

Resolution No. 11-03-14-01
Village of Fontana on Geneva Lake

**A RESOLUTION ADOPTING THE WALWORTH COUNTY
NATURAL HAZARDS MITIGATION PLAN: 2014-2018**

WHEREAS, the United States Congress passed the Disaster Mitigation Act of 2000 (DMA2K), which requires that a local unit of government must have an approved all hazard mitigation plan before it can receive Federal grant monies from the Federal Emergency Management Agency for pre-disaster mitigation projects; and

WHEREAS, the [City/Village] worked with Walworth County Emergency Management to update the countywide mitigation plan, initially adopted in 2009; and

WHEREAS, the Village Board conducted a public hearing on November 3, 2014, to accept public input concerning the updated plan; and

WHEREAS, the Village Board makes the following findings:

1. Natural disasters do pose a tangible threat to residents and property.
2. Undertaking hazard mitigation actions before disasters occur will reduce the potential for harm to residents and property and save taxpayer dollars.
3. Preparation of this plan is in the public interest.
4. This plan is intended to serve as a general strategy and may be amended from time to time.
5. Nothing in this plan obligates the village to undertake any of the recommended activities and/or projects.

NOW THEREFORE, BE IT RESOLVED, the Village of Fontana on Geneva Lake hereby adopts the Walworth County Natural Hazards Mitigation Plan: 2014-2018; and

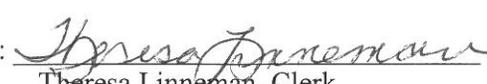
BE IT FURTHER RESOLVED, the Village Clerk is directed to send a signed copy of this resolution, at her earliest convenience, to Lieutenant John Ennis, Director of Emergency Management, at the following address: Walworth County Sheriff Office; PO Box 1004; Elkhorn, WI 53121.

Dated and Approved this 3rd day of November, 2014.

Village of Fontana on Geneva Lake
Board of Trustees

By: 

Arvid E. Petersen, President

Attest: 

Theresa Linneman, Clerk

Walworth County Natural Hazards Mitigation Plan: 2014-2018 5-Year Update

Executive Summary

1. GENERAL OVERVIEW

In an effort to curb rising costs associated with natural disasters, the federal government adopted the Disaster Mitigation Act of 2000 (DMA 2000). It amended the Robert T. Stafford Disaster Relief and Emergency Act, which is the primary law at the federal level dealing with disaster planning, mitigation, response, and recovery.

DMA 2000 reinforced the importance of hazard mitigation planning to proactively devise strategies intended to avoid and reduce the negative effects of natural disasters. If a community wants to apply for grant funding from the Pre-Disaster Mitigation (PDM) Program or the Hazard Mitigation Grant Program (HMGP), it must have an approved hazard mitigation plan. If a disaster strikes a community that does not have an approved plan, it can only receive funding if it agrees to prepare a plan within one year.

Walworth County and participating municipalities prepared a plan to meet this new requirement in 2009, and in so doing, helped its citizens mitigate the effects of natural disasters. Consistent with federal law, the county is undertaking a comprehensive five-year update of the 2009 plan. Although a plan must meet minimum requirements, this plan is an expression of local needs and priorities.

2. PLAN CONTENTS

The plan consists of six chapters, a map series, and a number of appendices. The first chapter provides an overview of the plan. The second chapter presents background information about Walworth County including its setting, demographic and economic characteristics, climate, natural resources, land use, and development trends. Chapter 3 presents background information related to special needs populations and groups in the county. Chapter 4 contains a complete inventory of critical facilities in the county. Natural hazards are reviewed in chapter 5 along with estimated losses to buildings, infrastructure, and critical facilities. In chapter 6, goals, objectives, and policies are identified that will help to craft appropriate solutions to the identified problems. A range of activities are also presented to help foster hazard mitigation efforts. Various funding sources are reviewed with an eye towards identifying options for funding identified projects. Most of the maps in the plan are included in the final section of the plan.

