to occur again.

Asset Inventory

Assets include the people, property, and critical facilities within the Town of Pleasant Springs 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 2 Vulnerable Population Summary

Disability Status from the 2000 Census	Number	Percent
Total Population ages 5 or less	194	6.4%
Total population ages 5 to 19	675	22.1%
Total population over 65 years old	298	9.8%
Total Population with any Disability	312	10.9%
Families Below Poverty Level	19	2.2%
Individuals Below Poverty Level	22	9.8%
Total Population who Speak English less than "very well"	25	0.9%
Total Population	3,053	-

Data Source: 2000 US Census

General Property

Table 3 Property Exposure Summary

Property Type	Total Parcel Count	Improved Parcel Count	Improved Values (\$)	Content (\$)	Total Value (\$)
Residential	1,084	991	205,744,700	102,872,350	308,617,050
Agriculture	649	212	35,228,900	35,228,900	70,457,800
Other	417	148	31,934,300	15,967,150	47,901,450
Commercial Sales	10	10	2,596,800	2,596,800	5,193,600
Commercial Services	13	11	3,560,600	3,560,600	7,121,200
Transportation	11				
Institutional/Government	7				
Utilities	5	1	14,500	21,750	36,250
Total	2,200	1,377	279,509,200	160,891,650	440,400,850

Data Source: Dane County Land Information Office, December 2008

Critical Facilities

The Town of Pleasant Springs has identified the following critical facilities important to protect from disaster impacts. These are collected in Table 4, which is based on GIS data inventories from Dane County.

Table 4 Critical Facility Summary/Essential Infrastructures

Facility	Type*	No. of Facilities	Replacement Value (\$)
Adult Family Home	VF	1	407,300
Airport	EI	1	16,200,000
Bridge	EI	2	2,000,000
Child Care	VF	5	1,030,800
Communications Tower	EI	8	668,600
Electric Substation	EI	1	0
FCC Tower	EI	6	516,600
Hazardous Chemicals	HM	1	0
Historic Site	VF	2	0
Manufactured Home	VF	2	0
Municipal Hall	EI	1	0
Sheriff Precinct	EI	1	0
TOTAL		31	20,823,300
*EI: Essential Infrastructure; VF: Vulnerable Facilities; HM: Hazardous Materials Facilities			

Data Source: Dane County GIS

Other Assets

Other assets help define a community beyond the current composition of the Town of Pleasant Springs. 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 Town of Pleasant Springs has identified these other assets in Table 5. Hazard specific vulnerabilities are noted, where known.

Table 5 Other Specific Assets for the Town of Pleasant Springs

Name of Asset	Type*	Replacement Value (\$)	Occupancy/ Capacity (#)	Hazard Specific Issues
Williams Dr Bridge	EI			Flood, Tornado
Williams Pt Dr Bridge	EI			Flood, Tornado
Spring Rd Bridge	EI			Flood, Tornado
Cell Tower 1749 Skidmore 2799 CTH MN 2189 Rinden 1652 Drotning 2489 Rinden CTHB Kower Dr	EI			Wind, Storm, Tornado
Alliant Transmission Sta	EI			Wind, Storm, Tornado
I90 Row St Patrol w/cell	EI			Wind, Storm, Tornado
Alliant Transmission Line	EI			Wind, Storm, Tornado
Milwaukee WI Gas Line	EI			Tornado

Name of Asset	Type*	Replacement Value (\$)	Occupancy/ Capacity (#)	Hazard Specific Issues
Badger Pipeline	EI			Tornado
PSSD Pumping Stations	EI			Tornado
PW Garage Town Hall 2354 CTH N	EI			Tornado
DCSO SE Precinct	EI			Tornado
Viking Village 1648 CTH N	VF			All Hazards
Kamp Kegonsn 2671 Circle	VF			All Hazards
Hollys House 1902 Spring	VF		4	All Hazards
South Central Publications	HM			<manufacturing Ink/Solvents
Frontier FS Coop	HM			Above Ground Tanks
Road Ranger LLC	HM			Underground Tanks
BP Amoco	HM			Underground Tanks
Krueger Gravel Pit	HM			Explosives
Thunder Cats	HM			Fireworks
Kissinger Store	HM			Fireworks
Yahara River	NA			
Lake Kegonsa	NA			
Door Creek Water Shed	NA			
Town Ditches/Swales	NA			