The plan focuses on 12 types of natural hazards:

- ◆ dam failure
- ◆ flooding
- ◆ ice shoves
- ◆ dense fog
- ◆ tornadoes and high winds
- ◆ hailstorms
- ◆ thunderstorms
- ◆ winter storms
- ◆ extreme heat
- ◆ extreme cold
- ◆ drought
- ◆ wildland fire

As part of the inventory phase, 679 critical facilities in the county were identified including:

- ◆ bridges
- ◆ dams
- ◆ public-use airports
- ◆ telecommunication towers
- ◆ telephone facilities
- ◆ electric facilities
- ◆ natural gas facilities
- ◆ petroleum pipeline facilities
- ◆ public water facilities
- ◆ wastewater facilities
- ◆ fire and police services
- ◆ National Guard facilities
- ◆ government facilities
- ◆ schools (public and private)
- ◆ special care facilities-residential
- ◆ special care facilities-nonresidential
- ◆ health care facilities
- ◆ vulnerable housing, such as manufactured/mobile home parks and campgrounds

3. GOALS, OBJECTIVES, POLICIES, AND ACTIVITIES

The most important part of the plan is Chapter 6, which presents a unified plan of action to mitigate the effects of hazards on property, people, and assets. It lists goals, objectives, and policies that should guide decision-makers and other officials. Goals are intended to describe an end state, usually in general terms. In contrast, objectives describe an end state in measurable and specific terms. Policies give clear direction on what will be done to help achieve a goal and objective.

Following the listing of goals, objectives, and policies, a chart lists specific action items along with estimated implementation costs. Responsible entities are listed for each so that implementation is well defined. The activity charts are a work in progress. As items are completed they should be deleted and as new opportunities or issues arise items will be added. Further, depending on available resources, including funding and staff time, priorities may change.

Activities are prioritized as low, medium, or high. Cost estimates are provided to help formulate funding priorities. When a project is to be undertaken, a more detailed budget should be prepared to assess a project's cost. At that time a benefit cost analysis should be completed to show how the benefits of the project compare to anticipated costs. Federal funding for mitigation activities can only be obtained when benefits clearly outweigh the costs.

Goal 1. Public Education

Provide the public with the education they need to adequately prepare for and respond to natural hazards including dam failure, flooding, ice shoves, dense fog, tornadoes, hailstorms, thunderstorms, winter storms, extreme temperature, drought, and wildland fire. **(2009 Plan)**

Objectives

1. Strengthen emergency service preparedness and response by enhancing public education throughout the county. **(2009 Plan)**
2. Increase the number of households that have prepared a family emergency plan. **(2009 Plan)**
3. Increase the number of public outreach materials in Spanish. **(2009 Plan)**

Policies

1. Work with non-governmental organizations such as youth, service, professional, religious organizations to promote mitigation education and awareness. **(2009 Plan)**
2. Look for multiple and varied opportunities to disseminate educational information to county residents. **(2009 Plan)**

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Develop and implement education programs aimed at mitigating natural hazards and reducing the risk to citizens, public agencies, private property owners, businesses, and schools. (2009 Plan; 2013 status – no action)	\$5,000	Medium	X	X	Walworth County Emergency Management; American Red Cross; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
2. Create displays for use at public events such as the county fair, wellness fairs (2009 Plan; 2013 status – no action)	Staff time and supplies	Medium	X		Walworth County Emergency Management; Walworth County Department of Health & Human Services; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
3. Work with the representatives of the public and private schools within the county to promote hazard mitigation awareness (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Walworth County Emergency Management; American Red Cross; Walworth County Department of Health & Human Services
4. Identify, improve, and sustain collaborative programs focusing on the real estate and insurance industries, public and private sector organizations, and individuals to avoid activity that increases risk to natural hazards. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; American Red Cross; local jurisdictions, Walworth County Department of Land Use & Resource Management
5. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Information Systems Department, Land Information Division
6. Provide more hazard-related information in Spanish. (2009 Plan; 2013 status – no action)	Staff time	Low	X		Walworth County Emergency Management; Walworth County Department of Health & Human Services, Workforce Development
7. Work with area business representatives and citizens through our Public/Private Partnership to promote hazard mitigation awareness (2013 Plan)	Staff time	Medium	X		City of Lake Geneva

Goal 2. Flooding

Protect the public health, safety, and welfare of county residents and public and private property during flood events. (2009 Plan)

Objectives

1. Minimize the impact of flooding on potentially affected structures. (2009 Plan)
2. Decrease the number of structures currently located in the 100-year floodplain that are not properly flood-proofed. (2009 Plan)
3. Minimize the amount of impervious surface in new development projects to allow more infiltration of storm water into the ground. (2009 Plan)
4. Increase public awareness of flooding. (2009 Plan)
5. Improve communication between the county and local units of government when floods occur or are likely to occur. (2009 Plan)