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

Data Source: Town of Pleasant Springs 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 Town of Pleasant Springs. 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

Hazard	Populations	Structures	Critical Facilities	Future Damage Potential
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 in the Floodplain

Some assets are specifically vulnerable to floods, due to their location. These assets are collected in Table 7. Refer to the flood profile in the mitigation plan for a description of the methodology used to identify potentially flood-prone properties. The locations of properties within the floodplain are shown in Figure 1, in addition to flood hazard areas and planned land use.

Table 7 Potentially Flooded Property Summary and Loss Estimate (DFIRM 100 – year)

Property Type	Improved Parcel Count	Improved Values	Content	Total Values (Content & Imp.)	Estimated Loss
Commercial Sales	2	\$351,700	\$175,850	\$527,550	\$105,510
Agriculture	5	\$422,200	\$211,100	\$633,300	\$126,660
Residential	47	\$9,226,900	\$4,613,450	\$13,840,350	\$2,768,070
Other	13	\$2,779,300	\$1,389,650	\$4,168,950	\$833,790
Total	67	\$12,780,100	\$6,390,050	\$19,170,150	\$3,834,030

Data Source: Dane County GIS, 2008 DFIRM

Based on the average household size in Dane County and the count of residential parcels in the floodplain, approximately 114 people are potentially at risk to the 100 year flood and 15 additional to the 500 year flood (129 total) within the jurisdiction.

Repetitive Loss Properties and Flood Insurance Policies

There are no repetitive loss properties in the Town of Pleasant Springs.

Specific NFIP policy information is available only for Cities and Villages in Dane County and is not available by Town.

Critical Facilities

Table 8 displays a result of an analysis of critical facilities located within either the FEMA DFIRM 100-year, 500-year, or HAZUS 100-year floodplains. Additional detail on the facilities is shown in Table 9. The location of these facilities is shown in Figure 2.

Table 8 Potentially Flooded Critical Facility Summary

Facility Type	No. of Facilities	DFIRM 100-yr	DFIRM 500-yr	HAZUS Only
Bridge	2			2
Total	2	0	0	2