Policies

1. Continue to enforce floodplain regulations to ensure that future development in the 100-year floodplain meets established standards. (2009 Plan)
2. Support the identification and conservation of land with high flood mitigation value (e.g., wetlands, upland storage, and infiltration areas). (2009 Plan)
3. Support land acquisition and other management strategies to preserve open space for flood mitigation purposes. (2009 Plan)
4. Ensure that governmental officials and employees, county residents, and real estate agents are aware of floodplain regulations. (2009 Plan)
5. Ensure that people owning property in the 100-year floodplain, and their agents, notify buyers when selling their property. (2009 Plan)
6. Adopt standards to control the proportion of a site that can be covered with impervious surfaces. (2009 Plan)
7. Locate public infrastructure outside of the 100-year floodplain. When infrastructure has been located in the 100-year floodplain, it should be flood proofed or otherwise protected from flood water. (2009 Plan)
8. Design and properly size all new stream crossings to not create a significant upstream back-water effect. (2009 Plan)
9. Continue to enforce storm water management regulations. (2009 Plan)
10. Update flood insurance rate maps (FIRMs) when it can be shown that they are substantially inaccurate. (2009 Plan)
11. Ensure that all large dams in the county have emergency action plans and that they are up to date. (2009 Plan)
12. Undertake such activities as may be required to remain compliant with the requirements of the National Flood Insurance Program. (2009 Plan)

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Identify and analyze feasible mitigation options for those properties which may be designated as a repetitive flood property. (2009 Plan; 2013 status – no action)	Staff time	Low	X	X	Walworth County Emergency Management; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
2. Apply for funding through the federal Hazard Mitigation Grant program, Flood Mitigation Assistance Program, and the Pre-Disaster Mitigation Program as well as any other resources that may be available to help flood proof repetitive loss sites or remove them through acquisition followed by demolition or relocation. (2009 Plan; 2013 status – no action)	Staff time	Low	X	X	Walworth County Emergency Management; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
3. Design and budget for stormwater management facilities consistent with adopted stormwater management plans that have been or will be prepared / amended. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; local jurisdictions as appropriate [1]
4. Develop and maintain a digital inventory of bridges/culverts on a county or state road. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Public Works Department, Walworth County Information Systems Department, Land Information Division

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
5. Identify those culverts and bridges that are undersized or are otherwise unable to handle expected flood flows. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Public Works Department, cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
6. Develop and maintain a geographic database for public roadways that are susceptible to flooding. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Public Works Department, Walworth County Information Systems Department, Land Information Division
7. Prepare a strategy to prioritize road improvements for public roadways that are susceptible to flooding. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Public Works Department; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
8. Identify undeveloped areas of the county, if any, that have flood mitigation value and develop appropriate strategies to protect them. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Department of Land Use & Resource Management, cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
9. Establish a framework to compile and coordinate surface water management plans and data throughout the county. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Wisconsin Department of Natural Resources
10. Distribute National Flood Insurance Program information.* (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Walworth County Emergency Management; Walworth County Department of Land Use & Resource Management; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
11. Explore options for improving the ability of local units of government to report flooding, receive information, and request assistance as may be needed. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management
12. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X	X	Walworth County Emergency Management; Walworth County Information Systems Department, Land Information Division]

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
13. Evaluate the support for and the feasibility of becoming part of the Community Rating System (CRS) to lower flood insurance premiums for property owners.* (2009 Plan; 2013 status – no action)	Staff time ddddd	High	X		Walworth County Emergency Management; cities of Delavan, Lake Geneva, and Whitewater; villages of Bloomfield, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, and Walworth (Note: City of Elkhorn and the villages of Darien and Williams Bay are not part of the program)
14. Work with the DNR to ensure that an emergency action plan is prepared for large dams and that they are periodically updated. (2009 Plan; 2013 status – some new EAPs have been prepared)	Staff time	Medium	X		Walworth County Emergency Management
15. Develop a prioritized list of areas of the county meriting detailed flood studies. (2009 Plan; 2013 status – no action)	Staff time	Low	X		Walworth County Emergency Management
16. Ensure that privately-owned large dams are inspected consistent with state law. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; local jurisdictions as appropriate [1]
17. Ensure that publicly-owned large dams are inspected consistent with state law. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Local jurisdictions as appropriate [1], Wisconsin Department of Natural Resources
18. So as to continue compliance with state and federal requirements, revise existing floodplain regulations to ensure they comply with the most recent model floodplain regulations developed by the Wisconsin Department of Natural Resources.* (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Department of Land Use & Resource Management; cities of Delavan, Lake Geneva, and Whitewater; villages of Bloomfield, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, and Walworth (Note: City of Elkhorn and the villages of Darien and Williams Bay are not part of the program)
19. Undertake measures to address flooding within the Oak Knoll subdivision in the Village of Walworth. (2009 Plan; 2013 status – no action)	Unknown	High	X		Village of Walworth
20. Repair the Beulah Dam (County Highway J) (2009 Plan; 2013 status – no action)	Unknown	Medium	X		Walworth County Emergency Management; local jurisdictions [1]
21. Repair the Whitewater Lake Dam (2009 Plan; 2013 status – no action)	Unknown	High	X		Walworth County Emergency Management; local jurisdictions
22. Conduct a study to determine feasible and cost effective solutions to minimize flooding in those lake basins with a natural outlet such as Whitewater Lake and Turtle Lake and those without a natural outlet such as Lake Lorraine. (2009 Plan; 2013 status – no action)	Unknown	Medium	X		Walworth County Emergency Management; effected towns and local jurisdictions
23. Identify restrictions of water flow from Turtle Lake, Turtle Valley Wildlife Area, and Turtle Creek. Identify and analyze mitigation options for those properties and roadways affected. (2009 Plan; 2013 status – no action)	Unknown	High	X		Walworth County Emergency Management; Towns of Sugar Creek and Richmond and other effected towns and local jurisdictions
24. Address the reoccurring flooding of Chilson Road and prevent flood water from entering the sewer facility on Chilson Road. Remove trees from area by road and replace with geotextile material and rock. Also, put in a grassed waterway to help with the water flow. (2009 Plan; 2013 status – no action)	\$9,000 with potential for other funding	High	X		Town of Sharon; Walworth County Conservancy helped with the project design and will oversee the project

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
25. Conduct a study to determine feasible and cost effective solutions to minimize flooding in the Inlet Oaks subdivision and implement a long-term solution. (2009 Plan; 2013 status – no action)	Unknown	High	X		Town of Delavan; Delavan Lake Sanitary District
26. Conduct a study to determine why there is flooding on the north side of Lake Wandewega and implement a long-term solution. (2009 Plan; 2013 status – no action)	Unknown	High	X		Town of Sugar Creek
27. Address the flooding along Potter Road, Hodges Road (near bridge area), and Bray Road (by the cross culvert near Plank Road and W3873 driveway) (2009 Plan; 2013 status – no action)	Unknown	High	X		Town of La Fayette
28. Mitigate flood water at Nipersink through culvert placement and ditch improvements. (2009 Plan; 2013 status – no action)	\$35,000	High	X		Town of Bloomfield
29. Continue to evaluate flooding issues along Madison Street and Wisconsin Street by the Ponds subdivision (New in 2013)	Unknown	High	X		Village of Darien
30. Conduct a study to determine if the Mill Pond dam should be removed or updated (New in 2013)	Unknown	Medium	X		Village of East Troy
31. Continue with dam inspections for as long as dam is in place (New in 2013)	Staff time	Medium	X	X	Village of East Troy, DPW
32. Storm sewer work along George St. and Ballard St. and ditch work along Prairie St. to improve flows (New in 2013)	Unknown	Medium	X		Village of Sharon, DPW

Notes:

- * Indicates policies or activities that are intended to ensure continued compliance with the National Flood Insurance Program (NFIP).

Goal 3. Tornadoes

Lessen the effects of a tornado to the extent feasible and speed recovery following an event. (2009 Plan)

Objectives

1. Increase public education and awareness of the potential severity of tornadoes. (2009 Plan)
2. Minimize the amount of time that businesses damaged by a tornado are not operational. (2009 Plan)
3. Minimize the amount of time it takes to rebuild or restore dwellings damaged by a tornado. (2009 Plan)
4. Prevent injuries and death from tornadoes. (2009 Plan)

Policies

1. Bury overhead power and utility lines where feasible as a way to reduce power outages during all types of storm events. (2009 Plan)
2. Require that mobile homes and manufactured housing are securely anchored in place. (2009 Plan)
3. Ensure that adequate tornado shelters are available to county residents especially those living in mobile home parks. (2009 Plan)
4. Include redevelopment objectives in smart growth comprehensive plans to support post-disaster development activities. (2009 Plan)
5. Continue to support the efforts of severe weather spotters. (2009 Plan)
6. Keep the current siren system functioning and in good repair. (2009 Plan)
7. Encourage residents to obtain NOAA weather radios especially in those areas of the county that are not covered by a siren. (2009 Plan)
8. Encourage home builders and others to incorporate wind-resistant features into new home construction (e.g., anchor straps). (2009 Plan)