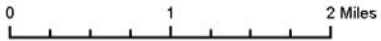
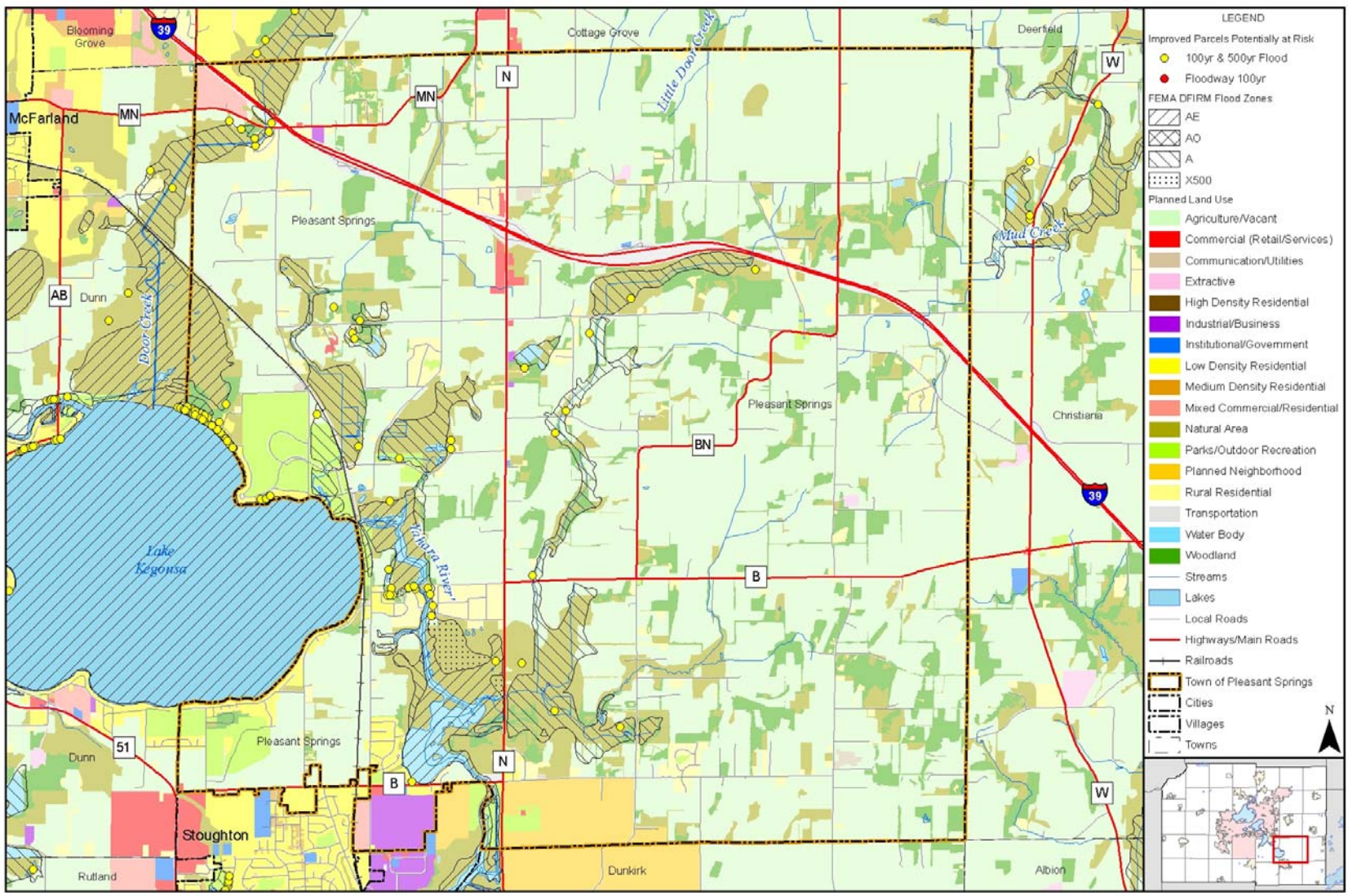
Data Source: Dane County GIS, 2008 DFIRM

Table 9 Potentially Flooded Critical Facility Detail

Facility Type	Facility Name	DFIRM Flood Zone	HAZUS Flood Zone	HAZUS & DFIRM	HAZUS Flood Depth
Bridge		X	Y		0.00
Bridge		X	Y		0.18