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Periodically assess whether there are enough shelters to house displaced persons. (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Walworth County Emergency Management; American Red Cross
2. Apply for mitigation funding to purchase NOAA weather radios for county residents. (2009 Plan; 2013 status – no action)	Staff time	Low	X		Walworth County Emergency Management
3. Study the feasibility of and support for adopting a local regulation which would require new mobile home parks and future expansions of existing parks to provide for a tornado shelter. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management
4. Develop and implement strategies for debris management. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Public Works Department; American Red Cross
5. Amend land development regulations to require a storm shelter in mobile home parks when the number of mobile homes exceeds a threshold as established by the jurisdiction. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Land Use & Management Department, Walworth County Emergency Management; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Sharon, Walworth, Williams Bay
6. Install storm shelters near or in existing mobile home parks and high occupancy campgrounds. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Mobile home park operators and campground operations with Walworth County Emergency Management
7. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Information Systems Department, Land Information Division
8. Identify opportunities for developing a joint dispatch center (2009 Plan; 2013 status – Whitewater completed a study to determine options)	Staff time	High	X		Walworth County Emergency Management and other county departments
9. Install a backup generator in the Town of Troy Town Hall/Fire Hall (New in 2013)	\$30,000	High	X		Town of Troy

10. Upgrade the command and control for outdoor sirens, update existing sirens as necessary, add new sirens as needed (New in 2013)	Unknown	Medium	X		City of Delavan
11. Continue preventative maintenance of tornado sirens (New in 2013)	\$1,600 per year	High	X	X	Village of East Troy, DPW

Goal 4. Extreme Temperature

Protect the health of Walworth County residents from extreme temperature. (2009 Plan)

Objectives

1. Prevent deaths and injuries from extreme temperature. (2009 Plan)

Policies

1. Encourage volunteers to look after vulnerable individuals, especially the elderly, during times of extreme temperature. (2009 Plan)
2. Open county and other public facilities with air conditioning as appropriate for public access during periods of extreme heat. (2009 Plan)
3. Ensure that county residents are aware that there are different forms of assistance to help qualified individuals to help pay their winter heating costs. (2009 Plan)

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Develop a directory of public buildings that would be open to the public during extended heat waves. (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Walworth County Emergency Management; Walworth County Department of Health & Human Services
2. Call a meeting of public and nonprofit organizations that may be able to mobilize a volunteer corps of individuals willing to assist vulnerable people during periods of extreme temperature. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Department of Health & Human Services
3. Investigate the possibility of establishing a database of individuals who are vulnerable to extreme temperature and who have voluntarily placed their name on the call list (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Department of Health & Human Services; American Red Cross
4. Publicise available programs that help low-income residents pay for their utility expenses. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Department of Health & Human Services; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
5. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Information Systems Department, Land Information Division
6. Amend the county's emergency operations plan to address extreme temperatures. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management
7. Continue cooling center policy (New in 2013)	Staff time	High	X	X	Village of East Troy

Goal 5. Severe Thunderstorm Winds & Hail and Non-thunderstorm High Winds

Protect and prepare Walworth County residents from the dangers of extreme weather. (2009 Plan)

Objectives

1. Increase public education and awareness of the potential dangers of thunderstorms, snow storms, hail, and windstorms. (2009 Plan)

Policies

1. Bury overhead power and utility lines where feasible as a way to reduce power outages during all types of storm events. (2009 Plan)
2. Provide citizens with early storm warnings. (2009 Plan)
3. Encourage the use of surge protectors on critical electronic equipment in governmental and critical facilities. (2009 Plan)
4. Work with utility companies to assess and to improve, when necessary, electric service reliability. (2009 Plan)
5. Work with public and private utility companies to ensure that trees are properly trimmed near utility lines. (2009 Plan)