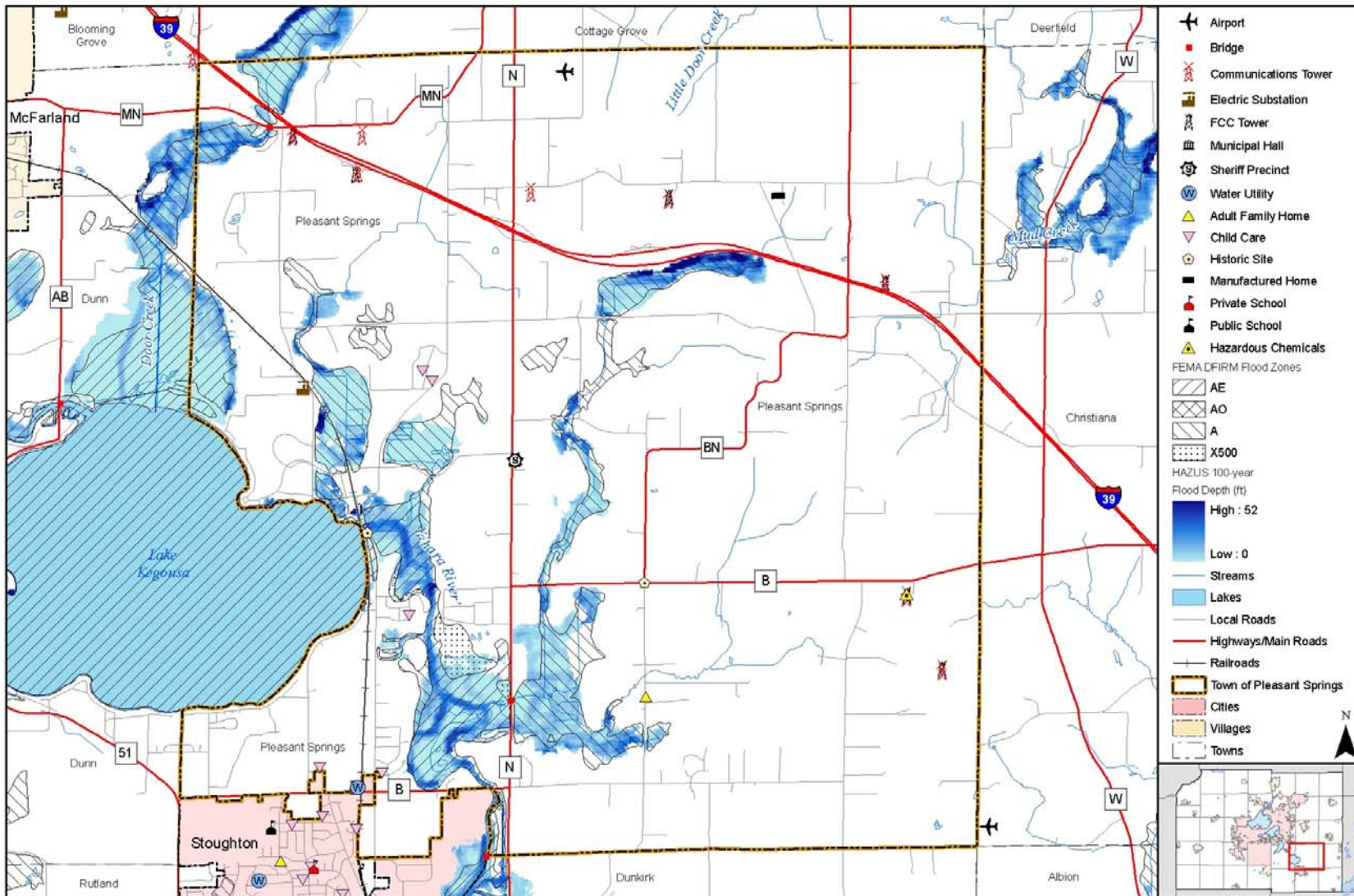
Data Source: Dane County GIS, 2008 DFIRM

Figure 1 Flood Hazards and Future Land Use Map



Map compiled 6/2009; intended for planning purposes only.
Data Source: Dane County, Madison MPO, FEMA 2008 DFIRM

Figure 2 Flood Hazards and Critical Facilities Map



0 1 2 Miles

Map compiled 6/2009; intended for planning purposes only.
Data Source: Dane County, FEMA 2008 DFIRM, HAZUS-MH MR3

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 2009 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 10 Tornado Loss Estimate

% area 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
2.53%	1,377	35	440,400,850	11,136,695	5,568,348	1,392,087	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 11 illustrates how the Town of Pleasant Springs has grown in terms of population and number of housing units between 2000 and 2008. Table 12 shows population projections through 2025.

Table 11 Town of Pleasant Springs Change in Population and Housing Units, 2000-2008

2000 Population	2008 Population	Percent Change (%) 2000-2008	2000 # of Housing Units	2008 # of Housing Units	Percent Change (%) 2000-2008
3,053	3,166	3.7%	1,221	n/a	n/a

Data Source: Dane County

Table 12 Town of Pleasant Springs Population Projections, 2005-2025

Population Projection	2005	2010	2015	2020	2025
Increase by same percentage each year	3,192	3,298	3,391	3,500	3,628

Data Source: Demographic Services Center, Wisconsin Department of Administration 2004

The Data Collection Guide issued in 2009 provided additional insight into growth and development for the Town of Pleasant Springs.

- The towns comprehensive plan projects slow to moderately slow growth and stresses development as a rural town.
- Commercial development will be at N and CTH I-90.

- Subdivision growth is severely limited.
- Growth plans present no additional hazard or vulnerability concerns.
- Annexations to other municipalities will result in greater residential densities in those areas.

Problems or Additional Vulnerability issues

- Dane County has all maps and maintains database.
- Town maintains no database of special needs populations.
- 1902 Spring Road is the only licensed care facility for elderly population & maximum.

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 Pleasant Springs.

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 Pleasant Springs.

Table 13 Town of Pleasant Springs Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
General or Comprehensive plan	Yes	Local and Dane County
Zoning ordinance	Yes	Dane County Code of Ordinances Ch 10
Subdivision ordinance	Yes	Local and Dane County
Growth management ordinance	Yes	Local and Dane County Comp Plans
Floodplain ordinance	Yes	Dane County Code of Ordinances Ch. 17
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Dane County
Building code	Yes	
Fire department ISO rating	No	
Erosion or sediment control program	Yes	Dane County Code of Ordinances Ch. 14, Dane County Land & Water Resources
Storm water management program	Yes	Local NR 216 compliance and Dane County Code of Ordinances Ch. 11& 13
Site plan review requirements	No Local Yes	Dane County
Capital improvements plan	No Local Yes	Dane County
Economic development plan	Yes	Local and Dane County Comp Plans
Local emergency operations plan	Yes	
Other special plans	No	

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Flood insurance study or other engineering study for streams	No Local	Dane County maintains floodplain data/compliance
Elevation certificates (for floodplain development)	No Local	Dane County maintains these records.

Data Source: Town of Pleasant Springs Data Collection Guide

Table 14 identifies the personnel responsible for mitigation and loss prevention activities as well as related data and systems in the Town of Pleasant Springs.

Table 14 Responsible Personnel and Departments for the Town of Pleasant Springs

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	No Local Yes	Dane County Zoning/Planning & Development	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Contracted Service	
Planner/engineer/scientist with an understanding of natural hazards	Unknown		
Personnel skilled in GIS	Yes	Dane County	
Full-time Building Official	No	Part time contracted service	
Floodplain Manager	No Local Unknown	Dane County	
Emergency Manager	Yes	Dane County	
Grant Writer	No Local Yes	Dane County	
Other Personnel	Yes	Dane County	
GIS Data Resources – (land use, building footprints, etc.)	Yes	All at Dane County	
Warning systems/services (Reverse 9-11, cable override, outdoor warning signals)		NOAA Radios Reverse 9-1-1 Through Dane County	

Data Source: Town of Pleasant Springs Data Collection Guide

Table 15 identifies financial tools or resources that the Town of Pleasant Springs could potentially use to help fund mitigation activities.

Table 15 Financial Resources for the Town of Pleasant Springs

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	

Financial Resources	Accessible/Eligible to Use (Yes/No)	Comments
Impact fees for new development	Limited severely	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	No	
Incur debt through private activities	No	

Data Source: Town of Pleasant Springs Data Collection Guide

Additional Capabilities

- Household preparedness after 2005 tornado.
- Flood mitigation as part of NR216 compliance through creation, maintenance and planning for infrastructure related to water quality.
- The Town provides information on sandbagging and distributes FEMA publications.
- Distribute Dane County Public Health information on Drinking Water/Well Testing, mold abatement and related issues.

National Flood Insurance Program Participation

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

Public Involvement Activities

During the 2009 update, the community assisted with the public involvement activities referenced in the base plan. The town regularly includes information about hazard mitigation in the newsletter, and maintains information for distribution at the Town Hall. Resident volunteers are involved in public projects as appropriate.

Mitigation Actions

Objective #1: Undertake public information activities to advise property owners, renters, businesses and vulnerable populations about hazards and recommended course of action to minimize damage and to protect people from harm.

Steps:

- 1) Create literature to distribute to affected populations.
- 2) Work with Dane County Emergency Management to develop/distribute materials.

Lead Implementing Agency: Town of Pleasant Springs Board

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance: Dane County Emergency Management

Timeline: 3-4 years

Priority: Moderate

Estimated Costs: Low. Some can be accomplished with existing staff time and budget.