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Continue to update and/or monitor the County's public early warning system and network. (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Walworth County Emergency Management; local jurisdictions
2. Review local building codes to determine if revisions are needed to improve the structure's ability to withstand greater wind velocities and encourage provision of safe rooms, especially in structures that do not have a basement. (2009 Plan; 2013 status – no action)	Staff time	Low	X		Walworth County Emergency Management; local jurisdictions
3. Produce and distribute emergency preparedness information related to thunderstorms, snow storms, hailstorms, and windstorm hazards. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; American Red Cross; local jurisdictions
4. Identify and pursue funding opportunities to develop and implement local and county mitigation activities. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; American Red Cross; local jurisdictions
5. Install lightning grade surge protection devices for critical electronic components used by government, public service, and public safety facilities, such as warning systems, control systems, communications, and computers. (2009 Plan; 2013 status – no action)	\$3,000	Medium	X		Walworth County Emergency Management; American Red Cross; local jurisdictions
6. Provide the public with information about proven lightning safety guidelines to reduce the risk of lightning hazards. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; local jurisdictions
7. Develop and implement strategies for debris management. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; Walworth County Public Works; local jurisdictions
8. Apply for mitigation funding to purchase NOAA weather radios for county residents. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management
9. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Information Systems Department, Land Information Division
10. Evaluate the feasibility and effectiveness of adding additional storm sirens (New 2013)	Unknown	Medium	X		Village of Mukwonago
11. Maintain certification as a Weather Safe Community (NWS designation) (New 2013)	Staff time	Medium	X	X	City of Whitewater
12. Continue to replace outdated storm sirens (New 2013)	Unknown	Medium	X		Village of Williams Bay
13. Continue to promote and sponsor severe weather spotter courses	Staff time	Medium	X	X	City of Lake Geneva

14.	Establish a storm shelter (New 2013)	Unknown	Medium	X	Village of East Troy
15.	Airport weather and wind shear equipment upgrade	Unknown	Medium	X	Village of East Troy

Goal 6. Drought

Protect the public health, safety, and welfare of county residents during periods of drought. (**2009 Plan**)

Objectives

1. Decrease water consumption during periods of drought. (**2009 Plan**)
2. Minimize the economic impacts of drought on the local economy. (**2009 Plan**)

Policies

1. Encourage water conservation during periods of drought. (**2009 Plan**)
2. Impose watering restrictions during periods of extreme drought. (**2009 Plan**)
3. Work with appropriate agencies to conserve water, provide drought prediction, and provide stream and groundwater monitoring. (**2009 Plan**)
4. Work with agencies that can assist with and promote soil health, preserve soil moisture and help to minimize the loss of the crops and topsoil in the event of a drought. (**2009 Plan**)
5. Continue to monitor groundwater levels to identify the status of groundwater resources and trends. (**2009 Plan**)
6. Work with state agencies and other levels of government in developing appropriate regional strategies to address drought conditions. (**2009 Plan**)

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Create an ordinance to prioritize or control water use during drought conditions. (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Municipalities with public water systems
2. Develop a set of procedures for water distribution during drought to those in need. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
3. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Information Systems Department, Land Information Division

Goal 7. Wildland Fire

Protect structures and people in Walworth County from uncontrolled wildfires. (2009 Plan)

Objectives

1. Decrease the number of wildland fires occurring in the county. (2009 Plan)
2. Decrease the number of acres burned from wildland fires. (2009 Plan)
3. Increase public education. (2009 Plan)

Policies

1. Support the use of controlled burns as a way of reducing the threat of dangerous wildland fires. (2009 Plan)
2. Enhance emergency services to increase the efficiency of wildfire response and recovery activities. (2009 Plan)
3. Keep track of wildfire events in the county to better document the extent and location of these events. (2009 Plan)

Implementation Actions / Strategies	Cost Estimate (2013)	Priority	Schedule		Responsible Entity
			2014 to 2018	2019 to 2023	
1. Apply for federal and state grants to enhance the capability of local fire departments. (2009 Plan; 2013 status – no action)	Staff time	Medium	X	X	Walworth County Emergency Management; local fire departments
2. Provide education to county and municipality personnel about federal cost-share and grant programs, fire protection agreements, and other related federal programs so the full array of assistance available to local agencies is understood. (2009 Plan; 2013 status – no action)	Staff time	Low	X		Walworth County Emergency Management; cities of Delavan, Elkhorn, Lake Geneva, and Whitewater; villages of Bloomfield, Darien, East Troy, Fontana-on-Geneva Lake, Genoa City, Mukwonago, Sharon, Walworth, and Williams Bay
3. Develop a digital database to keep track of wildfire events in the county. (2009 Plan; 2013 status – no action)	Staff time	Medium	X		Walworth County Emergency Management; local fire departments
4. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Emergency Management; Walworth County Information Systems Department; Land Information Division
5. Investigate the establishment of a uniform way of providing information to the public regarding issuance of burning permits. (2009 Plan; 2013 status – no action)	Staff time	High	X		Walworth County Sheriff's Department; local fire departments